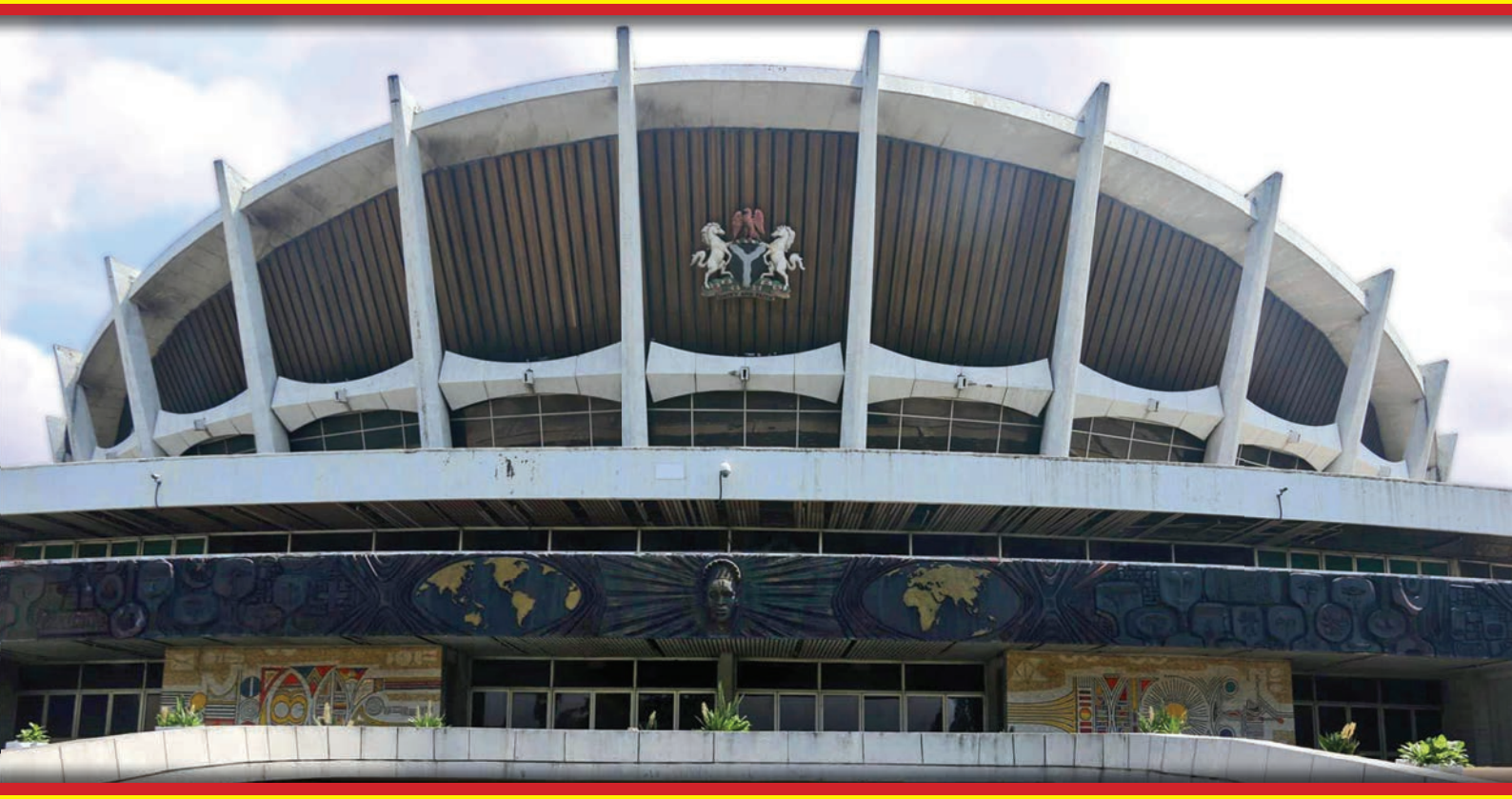
Nigeria



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2018

The Federal Republic of Nigeria

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The DHS Program
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Additional information about the 2018 NDHS may be obtained from the headquarters of the National Population Commission (NPC), Plot 2031, Olusegun Obasanjo Way, Zone 7, Wuse, PMB 0281, Abuja, Nigeria; telephone: 234-09-523-9173; fax: 234-09-523-1024; email: info@populationgov.ng; internet: www.population.gov.ng.

Information about The DHS Program may be obtained from ICF, 530 Gaither Road, Suite 500, Rockville, MD 20850, USA; telephone: +1-301-407-6500; fax: +1-301-407-6501; email: info@DHSprogram.com; internet: www.DHSprogram.com.

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FOREWORD

The conducting of Demographic and Health Surveys is in line with one of the constitutional responsibilities of the National Population Commission (NPC), namely to collect, collate, analyse, and disseminate population census and survey data at all levels that contribute to policy formulation and coordination of population activities in the country.The 2018 Nigeria Demographic and Health Survey (2018 NDHS) is the sixth survey of its kind to be implemented by the National Population Commission.

The 2018 NDHS is a national sample survey that provides up-to-date information on demographic and health indicators. The sample was selected using a stratified, two-stage cluster design, with enumeration areas (EAs) as the sampling units for the first stage. The second stage was a complete listing of households carried out in each of the 1,400 selected EAs. The target groups were women age 15-49 and men age 15-59 in randomly selected households across Nigeria. A representative sample of approximately 42,000 households was selected for the survey. One-third of the households (14,000) were selected for malaria, anaemia, and genotype testing of children age 6-59 months. Also, in the subsample of households selected for the men's survey, one eligible woman in each household was randomly selected for additional questions regarding domestic violence. Specifically, information was collected on fertility levels, marriage, fertility preferences, awareness and use of family planning methods, child feeding practices, nutritional status of women and children, adult and childhood mortality, awareness and attitudes regarding HIV/AIDS, and female genital mutilation. The survey also assessed the nutritional status (according to weight and height measurements) of women and children in these households. In addition to presenting national estimates, the report provides estimates of key indicators for both rural and urban areas, the country's six geopolitical zones and 36 states, and the Federal Capital Territory (FCT).

The 2018 NDHS is unique in a number of ways. For the first time in a Nigeria DHS, the 2018 survey was implemented using computer-assisted personal interviewing (CAPI), allowing more rapid provision of data than in previous surveys. Also, the survey was adapted to assess the prevalence of malaria, to conduct genotype testing for sickle cell disease and sickle cell trait among children age 6-59 months, and to measure haemoglobin levels (anaemia) among women and children in the subsample of households selected for the male survey. Malaria slides were assessed through rapid diagnostic tests at the household level and microscopy on thick blood smears in the laboratory for children age 6-59 months. As sickle cell anaemia has become a national health burden in Nigeria, sickle cell disease testing was included, thus serving as a basis for testing this deadly disease in subsequent DHS surveys globally. In addition, the sample size was larger than that in the five previous NDHS surveys, covering a total of 1,400 clusters across the country. Data on social and behaviour change communication (SBCC) on malaria, minimum dietary diversity among women, female genital mutilation, fistula, and disability were included as requested by various stakeholders.

I offer my candid appreciation to the Honourable Minister of Health Dr. Osagie Ehanire and the former Honourable Minister of Health Professor Isaac F. Adewole, PAS, FSPSP DSc (Hons), for leadership and commitment to the success of the survey as chairmen of the Survey Steering Committee. The effort of the National Malaria Elimination Programme (NMEP) in providing support for the malaria component of the survey is recognized. I also thank members of the Survey Steering Committee for their commitment and dedication to the survey's successful implementation.

On behalf of the Commission, I wish to express appreciation to the 2018 NDHS technical team; the project directors, Ms. Nwamaka Ezenwa and Osifo Tellson Ojogun; and the project coordinator, Inuwa Bakari Jalingo, for management of the technical, administrative, and logistical phases of the survey. My appreciation also goes to the state coordinators, biomarker monitors, quality control officers, supervisors,

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I would like to thank the former Chairman, Eze Duruiheoma, SAN; the former Ag. Chairmen, Alh. Hassan Bashir, CAN (Tafidan Bauchi), and Alhaji Mohammed Yusuff Anka (Ciroman Anka); and the Honourable Federal Commissioners for their support during the implementation period and for providing excellent leadership and advocacy support. Likewise, the unflinching support and technical assistance provided by Dr. Ghaji Ismaila Bello (Director-General), Mrs. Adenike O. Ogunlewe (Director, Planning and Research), and all other directors are hereby acknowledged.

Finally, our deep appreciation goes to the survey respondents, state governments, local government authorities, and traditional authorities for their contributions and support during the implementation of the survey.

Abimbola Salu-Hundeyin (LL.B)
Ag. Chairman
National Population Commission

2018 NIGERIA DEMOGRAPHIC AND HEALTH SURVEY STEERING COMMITTEE

Honourable Minister of Health (FMOH)	Chair
Chairman, National Population Commission (NPC)	Co-chair
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National Primary Health Care Development Agency (NPHCDA)	Member
ICF, Maryland, USA - Survey Manager	Member
Society for Family Health (SHF)	Member
Catholic Relief Services (CRS)	Member
News Agency of Nigeria (NAN)	Member
National Population Commission - Director Health Planning, Research and Statistics	Member
National Population Commission - 2018 NDHS Project Director	Secretary

CONTRIBUTORS TO THE REPORT

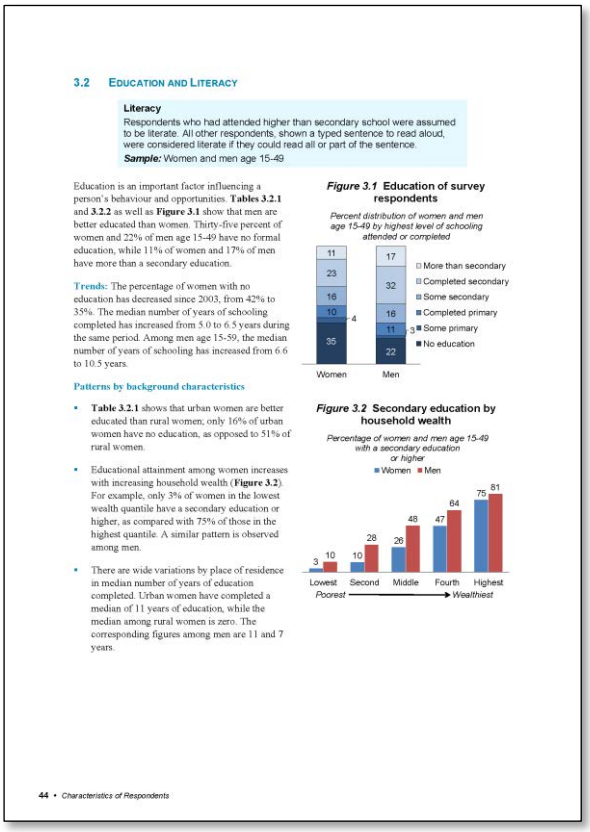
Ms. Ezenwa Nwamaka L., Project Director, NDHS (April 2017–June 2019), National Population Commission
Mr. Osifo Tellson Ojogun, Project Director, NDHS, National Population Commission
Mr. Inuwa B. Jalingo, Project Coordinator, NDHS, National Population Commission
Ms. Yemisi Ogunmola, National Population Commission
Mr. Narudeen L. Rasheed, National Primary Health Care Development Agency, FMOH
Mr. Okoh Festus O., National Malaria Elimination Programme, FMOH
Mr. Moronu Chike, National Population Commission
Mr. Fasiku Adekunle David, National Population Commission
Mr. Datsu Kalep Harris, National Population Commission
Mr. Balogun Adeleke M., Department of Health Planning, FMOH
Mr. Martin Makinwa, National Population Commission
Ms. Margaret Akpan, National Population Commission
Mr. Elue Dominic Chukwuma, Nutrition, Department of Family Health, FMOH
Ms. Tinuola Taylor, Child Survival, Department of Family Health, FMOH
Mr. Nasiru Baba-Saleh, Federal Ministry of Women Affairs and Social Development
Ms. Bintu Ibrahim Abba, National Population Commission
Mr. Mansur Bashir Darma, Malaria Consortium
Mr. Bolaji Akinsulie, National Population Commission
Mr. Audu Alayande, United Nations Population Fund (UNFPA)
Dr. Sada Damusa, MidSpace Concept (M. SPACE)
Ms. Bahijjatu Bello Garko, United Nations Population Fund (UNFPA)
Ms. Ukor Nkiruka C., World Health Organization (WHO)
Ms. Temitope A. Bombata, Federal Ministry of Health
Dr. Oyeniyi Samuel O., Reproductive Health Division, Department of Family Health, FMOH
Dr. Alayo Sopekan, Non-Communicable Diseases Control Programme, Department of Public Health, FMOH
Dr. Ibrahim Maikore, National Malaria Elimination Programme, FMOH
Dr. Samuel I. Kalu, Michael Okpara University of Agriculture, Umudike
Prof. Tukur Dahiru, Ahmadu Bello University, Zaria

READING AND UNDERSTANDING TABLES FROM THE 2018 NIGERIA DHS

The new format of the 2018 NDHS final report is based on approximately 200 tables of data. For quick reference, they are located at the end of each chapter and can be accessed through links in the pertinent text (electronic version). Additionally, this more reader-friendly version features about 90 figures that clearly highlight trends, subnational patterns, and background characteristics. Large, colourful maps display breakdowns for states in Nigeria. The text has been simplified to highlight key points in bullets and to clearly identify indicator definitions in boxes.

While the text and figures featured in each chapter highlight some of the most important findings from the tables, not every finding can be discussed or displayed graphically. For this reason, NDHS data users should be comfortable reading and interpreting tables.

The following pages provide an introduction to the organisation of NDHS tables, the presentation of background characteristics, and a brief summary of sampling and understanding denominators. In addition, this section provides some exercises for users as they practice their new skills in interpreting NDHS tables.



3.2 EDUCATION AND LITERACY

Literacy
Respondents who had attended higher than secondary school were assumed to be literate. All other respondents, shown a typed sentence to read aloud, were considered literate if they could read all or part of the sentence.
Sample: Women and men age 15-49

Education is an important factor influencing a person's behaviour and opportunities. **Tables 3.2.1** and **3.2.2** as well as **Figure 3.1** show that men are better educated than women. Thirty-five percent of women and 22% of men age 15-49 have no formal education, while 11% of women and 17% of men have more than a secondary education.

Trends: The percentage of women with no education has decreased since 2003, from 42% to 35%. The median number of years of schooling completed has increased from 5.0 to 6.5 years during the same period. Among men age 15-59, the median number of years of schooling has increased from 6.6 to 10.5 years.

Patterns by background characteristics

- **Table 3.2.1** shows that urban women are better educated than rural women; only 16% of urban women have no education, as opposed to 51% of rural women.
- Educational attainment among women increases with increasing household wealth (**Figure 3.2**). For example, only 3% of women in the lowest wealth quantile have a secondary education or higher, as compared with 75% of those in the highest quantile. A similar pattern is observed among men.
- There are wide variations by place of residence in median number of years of education completed. Urban women have completed a median of 11 years of education, while the median among rural women is zero. The corresponding figures among men are 11 and 7 years.

Figure 3.1 **Education of survey respondents**

Percent distribution of women and men age 15-49 by highest level of schooling attended or completed

Figure 3.2 **Secondary education by household wealth**

Percentage of women and men age 15-49 with a secondary education or higher

44 • Characteristics of Respondents

Example 1: Exposure to Mass Media: Women
A Question Asked of All Survey Respondents

Table 3.4.1 Exposure to mass media: Women 1

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, according to background characteristics, Nigeria DHS 2018

Background characteristic 3	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week 2	Number of women
Age						
15-19	3.7	32.5	23.0	2.1	58.5	8,448
20-24	5.4	31.9	28.2	3.6	56.8	6,835
25-29	4.5	34.0	30.6	3.5	54.7	7,255
30-34	5.3	35.6	31.9	3.9	53.5	6,178
35-39	4.8	34.8	34.5	3.7	52.0	5,463
40-44	5.1	31.0	33.3	3.9	54.9	3,940
45-49	3.7	27.7	31.9	2.8	57.4	3,701
Residence						
Urban	6.9	51.2	38.9	5.0	38.2	19,163
Rural	2.7	17.3	22.0	1.8	70.2	22,658
Zone						
North Central	3.8	30.3	20.9	2.7	63.6	5,891
North East	2.4	15.4	18.0	1.2	73.1	6,636
North West	1.8	15.6	25.1	0.9	68.8	12,225
South East	10.9	38.1	43.9	8.4	45.0	4,963
South South	9.1	53.3	31.2	6.9	40.4	4,840
South West	4.7	62.7	44.8	3.7	28.0	7,266
State						
North Central						
FCT-Abuja	2.9	42.4	17.6	1.4	53.7	319
Benue	6.0	39.3	31.6	4.9	52.4	1,354
Kogi	2.9	30.9	12.7	1.9	65.3	654
Kwara	1.7	28.5	21.2	1.1	66.5	684
Nasarawa	10.2	34.6	35.7	7.8	54.5	648
Niger	1.6	27.6	15.5	1.1	68.6	1,357
Plateau	1.8	13.7	9.1	0.4	80.0	875
North East						
Adamawa	0.9	18.6	14.2	0.7	75.0	903
Bauchi	2.2	10.4	28.1	1.1	67.8	1,343
Borno	2.2	18.4	13.3	1.4	76.8	1,469
Gombe	4.0	14.5	29.7	3.5	67.4	717
Taraba	1.0	18.2	5.2	0.3	78.8	877
Yobe	4.0	13.7	17.6	1.0	72.2	1,327
North West						
Jigawa	1.3	10.2	32.0	0.7	64.7	1,382
Kaduna	1.8	28.5	32.5	0.9	54.9	2,493
Kano	3.5	23.2	35.9	2.0	57.1	2,692
Katsina	1.3	10.3	14.6	0.7	80.5	2,283
Kebbi	0.8	3.5	6.7	0.2	90.6	1,136
Sokoto	0.5	9.0	23.3	0.4	74.8	910
Zamfara	1.6	6.0	17.2	0.4	79.7	1,328
South East						
Abia	21.3	57.9	47.4	17.4	33.7	630
Anambra	15.7	51.9	49.7	13.3	37.3	1,477
Ebonyi	2.7	16.7	41.6	2.0	54.6	1,027
Enugu	4.4	26.6	36.4	3.8	59.5	880
Imo	11.5	37.5	41.9	5.9	40.7	948
South South						
Akwa Ibom	14.7	53.5	45.1	11.5	36.3	948
Bayelsa	20.4	64.8	57.2	19.3	27.9	298
Cross River	13.3	52.9	38.5	9.1	35.9	574
Delta	5.9	59.4	17.6	4.0	37.7	931
Edo	4.9	68.9	34.3	2.5	25.0	555
Rivers	5.3	41.7	22.1	4.2	54.3	1,534
South West						
Ekiti	5.9	34.8	47.5	3.9	42.4	475
Lagos	4.2	82.4	34.2	3.4	16.2	2,891
Ogun	3.2	21.1	18.1	1.7	70.4	927
Ondo	4.0	44.1	39.3	3.4	42.4	683
Osun	7.3	81.0	76.5	6.1	10.6	938
Oyo	5.1	55.6	65.8	4.0	24.1	1,352
Education						
No education	0.1	7.2	17.1	0.0	79.7	14,603
Primary	0.9	24.6	28.3	0.5	61.1	6,039
Secondary	5.5	48.0	36.2	3.6	41.6	16,583
More than secondary	20.7	70.5	48.5	16.1	22.1	4,596

5

Continued...

Table 3.4.1—*Continued*

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of women
Wealth quintile						
Lowest	0.2	2.5	15.1	0.0	83.9	7,222
Second	0.9	7.8	18.1	0.3	78.5	8,045
Middle	2.7	24.6	28.7	1.5	59.6	8,207
Fourth	5.9	49.0	39.1	3.9	39.7	8,990
Highest	11.8	69.5	43.1	9.3	25.6	9,357
Total 4	4.6	32.9	29.8	3.3	55.6	41,821

Step 1: Read the title and subtitle, highlighted in orange in the table above. They tell you the topic and specific population group being described. The table is about women age 15-49 and their exposure to different types of media. All eligible female respondents age 15-49 were asked these questions.

Step 2: Scan the column headings—highlighted in green in Example 1. They describe how the information is categorized. In this table, the first three columns of data show different types of media that women access at least once a week. The fourth column shows women who access all three types of media, while the fifth column shows women who do not access any of the three types of media on a weekly basis. The last column lists the number of women age 15-49 interviewed in the survey.

Step 3: Scan the row headings—the first vertical column highlighted in blue in Example 1. These show the different ways the data are divided into categories based on population characteristics. In this case, the table presents women's exposure to media by age, urban-rural residence, zone, state, level of education, and wealth quintile. Most of the tables in the NDHS report will be divided into these same categories.

Step 4: Look at the row at the bottom of the table highlighted in red. These percentages represent the totals of all women age 15-49 and their weekly access to different types of media. In this case, 4.6%* of women age 15-49 read a newspaper, 32.9% watch television, and 29.8% listen to the radio at least once a week.

Step 5: To find out what percentage of women with more than a secondary education access all three media at least once a week, draw two imaginary lines, as shown on the table. This shows that 16.1% of women age 15-49 with more than a secondary education access all three types of media at least once a week.

By looking at patterns by background characteristics, we can see how exposure to mass media varies across Nigeria. Mass media are often used to communicate health messages. Knowing how mass media exposure varies among different groups can help programme planners and policymakers determine how to most effectively reach their target populations.

*For the purpose of this document data are presented exactly as they appear in the table, including decimal places. However, the text in the remainder of this report rounds data to the nearest whole percentage point.

Practice: Use the table in Example 1 to answer the following questions:

a) What percentage of women in Nigeria do not access any of the three media at least once a week?
b) Which age group of women are most likely to listen to the radio at least once a week?
c) Compare women in urban areas to women in rural areas – which group is more likely to watch television on a weekly basis?
d) What are the lowest and the highest percentages (range) of women who do not access any media at least once a week by state?
e) Is there a clear pattern in exposure to radio at least once a week by wealth quintile?

Answers:
a) 55.6%
b) Women age 35-39: 34.5% of women in this age group listen to the radio weekly.
c) Women in urban areas: 51.2% of women in urban areas watch television on a weekly basis, compared to 17.3% of rural women.
d) Women with no exposure to media at least once a week ranges from a low of 10.6% in Osun to a high of 90.6% in Kebbi.
e) Yes. Exposure to radio increases as household wealth increases; 15.1% of women from the lowest wealth quintile listen to the radio at least once a week, compared to 43.1% of women from the highest wealth quintile.

Example 2: Prevalence and Treatment of ARI

A Question Asked of a Subgroup of Survey Respondents

Table 10.5 Prevalence and treatment of symptoms of ARI 1

Among children under age 5, percentage who had symptoms of acute respiratory infection (ARI) in the 2 weeks preceding the survey; and among children with symptoms of ARI in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, according to background characteristics, Nigeria DHS 2018

2

Background characteristic	Among children under age 5: Percentage with symptoms of ARI[1]	Among children under age 5: Number of children	Among children under age 5 with symptoms of ARI: Percentage for whom advice or treatment was sought[2]	Among children under age 5 with symptoms of ARI: Percentage for whom treatment was sought same or next day	Among children under age 5 with symptoms of ARI: Number of children
Age in months					
<6	2.7	3,270	73.3	31.6	87
6-11	3.7	3,153	82.3	39.9	116
12-23	3.4	6,143	75.7	28.1	210
24-35	2.4	5,835	79.4	24.4	141
36-47	2.0	6,186	67.8	20.1	122
48-59	2.2	6,294	76.0	31.8	139
Sex					
Male	2.7	15,674	76.2	29.6	417
Female	2.6	15,208	75.6	28.2	397
Mother's smoking status					
Smokes cigarettes/tobacco	0.0	69	*	*	0
Does not smoke	2.6	30,813	75.9	29.0	814
Cooking fuel					
Electricity or gas	1.3	2,997	(91.3)	(66.2)	38
Kerosene	1.2	2,954	(96.0)	(46.3)	35
Coal/lignite	0.0	194	*	*	0
Charcoal	2.7	1,914	(90.8)	(52.6)	51
Wood/straw[3]	3.0	22,813	72.9	24.3	690
Animal dung	*	1	*	*	0
No food cooked in household	*	8	*	*	0
Residence					
Urban	2.0	12,215	82.4	42.1	239
Rural	3.1	18,666	73.2	23.5	575
Zone					
North Central	1.3	4,255	60.0	32.1	55
North East	8.2	5,598	74.6	27.5	461
North West	1.3	10,883	86.9	27.8	146
South East	1.6	3,205	57.0	27.6	52
South South	2.4	2,787	90.6	34.7	66
South West	0.8	4,153	(72.4)	(39.8)	34
Mother's education					
No education	3.1	13,867	73.6	21.0	436
Primary	3.3	4,618	71.3	26.2	152
Secondary	2.0	9,733	82.1	42.4	199
More than secondary	1.0	2,664	(93.6)	(73.3)	27
Wealth quintile					
Lowest	4.2	6,625	74.2	19.5	277
Second	3.0	6,816	70.5	24.8	208
Middle	2.3	6,364	74.9	33.2	145
Fourth	1.9	5,816	79.9	35.9	112
Highest	1.4	5,260	93.8	57.9	72
Total	2.6	30,881	75.9	29.0	814

a b 3 4

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Symptoms of ARI include short, rapid breathing which was chest-related and/or difficult breathing which was chest-related.
[2] Includes advice or treatment from the following sources: public sector, private medical sector, shop, market, itinerant drug seller, community-oriented resource person. Excludes advice or treatment from a traditional practitioner
[3] Includes grass, shrubs, crop residues

Step 1: Read the title and subtitle. In this case, the table is about two separate groups of children: all children under age 5 (a) and children under age 5 with symptoms of acute respiratory infection (ARI) in the 2 weeks before the survey (b).

Step 2: Identify the two panels. First, identify the columns that refer to children under age 5 (a), and then isolate the columns that refer only to children under age 5 with symptoms of ARI in the 2 weeks before the survey (b).

Step 3: Look at the first panel. What percentage of children under age 5 had symptoms of ARI in the 2 weeks before the survey? It's 2.6%. Now look at the second panel. How many children under age 5 are there who had symptoms of ARI in the 2 weeks before the survey? It's 814 children, or 2.6% of the 30,881 children under age 5 (with rounding). The second panel is a subset of the first panel.

Step 4: Only 2.6% of children under age 5 had symptoms of ARI in the 2 weeks before the survey. Once these children are further divided into the background characteristic categories, there may be too few cases for the percentages to be reliable.

- What percentage of children under age 5 with symptoms of ARI in the 2 weeks before the survey whose mothers have more than a secondary education had advice or treatment sought? It's 93.6%. This percentage is in parentheses because there are between 25 and 49 children (unweighted) in this category. Readers should use this number with caution—it may not be reliable. (For more information on weighted and unweighted numbers, see Example 3.)
- What percentage of children under age 5 with symptoms of ARI in the 2 weeks before the survey whose households use coal/lignite had advice or treatment sought? There is no number in this cell—only an asterisk. This is because there are fewer than 25 unweighted cases. Results for this group are not reported. The subgroup is too small, and therefore the data are not reliable

Note: When parentheses or asterisks are used in a table, the explanation will be noted under the table. If there are no parentheses or asterisks in a table, you can proceed with confidence that enough cases were included in all categories that the data are reliable.

Example 3: Understanding Sampling Weights in NDHS Tables

A sample is a group of people who have been selected for a survey. In the NDHS, the sample is designed to represent the national population age 15-49. In addition to national data, most countries want to collect and report data on smaller geographical or administrative areas. However, doing so requires a large enough sample size in each area. For the 2018 NDHS, the survey sample is representative at the national and state levels and for urban and rural areas.

To generate statistics that are representative of the country as a whole and the 37 states, the number of women surveyed in each state should contribute to the size of the total (national) sample in proportion to size of the state. However, if some states have small populations, then a sample allocated in proportion to each state's population may not include sufficient women from each state for analysis. To solve this problem, states with small populations are oversampled. For example, let's say that you have enough money to interview 41,821 women and want to produce results that are representative of Nigeria as a whole and its states (as in modified Table 3.1). However, the total population of Nigeria is not evenly distributed among the states: some states, such as Lagos, are heavily populated while others, such as FCT-Abuja, are not. Thus, FCT-Abuja must be oversampled.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Nigeria DHS 2018

Background characteristic	Women: Weighted percent (3)	Women: Weighted number (2)	Women: Unweighted number (1)
State			
North Central			
FCT-Abuja	0.8	319	1,186
Benue	3.2	1,354	1,278
Kogi	1.6	654	907
Kwara	1.6	684	906
Nasarawa	1.5	648	1,121
Niger	3.2	1,357	1,292
Plateau	2.1	875	1,082
North East			
Adamawa	2.2	903	1,083
Bauchi	3.2	1,343	1,329
Borno	3.5	1,469	1,269
Gombe	1.7	717	1,356
Taraba	2.1	877	1,284
Yobe	3.2	1,327	1,318
North West			
Jigawa	3.3	1,382	1,405
Kaduna	6.0	2,493	1,610
Kano	6.4	2,692	1,983
Katsina	5.5	2,283	1,494
Kebbi	2.7	1,136	1,335
Sokoto	2.2	910	1,065
Zamfara	3.2	1,328	1,237
South East			
Abia	1.5	630	982
Anambra	3.5	1,477	1,244
Ebonyi	2.5	1,027	1,310
Enugu	2.1	880	1,038
Imo	2.3	948	997
South South			
Akwa Ibom	2.3	948	958
Bayelsa	0.7	298	771
Cross River	1.4	574	748
Delta	2.2	931	815
Edo	1.3	555	658
Rivers	3.7	1,534	1,130
South West			
Ekiti	1.1	475	774
Lagos	6.9	2,891	1,445
Ogun	2.2	927	798
Ondo	1.6	683	863
Osun	2.2	938	832
Oyo	3.2	1,352	918
Total 15-49	100.0	41,821	41,821

A sampling statistician determines how many women should be interviewed in each state in order to get reliable statistics. The **blue column (1)** in the table at right shows the actual number of women interviewed in each state. Within the states, the number of women interviewed ranges from 658 in Edo to 1,983 in Kano. The number of interviews is sufficient to get reliable results in each state.

With this distribution of interviews, some states are overrepresented and some states are underrepresented. For example, the population in Lagos is about 7% of the population in Nigeria, while FCT-Abuja's population contributes only 1% of the population in Nigeria. But as the blue column shows, the number of women interviewed in Lagos accounts for only about 3% of the total sample of women interviewed (1,445/41,821) and the number of women interviewed in FCT-Abuja accounts for 3% of women interviewed (1,186/41,821). This unweighted distribution of women does not accurately represent the population.

In order to get statistics that are representative of Nigeria, the distribution of the women in the sample needs to be weighted (or mathematically adjusted) such that it resembles the true distribution in the country. Women from a small state, like FCT-Abuja, should contribute only a small amount to the national total. Women from a large state, like Lagos, should contribute much more. Therefore, DHS statisticians mathematically calculate a "weight" that is used to adjust the number of women from each state so that

each state's contribution to the total is proportional to the actual population of the state. The numbers in the **purple column (2)** represent the "weighted" values. The weighted values can be smaller or larger than the unweighted values at the state level. The total national sample size of 41,821 women has not changed after weighting, but the distribution of the women in the states has been changed to represent their contribution to the total population size.

How do statisticians weight each category? They take into account the probability that a woman was selected in the sample. If you were to compare the **green column (3)** to the actual population distribution of Nigeria, you would see that women in each state are contributing to the total sample with the same weight that they contribute to the population of the country. The weighted number of women in the survey now accurately represents the proportion of women who live in FCT-Abuja and the proportion of women who live in Lagos.

With sampling and weighting, it is possible to interview enough women to provide reliable statistics at national and state levels. In general, only the weighted numbers are shown in each of the NDHS tables, so don't be surprised if these numbers seem low: they may actually represent a larger number of women interviewed.

ACRONYMS AND ABBREVIATIONS

ACT	artemisinin-based combination therapy
AIDS	acquired immunodeficiency syndrome
ANC	antenatal care
ANDI	African Network for Drugs and Diagnostic Initiative
ARI	acute respiratory infection
ART	antiretroviral therapy
ASFR	age-specific fertility rate
BCG	bacille Calmette-Guerin vaccine against tuberculosis
BMGF	Bill and Melinda Gates Foundation
BMI	body mass index
CAPI	computer-assisted personal interviewing
CBR	crude birth rate
CEB	children ever born
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CEmOC	Comprehensive Emergency Obstetrics Care
CHW	community health worker
CI	confidence interval
CMAM	community-based management of acute malnutrition
CPR	contraceptive prevalence rate
CSPro	Census and Survey Processing System
cVDPV	circulating vaccine-derived polio virus
DHS	Demographic and Health Survey
DMPA-SC	depot-medroxyprogesterone acetate - Subcutaneous
DPT	diphtheria, pertussis, and tetanus vaccine
EA	enumeration area
EPI	Expanded Programme on Immunisation
ERGP	Economic Recovery and Growth Plan
FCT	Federal Capital Territory
FGM	female genital mutilation
FMOH	Federal Ministry of Health
GAR	gross attendance ratio
GDP	gross domestic product
GFR	general fertility rate
GPI	gender parity index
HepB	hepatitis B
HERA	Health Research for Action
Hib	*Haemophilus influenzae* type B
HIV	human immunodeficiency virus
HPLC	high-performance liquid chromatography
HRP	histidine-rich protein
HTP	harmful traditional practices

ICCMCI	Integrated Community Case Management of Childhood Illness
ICRH	International Centre for Reproductive Health
IFAIN	International Foundation Against Infectious Disease in Nigeria
IFSS	internet file streaming system
IMCI	Integrated Management of Childhood Illness
IPTp	intermittent preventive treatment during pregnancy
IPV	inactivated polio vaccine
ITN	insecticide-treated net
IU	international unit
IUD	intrauterine device
IYCF	infant and young child feeding
LAM	lactational amenorrhea method
LGA	local government area
LLIN	long-lasting insecticide-treated net
LPG	liquid petroleum gas
LUTH	Lagos University Teaching Hospital
MAD	minimum acceptable diet
MNTE	maternal and neonatal tetanus elimination
MTCT	mother-to-child transmission
NAR	net attendance ratio
NCD	non-communicable disease
NDHS	Nigeria Demographic and Health Survey
NGO	nongovernmental organisation
NHREC	National Health Research Ethics Committee of Nigeria
NMEP	National Malaria Elimination Programme
NMIS	Nigeria Malaria Indicator Survey
NN	neonatal mortality
NPC	National Population Commission
NPHC	Nigeria Population and Housing Census
OPV	oral polio vaccine
ORS	oral rehydration salts
ORT	oral rehydration therapy
PCV	pneumococcal conjugate vaccine
Pf	*Plasmodium falciparum*
PMS	patent medicine store
PMTCT	prevention of mother-to-child transmission
PNC	postnatal care
PNN	postneonatal mortality
PPS	probability proportional to size
PRMR	pregnancy-related mortality ratio
PSU	primary sampling unit
RDT	rapid diagnostic test
RHF	recommended homemade fluids
RUFT	ready-to-use therapeutic food
SBCC	social and behavioural change
SCD	sickle cell disease
SCT	sickle cell trait

SD	standard deviation
SDGs	sustainable development goals
SDM	standard days method
SOP	standard of practice
SP	sulfadoxine-pyrimethamine
STI	sexually transmitted infection
TFR	total fertility rate
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNSCR	UN Security Council Resolution
USAID	United States Agency for International Development
VAPP	Violence Against Persons Prohibition Act
VAD	vitamin A deficiency
VIP	ventilated improved pit
WG	Washington Group
WHO	World Health Organization
WPV	wild polio virus

SUSTAINABLE DEVELOPMENT GOAL INDICATORS

Sustainable Development Goal Indicators—Nigeria DHS 2018

Indicator	Sex			
	Male	Female	Total	DHS table number
2. Zero hunger				
2.2.1 Prevalence of stunting among children under 5 years of age	39.4	34.2	36.8	11.1
2.2.2 Prevalence of malnutrition among children under 5 years of age	10.3	7.4	8.9	na
a) Prevalence of wasting among children under 5 years of age	8.0	5.6	6.8	11.1
b) Prevalence of overweight among children under 5 years of age	2.3	1.8	2.1	11.1
3. Good health and well-being				
3.1.1 Maternal mortality ratio[1]	na	na	512	14.4
3.1.2 Proportion of births attended by skilled health personnel	na	na	43.3	9.6
3.2.1 Under-five mortality rate[2]	137	127	132	8.2
3.2.2 Neonatal mortality rate[2]	42	37	39	8.2
3.7.1 Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods	na	35.7	na	7.12.2
3.7.2 Adolescent birth rates per 1,000 women				
a) Girls aged 10-14 years[3]	na	2	na	5.1
b) Women aged 15-19 years[4]	na	106	na	5.1
3.a.1 Age-standardized prevalence of current tobacco use among persons aged 15 years and older[5]	5.6	0.3	3.0[a]	3.10.1, 3.10.2
3.b.1 Proportion of the target population covered by all vaccines included in their national programme				
a) Coverage of DPT containing vaccine (3rd dose)[6]	50.0	50.2	50.1	10.3
b) Coverage of measles containing vaccine (2nd dose)[7]	16.0	15.1	15.6	10.3
c) Coverage of pneumococcal conjugate vaccine (last dose in schedule)[8]	47.2	47.5	47.3	10.3
5. Gender equality				
5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months[9,10]	na	29.5	Na	16.12
a) Physical violence	na	11.8	Na	16.12
b) Sexual violence	na	4.7	Na	16.12
c) Psychological violence	na	26.7	Na	16.12
5.3.1 Proportion of women aged 20-24 years who were married or in a union before age 15 and before age 18				
a) Before age 15	na	15.7	Na	4.3
b) Before age 18	na	43.4	Na	4.3
5.6.1 Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care[11]	na	28.6	Na	na
5.b.1 Proportion of individuals who own a mobile telephone[12]	80.6	55.3	68.0[a]	15.7.1, 15.7.2
	Residence			
7. Affordable clean energy	Urban	Rural	Total	DHS table number
7.1.1 Proportion of population with access to electricity	81.7	37.1	56.5	2.4
7.1.2 Proportion of population with primary reliance on clean fuels and technology[13]	22.5	2.7	11.3	2.4
	Sex			
8. Decent work and economic growth	Male	Female	Total	DHS table number
8.10.2 Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider[14]	38.5	22.1	30.3[a]	15.7.1, 15.7.2
16. Peace, justice, and strong institutions				
16.9.1 Proportion of children under 5 years of age whose births have been registered with a civil authority	43.4	41.7	42.6[a]	2.11
17. Partnerships for the goals				
17.8.1 Proportion of individuals using the Internet[15]	35.2	15.7	25.4[a]	3.5.1, 3.5.2

na = Not applicable
[1] Expressed in terms of maternal deaths per 100,000 live births in the 7-year period preceding the survey
[2] Expressed in terms of deaths per 1,000 live births for the 5-year period preceding the survey
[3] Equivalent to the age-specific fertility rate for girls age 10-14 for the 3-year period preceding the survey, expressed in terms of births per 1,000 girls age 10-14
[4] Equivalent to the age-specific fertility rate for women age 15-19 for the 3-year period preceding the survey, expressed in terms of births per 1,000 women age 15-19
[5] Data are not age-standardized and are available for women and men age 15-49 only.
[6] The percentage of children age 12-23 months who received three doses of pentavalent (DPT-HepB-Hib)
[7] The percentage of children age 24-35 months who received two doses of measles
[8] The percentage of children age 12-23 months who received three doses of pneumococcal conjugate vaccine
[9] Data are available for women age 15-49 who have ever been in union only.
[10] In the DHS, psychological violence is termed emotional violence.
[11] Data are available for currently married women who are not pregnant only.
[12] Data are available for women and men age 15-49 only.
[13] Measured as the percentage of the population using clean fuel for cooking
[14] Data are available for women and men age 15-49 who have and use an account at a bank or other financial institution; information on use of a mobile-money-service provider is not available.
[15] Data are available for women and men age 15-49 who have used the internet in the past 12 months.
[a] The total is calculated as the simple arithmetic mean of the percentages in the columns for males and females.

NIGERIA

N
NIGER
CHAD
BENIN
CAMEROON
Sokoto
Zamfara
Katsina
Jigawa
Yobe
Borno
North West
Kano
Kebbi
North East
Kaduna
Bauchi
Gombe
Adamawa
Niger
North Central
FCT-Abuja
Plateau
Kwara
Nasarawa
Taraba
Oyo
Osun
Ekiti
Kogi
Benue
South West
Ondo
Ogun
Edo
Enugu
Cross River
Lagos
South South
South East
Imo
Delta
Bayelsa
Rivers
Akwa Ibom
Anambra
Abia
Ebonyi
0 75 150 300
Kilometers

INTRODUCTION AND SURVEY METHODOLOGY 1

The 2018 Nigeria Demographic and Health Survey (2018 NDHS) was implemented by the National Population Commission (NPC). Data collection took place from 14 August to 29 December 2018. ICF provided technical assistance through The DHS Program, which is funded by the United States Agency for International Development (USAID) and offers financial support and technical assistance for population and health surveys in countries worldwide. Other agencies and organisations that facilitated the successful implementation of the survey through technical or financial support were the Global Fund, the Bill and Melinda Gates Foundation (BMGF), the United Nations Population Fund (UNFPA), and the World Health Organization (WHO).

1.1 Survey Objectives

The primary objective of the 2018 NDHS is to provide up-to-date estimates of basic demographic and health indicators. Specifically, the NDHS collected information on fertility, awareness and use of family planning methods, breastfeeding practices, nutritional status of women and children, maternal and child health, adult and childhood mortality, women's empowerment, domestic violence, female genital cutting, prevalence of malaria, awareness and behaviour regarding HIV/AIDS and other sexually transmitted infections (STIs), disability, and other health-related issues such as smoking.

The information collected through the 2018 NDHS is intended to assist policymakers and programme managers in evaluating and designing programmes and strategies for improving the health of the country's population. The 2018 NDHS also provides indicators relevant to the Sustainable Development Goals (SDGs) for Nigeria.

1.2 Sample Design

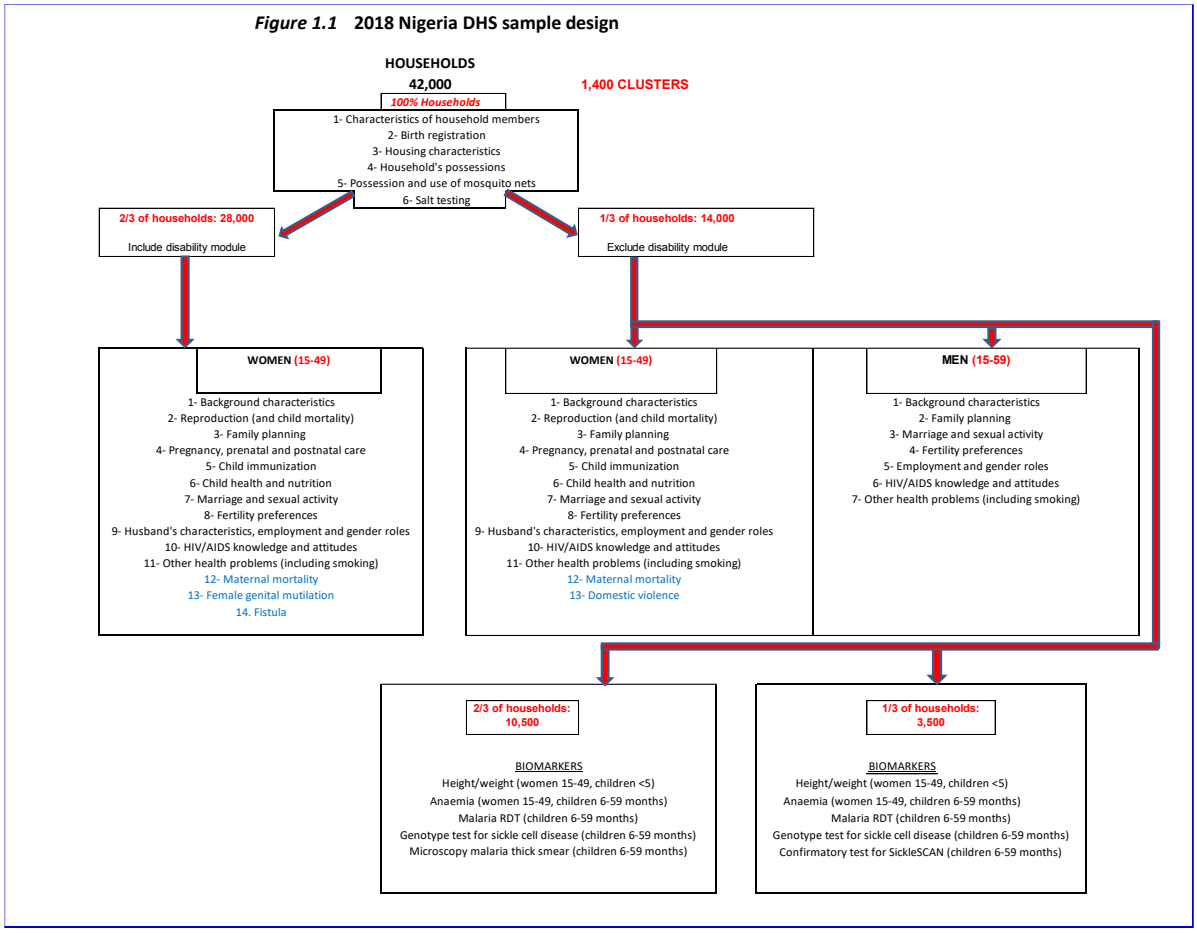
The sampling frame used for the 2018 NDHS is the Population and Housing Census of the Federal Republic of Nigeria (NPHC), which was conducted in 2006 by the National Population Commission. Administratively, Nigeria is divided into states. Each state is subdivided into local government areas (LGAs), and each LGA is divided into wards. In addition to these administrative units, during the 2006 NPHC each locality was subdivided into convenient areas called census enumeration areas (EAs). The primary sampling unit (PSU), referred to as a cluster for the 2018 NDHS, is defined on the basis of EAs from the 2006 EA census frame. Although the 2006 NPHC did not provide the number of households and population for each EA, population estimates were published for 774 LGAs. A combination of information from cartographic material demarcating each EA and the LGA population estimates from the census was used to identify the list of EAs, estimate the number of households, and distinguish EAs as urban or rural for the survey sample frame. Before sample selection, all localities were classified separately into urban and rural areas based on predetermined minimum sizes of urban areas (cut-off points); consistent with the official definition in 2017, any locality with more than a minimum population size of 20,000 was classified as urban.

The sample for the 2018 NDHS was a stratified sample selected in two stages. Stratification was achieved by separating each of the 36 states and the Federal Capital Territory into urban and rural areas. In total, 74 sampling strata were identified. Samples were selected independently in every stratum via a two-stage selection. Implicit stratifications were achieved at each of the lower administrative levels by sorting the sampling frame before sample selection according to administrative order and by using a probability proportional to size selection during the first sampling stage.

In the first stage, 1,400 EAs were selected with probability proportional to EA size. EA size was the number of households in the EA. A household listing operation was carried out in all selected EAs, and the resulting lists of households served as a sampling frame for the selection of households in the second stage. In the second stage's selection, a fixed number of 30 households was selected in every cluster through equal probability systematic sampling, resulting in a total sample size of approximately 42,000 households. The household listing was carried out using tablets, and random selection of households was carried out through computer programming. The interviewers conducted interviews only in the pre-selected households. To prevent bias, no replacements and no changes of the pre-selected households were allowed in the implementing stages.

Due to the non-proportional allocation of the sample to the different states and the possible differences in response rates, sampling weights were calculated, added to the data file, and applied so that the results would be representative at the national level as well as the domain level. Because the 2018 NDHS sample was a two-stage stratified cluster sample selected from the sampling frame, sampling weights were calculated based on sampling probabilities separately for each sampling stage and for each cluster.

Figure 1.1 **2018 Nigeria DHS sample design**



The 2018 NDHS included all women age 15-49 in the sample households. Those who were either permanent residents of the selected households or visitors who stayed in the households the night before the survey were eligible to be interviewed. The men's survey was conducted in one-third of the sample households, and all men age 15-59 in these households were included **(Figure 1.1)**. In this subsample, one eligible woman in each household was randomly selected to be asked additional questions about domestic violence. Similarly, biomarker information was collected only in those households selected for the men's survey. The biomarkers included in this survey were height and weight for women age 15-49 and children age 0-59 months, haemoglobin testing for women age 15-49 and children age 6-59 months, and testing for

malaria and sickle cell disease among children age 6-59 months. The disability module, female genital cutting module, and fistula module were implemented in the two-thirds of the households that were not selected for the men's survey.

The survey was successfully carried out in 1,389 clusters after 11 clusters with deteriorating law-and-order situations during fieldwork were dropped. These areas were in Zamfara (4 clusters), Lagos (1 cluster), Katsina (2 clusters), Sokoto (3 clusters), and Borno (1 cluster). In the case of Borno, 11 of the 27 LGAs were dropped due to high insecurity, and therefore the results might not represent the entire state. Please refer to Appendix A for details.

1.3 QUESTIONNAIRES

Four questionnaires were used for the 2018 NDHS: the Household Questionnaire, the Woman's Questionnaire, the Man's Questionnaire, and the Biomarker Questionnaire. The questionnaires, based on The DHS Program's standard Demographic and Health Survey (DHS-7) questionnaires, were adapted to reflect the population and health issues relevant to Nigeria. Comments were solicited from various stakeholders representing government ministries and agencies, nongovernmental organisations, and international donors. In addition, information about the fieldworkers for the survey was collected through a self-administered Fieldworker Questionnaire.

The survey protocol was reviewed and approved by the National Health Research Ethics Committee of Nigeria (NHREC) and the ICF Institutional Review Board. After all questionnaires were finalised in English, they were translated into Hausa, Yoruba, and Igbo. The 2018 NDHS used computer-assisted personal interviewing (CAPI) for data collection.

The Household Questionnaire listed all members of and visitors to selected households. Basic demographic information was collected on each person listed, including age, sex, marital status, education, and relationship to the head of the household. For children under age 18, survival status of parents was determined. Data on age, sex, and marital status of household members were used to identify women and men who were eligible for individual interviews. The Household Questionnaire also collected information on characteristics of the household's dwelling unit, such as source of drinking water; type of toilet facilities; materials used for flooring, external walls, and roofing; ownership of various durable goods; and ownership of mosquito nets. In addition, data were gathered on salt testing and disability.

The Woman's Questionnaire was used to collect information from all eligible women age 15-49. These women were asked questions on the following topics:

- Background characteristics (including age, education, and media exposure)
- Birth history and child mortality
- Knowledge, use, and source of family planning methods
- Antenatal, delivery, and postnatal care
- Vaccinations and childhood illnesses
- Breastfeeding and infant feeding practices
- Women's minimum dietary diversity
- Marriage and sexual activity
- Fertility preferences (including desire for more children and ideal number of children)
- Women's work and husbands' background characteristics
- Knowledge, awareness, and behaviour regarding HIV/AIDS and other sexually transmitted infections (STIs)
- Knowledge, attitudes, and behaviour related to other health issues (e.g., smoking)
- Female genital cutting
- Fistula
- Adult and maternal mortality
- Domestic violence

The Man's Questionnaire was administered to all men age 15-59 in the subsample of households selected for the men's survey. The Man's Questionnaire collected much of the same information as the Woman's Questionnaire but was shorter because it did not contain a detailed reproductive history or questions on maternal and child health.

The Biomarker Questionnaire was used to record the results of anthropometry measurements and other biomarkers for women and children. This questionnaire was administered only to the subsample selected for the men's survey. All children age 0-59 months and all women age 15-49 were eligible for height and weight measurements. Women age 15-49 were also eligible for haemoglobin testing. Children age 6-59 months were also eligible for haemoglobin testing, malaria testing, and genotype testing for sickle cell disease.

The purpose of the Fieldworker Questionnaire was to collect basic background information on the people who were collecting data in the field, including the team supervisor, field editor, interviewers, and the biomarker team (laboratory scientist and nurse). Each interviewer completed the self-administered Fieldworker Questionnaire after the final selection of interviewers and before the fieldworkers entered the field. No personal identifiers were attached to the 2018 NDHS fieldworkers' data file.

1.4 Anthropometry, Anaemia Testing, Malaria Testing, and Sickle Cell Anaemia Testing

The 2018 NDHS incorporated four biomarkers: anthropometry, anaemia testing, malaria testing, and genotype testing for sickle cell anaemia. Biomarkers were collected in the one-third of households selected for the male survey. Blood specimens for the tests were collected from eligible women who voluntarily consented to be tested and from all children age 6-59 months for whom consent was obtained from their parents or the adult responsible for them. In contrast with the data collection procedure for the household and individual interviews, data related to biomarkers were initially recorded on a paper Biomarker Questionnaire and subsequently entered into interviewers' tablet computers. As part of quality assurance, a Biomarker Checklist was used to verify that proper procedures were followed during collection of biomarker data and to enhance supportive supervision.

Anthropometry: Height and weight measurements were recorded for children age 0-59 months and women age 15-49. The 2018 NDHS included quality assurance procedures to improve anthropometry data quality. These procedures, undertaken in real time during data collection, included re-measurement of all children with data outside of pre-specified flagged values on a subsequent day and re-measurement of the height and weight of 10% of a random sample of children on a subsequent day.

Anaemia testing: Blood samples for anaemia testing were obtained from a drop of blood taken from a finger prick (or a heel prick for children age 6-11 months). A drop of blood from the prick site was drawn into a microcuvette, and a haemoglobin analysis was carried out on-site with a battery-operated portable HemoCue analyser. Results were provided verbally and in writing. Parents of children with a haemoglobin level below 8 g/dl were instructed to take the child to a health facility for follow-up care. Likewise, nonpregnant women and pregnant women were referred for follow-up care if their haemoglobin levels were below 8 g/dl and 7 g/dl, respectively. All households in which anaemia testing was conducted were given a brochure that explained the causes and prevention of anaemia.

Malaria testing: Malaria testing was carried out among children age 6-59 months. With the same finger (or heel) prick used for anaemia testing, a drop of blood was tested immediately using the SD Bioline Ag P.f. (HRP-II)™ rapid diagnostic test (RDT), which is a qualitative test for the detection of histidine-rich protein II (HRP-II) antigen of *Plasmodium falciparum* (Pf) in human whole blood. *Plasmodium falciparum* is the predominant *Plasmodium* species found in Nigeria. A tiny volume of blood is captured with a disposable sample applicator and placed in the well of the testing device. All health technicians were trained to perform RDTs in the field according to the manufacturers' instructions. Technicians read,

interpreted, and recorded the RDT results after 15 minutes following the instructions in the kit insert. The RDT results were recorded as Pf positive or negative, with faint test lines being considered positive. As with anaemia testing, malaria RDT results were provided to the child's parent or guardian in oral and written form and were recorded on the Biomarker Questionnaire. Children who tested positive for malaria by RDT were offered a full course of treatment according to the standard procedures for treating malaria in Nigeria if they did not have a severe case of malaria (diagnosed by symptoms or the presence of severe anaemia), were not currently on treatment, and had not completed a full course of artemisinin-based combination therapy (ACT) during the preceding 2 weeks. Nurses on each field team were instructed to ask about signs of severe malaria and about any medications the child might be taking. The nurses then provided the age-appropriate dose of ACT and instructions for administering the medicine to the child.[1,2] The anaemia brochure also contained information on malaria and was given to all households in which malaria testing was conducted.

Microscopy on thick blood smears: In addition to the SD Bioline Ag P.f. rapid test, a thick smear was prepared on a slide for 75% of the households where malaria RDTs were performed. These blood smears were dried and packed carefully in the field, assigned barcode labels corresponding to the Biomarker Questionnaire, and then transported to the state-level laboratory, where they were stained. There were 18 designated staining sites in the states, one site for each two states. The stained slides were then transferred to the Primary Testing Laboratory (ANDI Centre of Excellence for Malaria Diagnosis, Lagos University Teaching Hospital). Microscopy to determine malaria infection was carried out in this laboratory. External quality control was conducted on a selected proportion of the slides in the Secondary Testing Laboratory at the University of Calabar Teaching Hospital.

Genotype testing for sickle cell disease: Sickle cell disease (SCD) is a common and life-threatening haematological disorder. Given that sickle cell anaemia is a public health concern in Nigeria, it was thought vital to include this disease in the survey as there is no reliable information at the national level. Blood collection for genotype testing was carried out among children age 6-59 months. With the same finger (or heel) prick used for anaemia and malaria testing, a drop of blood was tested immediately using the SickleSCAN® rapid diagnostic test kit. A tiny portion of blood was captured on the capillary sampler, dispensed into the PreTreatment Module, and mixed to allow complete treatment of the specimen with buffer. The specimen was then dispensed into the SickleSCAN cartridge. Results were available in 5 minutes. The results were provided to the respondent or the child's parent/guardian through the pamphlet and also recorded on the Biomarker Questionnaire. Parents or guardians whose children have sickle cell disease were urged to take the child to a health facility for follow-up care.

In 25% of the households where genotype testing was done, a confirmatory test for the SickleSCAN RDT was conducted. Using the same finger (or heel) prick used for the above tests, a drop of blood was collected on the filter paper card to form a dry blood spot to which a barcode label unique to the child was affixed. A duplicate label was attached to the Biomarker Data Collection Form. A third copy of the same barcode was affixed to the Dried Blood Spot Transmittal Sheet to track the blood samples from the field to the laboratory. The samples were then transported to the standard laboratory for high-performance liquid chromatography (HPLC) confirmatory testing at the International Foundation Against Infectious Disease in Nigeria (IFAIN) in Abuja. Upon arrival at the laboratory, each blood sample was logged into the CSPro Genotype Test Tracking System database, given a laboratory number, and stored at -20°C or lower until

[1] Dosage of ACT was based on the age of the recipient. The proper dosage for a child age 6 months to 3 years is one tablet of artemether-lumefantrine (co-formulated tablets containing 20 mg artemether and 120 mg lumefantrine) to be taken twice daily for 3 days, while the dosage for a child age 4-8 is two tablets of artemether-lumefantrine to be taken twice daily for 3 days.

[2] Children who exhibited signs of severe malaria (based on symptoms or laboratory confirmation of severe anaemia) were referred to the nearest facility for treatment.

tested. Test results for the 2018 NDHS were entered into a spreadsheet with a barcode as the unique identifier for each result.

1.5 PRETEST

The pretest training was designed to prepare the trainers for the main training as well as to ensure that they were well versed with the NDHS questionnaires and procedures and able to test the questionnaires in the different languages. The training involved sessions of administering the NDHS questionnaires and a separate session for biomarker data collection. Forty-five participants, comprising 5 zonal and 20 state NPC coordinators, 5 National Malaria Elimination Programme (NMEP) coordinators, 2 senior lab scientists from the Lagos University Teaching Hospital (LUTH), 4 lab scientists, 4 nurses, 2 enumerators, and 3 data processing staff members, took part in the pretest training and fieldwork. The pretest took place over a 3-week period from 30 April to 20 May 2018. Most of the participants had previous experience carrying out NDHS surveys or the Nigeria Malaria Indicator Survey (NMIS). The idea behind having the data processing staff participate in the pretest was to familiarise them with the CAPI system.

The training was conducted by ICF staff who focused on the technical components of the survey, biomarkers, and the CAPI data collection system. The training focused on key components of the survey, interview techniques and procedures for completing the NDHS questionnaires, and administration of interviews using the CAPI system. The biomarker training included orientation on collecting height and weight data, testing for anaemia and malaria and genotype testing for sickle cell disease, and standardisation procedures for anthropometry. The participants worked in groups using various training techniques, including interactive question-and-answer sessions, case studies, and role-plays. Before starting the fieldwork, the participants were given ample opportunities to practice on how to administer the questionnaires and to practice collection of biomarkers among women and children. The participants administered the questionnaires in the field, provided feedback on the content and language of the questionnaires, tested the CAPI software programme, commented on the biomarker procedure, and learned various training techniques.

The fieldwork for the pretest was carried out in communities that spoke English, Hausa, Yoruba, and Igbo. Each team carried out the pretest in an urban and a rural location, completing eight clusters in total. Following the fieldwork, a debriefing session was held with the pretest field staff, and modifications to the questionnaires were made based on lessons learned from the exercise.

1.6 TRAINING OF FIELD STAFF

Prior to the main training, biomarker training was held for the laboratory scientists and nurses from 25 June to 6 July 2018. The training was facilitated by the ICF team and supported by the trainers who were trained during the pretest. A total of 37 nurses and 37 laboratory scientists were trained on biomarker data collection and recording. This included training on anthropometry; using rapid test kits to test for anaemia, malaria, and sickle cell disease; preparing slides for malaria parasitaemia; and preparing dried blood spots for confirmatory testing of sickle cell diagnostics.

The training utilised a variety of different learning tools. Plenary lectures were held on the technical aspects of biomarker collection, and other tools included video and hands-on demonstrations on the process of biomarker collection, instructions on how to fill out the questionnaire and transmittal sheets, and instructions on data quality procedures. In addition, break-out sessions were held daily at which trainees had the opportunity for hands-on practice with both adults and children. A total of four anthropometry standardisation exercises with 40 children and two re-standardisation exercises were undertaken. Following the standardisation exercise, the results of the exercise were presented. General observations on accuracy (difference between the reference value and the participant's value) and precision (difference between the first and second readings) were discussed.

The field coordinators were trained on the use of the Biomarker Checklist. Also implemented were random re-measurements for quality assurance and re-visitation of households for re-measurements for flagged cases involving children whose z-score values were less than -3 or greater than 3. A 2-day field practice was conducted. The nurses and laboratory scientists later joined the main team for refresher training before moving on to data collection.

The main training for the 2018 NDHS started on 16 July 2018 and lasted until 13 August 2018. The training included 4 weeks of orientation on data collection instruments and procedures followed by field practice. The 358 participants for the main training were selected through a strict vetting process at the state level. Applicants took a written test and a computerised test and also completed a personal interview to qualify for participation in the main training. Attendees came from different parts of Nigeria and represented major language groups within the country. Most of the candidates had previous fieldwork experience, and some had experience gained through previous rounds of the Nigeria DHS and Malaria Indicator Survey.

Twenty-eight state coordinators from the NPC and five national coordinators from the NMEP who had participated in the pretest training and training of trainers facilitated the training. ICF staff provided technical support during the training sessions. The participants were divided into six classrooms of about 45 participants with at least three facilitators in each room. The training sessions included discussion of concepts, procedures, and methodologies for conducting the DHS survey. Participants were guided through the questionnaires using various training techniques such as role-plays, age probing in pairs, group discussion, in-class exercises, case studies, and presentations. The training also included discussions of the CAPI system, demonstrations of the CAPI DHS menus, and conducting of interviews through the CAPI system.

Participants were evaluated through in-class exercises, quizzes, and observations made during field practice. Ultimately, 37 supervisors and 37 field editors were identified based on their performance. Similarly, 74 male interviewers and 111 female interviewers were selected to serve as enumerators, while the rest were kept as reserves. Thirty-seven laboratory scientists and 37 nurses were also selected to participate in the survey.

The team supervisors received additional training on providing logistical support, managing the field teams, observing interviews, keeping an inventory of supplies, and collecting biomarker data. They were also trained on implementing the Biomarker Checklist to carry out data quality assurance.

The field editors received additional training in performing supervisory activities with the CAPI system, data quality control procedures, fieldwork coordination, and management. The field editors were trained on assigning households and receiving completed interviews from the interviewers, recognising and dealing with error messages, receiving system updates and distributing updates to interviewers, entering biomarker questionnaires, implementing the re-measurement and re-visit questionnaires and the Biomarker Checklist, resolving duplicated cases, and closing clusters. They were also trained on transferring interviews to the central office via the secure internet file streaming system (IFSS) developed by The DHS Program.

Six quality controllers for biomarker data collection were identified from among the trainees who underwent training during biomarker training, pretest training, and the main training, and they received additional training on supporting the teams and monitoring fieldwork through the Biomarker Checklist.

1.7 FIELDWORK

The fieldwork for the 2018 NDHS was launched under close supervision on 14 August 2018 in the clusters in the six zonal take-off centres. Thirty-seven teams, each consisting of one supervisor, one field editor, two male interviewers, three female interviewers, one lab scientist, and one nurse, were assigned across the different clusters in the zones. The teams were closely monitored by the state coordinators and the quality

controllers. After completion of the fieldwork in the zonal take-off centres in the first week, all of the teams were brought back to the zonal office for a review session where they had an opportunity to clarify any questions they had. The teams were then dispatched to their respective states. Data collection lasted until 29 December 2018. The fieldwork in some states took longer than expected due to the security situation.

Fieldwork monitoring was an integral part of the 2018 NDHS, and several rounds of monitoring were carried out by the NDHS core team, the state coordinators from the NPC and NMEP, and ICF staff. The monitors were provided with guidelines for overseeing the fieldwork. Weekly field check tables were generated from the completed interviews sent to the central office to monitor fieldwork progress, and regular feedback was sent out to the teams.

1.8 Data Processing

The processing of the 2018 NDHS data began almost immediately after the fieldwork started. As data collection was completed in each cluster, all electronic data files were transferred via the IFSS to the NPC central office in Abuja. These data files were registered and checked for inconsistencies, incompleteness, and outliers. The field teams were alerted to any inconsistencies and errors. Secondary editing, carried out in the central office, involved resolving inconsistencies and coding the open-ended questions. The NPC data processor coordinated the exercise at the central office. The biomarker paper questionnaires were compared with electronic data files to check for any inconsistencies in data entry. Data entry and editing were carried out using the CSPro software package. The concurrent processing of the data offered a distinct advantage because it maximised the likelihood of the data being error-free and accurate. Timely generation of field check tables allowed for effective monitoring. The secondary editing of the data was completed in the second week of April 2019.

Throughout this report, figures in the tables reflect weighted numbers. Percentages based on 25 to 49 unweighted cases are shown in parentheses, and percentages based on fewer than 25 unweighted cases are suppressed and replaced with an asterisk. This is to caution readers when interpreting data that a percentage based on fewer than 50 cases may not be statistically reliable.

1.9 Response Rates

Table 1.1 shows response rates for the 2018 NDHS. A total of 41,668 households were selected for the sample, of which 40,666 were occupied. Of the occupied households, 40,427 were successfully interviewed, yielding a response rate of 99%. In the households interviewed, 42,121 women age 15-49 were identified for individual interviews; interviews were completed with 41,821 women, yielding a response rate of 99%. In the subsample of households selected for the male survey, 13,422 men age 15-59 were identified and 13,311 were successfully interviewed, yielding a response rate of 99%.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Nigeria DHS 2018

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	17,282	24,386	41,668
Households occupied	16,906	23,760	40,666
Households interviewed	16,780	23,647	40,427
Household response rate[1]	99.3	99.5	99.4
Interviews with women age 15-49			
Number of eligible women	17,127	24,994	42,121
Number of eligible women interviewed	16,984	24,837	41,821
Eligible women response rate[2]	99.2	99.4	99.3
Household interviews in subsample			
Households selected	5,762	8,131	13,893
Households occupied	5,657	7,946	13,603
Households interviewed	5,614	7,900	13,514
Household response rate in subsample[1]	99.2	99.4	99.3
Interviews with men age 15-59			
Number of eligible men	5,547	7,875	13,422
Number of eligible men interviewed	5,506	7,805	13,311
Eligible men response rate[2]	99.3	99.1	99.2

[1] Households interviewed/households occupied
[2] Respondents interviewed/eligible respondents

HOUSING CHARACTERISTICS AND HOUSEHOLD POPULATION

2

Key Findings

- ***Drinking water:*** Overall, 66% of households have access to an improved source of drinking water (74% in urban areas and 58% in rural areas).
- ***Availability of water:*** 71% of households using piped water or water from a tube well or borehole reported having water available to them without an interruption of at least 1 day.
- ***Sanitation:*** 56% of Nigerian households use an improved sanitation facility.
- ***Electricity:*** 59% of households have electricity (83% of urban households and 39% of rural households).
- ***Orphans:*** 6% of Nigerian children under age 18 are orphans (i.e., one or both parents are dead). Eight percent of children do not live with a biological parent.
- ***Birth registration:*** 43% of children under age 5 have their births registered with the civil authorities; among these 62% are registered with NPC.
- ***Education:*** Overall, 36% of females and 27% of males in Nigeria have no education.
- ***School attendance:*** The net attendance ratio (NAR) is 61% at the primary level and 49% at the secondary level.

Knowledge regarding the socioeconomic characteristics of the household population in the 2018 NDHS provides a context to interpret demographic and health indicators and can furnish an approximate indication of the accurateness of the survey. In addition, this information sheds light on the living conditions of the population.

This chapter presents information on sources of drinking water, sanitation, exposure to smoke inside the home, wealth, handwashing, household population and composition, educational attainment, school attendance, birth registration, and family living arrangements.

2.1 Drinking Water Sources and Treatment

Improved sources of drinking water

Include piped water, public taps, standpipes, tube wells, boreholes, protected dug wells and springs, rainwater, water delivered via a tanker truck or a cart with a small tank, and bottled water.

Sample: Households

In Nigeria, 66% of households have access to an improved source of drinking water, 74% in urban areas and 58% in rural areas (**Table 2.1.1**). Urban and rural households rely on similar sources of drinking water. The three most common improved sources of drinking water in urban and rural households are tube wells

or boreholes (41% in urban and 34% in rural households), protected dug wells or springs (13% in urban and 12% in rural households), and public taps/standpipes (7% in urban and 8% in rural households) (**Figure 2.1**).

Twenty-six percent of urban households and 42% of rural households still depend on unimproved sources for their drinking water. Among urban households, sachet water (18%) is the most common unimproved source of drinking water, while unprotected dug wells (22%) and surface water (15%) are the most common unimproved sources in rural households.

Figure 2.1 **Household drinking water by residence**

Percent distribution of households by source of drinking water

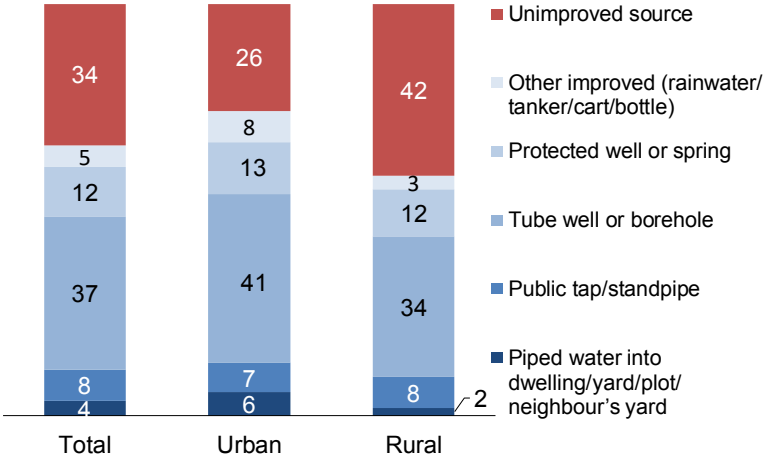
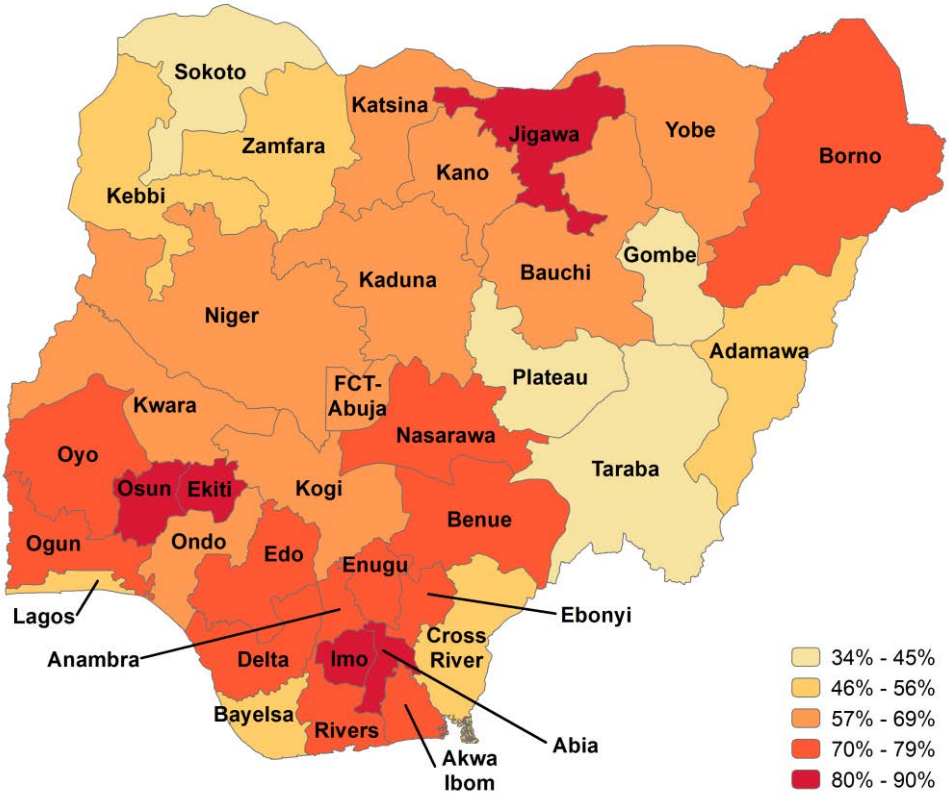


Figure 2.2 **Improved water source by state**

Percentage of households with improved source of drinking water



The percentage of households with improved sources of drinking water is highest in the South East (81%) and lowest in the North East (60%). Across the states, access to an improved source of drinking water is lowest in Sokoto (34%) and highest in Imo (90%) (**Figure 2.2**). Access to an improved source of drinking

water is most common among residents in the fourth wealth quintile and least common among those in the lowest quintile (84% and 41%, respectively).

Basic drinking water service

Drinking water from an improved source, provided either water is on the premises or round-trip collection time is 30 minutes or less.

Sample: De jure population

Clean water is a basic need for human life; 62% of Nigeria's population has basic drinking water service (72% of the urban population and 54% of the rural population) (**Table 2.1.1**). Only 38% of households in the lowest wealth quintile have basic drinking water service (**Table 2.1.2**).

Limited drinking water service

Drinking water from an improved source, and round-trip collection time is more than 30 minutes.

Sample: De jure population

Fetching drinking water is an additional chore that could be of great cost to household members, depending on the time spent to obtain it. Six percent of urban households and 8% of rural households report having to travel more than 30 minutes to access an improved source of drinking water **(Table 2.1.1)**. Overall, 3% of households in Nigeria have limited drinking water service (4% in urban areas and 3% in rural areas).

Most households in Nigeria (92%) report that they do not treat their water prior to drinking. Five percent of households use an appropriate treatment method, 7% in urban areas and 3% in rural areas. Appropriate treatment methods include boiling, adding bleach or chlorine, filtering through ceramic, sand, or other filters, and solar disinfecting (**Table 2.1.3**).

Table 2.2 presents information on the percentage of households using piped water or water from a tube well or borehole that reported availability of water in the last 2 weeks. Seventy-one percent of households in Nigeria reported having water with no interruption of at least 1 day in the 2 weeks before the survey. Seventy-three percent of rural households had availability with no interruption of at least 1 day, as compared with 69% of urban households. Urban households were more likely than rural households to report not having water available for at least 1 day (31% and 27%, respectively).

2.2 SANITATION

Improved toilet facilities

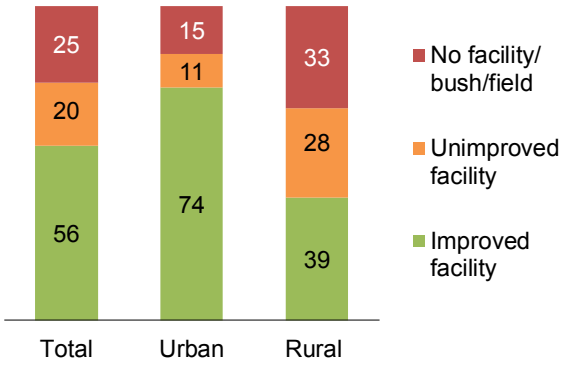
Include flush/pour flush toilets that flush water and waste to a piped sewer system, septic tank, pit latrine, or an unknown destination; ventilated improved pit (VIP) latrines; pit latrines with slabs; or composting toilets.

Sample: Households

Table 2.3.1 provides an overview of the types of sanitation facilities available in the surveyed households at the time of data collection. Overall, 56% of Nigerian households use improved toilet facilities, 74% in urban areas and 39% in rural areas (**Figure 2.3**). A pit latrine with a slab is the most common type of improved sanitation facility in Nigeria, used by 23% of households (24% in urban areas and 23% in rural areas). This is followed by flush/pour flush toilets that flush to a septic tank (16%); 27% of households in urban areas use this type of facility, as compared with only 6% of households in rural areas. Among rural households, 28% use unimproved toilet facilities, most commonly pit latrines without slabs (27%). Open defecation is still widespread in Nigeria, with 25% of households (33% of rural households and 15% of urban households) engaging in this practice.

Figure 2.3 **Household toilet facilities by residence**

Percent distribution of households by type of toilet facilities



Trends: The proportion of households with no toilet facility has decreased over the last 5 years, from 29% of households in 2013 to 25% of households in 2018.

Basic sanitation service
Use of improved facilities that are not shared with other households.
Sample: De jure population

With respect to location of toilet facility, 37% of households in Nigeria have their toilet facility in their own dwelling (46% of urban households and 28% of rural households). Forty-three percent of households have basic sanitation service (48% of urban households and 37% of rural households) (**Table 2.3.1**).

Limited sanitation service
Use of improved facilities shared by two or more households.
Sample: De jure population

In Nigeria, 31% of households have limited sanitation service. Forty percent of urban households use improved toilet facilities that are shared with other households, as compared with only 21% of rural households.

Overall, 53% of the Nigerian population has access to an improved sanitation facility, while 24% has access to an unimproved facility. Twenty-three percent of the population engages in open defecation.

Patterns by background characteristics

- Open defecation is most common in the North Central zone (51%) and least common in the North West (9%) (**Table 2.3.2**).
- The percentage of households with access to an improved sanitation facility is highest in the South West zone (71%) and lowest in the North Central and North West zones (43% each).
- At the state level, Abia has the highest percentage of households with an improved sanitation facility (93%), while Ebonyi has the lowest (17%).
- Only 9% of households in Kebbi and 10% in Ebonyi have basic sanitation service, the lowest percentages among the states.

- As expected, access to an improved sanitation facility is most common among households in the highest wealth quintile (94%) and least common among households in the lowest quintile (12%).

2.3 Exposure to Smoke inside the Home

Exposure to smoke inside the home, from either cooking with solid fuels or smoking tobacco, has potentially harmful health effects. In Nigeria, 69% of households use some type of solid fuel for cooking, with 61% using wood (**Table 2.4**). Exposure to cooking smoke is greater when cooking takes place inside the house rather than in a separate building or outdoors. In 40% of households, cooking is done in the house (48% in urban areas and 34% in rural areas). In 7% of households, someone smokes inside the house on a daily basis. Overall, only 15% of households in Nigeria use clean fuel for cooking, 27% in urban areas and 4% in rural areas.

Other Housing Characteristics

The 2018 NDHS also collected data on access to electricity, flooring materials, and the number of rooms used for sleeping. Fifty-nine percent of households in Nigeria have access to electricity (83% in urban areas and 39% in rural areas) (**Table 2.4**). A majority of both urban (68%) and rural (54%) households use cement flooring in their dwellings.

2.4 Household Wealth

Household Durable Goods

The survey also collected information on household effects, means of transportation, and ownership of agricultural land and farm animals. In general, urban households are more likely than rural households to possess household effects. The most commonly found item in all households is a bed (94%). This is followed by a mobile phone (88%); 95% of urban and 82% of rural households own a mobile phone. As expected, rural households are more likely than urban households to own agricultural land and farm animals. Thirty-two percent of urban households own agricultural land, as compared with 76% of rural households (**Table 2.5**).

Wealth Index

Wealth index

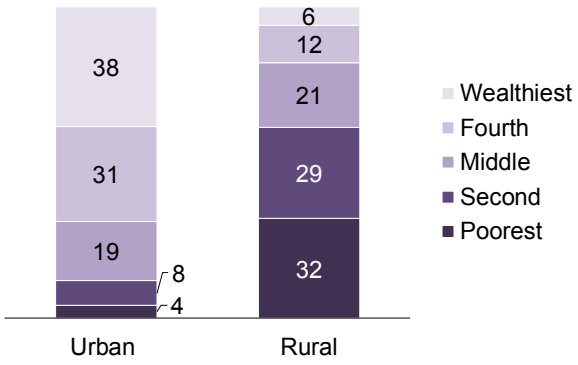
Households are given scores based on the number and kinds of consumer goods they own, ranging from a television to a bicycle or car, and housing characteristics such as source of drinking water, toilet facilities, and flooring materials. These scores are derived using principal component analysis. National wealth quintiles are compiled by assigning the household score to each usual (de jure) household member, ranking each person in the household population by her or his score, and then dividing the distribution into five equal categories, each comprising 20% of the population.

Sample: Households

Table 2.6 shows that the wealthiest households are concentrated in urban areas (38%); only 6% of the wealthiest households are in rural areas (**Figure 2.4**). The South West zone has a much higher percentage of households in the highest wealth quintile (48%) than the North East and North West zones (5% and 9%, respectively). Among the states, Lagos has the highest percentage of households in the highest wealth quintile (75%), while Kebbi, Yobe, and Sokoto have the lowest (2% each).

Figure 2.4 **Household wealth by residence**

Percent distribution of de jure population by wealth quintiles



2.5 HANDWASHING

To obtain handwashing information, interviewers asked to see the place where members of the household most often wash their hands. Interviewers were able to observe a place for handwashing in 81% of households (84% in urban areas and 79% in rural areas) (**Table 2.7**). Thirty-eight percent of households had soap and 63% had water available. Cleansing agents other than soap were available in 1% of households.

The availability of soap and water varies across zones, from a low of 12% and 44%, respectively, in the North East to a high of 61% and 85%, respectively, in the South West. Availability of soap and water increases with increasing wealth; 68% and 87% of households in the highest wealth quintile had soap and water available, as compared with 13% and 41% of households in the lowest quintile.

2.6 HOUSEHOLD POPULATION AND COMPOSITION

Household

A person or group of related or unrelated persons who live together in the same dwelling unit(s), who acknowledge one adult male or female as the head of the household, who share the same housekeeping arrangements, and who are considered a single unit.

De facto population

All persons who stayed in the selected households the night before the interview (whether usual residents or visitors).

De jure population

All persons who are usual residents of the selected households, whether or not they stayed in the household the night before the interview.

How data are calculated

All tables are based on the de facto population unless otherwise specified.

Household composition and population data provide information on the socioeconomic characteristics of the households and respondents surveyed in terms of age, sex, and place of residence.

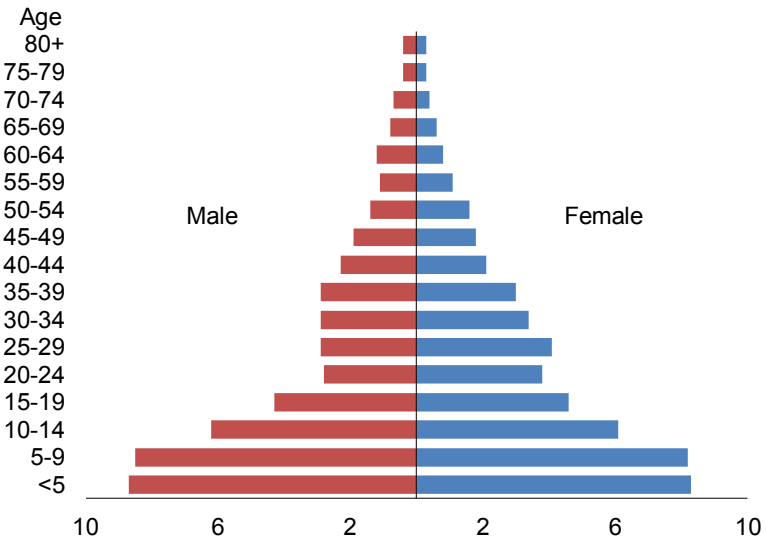
A total of 187,974 individuals stayed overnight in the 40,427 interviewed households; 49% of these individuals were male and 51% were female, yielding a sex ratio (number of males per 100 females) of 97.

Forty-six percent of individuals are in the 0-14 dependency age group, while 4% are in the 65 and above dependency age group **(Table 2.8)**. Fifty percent of the population is in the 15-64 age group. Children age 0-17 form the bulk of the population (52%). The broad base of the population pyramid shows that Nigeria's population is typical of countries with a low life expectancy and high fertility rates (**Figure 2.5**).

The average household size in Nigeria is 4.7 persons. Urban households are slightly smaller than rural households (4.3 persons versus 5.0 persons). A majority of the households in Nigeria are headed by men (82%) (**Table 2.9**).

Figure 2.5 **Population pyramid**

Percent distribution of the household population



2.7 Children's Living Arrangements and Parental Survival

Orphan
A child with one or both parents who are dead.
Sample: Children under age 18

Table 2.10 presents the percentage distribution of children under age 18 by living arrangements and survival status of parents. Eight percent of children under age 18 do not live with a biological parent, while 6% are orphans (i.e., one or both parents are dead).

Among children less than age 2, 2% were not leaving with their parents at the time of the interview, and 1% had lost one or both parents. The percentage of children who are orphans rises rapidly with age, from 3% among those under age 2-4 to 14% among those age 15-17. The South East has the highest percentage of children who are orphans (9%), while the North West and South West have the lowest percentages (5% each).

Trends: The percentage of children under age 18 living with both parents has increased over time, from 71% in 2008 to 74% in 2013 and 75% in 2018.

2.8 Birth Registration

Registered birth
Child has a birth certificate or child does not have a birth certificate, but his/her birth is registered with the civil authorities.
Sample: De jure children under age 5

Table 2.11 presents information on birth registration of children under age 5. Birth registration is the documentation of the facts of each birth into an official log book kept at the registrar's office. According to the Births and Deaths (Compulsory Registration) Act Number 69 of 1992, registration of births and deaths is compulsory in all cases in Nigeria. The National Population Commission is responsible for registering

these important events nationwide (NPC 1992). Information was collected in the household interview whereby respondents were asked if children under age 5 residing in the household have been registered. At the time of the survey, 43% of children under age 5 were registered with the civil authorities (39% of children under age 2 and 45% of children between age 2 and 4). One in five of these children had birth certificates. Children in urban areas are much more likely than rural children to have their births registered (60% versus 32%).

Birth registration increases with increasing household wealth (**Figure 2.6**). Children in the highest wealth quintile are much more likely to have their birth registered (75%) than children in the lowest wealth quintile (16%).

Figure 2.6 **Birth registration by household wealth**

Percentage of de jure children under age 5 whose births are registered with the civil authorities

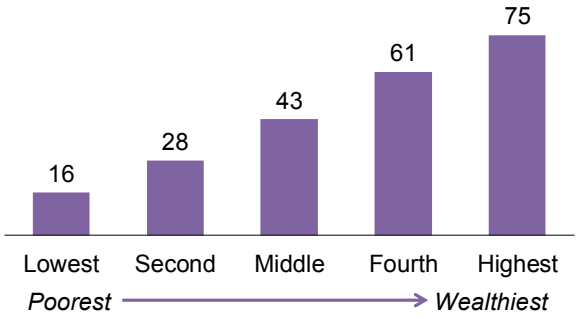


Table 2.12 presents the percent distribution of children under age 5 whose births are registered with the civil authorities by type of authority. The results show that 62% of births in the 5 years preceding the survey were registered with the National Population Commission. Ten percent of children were registered under a local government administration, 26% with a private clinic/hospital, and the remaining 3% with other agencies.

The percentage of children registered with the National Population Commission is higher in urban areas (64%) than in rural areas (60%). Across the states, registration of births under the commission is highest in Delta (99%) and lowest in Adamawa (20%); Adamawa has the highest percentage of births registered with a private clinic/hospital (65%).

Trends: The proportion of de jure children whose births were registered has increased since 2013, from 30% to 43%. Birth registration under the National Population Commission has also increased, from 57% to 62%.

2.9 EDUCATION

2.9.1 Educational Attainment

Median educational attainment

Half of the population has completed less than the median number of years of schooling, and half of the population has completed more than the median number of years of schooling.

Sample: De facto household population age 6 and older

Education is one of the most important aspects of social and economic development. Education improves capabilities and is strongly associated with various socioeconomic variables such as lifestyle, income, and fertility for both individuals and societies. Overall, 36% of females and 27% of males in Nigeria have no education (**Table 2.13.1** and **Table 2.13.2**). Eighteen percent of females and 19% of males age 6 or older have attended some primary school; however, only 11% of both sexes have completed a primary education. The median number of years of schooling is 3.6 for women and 5.4 for men.

Patterns by background characteristics

- Urban residents are much more likely than rural residents to be educated. Twenty percent of females age 6 and older in urban areas have no education, as compared with 49% of females in rural areas. The proportions among males are 13% and 37%, respectively.

- At the zonal level, the North West and North East have the highest percentages of both females (55% and 57%, respectively) and males (40% and 47%, respectively) with no education.

- Twenty-four percent of women in the highest wealth quintile have more than a secondary education, while only 7% have no education. On the contrary, 75% of women in the lowest quintile have no education and less than 1% have more than a secondary education.

Trends: The percentage of females age 6 and over with no education has decreased slightly since 2013, from 40% to 36%. A similar pattern is observed among males, with a reduction from 30% to 27%. Secondary school or higher level attainment among women has increased slightly, from 16% to 23%, while among men it has increased from 24% to 30%. The median number of years of schooling has increased from 1.7 to 3.6 among women and from 4.7 to 5.4 among men.

2.9.2 School Attendance

Net attendance ratio (NAR)

Percentage of the school-age population that attends primary or secondary school.

Sample: Children age 6-12 for primary school NAR and children age 13-18 for secondary school NAR

The primary school net attendance ratio (NAR) for children age 6-12 is 61% (59% for girls and 62% for boys). The secondary NAR drops drastically to 47% among girls and 52% among boys (**Table 2.14**).

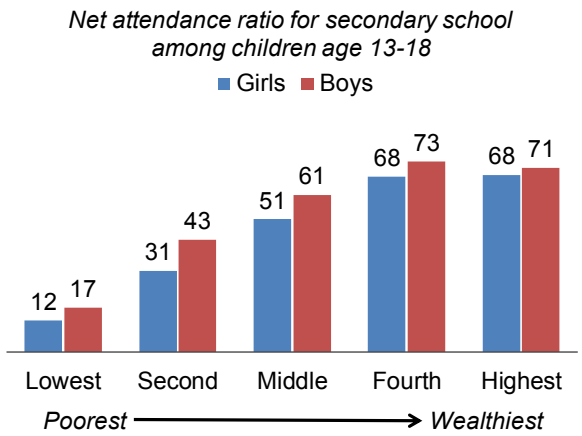
Patterns by background characteristics

- There is a substantial difference in the primary school NAR between urban and rural areas (72% and 53%, respectively). The difference increases at the secondary school level (65% in urban areas and 37% in rural areas).

- Among the zones, the primary and secondary NARs are highest in the South East (82% and 75%, respectively) and lowest in the North East (46% and 31%, respectively).

- The NAR increases with increasing household wealth, especially at the secondary school level. The overall secondary NAR rises from 15% in the lowest wealth quintile to 70% in the fourth and highest quintiles. Among girls, the secondary NAR increases from 12% in the lowest quintile to 68% in the fourth and highest quintiles (**Figure 2.7**).

Figure 2.7 **Secondary school attendance by household wealth**



Other Measures of School Attendance

Gross attendance ratio (GAR)

The total number of children attending primary school divided by the official primary school-age population and the total number of children attending secondary school divided by the official secondary school-age population.

Sample: Children age 6-12 for primary school GAR and children age 13-18 for secondary school GAR

Gender parity index (GPI)

The ratio of female to male students attending primary school and the ratio of female to male students attending secondary school. The index reflects the magnitude of the gender gap.

Sample: Primary school students and secondary school students

The gross attendance ratio (GAR) and gender parity index (GPI) are also presented in **Table 2.14**. A primary school GAR value of more than 100% means that a significant number of primary school students are not of the official primary school age. In Nigeria, the GAR is 86% at the primary level (83% for females and 88% for males) and 71% at the secondary level (67% for females and 74% for males).

A GPI of 1 indicates parity or equality between male and female school participation ratios. A GPI lower than 1 indicates a gender disparity in favour of males, with a higher proportion of males than females attending the specified level of schooling. A GPI higher than 1 indicates a gender disparity in favour of females. In Nigeria, the GPI is 0.95 at the primary school level and 0.91 at the secondary school level, indicating that more boys than girls attend primary and secondary school.

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Table 2.1.1 Household drinking water

Percent distribution of households and de jure population by source of drinking water and by time to obtain drinking water, percentage of households and de jure population with basic drinking water service, and percentage with limited drinking water service, according to residence, Nigeria DHS 2018

	Households			Population		
Characteristic	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source	73.9	58.4	65.7	76.1	57.0	65.3
Piped into dwelling/yard/plot	4.8	1.5	3.0	5.7	1.8	3.5
Piped to neighbour	0.9	0.4	0.7	1.1	0.4	0.7
Public tap/standpipe	7.3	7.6	7.5	7.4	7.5	7.5
Tube well or borehole	40.8	34.0	37.2	41.1	33.1	36.6
Protected dug well	11.9	11.0	11.4	11.5	10.8	11.1
Protected spring	0.6	0.5	0.5	0.6	0.4	0.4
Rainwater	2.2	1.8	2.0	2.2	1.4	1.7
Tanker truck/cart with small tank	4.1	1.3	2.6	5.5	1.7	3.3
Bottled water	1.3	0.1	0.7	0.9	0.1	0.5
Unimproved source	25.9	41.6	34.2	23.7	42.9	34.6
Unprotected dug well	3.3	22.4	13.5	4.4	25.9	16.6
Unprotected spring	0.9	2.2	1.6	0.9	2.2	1.6
Surface water	3.6	14.5	9.4	3.6	13.3	9.1
Sachet water	18.1	2.4	9.8	14.8	1.4	7.2
Other	0.2	0.0	0.1	0.2	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)						
Water on premises[1]	41.7	26.3	33.5	41.6	26.8	33.2
30 minutes or less	52.2	65.8	59.5	52.2	65.5	59.7
More than 30 minutes	5.9	7.8	6.9	6.1	7.7	7.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage with basic drinking water service[2]	70.2	55.5	62.4	72.1	54.1	61.9
Percentage with limited drinking water service[3]	3.6	2.8	3.2	4.0	2.8	3.3
Number of households/population	18,940	21,487	40,427	81,770	106,586	188,355

[1] Includes water piped to a neighbour and those reporting a round-trip collection time of zero minutes
[2] Defined as drinking water from an improved source, provided either water is on the premises or round-trip collection time is 30 minutes or less. Includes safely managed drinking water, which is not shown separately.
[3] Drinking water from an improved source, and round-trip collection time is more than 30 minutes

Table 2.1.2 Drinking water according to zone, state, and wealth

Percent distribution of de jure population by drinking water source, percentage of de jure population with basic drinking water service, and percentage with limited drinking water service, according to zone, state, and wealth quintile, Nigeria DHS 2018

Background characteristic	Improved source of drinking water[1]	Unimproved source of drinking water[2]	Total	Percentage with basic drinking water service[3]	Percentage with limited drinking water service[4]	Number of persons
Zone						
North Central	63.8	36.2	100.0	62.2	1.6	25,640
North East	60.1	39.9	100.0	56.3	3.5	32,602
North West	60.7	39.3	100.0	57.7	2.9	58,840
South East	80.8	19.2	100.0	73.8	7.0	20,227
South South	71.9	28.1	100.0	69.7	2.1	20,552
South West	66.5	33.5	100.0	62.7	3.7	30,495
State						
North Central						
FCT-Abuja	68.4	31.6	100.0	65.6	2.7	1,292
Benue	73.1	26.9	100.0	72.0	1.1	5,267
Kogi	65.3	34.7	100.0	62.2	3.2	2,580
Kwara	63.4	36.6	100.0	61.7	1.7	3,265
Nasarawa	74.8	25.2	100.0	74.3	0.5	2,891
Niger	61.0	39.0	100.0	60.7	0.3	6,409
Plateau	45.4	54.6	100.0	41.7	3.6	3,936
North East						
Adamawa	51.6	48.4	100.0	51.5	0.0	4,118
Bauchi	62.5	37.5	100.0	62.3	0.2	7,245
Borno	71.5	28.5	100.0	64.8	5.3	6,790
Gombe	43.0	57.0	100.0	36.9	6.1	3,593
Taraba	44.6	55.4	100.0	41.4	3.2	3,905
Yobe	69.0	31.0	100.0	63.0	6.0	6,952
North West						
Jigawa	83.2	16.8	100.0	83.1	0.0	6,938
Kaduna	66.1	33.9	100.0	62.8	3.3	10,691
Kano	58.6	41.4	100.0	52.4	6.2	13,340
Katsina	63.6	36.4	100.0	59.3	4.3	11,449
Kebbi	48.7	51.3	100.0	47.5	0.6	5,267
Sokoto	34.4	65.6	100.0	34.0	0.4	4,755
Zamfara	56.2	43.8	100.0	56.2	0.1	6,400
South East						
Abia	89.5	10.5	100.0	84.6	4.9	2,607
Anambra	78.5	21.5	100.0	78.1	0.5	5,728
Ebonyi	76.7	23.3	100.0	60.8	15.8	4,248
Enugu	72.5	27.5	100.0	62.7	9.7	3,453
Imo	89.6	10.4	100.0	83.3	6.3	4,191
South South						
Akwa Ibom	77.3	22.7	100.0	73.7	3.6	3,867
Bayelsa	52.8	47.2	100.0	52.8	0.0	1,484
Cross River	53.6	46.4	100.0	49.5	4.1	2,360
Delta	75.4	24.6	100.0	75.1	0.2	4,286
Edo	73.8	26.2	100.0	68.9	4.9	2,712
Rivers	77.0	23.0	100.0	76.0	0.9	5,842
South West						
Ekiti	80.2	19.8	100.0	74.6	5.6	2,108
Lagos	50.3	49.7	100.0	44.1	6.2	11,272
Ogun	74.0	26.0	100.0	73.5	0.5	3,935
Ondo	65.6	34.4	100.0	61.7	3.8	2,968
Osun	81.1	18.9	100.0	77.8	3.3	4,038
Oyo	77.3	22.7	100.0	76.3	0.9	6,174
Wealth quintile						
Lowest	41.0	59.0	100.0	37.6	3.2	37,685
Second	56.1	43.9	100.0	53.1	2.9	37,674
Middle	73.5	26.5	100.0	69.4	4.1	37,656
Fourth	84.4	15.6	100.0	80.4	3.9	37,671
Highest	71.6	28.4	100.0	69.0	2.5	37,669
Total	65.3	34.7	100.0	61.9	3.3	188,355

[1] See Table 2.1.1 for definition of an improved source.
[2] See Table 2.1.1 for definition of an unimproved source.
[3] Defined as drinking water from an improved source, provided either water is on the premises or round-trip collection time is 30 minutes or less. Includes safely managed drinking water, which is not shown separately.
[4] Drinking water from an improved source, and round-trip collection time is more than 30 minutes.

Table 2.1.3 Treatment of household drinking water

Percentage of households and de jure population using various methods to treat drinking water, and percentage using an appropriate treatment method, according to residence, Nigeria DHS 2018

	Households			Population		
Water treatment method	Urban	Rural	Total	Urban	Rural	Total
Boil	3.7	1.4	2.5	3.6	1.2	2.2
Bleach/chlorine added	2.3	0.5	1.3	2.2	0.4	1.2
Strain through cloth	1.2	2.3	1.8	1.4	2.5	2.0
Ceramic, sand, or other filter	1.0	0.7	0.8	1.0	0.7	0.9
Solar disinfection	0.1	0.0	0.1	0.1	0.0	0.1
Let stand and settle	0.5	0.7	0.6	0.5	0.6	0.6
Alum	1.5	1.6	1.6	1.4	1.4	1.4
Other	0.2	0.1	0.1	0.2	0.0	0.1
No treatment	90.0	93.5	91.9	90.1	93.7	92.1
Percentage using an appropriate treatment method[1]	7.0	2.5	4.6	6.9	2.3	4.3
Number of households/population	18,940	21,487	40,427	81,770	106,586	188,355

Note: Respondents may report multiple treatment methods, so the sum of treatment may exceed 100%.
[1] Appropriate water treatment methods include boiling, bleaching, filtering, and solar disinfecting.

Table 2.2 Availability of water

Percent distribution of households and de jure population using piped water or water from a tube well or borehole, by availability of water in the last 2 weeks, according to residence, Nigeria DHS 2018

	Households			Population		
Availability of water in last 2 weeks	Urban	Rural	Total	Urban	Rural	Total
Not available for at least 1 day	31.2	26.6	29.2	31.4	26.5	29.2
Available with no interruption of at least 1 day	68.7	73.2	70.7	68.5	73.4	70.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/population using piped water or water from a tube well[1]	12,948	9,616	22,564	54,940	46,116	101,057

[1] Includes households/population reporting piped water or water from a tube well or borehole as their main source of drinking water and households/ population reporting bottled water as their main source of drinking water if their main source of water for cooking and handwashing is piped water or water from a tube well or borehole

Table 2.3.1 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, percent distribution of households and de jure population with a toilet/latrine facility by location of the facility, percentage of households and de jure population with basic sanitation services, and percentage with limited sanitation services, according to residence, Nigeria DHS 2018

	Households			Population		
Type and location of toilet/latrine facility	Urban	Rural	Total	Urban	Rural	Total
Improved sanitation facility	74.1	39.1	55.5	73.7	37.9	53.4
Flush/pour flush to piped sewer system	6.6	1.6	3.9	6.1	1.4	3.4
Flush/pour flush to septic tank	26.6	6.2	15.8	24.1	4.9	13.2
Flush/pour flush to pit latrine	13.8	5.2	9.2	12.8	4.3	7.9
Flush/pour flush, don't know where	0.0	0.0	0.0	0.0	0.1	0.0
Ventilated improved pit (VIP) latrine	3.5	3.5	3.5	3.5	3.7	3.6
Pit latrine with slab	23.5	22.5	23.0	27.2	23.5	25.1
Composting toilet	0.1	0.2	0.1	0.1	0.1	0.1
Unimproved facility						
Unimproved sanitation facility	10.5	28.4	20.0	12.6	32.2	23.7
Flush/pour flush not to sewer/septic tank/pit latrine	1.3	0.5	0.9	1.6	0.5	1.0
Pit latrine without slab/open pit	7.4	27.2	17.9	9.4	31.2	21.7
Bucket	0.2	0.2	0.2	0.2	0.1	0.1
Hanging toilet/hanging latrine	1.4	0.5	1.0	1.4	0.4	0.8
Other	0.1	0.0	0.0	0.1	0.0	0.0
Open defecation (no facility/bush/field)	15.4	32.5	24.5	13.7	29.9	22.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/population	18,940	21,487	40,427	81,770	106,586	188,355
Location of toilet facility						
In own dwelling	45.5	27.5	36.9	44.8	27.7	36.0
In own yard/plot	49.3	66.4	57.4	50.3	67.3	59.0
Elsewhere	5.2	6.1	5.7	4.9	5.1	5.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/population with a toilet/ latrine facility	16,014	14,500	30,515	70,587	74,670	145,257
Percentage with basic sanitation service[1]	47.8	37.4	42.9	51.1	38.1	44.4
Percentage with limited sanitation service[2]	39.6	20.5	30.5	34.1	15.9	24.8
Number of households/population	18,940	21,487	40,427	81,770	106,586	188,355

[1] Defined as use of improved facilities that are not shared with other households. Includes safely managed sanitation service, which is not shown separately.
[2] Defined as use of improved facilities shared by 2 or more households

Table 2.3.2 Sanitation facility type according to zone, state, and wealth

Percent distribution of de jure population by type of sanitation, percentage of de jure population with basic sanitation service, and percentage with limited sanitation service, according to zone, state, and wealth quintile, Nigeria DHS 2018

Background characteristic	Type of sanitation: Improved sanitation facility[1]	Type of sanitation: Unimproved sanitation facility[2]	Type of sanitation: Open defecation	Total	Percentage with basic sanitation service[3]	Percentage with limited sanitation service[4]	Number of persons
Zone							
North Central	42.9	5.9	51.1	100.0	24.0	18.9	25,640
North East	51.2	26.4	22.5	100.0	41.8	9.3	32,602
North West	42.5	48.2	9.3	100.0	30.9	11.6	58,840
South East	64.0	10.1	25.8	100.0	48.1	15.9	20,227
South South	64.5	13.5	22.1	100.0	37.0	27.5	20,552
South West	71.4	4.3	24.3	100.0	30.4	40.6	30,495
State							
North Central							
FCT-Abuja	68.8	1.4	29.8	100.0	41.0	27.8	1,292
Benue	43.8	14.3	41.9	100.0	33.3	10.5	5,267
Kogi	26.7	2.9	70.4	100.0	14.3	12.4	2,580
Kwara	41.6	1.9	56.5	100.0	15.3	26.3	3,265
Nasarawa	65.7	12.3	22.0	100.0	28.9	36.8	2,891
Niger	38.5	3.8	57.7	100.0	20.0	18.4	6,409
Plateau	35.6	0.4	64.0	100.0	22.3	13.2	3,936
North East							
Adamawa	76.5	0.8	22.8	100.0	56.0	20.4	4,118
Bauchi	30.9	59.8	9.3	100.0	26.8	4.1	7,245
Borno	66.1	24.6	9.3	100.0	49.3	16.8	6,790
Gombe	73.5	13.6	12.9	100.0	67.8	5.7	3,593
Taraba	51.7	26.2	22.1	100.0	42.3	9.4	3,905
Yobe	30.8	15.2	54.0	100.0	28.0	2.8	6,952
North West							
Jigawa	17.9	66.1	16.0	100.0	17.3	0.6	6,938
Kaduna	65.8	30.2	4.0	100.0	27.1	38.7	10,691
Kano	54.0	42.1	3.9	100.0	45.1	8.8	13,340
Katsina	39.3	59.0	1.7	100.0	35.1	4.3	11,449
Kebbi	22.7	46.8	30.6	100.0	9.2	13.4	5,267
Sokoto	43.5	31.0	25.5	100.0	39.1	4.4	4,755
Zamfara	27.6	66.0	6.4	100.0	26.1	1.5	6,400
South East							
Abia	93.1	4.9	2.0	100.0	59.6	33.5	2,607
Anambra	82.5	0.0	17.5	100.0	63.3	19.2	5,728
Ebonyi	17.2	30.2	52.6	100.0	9.9	7.3	4,248
Enugu	39.2	17.9	42.9	100.0	25.1	14.2	3,453
Imo	88.6	0.4	11.0	100.0	78.1	10.5	4,191
South South							
Akwa Ibom	88.3	6.9	4.8	100.0	49.2	39.1	3,867
Bayelsa	31.5	7.0	61.5	100.0	20.1	11.4	1,484
Cross River	46.5	42.1	11.4	100.0	22.8	23.7	2,360
Delta	65.6	2.4	32.0	100.0	42.3	23.3	4,286
Edo	69.8	3.5	26.7	100.0	38.6	31.3	2,712
Rivers	61.0	20.7	18.3	100.0	34.3	26.7	5,842
South West							
Ekiti	49.7	0.1	50.1	100.0	23.9	25.9	2,108
Lagos	87.2	6.4	6.4	100.0	41.4	44.8	11,272
Ogun	77.1	5.5	17.5	100.0	24.4	52.7	3,935
Ondo	49.6	3.4	47.1	100.0	18.0	30.7	2,968
Osun	62.4	4.3	33.3	100.0	24.9	37.4	4,038
Oyo	62.7	1.5	35.8	100.0	25.8	36.9	6,174
Wealth quintile							
Lowest	12.0	46.7	41.4	100.0	10.2	1.8	37,685
Second	33.2	36.7	30.1	100.0	23.6	9.7	37,674
Middle	52.5	19.9	27.6	100.0	32.6	19.9	37,656
Fourth	75.5	10.8	13.7	100.0	41.6	33.8	37,671
Highest	94.1	4.4	1.5	100.0	63.4	30.5	37,669
Total	53.4	23.7	22.9	100.0	34.3	19.1	188,355

[1] See Table 2.3.1 for definition of an improved facility.
[2] See Table 2.3.1 for definition of an unimproved facility.
[3] Defined as use of improved facilities that are not shared with other households. Includes safely managed sanitation service, which is not shown separately.
[4] Defined as use of improved facilities shared by 2 or more households

Table 2.4 Household characteristics

Percent distribution of households and de jure population by housing characteristics, percentage using solid fuel for cooking, percentage using clean fuel for cooking, and percent distribution by frequency of smoking in the home, according to residence, Nigeria DHS 2018

Housing characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Electricity						
Yes	82.7	38.9	59.4	81.7	37.1	56.5
No	17.3	61.1	40.6	18.3	62.9	43.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Flooring material						
Earth, sand	11.5	38.3	25.8	14.0	41.8	29.7
Dung	0.2	0.5	0.4	0.2	0.4	0.3
Wood/planks	0.1	0.3	0.2	0.0	0.2	0.1
Ceramic tiles	13.1	3.9	8.2	13.1	3.6	7.7
Cement	67.7	53.6	60.2	66.2	51.5	57.9
Carpet	7.0	3.1	5.0	6.2	2.2	3.9
Other[1]	0.3	0.3	0.3	0.3	0.3	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Rooms used for sleeping						
One	41.4	32.3	36.6	28.5	18.8	23.0
Two	31.4	34.9	33.3	32.3	33.4	32.9
Three or more	27.2	32.8	30.2	39.1	47.8	44.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Place for cooking						
In the house	47.6	34.2	40.4	47.6	38.1	42.2
In a separate building	23.0	31.1	27.3	24.6	30.3	27.8
Outdoors	28.2	32.7	30.6	27.4	31.0	29.4
No food cooked in household	1.3	2.1	1.7	0.4	0.5	0.5
Other	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Cooking fuel						
Electricity	1.1	0.3	0.7	1.0	0.2	0.6
LPG/natural gas/biogas	25.7	3.7	14.0	21.6	2.4	10.8
Kerosene	24.3	6.8	15.0	19.8	4.0	10.9
Coal/lignite	1.3	0.3	0.7	1.4	0.2	0.7
Charcoal	9.3	2.6	5.8	10.5	2.2	5.8
Wood	36.8	82.6	61.1	45.0	88.5	69.6
Agricultural crop/straw/shrubs/grass	0.3	1.6	1.0	0.4	1.9	1.2
Animal dung	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
No food cooked in household	1.3	2.1	1.7	0.4	0.5	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using solid fuel for cooking[2]	47.7	87.0	68.6	57.3	92.8	77.4
Percentage using clean fuel for cooking[3]	26.7	4.0	14.7	22.5	2.7	11.3
Frequency of smoking in the home						
Daily	6.3	7.9	7.2	6.2	7.4	6.9
Weekly	1.6	1.7	1.7	1.5	1.5	1.5
Monthly	0.1	0.1	0.1	0.1	0.1	0.1
Less than once a month	0.3	0.2	0.3	0.2	0.2	0.2
Never	91.6	90.1	90.8	91.9	90.9	91.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/population	18,940	21,487	40,427	81,770	106,586	188,355

LPG = Liquefied petroleum gas
[1] Includes palm/bamboo, parquet or polished wood, and vinyl or asphalt strips
[2] Includes coal/lignite, charcoal, wood, straw/shrubs/grass, agricultural crops, and animal dung
[3] Includes electricity and LPG/natural gas/biogas

Table 2.5 Household possessions

Percentage of households possessing various household effects, means of transportation, agricultural land, and livestock/farm animals, by residence, Nigeria DHS 2018

Possession	Residence		Total
	Urban	Rural	
Household effects			
Radio	70.9	51.6	60.6
Television	70.7	30.0	49.1
Mobile telephone	94.5	82.1	87.9
Non-mobile telephone	1.0	0.4	0.7
Computer	10.8	2.5	6.4
Refrigerator	35.3	10.3	22.0
Table	75.5	50.6	62.3
Chair	88.1	74.7	81.0
Bed	95.0	93.4	94.1
Sofa	38.6	35.0	36.7
Cupboard	51.1	39.4	44.9
Air conditioner	5.7	0.9	3.1
Electric iron	51.6	16.6	33.0
Generator	39.9	18.5	28.5
Fan	75.0	30.5	51.3
Means of transport			
Bicycle	9.4	15.2	12.5
Animal-drawn cart	0.7	5.2	3.1
Motorcycle/scooter	21.3	32.9	27.5
Car/truck	13.9	5.2	9.3
Boat with a motor	0.5	0.7	0.6
Canoe	1.1	2.7	1.9
Keke Napep	1.2	0.6	0.9
Ownership of agricultural land	31.6	75.5	54.9
Ownership of farm animals[1]	26.1	56.2	42.1
Number of households	18,940	21,487	40,427

[1] Cows, bulls, other cattle, horses, donkeys, goats, sheep, pigs, camel, chickens or other poultry

Table 2.6 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, and the Gini coefficient, according to residence, zone, and state, Nigeria DHS 2018

Residence/region	Wealth quintile					Total	Number of persons	Gini coefficient
	Lowest	Second	Middle	Fourth	Highest			
Residence								
Urban	4.2	8.0	18.9	30.6	38.4	100.0	81,770	0.15
Rural	32.2	29.2	20.8	11.9	5.9	100.0	106,586	0.32
Zone								
North Central	15.3	24.0	25.2	21.5	14.0	100.0	25,640	0.27
North East	38.1	25.3	19.0	12.1	5.4	100.0	32,602	0.33
North West	31.9	28.9	18.5	12.1	8.5	100.0	58,840	0.33
South East	4.9	10.2	24.2	32.1	28.6	100.0	20,227	0.17
South South	2.8	10.1	23.8	30.4	32.9	100.0	20,552	0.16
South West	3.4	6.9	14.1	27.3	48.3	100.0	30,495	0.13
State								
North Central								
FCT-Abuja	5.5	13.1	17.1	22.6	41.7	100.0	1,292	0.23
Benue	17.5	27.9	28.4	15.7	10.5	100.0	5,267	0.25
Kogi	2.8	20.1	34.7	31.2	11.2	100.0	2,580	0.12
Kwara	20.2	11.2	23.1	27.0	18.5	100.0	3,265	0.23
Nasarawa	3.9	17.2	27.2	33.6	18.2	100.0	2,891	0.17
Niger	17.4	30.4	23.7	16.1	12.4	100.0	6,409	0.26
Plateau	24.5	30.1	20.3	17.6	7.5	100.0	3,936	0.31
North East								
Adamawa	19.4	34.7	26.3	14.3	5.3	100.0	4,118	0.21
Bauchi	45.2	26.6	17.1	8.3	2.8	100.0	7,245	0.29
Borno	19.3	18.9	26.5	21.6	13.7	100.0	6,790	0.20
Gombe	40.8	28.2	14.8	11.2	4.9	100.0	3,593	0.26
Taraba	30.3	36.1	20.9	10.2	2.6	100.0	3,905	0.25
Yobe	63.2	17.0	10.5	7.1	2.2	100.0	6,952	0.32
North West								
Jigawa	55.3	24.8	11.5	4.3	4.0	100.0	6,938	0.24
Kaduna	6.2	30.3	29.7	17.1	16.6	100.0	10,691	0.25
Kano	29.4	24.2	17.3	14.6	14.5	100.0	13,340	0.26
Katsina	21.6	39.5	21.7	13.3	4.0	100.0	11,449	0.21
Kebbi	36.2	36.9	17.2	8.1	1.5	100.0	5,267	0.25
Sokoto	52.0	26.4	10.9	8.2	2.4	100.0	4,755	0.28
Zamfara	54.4	17.3	11.0	11.3	6.0	100.0	6,400	0.30
South East								
Abia	0.0	1.5	12.8	37.5	48.2	100.0	2,607	0.01
Anambra	0.2	6.1	19.7	35.6	38.4	100.0	5,728	0.07
Ebonyi	20.1	26.5	29.8	19.5	4.2	100.0	4,248	0.19
Enugu	3.2	14.1	35.3	25.0	22.5	100.0	3,453	0.13
Imo	0.3	1.6	22.7	42.7	32.7	100.0	4,191	0.09
South South								
Akwa Ibom	3.8	14.9	29.7	27.1	24.4	100.0	3,867	0.17
Bayelsa	1.7	12.1	31.8	30.3	24.2	100.0	1,484	0.13
Cross River	6.8	21.6	25.7	26.2	19.8	100.0	2,360	0.16
Delta	0.8	4.2	23.3	36.9	34.8	100.0	4,286	0.09
Edo	4.2	9.9	31.4	27.4	27.1	100.0	2,712	0.16
Rivers	1.8	6.4	13.8	30.9	47.2	100.0	5,842	0.11
South West								
Ekiti	12.0	13.0	24.4	29.7	20.9	100.0	2,108	0.21
Lagos	0.0	0.7	2.6	21.7	75.0	100.0	11,272	0.02
Ogun	1.0	7.0	16.0	26.7	49.4	100.0	3,935	0.14
Ondo	5.1	16.1	27.8	27.5	23.5	100.0	2,968	0.17
Osun	7.9	13.3	24.7	33.9	20.2	100.0	4,038	0.12
Oyo	4.3	7.5	17.0	32.7	38.5	100.0	6,174	0.13
Total	20.0	20.0	20.0	20.0	20.0	100.0	188,355	0.25

Table 2.7 Handwashing

Percentage of the de jure population for whom the place most often used for washing hands was observed, by whether the location was fixed or mobile; total percentage of the de jure population for whom the place for handwashing was observed; among the de jure population for whom the place for handwashing was observed, percentage with water available, percentage with soap available, and percentage with a cleansing agent other than soap available; percentage of the de jure population with a basic handwashing facility; and percentage with a limited handwashing facility, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage of de jure population for whom place for washing hands was observed:			Number of persons	Place for handwashing observed and:			Number of persons for whom place for hand-washing was observed	Percentage of de jure population with a basic hand-washing facility[3]	Percentage of de jure population with a limited hand-washing facility[4]	Number of persons for whom a place for hand-washing was observed or with no place for hand-washing in the dwelling, yard, or plot
	Place for hand-washing was a fixed place	Place for hand-washing was mobile	Total		Water available	Soap available[1]	Cleansing agent other than soap available[2]				
Residence											
Urban	28.3	55.7	83.9	81,770	72.4	49.9	1.6	68,644	42.7	44.4	76,326
Rural	25.4	53.4	78.8	106,586	56.0	27.4	1.0	84,034	22.5	62.7	96,294
Zone											
North Central	9.3	75.4	84.7	25,640	47.8	17.8	0.9	21,719	14.4	70.4	25,105
North East	37.5	35.6	73.1	32,602	44.0	12.1	1.3	23,818	8.1	71.9	28,842
North West	32.1	49.9	82.0	58,840	58.7	31.2	1.4	48,237	28.0	64.7	50,481
South East	16.3	73.0	89.3	20,227	78.8	58.6	0.1	18,060	52.8	37.5	19,911
South South	19.0	45.2	64.2	20,552	74.6	60.9	0.1	13,197	41.4	28.7	17,992
South West	31.3	59.3	90.7	30,495	84.9	61.0	2.6	27,648	53.4	34.9	30,290
State											
North Central											
FCT-Abuja	17.8	65.6	83.3	1,292	72.7	44.6	0.0	1,077	36.0	46.3	1,288
Benue	1.1	98.8	100.0	5,267	1.9	1.4	0.0	5,266	1.2	98.6	5,267
Kogi	4.6	65.4	70.0	2,580	82.1	61.7	0.6	1,806	44.1	32.5	2,096
Kwara	2.9	90.9	93.8	3,265	48.1	4.7	0.7	3,062	4.3	88.8	3,265
Nasarawa	46.1	53.8	99.9	2,891	48.9	23.5	0.8	2,888	23.1	75.7	2,889
Niger	0.9	56.6	57.5	6,409	86.4	11.0	0.9	3,686	6.2	51.0	6,366
Plateau	12.4	87.5	99.9	3,936	49.6	24.5	2.8	3,933	24.2	72.8	3,933
North East											
Adamawa	52.9	34.7	87.6	4,118	39.4	3.3	1.6	3,609	2.9	84.4	4,061
Bauchi	59.6	36.7	96.4	7,245	11.8	5.5	0.2	6,982	3.9	93.4	7,066
Borno	22.6	29.1	51.7	6,790	54.7	11.0	3.2	3,511	5.6	45.2	6,734
Gombe	0.9	53.2	54.1	3,593	90.7	47.3	2.9	1,945	45.0	52.1	1,950
Taraba	1.6	30.2	31.8	3,905	96.6	9.9	4.8	1,241	5.2	50.7	2,115
Yobe	58.9	35.1	93.9	6,952	51.3	14.5	0.3	6,529	8.2	80.5	6,916
North West											
Jigawa	43.1	56.8	99.9	6,938	43.9	5.0	0.0	6,928	4.1	94.9	6,938
Kaduna	17.5	82.4	99.9	10,691	53.9	5.4	1.3	10,679	5.1	93.5	10,691
Kano	21.5	45.7	67.2	13,340	49.2	33.5	1.9	8,969	23.9	54.5	10,728
Katsina	86.5	11.7	98.2	11,449	96.8	92.9	2.2	11,245	90.2	5.1	11,434
Kebbi	1.8	52.7	54.5	5,267	70.4	2.1	2.0	2,870	2.0	94.2	2,925
Sokoto	2.7	22.6	25.2	4,755	93.4	4.5	0.9	1,201	3.9	83.8	1,368
Zamfara	15.8	83.4	99.1	6,400	17.1	9.1	1.1	6,345	4.8	89.6	6,398
South East											
Abia	53.6	46.3	99.9	2,607	97.6	77.0	0.1	2,604	75.7	22.9	2,607
Anambra	11.4	88.6	100.0	5,728	99.8	96.7	0.0	5,728	96.7	3.3	5,728
Ebonyi	4.3	55.5	59.8	4,248	15.1	10.9	0.6	2,539	5.9	53.7	4,203
Enugu	10.0	88.9	98.9	3,453	55.4	25.7	0.0	3,416	25.3	73.5	3,453
Imo	17.2	72.8	90.0	4,191	98.1	49.9	0.1	3,774	47.9	48.1	3,921
South South											
Akwa Ibom	9.3	24.4	33.7	3,867	36.1	32.2	0.5	1,304	10.4	23.7	3,730
Bayelsa	4.5	94.7	99.2	1,484	89.5	14.6	0.0	1,472	14.1	84.8	1,483
Cross River	63.6	35.4	99.0	2,360	89.3	66.5	0.0	2,337	62.6	33.3	2,355
Delta	12.5	38.9	51.4	4,286	77.0	71.4	0.3	2,204	60.4	28.1	2,242
Edo	10.6	66.6	77.3	2,712	45.4	40.9	0.0	2,095	31.4	50.7	2,444
Rivers	19.8	45.0	64.8	5,842	87.7	90.2	0.0	3,786	56.6	6.5	5,739
South West											
Ekiti	18.3	41.4	59.7	2,108	50.5	31.6	50.0	1,259	16.5	31.6	2,104
Lagos	35.9	61.2	97.1	11,272	94.9	63.2	0.7	10,945	61.4	35.9	11,192
Ogun	12.9	86.3	99.2	3,935	97.9	34.5	0.0	3,902	34.3	65.3	3,913
Ondo	2.9	48.2	51.1	2,968	6.1	6.2	0.2	1,517	2.9	48.5	2,942
Osun	47.6	50.9	98.5	4,038	98.6	94.4	0.0	3,977	93.6	5.5	4,013
Oyo	42.2	55.8	98.0	6,174	76.2	71.9	0.0	6,048	61.7	27.7	6,125

Continued...

Table 2.7—*Continued*

Background characteristic	Percentage of de jure population for whom place for washing hands was observed: Place for hand-washing was a fixed place	Place for hand-washing was mobile	Total	Number of persons	Place for handwashing observed and: Water available	Soap available[1]	Cleansing agent other than soap available[2]	Number of persons for whom place for hand-washing was observed	Percentage of de jure population with a basic hand-washing facility[3]	Percentage of de jure population with a limited hand-washing facility[4]	Number of persons for whom a place for hand-washing was observed or with no place for hand-washing in the dwelling, yard, or plot
Wealth quintile											
Lowest	24.9	52.6	77.5	37,685	40.5	12.6	1.6	29,199	9.9	75.9	33,184
Second	24.6	53.3	77.9	37,674	55.2	25.5	1.7	29,361	20.5	63.9	33,771
Middle	21.6	57.2	78.8	37,656	59.2	31.2	1.5	29,678	24.6	58.1	34,775
Fourth	21.5	61.0	82.5	37,671	71.1	45.3	1.2	31,064	37.8	47.8	35,093
Highest	40.7	47.9	88.6	37,669	86.9	68.3	0.5	33,377	61.9	29.3	35,797
Total	26.7	54.4	81.1	188,355	63.4	37.5	1.3	152,679	31.4	54.6	172,620

[1] Soap includes soap or detergent in bar, liquid, powder, or paste form.
[2] Cleansing agents other than soap include locally available materials such as ash, mud, or sand.
[3] The availability of a handwashing facility on premises with soap and water
[4] The availability of a handwashing facility on premises without soap and/or water

Table 2.8 Household population by age, sex, and residence

Percent distribution of the de facto household population by various age groups and percentage of the de facto household population age 10-19, according to sex and residence, Nigeria DHS 2018

	Urban			Rural					
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	16.1	14.7	15.4	18.7	17.7	18.2	17.6	16.4	17.0
5-9	15.7	14.8	15.2	18.3	17.2	17.8	17.2	16.2	16.7
10-14	12.3	11.9	12.1	12.8	12.1	12.5	12.6	12.0	12.3
15-19	8.9	9.4	9.1	8.8	8.9	8.9	8.8	9.1	9.0
20-24	5.8	7.2	6.5	5.5	7.7	6.6	5.7	7.5	6.6
25-29	5.8	8.4	7.1	5.8	8.0	6.9	5.8	8.2	7.0
30-34	6.5	7.5	7.0	5.4	6.1	5.8	5.9	6.7	6.3
35-39	6.6	6.6	6.6	5.2	5.3	5.3	5.8	5.9	5.8
40-44	5.3	4.3	4.8	4.2	3.9	4.1	4.7	4.1	4.4
45-49	4.2	3.8	4.0	3.4	3.2	3.3	3.8	3.5	3.6
50-54	3.1	3.3	3.2	2.8	3.2	3.0	2.9	3.2	3.1
55-59	2.6	2.4	2.5	2.0	2.1	2.1	2.3	2.2	2.2
60-64	2.4	1.9	2.1	2.3	1.5	1.9	2.4	1.6	2.0
65-69	1.6	1.4	1.5	1.7	1.1	1.4	1.6	1.2	1.4
70-74	1.5	1.0	1.2	1.2	0.8	1.0	1.4	0.9	1.1
75-79	0.7	0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6
80+	0.8	0.8	0.8	0.9	0.6	0.7	0.8	0.7	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dependency age groups									
0-14	44.1	41.4	42.7	49.8	47.1	48.5	47.4	44.6	46.0
15-64	51.2	54.8	53.0	45.6	50.0	47.8	48.0	52.1	50.1
65+	4.6	3.7	4.2	4.5	2.9	3.7	4.6	3.3	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Child and adult populations									
0-17	49.6	47.1	48.4	55.7	52.6	54.1	53.1	50.2	51.6
18+	50.3	52.8	51.6	44.3	47.4	45.9	46.9	49.8	48.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Adolescents 10-19	21.2	21.3	21.2	21.6	21.1	21.3	21.4	21.2	21.3
Number of persons	40,176	41,511	81,686	52,495	53,793	106,288	92,670	95,304	187,974

Table 2.9 Household composition

Percent distribution of households by sex of head of household and by household size, mean size of household, and percentage of households with orphans and foster children under age 18, according to residence, Nigeria DHS 2018

Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male	78.2	85.3	82.0
Female	21.8	14.7	18.0
Total	100.0	100.0	100.0
Number of usual members			
0	0.0	0.1	0.1
1	16.4	13.3	14.7
2	12.2	11.3	11.7
3	15.0	13.3	14.1
4	16.1	13.5	14.7
5	13.7	12.2	12.9
6	9.6	10.5	10.1
7	6.3	7.4	6.9
8	3.7	5.6	4.7
9+	7.0	12.7	10.0
Total	100.0	100.0	100.0
Mean size of households	4.3	5.0	4.7
Percentage of households with orphans and foster children under age 18			
Double orphans	0.7	0.8	0.7
Single orphans[1]	7.2	7.4	7.3
Foster children[2]	12.9	13.6	13.2
Foster and/or orphan children	17.2	17.9	17.6
Number of households	18,940	21,487	40,427

Note: Table is based on de jure household members, i.e., usual residents.
[1] Includes children with one dead parent and an unknown survival status of the other parent
[2] Foster children are those under age 18 living in households with neither their mother nor their father present, and the mother and/or the father are alive.

Table 2.10 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 by living arrangements and survival status of parents, percentage of children not living with a biological parent, and percentage of children with one or both parents dead, according to background characteristics, Nigeria DHS 2018

Background characteristic	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent				Total	Percentage not living with a biological parent	Percentage with one or both parents dead[1]	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead				
Age													
0-4	83.0	9.2	1.3	2.3	0.4	3.2	0.3	0.2	0.1	100.0	3.8	2.3	31,785
<2	85.6	10.7	0.8	1.1	0.3	1.2	0.2	0.1	0.0	100.0	1.5	1.4	11,733
2-4	81.5	8.4	1.6	3.0	0.4	4.3	0.3	0.2	0.2	100.0	5.1	2.8	20,053
5-9	76.6	7.4	2.7	4.9	1.0	5.9	0.5	0.8	0.3	100.0	7.4	5.2	31,311
10-14	70.6	7.0	4.9	5.7	1.6	7.5	0.6	1.4	0.5	100.0	10.1	9.1	23,129
15-17	59.2	6.1	6.7	5.5	2.3	15.3	1.1	2.4	1.4	100.0	20.2	13.9	10,622
Sex													
Male	76.5	7.6	3.2	4.7	1.1	5.2	0.4	0.9	0.3	100.0	6.8	6.0	49,137
Female	74.2	8.0	3.2	3.9	1.0	7.7	0.6	0.9	0.5	100.0	9.7	6.3	47,710
Residence													
Urban	71.7	10.1	3.9	4.1	1.0	7.1	0.6	1.0	0.4	100.0	9.1	7.0	39,399
Rural	77.9	6.2	2.7	4.4	1.1	5.9	0.5	0.9	0.4	100.0	7.7	5.6	57,448
Zone													
North Central	72.7	8.7	3.6	4.5	0.7	7.8	0.5	1.2	0.4	100.0	9.9	6.4	12,828
North East	78.9	3.4	3.3	4.1	1.6	6.3	0.7	1.0	0.6	100.0	8.6	7.2	18,315
North West	83.7	3.8	2.0	4.2	1.3	3.7	0.4	0.6	0.2	100.0	4.9	4.6	33,822
South East	65.6	13.3	6.4	2.6	0.6	9.2	0.5	1.2	0.5	100.0	11.5	9.2	9,499
South South	61.2	16.1	4.4	6.0	0.6	8.4	0.9	1.5	0.9	100.0	11.7	8.3	9,218
South West	68.4	13.3	2.5	4.7	0.8	8.8	0.5	0.6	0.3	100.0	10.2	4.7	13,166
State													
North Central													
FCT-Abuja	75.2	7.2	3.1	5.9	0.7	6.0	0.8	1.0	0.1	100.0	8.0	5.7	639
Benue	62.3	12.6	7.1	4.3	0.4	10.1	0.5	1.6	1.1	100.0	13.3	10.7	2,512
Kogi	53.3	20.0	4.0	5.6	0.8	11.9	0.9	2.7	0.8	100.0	16.2	9.2	1,206
Kwara	65.9	12.9	2.7	3.1	0.2	13.1	0.7	1.3	0.0	100.0	15.2	4.9	1,672
Nasarawa	79.0	4.6	3.1	4.9	1.3	4.6	0.4	1.5	0.5	100.0	7.0	6.9	1,426
Niger	90.0	1.5	1.2	3.4	0.7	2.5	0.2	0.3	0.1	100.0	3.2	2.5	3,431
Plateau	67.9	9.1	4.4	6.2	0.7	9.9	0.4	1.3	0.2	100.0	11.7	6.9	1,943
North East													
Adamawa	78.2	6.6	2.5	4.2	1.3	5.5	0.2	0.3	1.3	100.0	7.3	5.6	2,116
Bauchi	83.2	2.0	1.6	4.9	2.1	4.1	0.4	1.1	0.4	100.0	6.0	5.7	4,270
Borno	80.1	3.0	5.3	3.1	1.6	4.2	0.9	1.2	0.6	100.0	6.9	9.6	3,730
Gombe	80.0	3.1	2.3	4.7	2.6	5.4	0.5	1.0	0.3	100.0	7.2	6.8	2,034
Taraba	69.3	7.8	3.2	5.3	1.8	9.5	1.1	1.6	0.4	100.0	12.6	8.0	2,120
Yobe	78.3	1.4	4.4	3.3	0.7	9.7	0.8	0.9	0.6	100.0	11.9	7.3	4,044
North West													
Jigawa	84.0	1.8	1.6	5.5	1.5	4.1	0.6	0.6	0.3	100.0	5.7	4.6	4,047
Kaduna	86.2	2.4	1.7	4.0	2.0	3.1	0.1	0.4	0.2	100.0	3.9	4.4	5,923
Kano	76.6	9.6	1.9	5.5	1.3	3.9	0.4	0.7	0.2	100.0	5.1	4.4	7,713
Katsina	84.8	2.2	2.8	3.7	0.7	4.1	0.6	0.9	0.2	100.0	5.8	5.3	6,743
Kebbi	82.6	4.5	2.5	4.0	2.0	3.3	0.4	0.6	0.1	100.0	4.4	5.5	3,040
Sokoto	89.3	0.8	2.4	2.6	1.2	3.1	0.1	0.3	0.2	100.0	3.6	4.1	2,703
Zamfara	89.4	1.1	1.1	2.5	0.9	3.7	0.6	0.5	0.2	100.0	5.0	3.3	3,653
South East													
Abia	70.7	9.1	4.8	2.7	0.7	9.1	0.6	1.7	0.6	100.0	12.1	8.4	1,114
Anambra	75.0	11.3	4.5	0.9	0.3	6.6	0.3	0.8	0.2	100.0	8.0	6.2	2,672
Ebonyi	65.0	12.1	8.0	2.4	0.5	10.6	0.3	0.8	0.3	100.0	12.0	9.9	2,360
Enugu	59.0	16.1	7.9	3.0	0.3	11.1	0.5	1.6	0.2	100.0	13.4	10.6	1,504
Imo	55.3	17.7	6.7	4.9	1.2	9.8	1.0	1.8	1.3	100.0	14.0	12.1	1,849
South South													
Akwa Ibom	57.7	14.1	8.4	4.1	0.8	10.9	0.9	1.7	1.4	100.0	14.9	13.2	1,661
Bayelsa	54.4	21.1	2.4	8.8	0.7	10.4	0.5	1.4	0.2	100.0	12.5	5.2	706
Cross River	57.5	21.8	3.8	6.0	0.2	7.9	0.4	2.0	0.4	100.0	10.7	6.8	1,020
Delta	66.0	12.4	3.0	9.2	0.7	6.5	0.3	1.1	0.8	100.0	8.7	5.9	1,907
Edo	60.4	16.4	4.7	6.4	1.1	7.9	1.3	0.9	1.0	100.0	11.0	9.0	1,309
Rivers	63.4	16.3	3.6	3.9	0.4	8.3	1.3	1.9	0.8	100.0	12.3	8.0	2,614
South West													
Ekiti	60.2	20.2	2.2	4.6	0.7	11.2	0.2	0.7	0.0	100.0	12.1	3.8	906
Lagos	72.4	9.8	3.0	5.0	1.3	6.8	0.7	0.6	0.4	100.0	8.4	6.0	4,768
Ogun	72.4	11.0	3.5	4.5	0.6	6.1	0.3	0.9	0.8	100.0	8.1	6.0	1,745
Ondo	62.1	17.1	3.5	4.1	1.0	9.5	1.0	1.3	0.3	100.0	12.2	7.2	1,294
Osun	67.2	12.9	2.0	3.5	0.3	13.2	0.3	0.5	0.1	100.0	14.1	3.2	1,702
Oyo	65.7	17.0	0.9	5.4	0.4	10.1	0.3	0.2	0.0	100.0	10.6	1.8	2,751

Continued...

Table 2.10—*Continued*

Background characteristic	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent				Total	Percentage not living with a biological parent	Percentage with one or both parents dead[1]	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead				
Wealth quintile													
Lowest	81.1	4.5	2.3	4.0	1.2	5.5	0.4	0.6	0.3	100.0	6.8	4.9	21,443
Second	77.2	6.1	3.6	4.1	1.3	5.9	0.4	0.8	0.5	100.0	7.6	6.6	20,698
Middle	72.4	9.0	4.2	4.6	0.9	6.7	0.6	1.2	0.5	100.0	9.0	7.3	19,593
Fourth	71.9	10.3	3.4	4.5	1.2	6.9	0.5	0.9	0.4	100.0	8.6	6.4	18,310
Highest	73.0	9.8	2.5	4.3	0.8	7.3	0.8	1.2	0.4	100.0	9.7	5.6	16,802
Total <15	77.4	8.0	2.8	4.1	0.9	5.3	0.5	0.7	0.3	100.0	6.8	5.2	86,225
Total <18	75.4	7.8	3.2	4.3	1.1	6.4	0.5	0.9	0.4	100.0	8.3	6.1	96,847

Note: Table is based on de jure members, i.e., usual residents.
[1] Includes children with father dead, mother dead, both dead, and one parent dead but missing information on survival status of the other parent

Table 2.11 Birth registration of children under age 5

Percentage of de jure children under age 5 whose births are registered with the civil authorities, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage of children whose births are registered and who: Had a birth certificate	Did not have a birth certificate	Total percentage of children whose births are registered	Number of children
Age				
<2	20.5	18.3	38.8	11,733
2-4	22.7	22.0	44.8	20,053
Sex				
Male	22.5	20.9	43.4	16,233
Female	21.3	20.4	41.7	15,552
Residence				
Urban	30.6	29.0	59.6	12,482
Rural	16.3	15.2	31.5	19,304
Zone				
North Central	18.3	15.2	33.5	4,336
North East	16.9	18.9	35.9	5,837
North West	20.6	14.5	35.1	11,230
South East	23.1	35.9	59.0	3,278
South South	23.6	26.4	50.0	2,882
South West	33.9	29.2	63.1	4,222
State				
North Central				
FCT-Abuja	35.4	32.2	67.5	214
Benue	16.9	22.2	39.1	918
Kogi	21.0	21.4	42.4	376
Kwara	17.5	24.2	41.7	515
Nasarawa	38.1	19.8	57.9	486
Niger	11.5	5.6	17.1	1,226
Plateau	11.1	2.7	13.9	601
North East				
Adamawa	33.6	29.5	63.1	755
Bauchi	14.3	26.6	40.8	1,379
Borno	16.9	9.0	25.9	1,141
Gombe	14.1	18.7	32.8	636
Taraba	13.2	16.1	29.3	722
Yobe	13.3	14.7	28.0	1,202
North West				
Jigawa	17.6	8.7	26.3	1,318
Kaduna	30.3	14.3	44.6	2,085
Kano	9.5	27.1	36.7	2,467
Katsina	48.2	10.5	58.6	2,203
Kebbi	10.3	17.8	28.1	1,032
Sokoto	0.8	6.1	6.9	916
Zamfara	3.2	6.5	9.7	1,209
South East				
Abia	9.5	65.4	74.9	398
Anambra	41.9	16.1	58.0	983
Ebonyi	18.1	10.5	28.5	808
Enugu	7.8	61.4	69.2	462
Imo	20.2	62.3	82.5	626
South South				
Akwa Ibom	18.8	27.9	46.7	510
Bayelsa	11.4	20.3	31.7	218
Cross River	16.9	39.3	56.2	302
Delta	22.5	31.9	54.4	582
Edo	35.0	24.5	59.5	395
Rivers	27.4	19.7	47.1	875
South West				
Ekiti	42.1	27.5	69.6	297
Lagos	19.1	50.5	69.7	1,458
Ogun	32.8	13.4	46.2	580
Ondo	35.5	18.3	53.8	389
Osun	18.0	33.9	51.9	557
Oyo	63.6	8.1	71.7	941
Wealth quintile				
Lowest	7.5	8.3	15.9	6,952
Second	14.1	13.9	28.0	7,050
Middle	23.1	20.3	43.4	6,521
Fourth	31.8	29.4	61.2	5,865
Highest	38.5	36.3	74.8	5,398
Total	21.9	20.7	42.6	31,785

Table 2.12 Birth registration of children under age 5 by authority

Among de jure children under age 5 whose births are registered with the civil authorities, percent distribution of children by authority with which the birth is registered, according to background characteristics, Nigeria DHS 2018

Background characteristic	Authority with which birth is registered				Total	Number of children
	National Population Commission	Local government administration	Private clinic/hospital	Other		
Age						
<2	61.3	8.2	27.9	2.6	100.0	4,554
2-4	62.8	10.2	24.5	2.5	100.0	8,975
Sex						
Male	62.0	9.9	25.4	2.7	100.0	7,039
Female	62.6	9.1	25.9	2.4	100.0	6,490
Residence						
Urban	64.1	8.2	25.3	2.3	100.0	7,445
Rural	60.0	11.1	26.0	2.8	100.0	6,084
Zone						
North Central	52.9	10.9	31.0	5.2	100.0	1,453
North East	58.5	5.2	32.4	3.9	100.0	2,092
North West	55.8	16.6	26.9	0.7	100.0	3,943
South East	64.7	1.7	31.0	2.6	100.0	1,935
South South	75.7	3.8	17.7	2.9	100.0	1,441
South West	71.0	10.4	15.9	2.7	100.0	2,664
State						
North Central						
FCT-Abuja	94.5	5.2	0.2	0.1	100.0	145
Benue	21.7	7.2	63.4	7.6	100.0	359
Kogi	69.3	11.5	15.8	3.5	100.0	159
Kwara	72.0	17.0	1.4	9.5	100.0	215
Nasarawa	52.9	1.1	39.1	7.0	100.0	282
Niger	33.0	26.9	40.1	0.0	100.0	210
Plateau	84.0	12.4	0.6	3.0	100.0	84
North East						
Adamawa	19.9	2.9	65.3	11.8	100.0	477
Bauchi	77.4	9.1	12.8	0.6	100.0	563
Borno	92.6	6.6	0.0	0.8	100.0	296
Gombe	65.7	3.5	29.5	1.3	100.0	209
Taraba	43.6	5.6	43.2	7.6	100.0	212
Yobe	56.6	1.5	41.8	0.0	100.0	337
North West						
Jigawa	37.0	47.9	15.1	0.0	100.0	347
Kaduna	36.4	17.5	46.0	0.1	100.0	930
Kano	41.7	11.1	46.4	0.8	100.0	905
Katsina	79.8	13.9	6.3	0.0	100.0	1,292
Kebbi	91.4	7.2	1.4	0.0	100.0	289
Sokoto	31.9	25.4	42.8	0.0	100.0	63
Zamfara	34.4	8.2	42.2	15.2	100.0	118
South East						
Abia	80.1	5.5	13.8	0.7	100.0	298
Anambra	85.9	0.7	13.4	0.0	100.0	570
Ebonyi	85.8	0.8	9.8	3.6	100.0	231
Enugu	58.3	3.3	30.6	7.9	100.0	320
Imo	27.1	0.1	70.1	2.7	100.0	517
South South						
Akwa Ibom	55.2	4.7	36.8	3.3	100.0	238
Bayelsa	63.5	10.9	3.5	22.1	100.0	69
Cross River	63.4	2.2	33.8	0.6	100.0	170
Delta	98.6	1.1	0.3	0.0	100.0	317
Edo	71.3	2.3	25.0	1.4	100.0	235
Rivers	79.4	5.6	11.6	3.4	100.0	412
South West						
Ekiti	91.3	0.7	6.5	1.6	100.0	207
Lagos	69.9	19.0	9.4	1.6	100.0	1,016
Ogun	92.8	1.2	3.1	2.9	100.0	268
Ondo	72.8	10.4	3.9	13.0	100.0	209
Osun	45.7	13.6	39.1	1.6	100.0	289
Oyo	68.1	2.8	27.3	1.8	100.0	675
Wealth quintile						
Lowest	47.9	20.2	26.9	4.9	100.0	1,102
Second	58.0	11.9	27.6	2.5	100.0	1,973
Middle	59.6	9.8	27.9	2.7	100.0	2,829
Fourth	63.3	7.4	27.3	2.0	100.0	3,589
Highest	69.3	7.1	21.2	2.4	100.0	4,035
Total	62.3	9.5	25.6	2.6	100.0	13,529

Table 2.13.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age 6 and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Nigeria DHS 2018

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Total	Number	Median years completed
Age									
6-9	39.6	59.0	0.9	0.5	0.0	0.0	100.0	12,057	0.3
10-14	24.3	37.6	12.0	25.7	0.4	0.0	100.0	11,468	3.8
15-19	24.1	4.1	8.2	40.5	20.6	2.5	100.0	8,719	8.3
20-24	30.8	2.6	9.3	11.3	34.2	12.0	100.0	7,139	9.4
25-29	32.5	2.3	11.8	8.3	31.0	14.0	100.0	7,798	8.4
30-34	33.8	2.4	13.7	7.5	26.2	16.4	100.0	6,403	6.2
35-39	35.2	3.1	16.4	7.2	24.3	13.7	100.0	5,584	5.7
40-44	39.6	3.5	19.4	7.0	18.8	11.6	100.0	3,918	5.4
45-49	37.4	5.6	22.2	6.5	17.7	10.5	100.0	3,290	5.3
50-54	54.0	4.2	16.2	3.4	13.7	8.4	100.0	3,096	0.0
55-59	54.5	4.9	19.0	2.8	9.9	8.9	100.0	2,132	0.0
60-64	65.9	5.7	17.4	1.3	4.4	5.2	100.0	1,570	0.0
65+	73.3	6.3	12.5	1.2	4.1	2.7	100.0	3,123	0.0
Residence									
Urban	20.0	17.8	11.8	15.5	22.7	12.1	100.0	34,071	6.0
Rural	48.9	17.2	10.9	10.2	9.8	3.0	100.0	42,236	0.1
Zone									
North Central	35.7	18.4	11.5	14.4	13.1	7.0	100.0	10,297	3.6
North East	57.2	16.3	7.4	8.1	7.3	3.7	100.0	12,726	0.0
North West	54.7	17.8	8.9	8.5	7.3	2.7	100.0	22,912	0.0
South East	14.2	19.9	15.5	17.2	23.6	9.5	100.0	8,958	6.1
South South	11.2	17.1	14.8	19.2	27.3	10.5	100.0	8,625	8.0
South West	13.5	15.8	14.3	15.0	27.1	14.3	100.0	12,789	8.2
North Central									
FCT-Abuja	24.0	13.3	15.8	13.0	20.4	13.6	100.0	512	5.8
Benue	24.0	24.7	10.7	20.6	12.7	7.2	100.0	2,150	5.1
Kogi	24.6	17.3	16.5	14.0	20.9	6.7	100.0	1,142	5.5
Kwara	38.2	16.5	13.2	11.0	12.4	8.8	100.0	1,348	3.1
Nasarawa	30.0	18.5	10.8	18.5	14.2	8.0	100.0	1,110	5.1
Niger	63.5	11.8	4.9	7.3	8.4	4.1	100.0	2,386	0.0
Plateau	23.7	23.6	16.1	17.3	12.5	6.9	100.0	1,650	5.2
North East									
Adamawa	51.2	14.5	7.5	8.6	14.1	4.1	100.0	1,612	0.0
Bauchi	57.1	18.8	10.2	8.0	4.3	1.6	100.0	2,747	0.0
Borno	52.9	15.8	6.5	9.1	8.6	7.1	100.0	2,791	0.0
Gombe	61.6	14.5	6.9	7.1	7.1	2.7	100.0	1,348	0.0
Taraba	40.2	23.6	10.0	12.2	8.9	5.0	100.0	1,589	1.5
Yobe	73.7	11.7	3.8	4.7	4.2	1.8	100.0	2,640	0.0
North West									
Jigawa	56.9	19.9	10.1	7.5	4.8	0.8	100.0	2,729	0.0
Kaduna	41.2	18.9	9.5	12.4	12.5	5.5	100.0	4,141	1.7
Kano	45.5	22.3	8.9	10.5	8.0	4.7	100.0	5,271	0.2
Katsina	45.7	22.4	13.5	9.6	7.7	1.1	100.0	4,476	0.6
Kebbi	78.9	7.0	6.8	3.0	4.0	0.4	100.0	2,014	0.0
Sokoto	81.6	9.4	4.0	2.5	1.7	0.9	100.0	1,789	0.0
Zamfara	71.8	10.6	3.3	5.9	6.3	2.1	100.0	2,492	0.0
South East									
Abia	8.9	18.4	15.5	16.5	29.1	11.4	100.0	1,130	8.4
Anambra	10.2	19.9	16.3	18.0	26.5	9.1	100.0	2,562	7.3
Ebonyi	23.4	24.1	19.5	16.9	13.1	3.0	100.0	1,875	5.1
Enugu	17.2	19.4	13.8	16.8	22.0	10.8	100.0	1,599	6.0
Imo	11.1	17.1	11.5	17.1	28.6	14.6	100.0	1,793	9.6
South South									
Akwa Ibom	13.5	16.8	13.7	19.8	23.6	12.5	100.0	1,705	7.6
Bayelsa	10.2	21.2	16.7	20.5	24.9	6.4	100.0	595	6.5
Cross River	14.2	16.3	14.3	25.2	19.2	10.8	100.0	996	7.2
Delta	9.7	17.3	18.0	17.1	27.4	10.6	100.0	1,762	7.7
Edo	15.6	21.0	16.5	20.1	18.3	8.3	100.0	1,141	5.8
Rivers	7.5	14.6	12.1	17.0	37.9	10.8	100.0	2,426	10.7
South West									
Ekiti	12.3	17.9	13.7	19.0	23.5	13.5	100.0	890	7.9
Lagos	7.1	14.8	12.7	14.2	32.7	18.5	100.0	4,723	11.0
Ogun	16.6	16.9	17.6	13.4	22.4	13.2	100.0	1,659	5.9
Ondo	13.8	19.9	14.5	20.8	21.8	9.2	100.0	1,266	6.3
Osun	17.4	13.9	15.7	15.3	27.5	10.3	100.0	1,729	7.3
Oyo	21.2	15.2	14.2	13.2	23.1	12.9	100.0	2,521	6.0

Continued...

Table 2.13.1—*Continued*

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Total	Number	Median years completed
Wealth quintile									
Lowest	75.4	12.4	6.5	3.7	1.9	0.2	100.0	14,635	0.0
Second	52.1	19.3	12.0	9.9	5.9	0.7	100.0	15,002	0.0
Middle	31.8	21.0	14.7	15.5	14.4	2.6	100.0	15,409	4.1
Fourth	16.7	19.1	14.3	17.9	25.1	6.9	100.0	15,601	6.0
Highest	7.1	15.2	8.8	15.2	29.3	24.3	100.0	15,660	11.1
Total	36.0	17.5	11.3	12.6	15.6	7.1	100.0	76,307	3.6

Note: Total includes 12 cases with missing information on age.
[1] Completed grade 6 at the primary level
[2] Completed grade 6 at the secondary level

Table 2.13.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age 6 and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Nigeria DHS 2018

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Total	Number	Median years completed
Age									
6-9	39.0	59.4	1.0	0.5	0.1	0.0	100.0	12,529	0.3
10-14	20.4	41.8	11.7	25.6	0.4	0.0	100.0	11,661	3.9
15-19	19.4	5.0	6.6	47.6	18.7	2.8	100.0	8,188	8.4
20-24	17.6	2.0	6.6	13.5	41.5	18.8	100.0	5,240	11.2
25-29	20.3	2.0	8.2	8.2	37.6	23.7	100.0	5,400	11.3
30-34	19.9	2.0	10.7	6.3	36.0	24.9	100.0	5,460	11.3
35-39	20.9	2.3	12.8	6.3	34.5	23.1	100.0	5,384	11.2
40-44	23.5	2.8	18.2	5.1	30.0	20.4	100.0	4,350	11.0
45-49	21.6	3.2	20.5	6.3	30.5	17.7	100.0	3,498	9.5
50-54	27.1	2.8	20.4	4.8	26.7	18.2	100.0	2,714	6.0
55-59	31.0	3.3	22.1	3.6	20.8	19.1	100.0	2,091	5.7
60-64	40.7	4.3	22.5	2.9	14.4	15.1	100.0	2,191	5.2
65+	54.3	5.9	19.8	2.0	9.0	8.9	100.0	4,241	0.0
Residence									
Urban	13.1	18.9	10.9	15.0	24.6	17.4	100.0	32,319	8.2
Rural	37.4	19.2	10.9	11.6	14.5	6.3	100.0	40,641	2.8
Zone									
North Central	24.6	18.6	9.9	15.0	18.8	13.1	100.0	10,097	5.7
North East	47.4	17.4	6.4	9.7	11.0	8.2	100.0	12,597	0.4
North West	39.5	21.2	9.3	10.9	10.9	8.1	100.0	21,952	1.8
South East	8.7	22.4	19.8	16.6	23.2	9.2	100.0	7,401	5.9
South South	6.4	18.2	13.0	17.9	30.6	13.6	100.0	8,479	9.4
South West	9.1	15.9	12.3	13.7	31.0	17.9	100.0	12,434	10.6
State									
North Central									
FCT-Abuja	17.2	14.9	13.6	11.4	22.1	20.9	100.0	521	8.0
Benue	12.3	21.2	9.0	22.6	19.9	15.0	100.0	1,997	7.8
Kogi	13.0	20.9	10.7	15.1	26.6	13.7	100.0	976	8.0
Kwara	30.0	19.0	11.8	12.6	14.9	11.7	100.0	1,295	5.1
Nasarawa	16.7	21.1	12.4	15.5	19.2	15.1	100.0	1,175	6.0
Niger	46.9	12.8	4.6	10.2	14.2	11.2	100.0	2,591	1.1
Plateau	14.4	22.5	14.5	15.9	21.9	10.7	100.0	1,542	5.9
North East									
Adamawa	40.9	13.8	5.7	11.2	19.4	9.0	100.0	1,600	2.8
Bauchi	47.2	19.9	7.9	9.8	8.2	6.9	100.0	2,787	0.2
Borno	42.9	17.7	5.6	8.9	12.2	12.6	100.0	2,603	1.7
Gombe	52.3	16.5	7.2	8.4	10.6	5.0	100.0	1,463	0.0
Taraba	24.1	26.5	10.2	14.6	14.9	9.8	100.0	1,429	4.7
Yobe	65.2	12.2	3.5	7.5	5.9	5.7	100.0	2,715	0.0
North West									
Jigawa	42.2	23.0	10.4	10.2	7.2	7.0	100.0	2,431	1.2
Kaduna	26.1	24.6	9.8	12.8	16.8	9.9	100.0	4,001	4.7
Kano	30.1	25.1	8.8	13.7	10.6	11.7	100.0	5,066	3.1
Katsina	31.8	23.7	13.0	12.3	12.5	6.6	100.0	4,319	3.5
Kebbi	62.3	10.8	10.0	6.3	6.9	3.6	100.0	1,958	0.0
Sokoto	66.1	14.3	5.9	5.2	5.4	3.0	100.0	1,705	0.0
Zamfara	55.1	14.7	3.7	7.8	10.1	8.6	100.0	2,472	0.0
South East									
Abia	5.3	20.3	17.8	17.6	27.4	11.6	100.0	1,033	8.2
Anambra	6.7	21.3	23.7	17.8	23.6	7.0	100.0	2,054	5.9
Ebonyi	14.0	30.1	20.9	15.3	14.8	5.0	100.0	1,396	5.3
Enugu	10.6	23.6	20.1	15.1	20.4	10.1	100.0	1,285	5.8
Imo	7.4	17.8	14.9	17.0	29.4	13.3	100.0	1,633	8.8
South South									
Akwa Ibom	8.1	18.5	14.1	19.7	27.0	12.7	100.0	1,573	8.5
Bayelsa	5.2	19.5	11.1	16.9	33.3	13.9	100.0	639	10.2
Cross River	10.0	15.6	15.1	20.2	25.3	13.9	100.0	968	8.5
Delta	4.1	18.1	12.5	15.5	35.3	14.4	100.0	1,835	10.9
Edo	8.6	21.3	14.9	19.6	24.1	10.3	100.0	1,073	7.1
Rivers	4.9	17.5	11.7	17.0	33.9	15.0	100.0	2,391	10.7
South West									
Ekiti	8.1	18.4	13.5	16.7	25.0	18.2	100.0	860	8.9
Lagos	3.9	14.1	10.6	14.0	35.0	22.3	100.0	4,647	11.2
Ogun	11.7	16.9	14.9	11.6	28.9	15.9	100.0	1,586	8.3
Ondo	10.5	19.7	13.0	18.4	26.5	11.8	100.0	1,237	8.1
Osun	11.6	15.7	12.3	13.3	33.8	13.3	100.0	1,606	9.8
Oyo	14.9	15.9	13.1	11.4	27.5	17.0	100.0	2,497	8.5

Continued…

Table 2.13.2—*Continued*

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Total	Number	Median years completed
Wealth quintile									
Lowest	65.1	14.8	8.1	6.2	4.8	0.9	100.0	14,347	0.0
Second	36.9	22.4	12.6	12.5	12.1	3.4	100.0	14,043	2.5
Middle	19.5	23.4	13.7	15.7	20.4	7.2	100.0	14,278	5.5
Fourth	9.5	19.7	12.3	16.5	28.5	13.3	100.0	14,889	8.4
Highest	4.7	15.2	7.9	14.5	27.8	29.9	100.0	15,402	11.3
Total	26.6	19.1	10.9	13.1	19.0	11.2	100.0	72,959	5.4

Note: Total includes 11 cases with missing information on age.
[1] Completed grade 6 at the primary level
[2] Completed grade 6 at the secondary level

Table 2.14 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling, and the gender parity index (GPI), according to background characteristics, Nigeria DHS 2018

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender parity index[3]	Male	Female	Total	Gender parity index[3]
				PRIMARY SCHOOL				
Residence								
Urban	72.8	70.2	71.5	0.96	99.6	97.1	98.4	0.98
Rural	55.0	51.0	53.1	0.93	79.8	73.9	76.9	0.93
Zone								
North Central	62.1	62.1	62.1	1.00	87.6	91.3	89.4	1.04
North East	46.4	44.5	45.5	0.96	66.7	64.2	65.5	0.96
North West	57.9	51.8	54.9	0.90	83.4	74.3	78.9	0.89
South East	83.7	81.2	82.4	0.97	115.4	109.4	112.4	0.95
South South	72.8	68.0	70.5	0.93	97.2	92.4	94.9	0.95
South West	73.6	71.9	72.7	0.98	103.9	101.4	102.7	0.98
State								
North Central								
FCT-Abuja	75.0	74.5	74.8	0.99	104.9	103.8	104.4	0.99
Benue	75.2	74.7	74.9	0.99	108.8	117.5	113.2	1.08
Kogi	71.7	68.0	69.9	0.95	103.7	108.3	105.9	1.04
Kwara	59.2	62.2	60.6	1.05	80.1	87.2	83.5	1.09
Nasarawa	72.7	67.2	70.2	0.92	102.2	92.5	97.9	0.90
Niger	41.5	37.6	39.7	0.91	55.8	55.9	55.8	1.00
Plateau	70.0	75.1	72.6	1.07	102.9	105.4	104.2	1.02
North East								
Adamawa	44.2	46.5	45.3	1.05	62.9	65.2	64.1	1.04
Bauchi	48.1	45.8	46.9	0.95	69.7	68.4	69.1	0.98
Borno	53.3	48.8	50.9	0.92	72.2	65.3	68.6	0.90
Gombe	40.9	40.0	40.5	0.98	60.6	57.4	59.1	0.95
Taraba	65.3	59.3	62.3	0.91	98.3	90.6	94.5	0.92
Yobe	32.4	32.5	32.5	1.00	46.7	48.5	47.6	1.04
North West								
Jigawa	57.3	55.6	56.4	0.97	92.7	83.7	88.0	0.90
Kaduna	70.3	60.1	65.5	0.86	102.4	90.8	96.9	0.89
Kano	65.0	61.8	63.4	0.95	94.2	86.9	90.6	0.92
Katsina	70.9	65.7	68.3	0.93	96.8	91.2	94.0	0.94
Kebbi	30.6	22.0	26.4	0.72	44.0	31.8	38.1	0.72
Sokoto	31.8	25.9	28.9	0.81	48.2	37.3	42.8	0.77
Zamfara	43.9	32.3	38.2	0.73	57.7	43.1	50.5	0.75
South East								
Abia	82.5	80.0	81.2	0.97	115.6	102.4	108.9	0.89
Anambra	85.7	84.6	85.1	0.99	113.2	107.6	110.2	0.95
Ebonyi	84.1	77.4	80.7	0.92	115.6	111.2	113.4	0.96
Enugu	80.0	84.2	82.0	1.05	114.9	116.6	115.7	1.01
Imo	84.7	79.2	82.0	0.93	118.8	108.2	113.6	0.91
South South								
Akwa Ibom	69.5	64.2	66.8	0.92	95.7	85.1	90.3	0.89
Bayelsa	75.7	77.9	76.7	1.03	97.8	106.7	102.0	1.09
Cross River	63.2	60.9	62.0	0.96	90.7	85.1	87.7	0.94
Delta	80.7	70.6	75.8	0.88	107.7	94.9	101.5	0.88
Edo	74.3	74.2	74.2	1.00	96.2	98.6	97.4	1.02
Rivers	70.8	64.9	68.1	0.92	93.0	90.8	92.0	0.98
South West								
Ekiti	67.4	75.2	71.1	1.11	111.8	109.5	110.7	0.98
Lagos	75.5	72.7	74.0	0.96	104.1	106.1	105.2	1.02
Ogun	76.5	68.6	72.4	0.90	107.2	87.6	96.9	0.82
Ondo	79.4	78.4	78.9	0.99	104.1	108.0	106.0	1.04
Osun	75.0	71.5	73.2	0.95	101.9	103.1	102.5	1.01
Oyo	67.2	68.8	68.0	1.02	100.2	96.4	98.3	0.96
Wealth quintile								
Lowest	33.9	30.6	32.3	0.90	52.1	45.7	48.9	0.88
Second	60.6	55.6	58.1	0.92	87.5	81.4	84.5	0.93
Middle	73.1	69.4	71.3	0.95	103.1	98.4	100.8	0.95
Fourth	77.2	76.1	76.6	0.99	105.0	102.9	104.0	0.98
Highest	73.2	69.2	71.2	0.95	99.4	96.8	98.1	0.97
Total	62.2	58.8	60.5	0.95	87.8	83.3	85.6	0.95

Continued...

Table 2.14—*Continued*

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender parity index[3]	Male	Female	Total	Gender parity index[3]
				SECONDARY SCHOOL				
Residence								
Urban	66.4	63.0	64.7	0.95	93.9	91.0	92.5	0.97
Rural	41.2	33.6	37.4	0.82	59.3	48.6	54.0	0.82
Zone								
North Central	54.4	49.0	51.7	0.90	81.4	72.5	77.0	0.89
North East	33.8	27.1	30.5	0.80	48.0	36.7	42.4	0.76
North West	41.8	32.0	36.8	0.77	58.3	43.9	51.0	0.75
South East	75.2	73.9	74.5	0.98	99.5	101.2	100.4	1.02
South South	72.7	69.0	70.9	0.95	104.5	108.5	106.4	1.04
South West	67.8	69.2	68.5	1.02	100.6	104.8	102.7	1.04
State								
North Central								
FCT-Abuja	61.1	60.1	60.6	0.98	97.2	87.8	92.4	0.90
Benue	60.1	46.9	53.2	0.78	88.3	69.4	78.4	0.79
Kogi	62.5	63.4	63.0	1.01	105.5	91.8	98.2	0.87
Kwara	56.4	53.6	55.0	0.95	81.9	83.5	82.7	1.02
Nasarawa	64.0	60.9	62.4	0.95	98.4	92.2	95.2	0.94
Niger	44.0	26.9	36.4	0.61	59.0	38.3	49.8	0.65
Plateau	49.3	54.3	51.8	1.10	78.0	79.3	78.7	1.02
North East								
Adamawa	50.0	28.1	38.2	0.56	63.0	35.8	48.3	0.57
Bauchi	29.2	27.2	28.2	0.93	45.5	39.7	42.7	0.87
Borno	42.4	34.0	38.0	0.80	57.0	44.1	50.3	0.77
Gombe	25.6	25.6	25.6	1.00	39.4	33.6	36.9	0.85
Taraba	50.9	32.3	40.6	0.63	78.2	50.4	62.8	0.64
Yobe	22.0	17.1	19.7	0.78	29.5	20.4	25.3	0.69
North West								
Jigawa	34.7	29.7	32.1	0.86	50.6	39.6	44.7	0.78
Kaduna	53.0	44.6	48.6	0.84	74.2	63.8	68.7	0.86
Kano	47.1	38.7	43.0	0.82	66.5	54.1	60.4	0.81
Katsina	49.6	32.5	40.9	0.65	66.7	44.8	55.5	0.67
Kebbi	23.1	13.7	18.4	0.59	33.2	16.1	24.8	0.49
Sokoto	18.3	10.5	14.4	0.57	25.8	13.6	19.7	0.53
Zamfara	36.6	28.0	32.3	0.76	51.0	35.6	43.2	0.70
South East								
Abia	75.5	74.1	74.8	0.98	105.4	103.5	104.4	0.98
Anambra	80.5	79.8	80.1	0.99	105.5	111.5	108.7	1.06
Ebonyi	66.5	62.2	64.1	0.94	82.7	82.6	82.6	1.00
Enugu	74.8	80.7	77.8	1.08	105.6	105.5	105.6	1.00
Imo	78.3	75.1	76.7	0.96	101.8	106.4	104.1	1.05
South South								
Akwa Ibom	72.9	63.2	68.1	0.87	101.0	100.9	100.9	1.00
Bayelsa	71.1	71.7	71.4	1.01	107.2	106.8	107.0	1.00
Cross River	75.5	81.7	78.3	1.08	114.8	150.3	130.7	1.31
Delta	70.6	71.3	70.9	1.01	97.5	108.6	102.7	1.11
Edo	72.4	71.2	71.8	0.98	105.0	108.6	106.8	1.03
Rivers	73.7	65.3	69.6	0.89	107.2	100.0	103.7	0.93
South West								
Ekiti	76.0	78.4	77.1	1.03	122.3	117.3	119.9	0.96
Lagos	70.5	69.0	69.7	0.98	99.5	103.1	101.4	1.04
Ogun	60.4	64.8	62.6	1.07	95.2	112.2	103.6	1.18
Ondo	68.9	69.8	69.3	1.01	94.2	93.2	93.7	0.99
Osun	68.8	66.2	67.4	0.96	97.8	94.5	96.0	0.97
Oyo	62.8	71.2	66.6	1.13	103.6	116.6	109.5	1.12
Wealth quintile								
Lowest	17.0	12.0	14.7	0.71	24.8	16.9	21.1	0.68
Second	43.3	31.2	37.1	0.72	61.8	42.9	52.1	0.69
Middle	60.5	51.1	55.7	0.84	85.1	73.2	79.1	0.86
Fourth	73.4	67.6	70.4	0.92	102.3	95.1	98.6	0.93
Highest	71.1	68.2	69.7	0.96	104.4	104.7	104.5	1.00
Total	52.1	46.6	49.4	0.89	74.3	67.4	70.8	0.91

[1] The NAR for primary school is the percentage of the primary school-age (7-12 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary school-age (13-18 years) population that is attending secondary school. By definition, the NAR cannot exceed 100%.
[2] The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary school-age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100%.
[3] The gender parity index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The gender parity index for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

CHARACTERISTICS OF RESPONDENTS 3

Key Findings

- ***Education:*** The percentage of women age 15-49 with no education has decreased since 2003, from 42% to 35%. The median number of years of schooling completed has increased from 5.0 to 6.5 years during the same period.
- ***Exposure to mass media:*** The level of exposure to mass media is generally low in Nigeria. More than half of the respondents age 15-49 have no access to any of the three media sources (newspaper, television, and radio) at least once a week (56% of female and 51% male).
- ***Internet usage:*** Urban women and men (31% and 55%, respectively) are more likely than rural women and men (6% and 25%, respectively) to have used the internet.
- ***Employment:*** 65% women and 86% of men age 15-49 are currently employed.

This chapter presents information on the demographic and socioeconomic characteristics of the survey respondents such as age, education, place of residence, marital status, employment, and wealth status. This information is useful for understanding the factors that affect use of reproductive health services, contraceptive use, and other health behaviours.

3.1 Basic Characteristics of Survey Respondents

The 2018 NDHS interviewed 41,821 women age 15-49 and 13,311 men age 15-59. **Table 3.1** shows the percent distribution of women and men age 15-49 by background characteristics. The majority of women and men are under age 30 (54% of women and 46% of men).

Forty-six percent of men and women are Christian, while 54% are Islam and less than 1% are traditionalists. The main ethnic groups in Nigeria are Hausa (30% of women and 31% of men), Igbo (15% of both women and men), and Yoruba (15% of women and 16% of men).

Women are more likely than men to be currently married or living together with a partner (70% and 57%, respectively). Women are less likely than men to have never been married (25% and 42%, respectively).

Place of residence typically determines access to services and information about health and other aspects of life. Slightly more than half of women and men live in rural areas (54% each), while slightly less than half live in urban areas (46% each).

3.2 EDUCATION AND LITERACY

Literacy

Respondents who had attended higher than secondary school were assumed to be literate. All other respondents, shown a typed sentence to read aloud, were considered literate if they could read all or part of the sentence.

Sample: Women and men age 15-49

Education is an important factor influencing a person's behaviour and opportunities. **Tables 3.2.1** and **3.2.2** as well as **Figure 3.1** show that men are better educated than women. Thirty-five percent of women and 22% of men age 15-49 have no formal education, while 11% of women and 17% of men have more than a secondary education.

Trends: The percentage of women with no education has decreased since 2003, from 42% to 35%. The median number of years of schooling completed has increased from 5.0 to 6.5 years during the same period. Among men age 15-59, the median number of years of schooling has increased from 6.6 to 10.5 years.

Patterns by background characteristics

- **Table 3.2.1** shows that urban women are better educated than rural women; only 16% of urban women have no education, as opposed to 51% of rural women.
- Educational attainment among women increases with increasing household wealth (**Figure 3.2**). For example, only 3% of women in the lowest wealth quantile have a secondary education or higher, as compared with 75% of those in the highest quantile. A similar pattern is observed among men.
- There are wide variations by place of residence in median number of years of education completed. Urban women have completed a median of 11 years of education, while the median among rural women is zero. The corresponding figures among men are 11 and 7 years.

Figure 3.1 **Education of survey respondents**

Percent distribution of women and men age 15-49 by highest level of schooling attended or completed

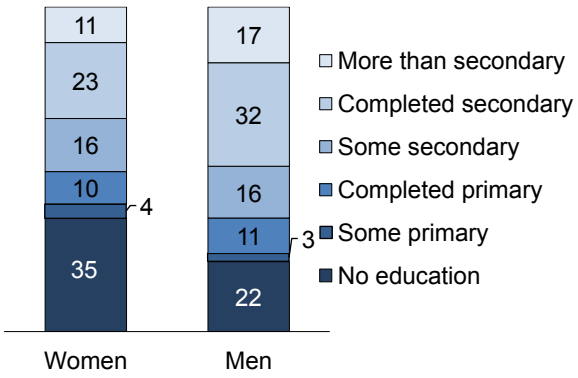


Figure 3.2 **Secondary education by household wealth**

Percentage of women and men age 15-49 with a secondary education or higher

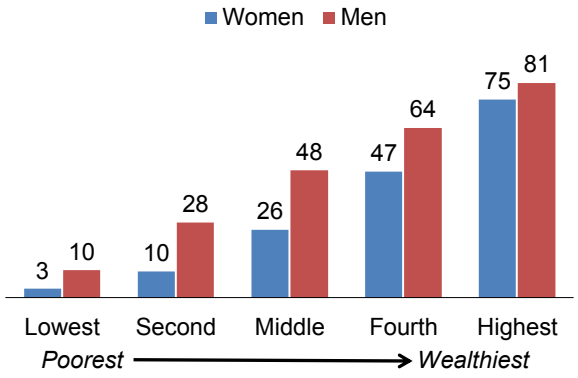
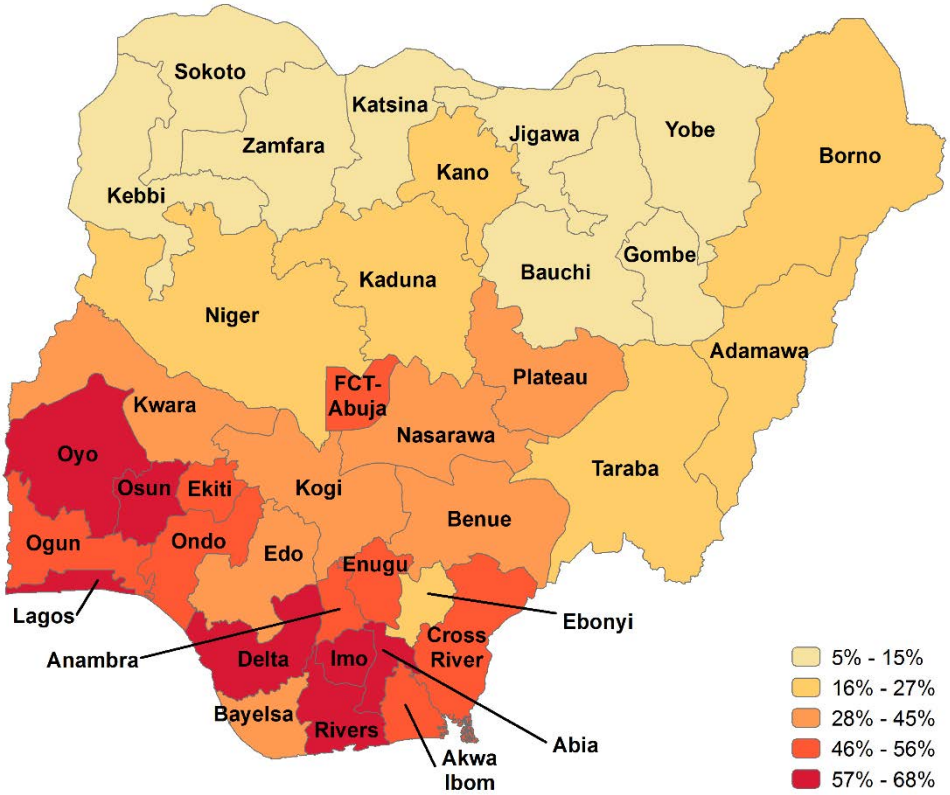


Figure 3.3 **Secondary education by state**

Percentage of women age 15-49 with a secondary education or higher



- The percentage of women who have a secondary education or more is highest in Lagos (68%) and lowest in Sokoto (5%) (**Figure 3.3**).
- Women and men in the lowest wealth quintile (11% and 29%, respectively) are less likely than other women and men to be literate (**Table 3.3.1** and **Table 3.3.2**).

3.3 Mass Media Exposure

Exposure to mass media

Respondents were asked how often they read a newspaper, listened to the radio, or watched television. Those who responded *at least once a week* are considered regularly exposed to that form of media.

Sample: Women and men age 15-49

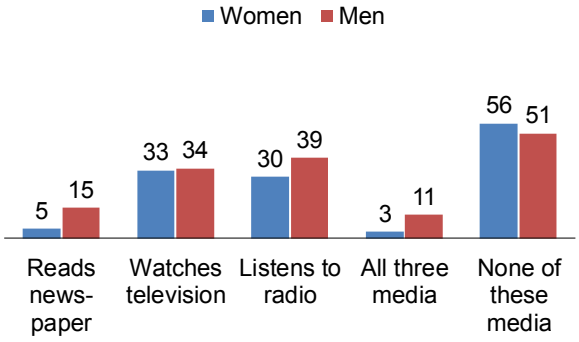
Exposure to different mass media is key to information dissemination and expansion of knowledge. **Tables 3.4.1** and **3.4.2** show the percentages of women and men who are exposed to different types of media, by background characteristics. The level of exposure to mass media is generally low in Nigeria. Among both women and men, radio and television are the most frequently accessed forms of media. Women are slightly more likely to watch television than to listen to the radio (33% versus 30%), while men are slightly more likely to listen to the radio (39% versus 34%).

Figure 3.4 shows that more than half of respondents have no access to any of the three media sources at least once a week (56% of female respondents and 51% of male respondents).

Trends: Since 2013, women's and men's exposure to mass media has shown a gradual decline. For example, the proportion of women who listen to the radio at least once a week has decreased from 39% to 30%. Among men, the proportion has declined from 55% to 39%. The proportion of respondents having no access to any of the three sources (newspaper, television, and radio) has increased from 50% to 56% among women and from 38% to 51% among men.

Figure 3.4 **Exposure to mass media**

Percentage of women and men age 15-49 who are exposed to media on a weekly basis



Patterns by background characteristics

- The percentage of women who read a newspaper at least once a week is very low. However, urban women are over two times more likely to read a newspaper than rural women (7% and 3%, respectively). The urban-rural gap is more evident in television viewing, with 51% of urban women and only 17% of rural women watching television at least once a week.
- The percentages of women and men with no access to any of the three media source are highest in the North East (73% and 68%, respectively) and lowest in the South West (28% and 15%, respectively).

3.4 INTERNET USAGE

The internet has gradually become an important means of transacting business and sharing information through social media. Other forms of media organisations have also adopted the internet as a means of reaching people. There are currently online shopping platforms through which business is transacted on a daily basis in Nigeria. Also, some e-health platforms have started operating in the country. The internet has become a very important tool through which information is accessed. Overall, 30% of women and 31% of men age 15-49 use the internet at least once a week (**Tables 3.5.1** and **3.5.2**).

Patterns by background characteristics

- Urban women and men (31% and 55%, respectively) are more likely than rural women and men (6% and 25%, respectively) to have ever used the internet.
- The percentages of women and men who have ever used the internet are highest in the South West (39% and 57%, respectively).
- Among the states, Lagos has the highest proportion of women (60%) and men (74%) using the internet. Women and men in Kebbi (1% and 11%, respectively) and Sokoto (1% and 14%, respectively) are also least likely to have ever used the internet.

3.5 EMPLOYMENT

Currently employed

Respondents who were employed in the 7 days before the survey.

Sample: Women and men age 15-49

In the 2018 NDHS, respondents were asked whether they were employed at the time of the survey and, if not, whether they had worked at any time during the 12 months preceding the survey. **Tables 3.6.1** and **3.6.2** show that 65% of women and 86% of men are currently employed. Furthermore, 3% of women and 2% of men reported that they had worked in the past 12 months but were not currently employed.

Trends: Current employment among women age 15-49 has increased over the last decade, from 59% in 2008 to 65% in 2018. Similarly, the percentage of men who are currently employed has increased from 80% to 86%.

Patterns by background characteristics

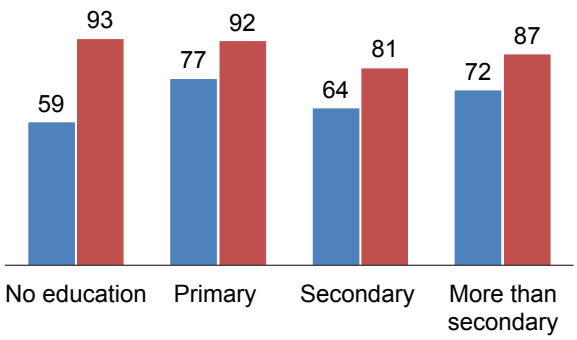
- **Table 3.6.1** shows that divorced, separated, or widowed women (81%) are more likely to be employed than women who are currently married (71%) and those who have never been married (47%). Among men, those who are currently married or living together with a partner (99%) and those who are divorced, separated, or widowed (93%) are more likely to be employed than those who have never been married (69%) (**Table 3.6.2**).

- There are notable variations in the proportion of currently employed women and men by place of residence. Urban women are more likely than rural women to be employed (67% and 63%, respectively). Conversely, urban men are less likely to be employed than rural men (84% and 88%, respectively).

- The percentage of women who are currently employed generally increases with increasing education, from 59% among those with no education to 77% among those with primary education. Though it drops to 64% among those with secondary education, it rises to 72% among those with more than a secondary education. However, among men, there is a general decrease in current employment with increasing education, from 93% among those with no education to 87% among those with more than a secondary education (**Figure 3.5**).

Figure 3.5 **Employment status by education**

Percentage of women and men age 15-49 who are currently employed



- The percentage of women who are employed increases with increasing household wealth, from 58% among those in the lowest wealth quantile to 68% among those in highest quantile. Among men, the percentage who are employed decreases with increasing wealth, from 92% among those in the lowest quantile to 83% among those in the highest quantile.

3.6 Occupation

Occupation

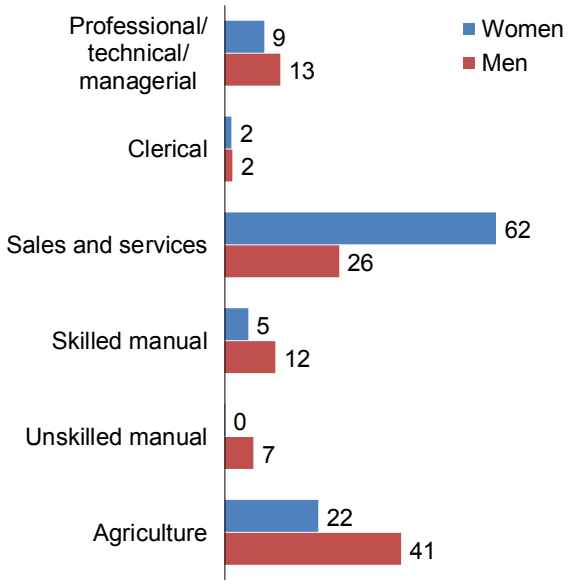
Categorised as professional/technical/managerial, clerical, sales and services, skilled manual, unskilled manual, agriculture, and other.

Sample: Women and men age 15-49 who were currently employed or had worked in the 12 months before the survey

Tables 3.7.1 and **3.7.2** show that more men than women were employed in professional/technical/managerial occupations in the 12 months before the survey (13% and 9%, respectively). Women dominate employment in sales and services (62% versus 26% among men), while a higher percentage of men than women are engaged in agricultural work (41% and 22%, respectively) (**Figure 3.6**).

***Figure 3.6* Occupation**

Percentage of women and men age 15-49 employed in the 12 months before the survey by occupation



Eighteen percent of employed women in Nigeria are not paid for their work. Women engaged in agricultural work are much more likely (47%) than those working in nonagricultural occupations (10%) to not be paid for their work. Seventy percent of women who worked in the past year are self-employed (**Table 3.8**).

Trends: There has been a rise since 2013 in the proportion of women working in agricultural occupations, from 16% to 22%. Among men, the proportion has increased from 34% to 41%. The proportion of women and men who are employed in sales and services has remained constant at 62% (versus 61% in 2013) and 26% (versus 25% in 2013), respectively.

Patterns by background characteristics

- **Tables 3.7.1** and **3.7.2** show that women and men living in rural areas are more likely to be engaged in agriculture (32% and 60%, respectively) than those living in urban areas (10% and 17%, respectively).
- Women and men with more than a secondary education are more likely than those at other educational levels to be engaged in professional/technical/managerial work (40% and 39%, respectively). Women with no education are mostly engaged in sales and services (67%), while men with no education are primarily engaged in agricultural work (72%).
- The percentages of men and women employed in professional/technical/managerial and clerical occupations generally increase with increasing wealth.

3.7 Health Insurance Coverage

Health insurance improves access to health care, thus promoting good health. Reasonable access to health care encourages individuals to seek health maintenance services more regularly than they otherwise would, thereby preventing potentially serious illnesses. Additionally, health insurance protects individuals from financial hardships that may result from large or unexpected medical bills. In Nigeria, health insurance can be obtained from private organisations or from government agencies. The act of parliament that came into force in October 2014 envisages a health care system that will cover all strata of society in all urban and rural communities (Federal Republic of Nigeria 2014). However, coverage is limited to public and large private organisations.

The 2018 NDHS collected information about specific types of insurance coverage and the percentages of women and men with any health insurance according to background characteristics. Only 3% of women and men age 15-49 have health insurance (**Table 3.9.1** and **Table 3.9.2**).

Trends: The percentage of women who do not have any form of health insurance has decreased slightly since 2013, from 98% to 97%. There has been no change in the percentage among men (97% in both 2013 and 2018).

The percentage of women with more than a secondary education who have employer-based insurance increased from 0% in 2008 to 11% in 2018. Among men with more than a secondary education, the percentage increased from less than 1% to 12%.

Patterns by background characteristics

- Urban women and men (4% each) are more likely than rural women and men (1% each) to have employer-based insurance coverage.
- Eleven percent of women and 12% of men with more than a secondary education have employer-based insurance. Women (7%) and men (8%) in the highest wealth quantile are most likely to have employer-based insurance.

3.8 Tobacco Use

Table 3.10.1 shows that cigarette smoking and use of any type of tobacco are rare among women (less than 1%). Six percent of men smoke any type of tobacco, while 94% are non-smokers (**Table 3.10.2**). Among men who smoke cigarettes daily, more than one-third (38%) smoke less than 5 cigarettes each day, while one-third (33%) smoke 5-9 cigarettes; 8% of daily cigarette smokers smoke between 15 and 24 cigarettes each day (**Table 3.11**). One percent of men use smokeless tobacco (**Table 3.12**).

Trends: The practice of smoking among women is uncommon in Nigeria; since 2008, 1% or less of women have reported that they smoke. The proportion of men who reported smoking any type of tobacco decreased from 10% in 2013 to 6% in 2018.

Patterns by background characteristics

- The percentage of men who use of any type of tobacco increases from 1% among those age 15-19 to a peak of 9% among those age 35-39 before declining to 6% among those age 45-49.
- There are regional variations in cigarette smoking among men, ranging from 3% in the North East to 10% in the South South (**Table 3.10.2**).
- The percentage of men who smoke any type of tobacco varies by education, from a high of 10% among those with a primary education to a low of 3% among those with more than a secondary education.

List of Tables

For more information on the characteristics of survey respondents, see the following tables:

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- **Table 3.2.1 Educational attainment: Women**
- **Table 3.2.2 Educational attainment: Men**
- **Table 3.3.1 Literacy: Women**
- **Table 3.3.2 Literacy: Men**
- **Table 3.4.1 Exposure to mass media: Women**
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- **Table 3.12 Smokeless tobacco use and any tobacco use**

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Nigeria DHS 2018

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	20.2	8,448	8,423	20.4	2,415	2,474
20-24	16.3	6,835	6,844	12.4	1,472	1,545
25-29	17.3	7,255	7,203	13.5	1,599	1,618
30-34	14.8	6,178	5,997	15.1	1,792	1,751
35-39	13.1	5,463	5,406	15.4	1,832	1,774
40-44	9.4	3,940	4,057	13.2	1,569	1,514
45-49	8.9	3,701	3,891	10.0	1,188	1,169
Religion						
Catholic	10.4	4,345	4,436	11.3	1,339	1,384
Other Christian	35.6	14,872	16,070	34.5	4,092	4,409
Islam	53.5	22,372	20,959	53.5	6,351	5,962
Traditionalist	0.3	145	156	0.6	74	76
Other	0.2	87	200	0.1	11	14
Ethnic group						
Ekoi	0.6	249	275	0.0	2	1
Fulani	6.2	2,585	2,953	5.3	630	721
Hausa	29.8	12,445	10,765	31.1	3,687	3,200
Ibibio	1.8	760	801	1.8	217	226
Igala	0.8	346	457	1.1	125	151
Igbo	15.4	6,420	6,714	14.9	1,764	1,843
Ijaw/Izon	1.9	801	1,201	1.6	189	308
Kanuri/Beriberi	2.4	1,008	873	2.5	301	262
Tiv	2.5	1,037	976	2.2	258	227
Yoruba	15.3	6,418	5,372	15.9	1,892	1,601
Other	23.3	9,729	11,404	23.6	2,797	3,299
Don't know	0.1	24	30	0.0	6	6
Marital status						
Never married	25.2	10,550	10,669	41.7	4,951	5,090
Married	67.2	28,121	27,841	54.5	6,470	6,380
Living together	2.3	968	1,047	2.7	316	231
Divorced/separated	2.7	1,123	1,147	0.9	103	113
Widowed	2.5	1,058	1,117	0.2	28	31
Residence						
Urban	45.8	19,163	16,984	46.4	5,512	4,900
Rural	54.2	22,658	24,837	53.6	6,356	6,945
Zone						
North Central	14.1	5,891	7,772	14.4	1,704	2,186
North East	15.9	6,636	7,639	16.3	1,936	2,196
North West	29.2	12,225	10,129	26.9	3,195	2,622
South East	11.9	4,963	5,571	11.4	1,355	1,509
South South	11.6	4,840	5,080	12.1	1,438	1,520
South West	17.4	7,266	5,630	18.9	2,240	1,812
State						
North Central						
FCT-Abuja	0.8	319	1,186	0.8	96	353
Benue	3.2	1,354	1,278	3.0	351	321
Kogi	1.6	654	907	1.3	156	191
Kwara	1.6	684	906	1.8	208	259
Nasarawa	1.5	648	1,121	1.7	206	345
Niger	3.2	1,357	1,292	3.7	442	420
Plateau	2.1	875	1,082	2.1	246	297
North East						
Adamawa	2.2	903	1,083	1.8	218	244
Bauchi	3.2	1,343	1,329	3.5	420	419
Borno	3.5	1,469	1,269	3.4	398	339
Gombe	1.7	717	1,356	2.0	240	462
Taraba	2.1	877	1,284	1.6	187	268
Yobe	3.2	1,327	1,318	4.0	472	464
North West						
Jigawa	3.3	1,382	1,405	2.5	291	296
Kaduna	6.0	2,493	1,610	5.4	636	426
Kano	6.4	2,692	1,983	5.7	676	483
Katsina	5.5	2,283	1,494	5.8	687	454
Kebbi	2.7	1,136	1,335	2.5	291	342
Sokoto	2.2	910	1,065	1.8	218	258
Zamfara	3.2	1,328	1,237	3.3	396	363

Continued...

Table 3.1—*Continued*

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
South East						
Abia	1.5	630	982	1.6	185	274
Anambra	3.5	1,477	1,244	3.4	409	342
Ebonyi	2.5	1,027	1,310	2.0	233	297
Enugu	2.1	880	1,038	1.6	192	224
Imo	2.3	948	997	2.8	337	372
South South						
Akwa Ibom	2.3	948	958	2.5	291	289
Bayelsa	0.7	298	771	0.9	109	273
Cross River	1.4	574	748	1.2	137	182
Delta	2.2	931	815	2.7	326	280
Edo	1.3	555	658	1.2	140	167
Rivers	3.7	1,534	1,130	3.7	435	329
South West						
Ekiti	1.1	475	774	1.2	139	226
Lagos	6.9	2,891	1,445	7.1	845	471
Ogun	2.2	927	798	2.6	309	261
Ondo	1.6	683	863	2.1	247	320
Osun	2.2	938	832	2.3	269	242
Oyo	3.2	1,352	918	3.6	432	292
Education						
No education	34.9	14,603	14,398	21.5	2,555	2,496
Primary	14.4	6,039	6,383	13.4	1,590	1,574
Secondary	39.7	16,583	16,698	48.0	5,697	5,797
More than secondary	11.0	4,596	4,342	17.1	2,025	1,978
Wealth quintile						
Lowest	17.3	7,222	7,747	16.8	1,991	2,133
Second	19.2	8,045	8,346	17.9	2,123	2,167
Middle	19.6	8,207	8,859	20.2	2,393	2,553
Fourth	21.5	8,990	8,840	21.8	2,590	2,587
Highest	22.4	9,357	8,029	23.3	2,770	2,405
Total 15-49	100.0	41,821	41,821	100.0	11,868	11,845
50-59	na	na	na	na	1,443	1,466
Total 15-59	na	na	na	na	13,311	13,311

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.
na = Not applicable

Table 3.2.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Nigeria DHS 2018

Background characteristic	Highest level of schooling						Total	Median years completed	Number of women
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	28.7	4.0	6.5	28.8	25.3	6.8	100.0	8.5	15,284
15-19	25.8	4.1	6.3	41.3	19.8	2.6	100.0	8.3	8,448
20-24	32.2	3.8	6.8	13.3	32.1	11.9	100.0	8.8	6,835
25-29	35.3	3.6	8.4	10.4	28.1	14.2	100.0	8.1	7,255
30-34	36.4	4.2	9.9	9.2	24.0	16.2	100.0	5.9	6,178
35-39	37.5	4.5	12.9	9.2	21.9	14.1	100.0	5.6	5,463
40-44	43.1	5.2	15.3	8.6	16.9	10.9	100.0	5.1	3,940
45-49	44.9	6.4	18.8	7.7	13.1	9.0	100.0	4.2	3,701
Residence									
Urban	15.6	3.1	10.2	19.0	33.5	18.5	100.0	11.1	19,163
Rural	51.2	5.4	10.0	14.1	14.7	4.6	100.0	0.0	22,658
Zone									
North Central	31.8	5.9	12.5	19.0	20.2	10.7	100.0	6.0	5,891
North East	59.1	5.3	7.4	11.0	11.0	6.2	100.0	0.0	6,636
North West	63.8	4.6	6.6	10.7	9.8	4.5	100.0	0.0	12,225
South East	4.2	4.6	13.9	25.3	36.5	15.4	100.0	11.1	4,963
South South	4.7	3.3	12.5	24.5	39.4	15.7	100.0	11.1	4,840
South West	7.9	2.2	12.3	17.2	39.9	20.4	100.0	11.3	7,266
State									
North Central									
FCT-Abuja	18.6	4.3	12.0	19.5	26.6	18.9	100.0	9.7	319
Benue	21.8	10.7	12.9	27.1	17.8	9.7	100.0	7.2	1,354
Kogi	12.8	4.5	21.6	18.6	32.2	10.3	100.0	9.5	654
Kwara	31.9	2.6	15.8	13.6	19.8	16.3	100.0	6.0	684
Nasarawa	26.1	4.7	11.3	22.7	23.1	12.1	100.0	8.2	648
Niger	65.1	2.4	4.4	8.3	13.6	6.2	100.0	0.0	1,357
Plateau	18.5	8.9	16.1	25.0	20.6	10.9	100.0	7.9	875
North East									
Adamawa	47.0	3.4	9.1	13.7	20.7	6.2	100.0	4.8	903
Bauchi	63.4	8.5	9.7	9.7	5.9	2.7	100.0	0.0	1,343
Borno	58.5	2.2	5.9	9.5	11.7	12.3	100.0	0.0	1,469
Gombe	64.8	4.1	5.5	11.3	10.0	4.4	100.0	0.0	717
Taraba	36.7	12.0	9.7	19.8	13.8	8.1	100.0	5.1	877
Yobe	75.5	3.3	4.9	5.9	7.4	3.0	100.0	0.0	1,327
North West									
Jigawa	74.9	4.2	5.7	6.8	6.9	1.4	100.0	0.0	1,382
Kaduna	47.0	6.0	8.4	15.5	15.3	7.8	100.0	3.2	2,493
Kano	56.3	4.8	6.8	13.6	10.4	8.1	100.0	0.0	2,692
Katsina	58.9	7.4	9.4	12.9	9.6	1.8	100.0	0.0	2,283
Kebbi	81.8	1.6	5.7	4.4	6.0	0.6	100.0	0.0	1,136
Sokoto	88.4	1.7	2.1	3.0	3.2	1.5	100.0	0.0	910
Zamfara	75.0	1.6	2.7	7.2	9.8	3.7	100.0	0.0	1,328
South East									
Abia	2.1	2.0	11.7	19.3	48.6	16.3	100.0	11.3	630
Anambra	2.3	3.9	12.7	24.7	42.3	14.1	100.0	11.2	1,477
Ebonyi	11.9	9.7	24.7	27.6	20.9	5.2	100.0	7.1	1,027
Enugu	4.2	4.5	13.0	24.9	35.9	17.5	100.0	11.1	880
Imo	0.5	2.1	6.3	27.8	37.2	26.2	100.0	11.4	948
South South									
Akwa Ibom	2.9	4.5	15.8	23.4	36.1	17.4	100.0	11.1	948
Bayelsa	9.7	2.8	13.9	31.5	33.3	8.8	100.0	10.5	298
Cross River	6.0	5.8	12.7	30.0	28.8	16.7	100.0	10.4	574
Delta	7.8	1.5	12.4	20.7	39.6	18.0	100.0	11.2	931
Edo	8.4	2.9	16.1	29.4	29.9	13.3	100.0	9.5	555
Rivers	1.0	3.0	8.9	22.2	49.8	15.2	100.0	11.3	1,534
South West									
Ekiti	5.1	2.8	11.8	26.8	33.1	20.3	100.0	11.1	475
Lagos	5.4	1.8	8.9	15.5	43.1	25.2	100.0	11.4	2,891
Ogun	10.3	2.7	19.2	11.5	37.0	19.3	100.0	11.2	927
Ondo	7.9	4.2	14.1	27.0	32.9	13.8	100.0	10.6	683
Osun	6.4	2.7	14.3	19.7	42.5	14.4	100.0	11.2	938
Oyo	13.8	1.2	12.8	14.4	39.3	18.4	100.0	11.2	1,352
Wealth quintile									
Lowest	79.6	4.9	6.6	5.5	3.1	0.2	100.0	0.0	7,222
Second	57.5	7.0	11.1	14.6	8.5	1.3	100.0	0.0	8,045
Middle	31.8	6.1	14.4	22.2	21.2	4.3	100.0	5.8	8,207
Fourth	13.9	3.3	12.5	23.1	36.9	10.4	100.0	10.5	8,990
Highest	4.0	1.1	5.8	14.6	40.4	34.1	100.0	11.6	9,357
Total	34.9	4.3	10.1	16.4	23.3	11.0	100.0	6.5	41,821

[1] Completed grade 6 at the primary level
[2] Completed grade 6 at the secondary level

Table 3.2.2 Educational attainment: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Nigeria DHS 2018

Background characteristic	Highest level of schooling						Total	Median years completed	Number of men
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	20.6	3.1	6.5	34.0	27.8	8.0	100.0	9.2	3,888
15-19	21.1	3.5	6.8	47.6	19.2	1.8	100.0	8.4	2,415
20-24	19.8	2.3	5.8	11.8	42.0	18.2	100.0	11.2	1,472
25-29	21.8	2.0	7.1	8.6	37.4	23.0	100.0	11.3	1,599
30-34	20.1	1.3	10.6	7.9	35.9	24.1	100.0	11.3	1,792
35-39	22.1	2.6	11.5	5.4	35.5	22.9	100.0	11.2	1,832
40-44	22.9	2.7	17.4	6.8	31.9	18.2	100.0	11.0	1,569
45-49	23.6	2.9	21.1	6.4	28.5	17.5	100.0	8.4	1,188
Residence									
Urban	8.0	1.7	9.5	16.3	39.4	25.2	100.0	11.4	5,512
Rural	33.3	3.3	12.0	15.5	25.9	10.0	100.0	6.8	6,356
Zone									
North Central	18.6	2.3	9.4	18.5	30.8	20.3	100.0	11.0	1,704
North East	46.2	3.0	6.4	12.2	18.8	13.3	100.0	5.1	1,936
North West	37.6	3.8	10.9	14.9	19.7	13.1	100.0	5.7	3,195
South East	1.7	2.6	17.2	22.7	43.4	12.4	100.0	11.1	1,355
South South	1.8	1.9	11.3	18.9	47.2	18.9	100.0	11.3	1,438
South West	4.2	0.9	11.6	12.3	45.9	25.2	100.0	11.5	2,240
State									
North Central									
FCT-Abuja	8.6	1.1	12.4	12.4	39.8	25.7	100.0	11.4	96
Benue	7.5	4.7	8.3	26.4	29.3	23.8	100.0	11.1	351
Kogi	4.2	0.4	9.7	14.0	48.2	23.7	100.0	11.5	156
Kwara	19.6	2.7	15.3	15.4	26.9	20.1	100.0	10.1	208
Nasarawa	15.6	2.7	10.3	20.8	28.7	21.9	100.0	11.0	206
Niger	42.7	0.9	3.7	13.2	23.8	15.7	100.0	7.5	442
Plateau	5.7	2.3	14.6	23.0	36.1	18.4	100.0	11.1	246
North East									
Adamawa	32.2	1.4	3.3	17.0	29.2	17.0	100.0	10.1	218
Bauchi	43.8	5.1	8.3	11.7	18.0	13.0	100.0	5.1	420
Borno	41.2	1.5	7.2	11.5	22.5	16.0	100.0	6.3	398
Gombe	54.1	2.5	4.7	13.7	16.6	8.4	100.0	0.0	240
Taraba	16.2	5.5	11.7	23.0	29.6	14.0	100.0	10.1	187
Yobe	67.0	2.4	4.4	6.0	8.4	11.8	100.0	0.0	472
North West									
Jigawa	36.7	6.0	14.2	14.3	15.7	13.1	100.0	5.5	291
Kaduna	29.1	2.7	11.7	12.7	27.6	16.1	100.0	8.9	636
Kano	25.7	5.3	11.7	21.0	18.4	18.0	100.0	8.0	676
Katsina	28.9	3.9	14.7	19.1	22.0	11.3	100.0	6.4	687
Kebbi	58.8	2.0	11.3	10.2	12.5	5.2	100.0	0.0	291
Sokoto	58.5	7.8	5.3	6.8	15.1	6.4	100.0	0.0	218
Zamfara	60.1	0.2	2.3	9.0	16.1	12.3	100.0	0.0	396
South East									
Abia	0.5	2.2	13.3	24.2	44.0	15.8	100.0	11.2	185
Anambra	0.7	2.9	22.9	23.4	41.5	8.7	100.0	11.0	409
Ebonyi	2.6	4.6	25.4	29.6	28.9	8.9	100.0	8.6	233
Enugu	2.5	3.5	18.1	19.0	42.8	14.0	100.0	11.2	192
Imo	2.6	0.6	6.3	18.3	55.7	16.5	100.0	11.4	337
South South									
Akwa Ibom	4.2	2.0	13.6	21.0	38.8	20.4	100.0	11.2	291
Bayelsa	2.0	1.8	4.4	15.6	54.9	21.3	100.0	11.5	109
Cross River	4.1	2.5	9.0	20.0	46.2	18.2	100.0	11.3	137
Delta	0.7	0.6	13.2	20.1	49.9	15.5	100.0	11.3	326
Edo	2.1	2.3	15.1	23.6	40.0	16.9	100.0	11.2	140
Rivers	0.2	2.7	9.4	15.7	51.3	20.7	100.0	11.4	435
South West									
Ekiti	1.5	1.6	8.0	24.2	38.0	26.6	100.0	11.4	139
Lagos	1.5	0.0	10.3	8.0	47.2	33.1	100.0	11.6	845
Ogun	5.4	1.4	18.3	10.6	47.2	17.0	100.0	11.3	309
Ondo	3.6	3.5	11.2	24.2	41.8	15.7	100.0	11.2	247
Osun	4.1	0.0	8.1	13.3	55.4	19.1	100.0	11.4	269
Oyo	9.9	1.1	13.0	10.7	41.2	24.1	100.0	11.4	432
Wealth quintile									
Lowest	64.5	5.2	10.6	9.4	9.1	1.3	100.0	0.0	1,991
Second	34.0	4.1	15.2	18.6	21.9	6.3	100.0	5.8	2,123
Middle	15.2	2.6	13.6	20.8	36.0	11.8	100.0	10.5	2,393
Fourth	5.5	1.5	10.8	18.3	44.3	19.6	100.0	11.3	2,590
Highest	1.6	0.4	5.4	12.0	41.9	38.8	100.0	11.7	2,770
Total 15-49	21.5	2.5	10.9	15.9	32.1	17.1	100.0	10.8	11,868
50-59	31.2	3.4	18.8	5.4	23.0	18.2	100.0	5.8	1,443
Total 15-59	22.6	2.6	11.7	14.7	31.1	17.2	100.0	10.5	13,311

[1] Completed grade 6 at the primary level
[2] Completed grade 6 at the secondary level

Table 3.3.1 Literacy: Women

Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Nigeria DHS 2018

Background characteristic	Higher than secondary schooling	No schooling, primary or secondary school				Total	Percentage literate[1]	Number of women
		Can read a whole sentence	Can read part of a sentence	Cannot read at all	Blind/visually impaired			
Age								
15-24	6.8	34.6	19.5	39.1	0.1	100.0	60.9	15,284
15-19	2.6	41.1	20.6	35.6	0.1	100.0	64.3	8,448
20-24	11.9	26.5	18.2	43.3	0.0	100.0	56.7	6,835
25-29	14.2	21.5	18.4	45.9	0.0	100.0	54.1	7,255
30-34	16.2	18.2	16.8	48.8	0.1	100.0	51.2	6,178
35-39	14.1	17.7	17.9	50.3	0.0	100.0	49.6	5,463
40-44	10.9	14.8	16.7	57.5	0.1	100.0	42.3	3,940
45-49	9.0	13.4	16.1	61.2	0.3	100.0	38.5	3,701
Residence								
Urban	18.5	33.9	21.6	25.9	0.1	100.0	74.0	19,163
Rural	4.6	15.5	15.2	64.5	0.1	100.0	35.4	22,658
Zone								
North Central	10.7	15.4	23.5	50.4	0.0	100.0	49.6	5,891
North East	6.2	13.8	11.8	68.2	0.0	100.0	31.8	6,636
North West	4.5	15.1	9.5	70.9	0.0	100.0	29.0	12,225
South East	15.4	35.8	28.1	20.4	0.3	100.0	79.3	4,963
South South	15.7	41.2	22.0	20.9	0.2	100.0	79.0	4,840
South West	20.4	35.4	24.8	19.3	0.0	100.0	80.6	7,266
State								
North Central								
FCT-Abuja	18.9	19.3	29.5	32.2	0.0	100.0	67.8	319
Benue	9.7	14.4	31.7	44.2	0.0	100.0	55.8	1,354
Kogi	10.3	21.5	26.0	42.2	0.1	100.0	57.7	654
Kwara	16.3	16.7	20.6	46.1	0.0	100.0	53.7	684
Nasarawa	12.1	18.7	29.3	39.8	0.0	100.0	60.2	648
Niger	6.2	8.9	10.8	74.1	0.0	100.0	25.9	1,357
Plateau	10.9	17.7	24.4	47.0	0.1	100.0	52.9	875
North East								
Adamawa	6.2	17.3	16.4	60.1	0.0	100.0	39.9	903
Bauchi	2.7	11.1	12.6	73.6	0.0	100.0	26.4	1,343
Borno	12.3	16.3	12.0	59.4	0.0	100.0	40.6	1,469
Gombe	4.4	15.8	11.9	67.9	0.0	100.0	32.1	717
Taraba	8.1	13.9	13.2	64.9	0.0	100.0	35.1	877
Yobe	3.0	10.0	6.5	80.5	0.0	100.0	19.5	1,327
North West								
Jigawa	1.4	8.4	8.3	81.9	0.0	100.0	18.1	1,382
Kaduna	7.8	25.9	10.5	55.8	0.0	100.0	44.2	2,493
Kano	8.1	20.2	9.5	62.0	0.1	100.0	37.8	2,692
Katsina	1.8	14.2	10.5	73.4	0.0	100.0	26.6	2,283
Kebbi	0.6	7.9	6.8	84.7	0.0	100.0	15.3	1,136
Sokoto	1.5	2.3	6.8	89.4	0.0	100.0	10.6	910
Zamfara	3.7	7.8	11.3	77.2	0.1	100.0	22.8	1,328
South East								
Abia	16.3	39.3	32.4	12.0	0.0	100.0	88.0	630
Anambra	14.1	39.1	33.8	13.0	0.0	100.0	87.0	1,477
Ebonyi	5.2	20.1	28.4	46.3	0.0	100.0	53.7	1,027
Enugu	17.5	36.7	29.4	16.1	0.3	100.0	83.6	880
Imo	26.2	44.3	14.7	13.6	1.2	100.0	85.2	948
South South								
Akwa Ibom	17.4	39.4	23.8	19.4	0.0	100.0	80.6	948
Bayelsa	8.8	34.4	32.0	24.4	0.4	100.0	75.2	298
Cross River	16.7	37.8	19.1	26.4	0.0	100.0	73.6	574
Delta	18.0	24.1	35.1	22.4	0.4	100.0	77.2	931
Edo	13.3	35.2	24.3	27.0	0.0	100.0	72.8	555
Rivers	15.2	57.5	11.3	15.9	0.2	100.0	84.0	1,534
South West								
Ekiti	20.3	35.3	24.9	19.3	0.2	100.0	80.5	475
Lagos	25.2	36.5	23.6	14.6	0.0	100.0	85.3	2,891
Ogun	19.3	47.5	19.9	13.3	0.1	100.0	86.7	927
Ondo	13.8	27.6	31.0	27.6	0.0	100.0	72.4	683
Osun	14.4	41.0	24.5	20.1	0.0	100.0	79.9	938
Oyo	18.4	25.2	27.5	28.9	0.0	100.0	71.1	1,352
Wealth quintile								
Lowest	0.2	3.5	6.9	89.3	0.0	100.0	10.6	7,222
Second	1.3	10.7	14.3	73.7	0.1	100.0	26.3	8,045
Middle	4.3	23.2	23.4	49.0	0.0	100.0	50.9	8,207
Fourth	10.4	36.5	27.0	26.0	0.1	100.0	73.8	8,990
Highest	34.1	39.7	17.0	9.1	0.1	100.0	90.8	9,357
Total	11.0	23.9	18.1	46.9	0.1	100.0	53.1	41,821

[1] Refers to women who attended schooling higher than the secondary level and women who can read a whole sentence or part of a sentence

Table 3.3.2 Literacy: Men

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Nigeria DHS 2018

Background characteristic	Higher than secondary schooling	No schooling, primary or secondary school: Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/visually impaired	Total	Percentage literate[1]	Number of men
Age									
15-24	8.0	36.3	27.4	28.0	0.1	0.2	100.0	71.7	3,888
15-19	1.8	38.3	30.4	29.3	0.1	0.2	100.0	70.4	2,415
20-24	18.2	32.9	22.6	26.0	0.1	0.2	100.0	73.8	1,472
25-29	23.0	25.7	23.2	27.8	0.2	0.0	100.0	72.0	1,599
30-34	24.1	23.0	26.7	25.9	0.2	0.0	100.0	73.9	1,792
35-39	22.9	23.4	26.9	26.6	0.2	0.0	100.0	73.2	1,832
40-44	18.2	23.7	29.0	28.9	0.0	0.0	100.0	71.0	1,569
45-49	17.5	22.8	29.6	30.0	0.1	0.0	100.0	69.9	1,188
Residence									
Urban	25.2	33.6	27.7	13.3	0.1	0.1	100.0	86.4	5,512
Rural	10.0	22.8	26.6	40.3	0.1	0.1	100.0	59.5	6,356
Zone									
North Central	20.3	25.3	27.2	26.8	0.3	0.0	100.0	72.9	1,704
North East	13.3	14.3	22.9	49.3	0.1	0.0	100.0	50.5	1,936
North West	13.1	26.2	19.7	40.7	0.2	0.1	100.0	59.0	3,195
South East	12.4	32.8	41.5	13.2	0.0	0.1	100.0	86.7	1,355
South South	18.9	36.3	33.3	11.3	0.0	0.2	100.0	88.5	1,438
South West	25.2	35.3	28.6	10.8	0.1	0.1	100.0	89.0	2,240
State									
North Central									
FCT-Abuja	25.7	35.9	23.1	15.3	0.0	0.0	100.0	84.7	96
Benue	23.8	21.8	35.2	18.5	0.6	0.0	100.0	80.9	351
Kogi	23.7	23.3	28.9	24.1	0.0	0.0	100.0	75.9	156
Kwara	20.1	15.5	29.0	35.4	0.0	0.0	100.0	64.6	208
Nasarawa	21.9	23.2	26.9	26.4	1.6	0.0	100.0	72.0	206
Niger	15.7	17.3	27.4	39.6	0.0	0.0	100.0	60.4	442
Plateau	18.4	52.1	14.5	15.0	0.0	0.0	100.0	85.0	246
North East									
Adamawa	17.0	14.9	29.2	38.9	0.0	0.0	100.0	61.1	218
Bauchi	13.0	11.6	22.9	52.1	0.4	0.0	100.0	47.5	420
Borno	16.0	16.2	29.3	38.5	0.0	0.0	100.0	61.5	398
Gombe	8.4	22.5	23.6	45.2	0.4	0.0	100.0	54.5	240
Taraba	14.0	25.6	30.4	30.1	0.0	0.0	100.0	69.9	187
Yobe	11.8	6.3	11.3	70.6	0.0	0.0	100.0	29.4	472
North West									
Jigawa	13.1	27.1	18.1	41.6	0.0	0.0	100.0	58.4	291
Kaduna	16.1	29.8	19.0	35.0	0.0	0.0	100.0	65.0	636
Kano	18.0	35.5	17.9	28.4	0.2	0.0	100.0	71.3	676
Katsina	11.3	29.3	28.1	31.1	0.0	0.3	100.0	68.6	687
Kebbi	5.2	14.2	15.5	65.1	0.0	0.0	100.0	34.9	291
Sokoto	6.4	10.8	23.1	56.9	2.8	0.0	100.0	40.3	218
Zamfara	12.3	16.0	11.7	60.0	0.0	0.0	100.0	40.0	396
South East									
Abia	15.8	49.8	24.3	9.9	0.0	0.2	100.0	89.9	185
Anambra	8.7	39.6	40.9	10.9	0.0	0.0	100.0	89.1	409
Ebonyi	8.9	47.1	26.4	17.2	0.0	0.5	100.0	82.4	233
Enugu	14.0	15.2	60.9	9.8	0.0	0.0	100.0	90.2	192
Imo	16.5	15.5	51.0	17.0	0.0	0.0	100.0	83.0	337
South South									
Akwa Ibom	20.4	16.8	38.4	23.6	0.0	0.9	100.0	75.5	291
Bayelsa	21.3	50.0	27.0	1.8	0.0	0.0	100.0	98.2	109
Cross River	18.2	49.5	20.2	12.2	0.0	0.0	100.0	87.8	137
Delta	15.5	29.9	51.4	3.1	0.0	0.0	100.0	96.9	326
Edo	16.9	22.6	28.6	31.8	0.0	0.0	100.0	68.2	140
Rivers	20.7	50.8	23.7	4.7	0.0	0.1	100.0	95.2	435
South West									
Ekiti	26.6	22.1	40.6	8.9	0.0	1.8	100.0	89.3	139
Lagos	33.1	35.7	24.3	7.0	0.0	0.0	100.0	93.0	845
Ogun	17.0	29.8	37.9	15.3	0.0	0.0	100.0	84.7	309
Ondo	15.7	29.1	33.9	20.6	0.7	0.0	100.0	78.7	247
Osun	19.1	54.4	15.4	11.0	0.0	0.0	100.0	89.0	269
Oyo	24.1	34.4	31.6	9.8	0.0	0.0	100.0	90.2	432

Continued...

Table 3.3.2—*Continued*

Background characteristic	Higher than secondary schooling	No schooling, primary or secondary school					Total	Percentage literate[1]	Number of men
		Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/visually impaired			
Wealth quintile									
Lowest	1.3	10.3	17.8	70.6	0.0	0.1	100.0	29.3	1,991
Second	6.3	23.8	28.9	40.7	0.2	0.2	100.0	58.9	2,123
Middle	11.8	29.9	34.5	23.7	0.1	0.0	100.0	76.2	2,393
Fourth	19.6	34.9	32.0	13.1	0.3	0.0	100.0	86.6	2,590
Highest	38.8	35.2	21.5	4.4	0.1	0.1	100.0	95.5	2,770
Total 15-49	17.1	27.8	27.1	27.8	0.1	0.1	100.0	72.0	11,868
50-59	18.2	22.2	24.7	34.5	0.1	0.3	100.0	65.2	1,443
Total 15-59	17.2	27.2	26.8	28.5	0.1	0.1	100.0	71.3	13,311

[1] Refers to men who attended schooling higher than the secondary level and men who can read a whole sentence or part of a sentence

Table 3.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, according to background characteristics, Nigeria DHS 2018

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of women
Age						
15-19	3.7	32.5	23.0	2.1	58.5	8,448
20-24	5.4	31.9	28.2	3.6	56.8	6,835
25-29	4.5	34.0	30.6	3.5	54.7	7,255
30-34	5.3	35.6	31.9	3.9	53.5	6,178
35-39	4.8	34.8	34.5	3.7	52.0	5,463
40-44	5.1	31.0	33.3	3.9	54.9	3,940
45-49	3.7	27.7	31.9	2.8	57.4	3,701
Residence						
Urban	6.9	51.2	38.9	5.0	38.2	19,163
Rural	2.7	17.3	22.0	1.8	70.2	22,658
Zone						
North Central	3.8	30.3	20.9	2.7	63.6	5,891
North East	2.4	15.4	18.0	1.2	73.1	6,636
North West	1.8	15.6	25.1	0.9	68.8	12,225
South East	10.9	38.1	43.9	8.4	45.0	4,963
South South	9.1	53.3	31.2	6.9	40.4	4,840
South West	4.7	62.7	44.8	3.7	28.0	7,266
State						
North Central						
FCT-Abuja	2.9	42.4	17.6	1.4	53.7	319
Benue	6.0	39.3	31.6	4.9	52.4	1,354
Kogi	2.9	30.9	12.7	1.9	65.3	654
Kwara	1.7	28.5	21.2	1.1	66.5	684
Nasarawa	10.2	34.6	35.7	7.8	54.5	648
Niger	1.6	27.6	15.5	1.1	68.6	1,357
Plateau	1.8	13.7	9.1	0.4	80.0	875
North East						
Adamawa	0.9	18.6	14.2	0.7	75.0	903
Bauchi	2.2	10.4	28.1	1.1	67.8	1,343
Borno	2.2	18.4	13.3	1.4	76.8	1,469
Gombe	4.0	14.5	29.7	3.5	67.4	717
Taraba	1.0	18.2	5.2	0.3	78.8	877
Yobe	4.0	13.7	17.6	1.0	72.2	1,327
North West						
Jigawa	1.3	10.2	32.0	0.7	64.7	1,382
Kaduna	1.8	28.5	32.5	0.9	54.9	2,493
Kano	3.5	23.2	35.9	2.0	57.1	2,692
Katsina	1.3	10.3	14.6	0.7	80.5	2,283
Kebbi	0.8	3.5	6.7	0.2	90.6	1,136
Sokoto	0.5	9.0	23.3	0.4	74.8	910
Zamfara	1.6	6.0	17.2	0.4	79.7	1,328
South East						
Abia	21.3	57.9	47.4	17.4	33.7	630
Anambra	15.7	51.9	49.7	13.3	37.3	1,477
Ebonyi	2.7	16.7	41.6	2.0	54.6	1,027
Enugu	4.4	26.6	36.4	3.8	59.5	880
Imo	11.5	37.5	41.9	5.9	40.7	948
South South						
Akwa Ibom	14.7	53.5	45.1	11.5	36.3	948
Bayelsa	20.4	64.8	57.2	19.3	27.9	298
Cross River	13.3	52.9	38.5	9.1	35.9	574
Delta	5.9	59.4	17.6	4.0	37.7	931
Edo	4.9	68.9	34.3	2.5	25.0	555
Rivers	5.3	41.7	22.1	4.2	54.3	1,534
South West						
Ekiti	5.9	34.8	47.5	3.9	42.4	475
Lagos	4.2	82.4	34.2	3.4	16.2	2,891
Ogun	3.2	21.1	18.1	1.7	70.4	927
Ondo	4.0	44.1	39.3	3.4	42.4	683
Osun	7.3	81.0	76.5	6.1	10.6	938
Oyo	5.1	55.6	65.8	4.0	24.1	1,352
Education						
No education	0.1	7.2	17.1	0.0	79.7	14,603
Primary	0.9	24.6	28.3	0.5	61.1	6,039
Secondary	5.5	48.0	36.2	3.6	41.6	16,583
More than secondary	20.7	70.5	48.5	16.1	22.1	4,596

Continued...

Table 3.4.1—*Continued*

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of women
Wealth quintile						
Lowest	0.2	2.5	15.1	0.0	83.9	7,222
Second	0.9	7.8	18.1	0.3	78.5	8,045
Middle	2.7	24.6	28.7	1.5	59.6	8,207
Fourth	5.9	49.0	39.1	3.9	39.7	8,990
Highest	11.8	69.5	43.1	9.3	25.6	9,357
Total	4.6	32.9	29.8	3.3	55.6	41,821

Table 3.4.2 Exposure to mass media: Men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis, according to background characteristics, Nigeria DHS 2018

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of men
Age						
15-19	4.9	28.0	21.0	3.3	64.3	2,415
20-24	12.6	29.2	29.7	7.8	57.9	1,472
25-29	15.9	32.7	38.6	12.0	51.3	1,599
30-34	19.2	38.2	46.1	15.2	43.9	1,792
35-39	18.7	37.8	45.3	15.1	45.6	1,832
40-44	19.6	37.5	51.3	15.8	41.9	1,569
45-49	18.0	35.9	49.9	14.0	43.4	1,188
Residence						
Urban	23.1	50.1	51.1	18.6	34.8	5,512
Rural	7.7	19.9	28.3	5.1	64.5	6,356
Zone						
North Central	11.2	21.8	24.8	7.7	66.9	1,704
North East	8.3	21.0	23.8	5.6	68.4	1,936
North West	7.0	19.4	25.9	3.9	63.6	3,195
South East	28.1	46.9	62.1	22.1	29.7	1,355
South South	12.5	37.4	29.2	9.3	54.1	1,438
South West	28.1	64.9	73.3	24.8	15.4	2,240
State						
North Central						
FCT-Abuja	34.2	51.1	42.0	30.1	44.4	96
Benue	11.6	20.6	33.1	9.2	62.7	351
Kogi	21.4	45.4	41.0	13.1	40.7	156
Kwara	10.5	27.9	22.6	7.9	62.6	208
Nasarawa	10.1	19.8	25.5	4.8	65.2	206
Niger	5.6	10.9	13.1	1.9	80.3	442
Plateau	7.1	13.1	18.2	5.9	79.5	246
North East						
Adamawa	2.1	4.8	7.6	1.9	89.8	218
Bauchi	5.9	21.3	24.8	4.3	67.0	420
Borno	14.0	26.0	25.6	8.7	64.0	398
Gombe	12.5	20.6	37.3	6.6	53.4	240
Taraba	2.7	6.9	6.5	2.1	90.4	187
Yobe	8.4	29.7	28.8	6.6	62.4	472
North West						
Jigawa	3.9	15.4	21.1	1.5	69.1	291
Kaduna	7.5	24.8	21.2	7.2	66.7	636
Kano	10.7	24.0	36.2	5.1	52.5	676
Katsina	8.6	23.0	32.0	1.8	50.7	687
Kebbi	3.8	15.2	30.1	3.4	65.5	291
Sokoto	4.4	15.0	20.4	3.9	74.7	218
Zamfara	3.3	4.7	8.9	2.0	88.3	396
South East						
Abia	43.5	65.6	61.6	33.9	22.0	185
Anambra	40.4	64.4	85.1	34.8	11.0	409
Ebonyi	10.2	19.1	67.4	5.1	30.7	233
Enugu	19.1	40.2	61.5	12.6	27.1	192
Imo	22.3	38.4	31.2	17.2	57.2	337
South South						
Akwa Ibom	14.3	29.6	31.6	11.1	59.7	291
Bayelsa	25.7	76.7	73.9	23.5	12.5	109
Cross River	28.5	55.7	52.2	19.1	27.8	137
Delta	9.0	28.4	16.8	6.0	66.4	326
Edo	12.9	45.8	32.2	11.0	48.7	140
Rivers	5.5	31.1	17.5	3.5	61.6	435
South West						
Ekiti	37.6	67.2	69.2	32.4	19.6	139
Lagos	28.3	75.2	71.8	25.5	13.1	845
Ogun	17.5	70.3	76.2	14.7	12.8	309
Ondo	13.8	41.8	59.9	6.6	22.6	247
Osun	54.9	74.6	77.4	52.3	15.7	269
Oyo	23.6	47.2	80.8	21.7	15.8	432
Education						
No education	1.0	8.4	19.8	0.7	77.5	2,555
Primary	5.3	21.3	36.4	3.1	55.8	1,590
Secondary	14.1	38.9	40.6	10.7	46.6	5,697
More than secondary	42.0	61.7	60.2	33.4	24.7	2,025

Continued...

Table 3.4.2—*Continued*

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of men
Wealth quintile						
Lowest	1.8	5.3	14.8	0.6	82.7	1,991
Second	4.4	13.7	28.0	2.5	66.2	2,123
Middle	9.1	23.7	34.7	5.0	55.4	2,393
Fourth	17.9	44.7	45.4	13.6	40.1	2,590
Highest	34.5	68.7	62.1	29.3	21.7	2,770
Total 15-49	14.9	33.9	38.9	11.4	50.7	11,868
50-59	16.9	33.1	50.1	13.5	43.2	1,443
Total 15-59	15.1	33.8	40.1	11.6	49.9	13,311

Table 3.5.1 Internet usage: Women

Percentage of women age 15-49 who have ever used the internet, and percentage who have used the internet in the past 12 months; and among women who have used the internet in the past 12 months, percent distribution by frequency of internet use in the past month, according to background characteristics, Nigeria DHS 2018

Background characteristic	Ever used the internet	Used the internet in the past 12 months	Number	Among respondents who have used the internet in the past 12 months, percentage who, in the past month, used the internet: Almost every day	At least once a week	Less than once a week	Not at all	Total	Number
Age									
15-19	15.6	14.0	8,448	44.3	30.5	20.0	5.2	100.0	1,180
20-24	23.0	21.4	6,835	54.0	30.9	13.7	1.5	100.0	1,465
25-29	21.3	19.0	7,255	49.6	28.9	16.4	5.1	100.0	1,381
30-34	19.7	17.6	6,178	54.5	30.3	11.4	3.7	100.0	1,088
35-39	16.9	14.9	5,463	52.8	29.7	13.4	4.1	100.0	816
40-44	11.7	10.0	3,940	52.4	28.7	16.4	2.5	100.0	393
45-49	7.3	6.4	3,701	48.6	35.7	13.4	2.3	100.0	239
Residence									
Urban	30.5	27.7	19,163	52.2	29.2	14.5	4.2	100.0	5,317
Rural	6.4	5.5	22,658	45.8	34.5	17.9	1.8	100.0	1,245
Zone									
North Central	11.9	10.6	5,891	45.1	37.8	16.6	0.6	100.0	624
North East	6.1	5.6	6,636	53.1	26.8	16.9	3.2	100.0	372
North West	5.5	5.0	12,225	55.4	31.8	12.2	0.6	100.0	609
South East	25.4	22.8	4,963	57.6	27.3	12.2	2.9	100.0	1,132
South South	28.9	25.5	4,840	52.1	30.5	14.8	2.6	100.0	1,232
South West	39.4	35.7	7,266	47.6	29.6	16.6	6.2	100.0	2,592
State									
North Central									
FCT-Abuja	22.3	21.4	319	61.1	29.2	9.6	0.0	100.0	68
Benue	9.3	8.2	1,354	58.6	30.7	10.7	0.0	100.0	111
Kogi	15.2	12.8	654	26.1	53.1	20.7	0.0	100.0	84
Kwara	21.1	18.3	684	39.1	38.8	21.0	1.1	100.0	125
Nasarawa	12.3	11.5	648	48.8	35.7	13.0	2.5	100.0	74
Niger	7.0	6.1	1,357	53.3	30.1	16.6	0.0	100.0	83
Plateau	9.9	9.1	875	29.6	46.9	22.9	0.5	100.0	79
North East									
Adamawa	6.8	6.6	903	43.5	36.8	19.8	0.0	100.0	60
Bauchi	3.4	2.9	1,343	(47.5)	(29.1)	(15.6)	(7.8)	100.0	39
Borno	11.5	10.5	1,469	64.2	14.7	15.7	5.4	100.0	154
Gombe	4.8	4.5	717	50.1	38.8	11.1	0.0	100.0	32
Taraba	6.6	5.8	877	52.4	30.1	16.1	1.4	100.0	51
Yobe	3.0	2.8	1,327	(32.2)	(43.5)	(24.3)	(0.0)	100.0	37
North West									
Jigawa	2.0	1.7	1,382	(53.0)	(40.1)	(2.9)	(4.0)	100.0	24
Kaduna	10.2	9.3	2,493	50.8	33.7	15.1	0.4	100.0	231
Kano	9.3	9.2	2,692	55.4	35.0	9.5	0.0	100.0	248
Katsina	2.2	2.0	2,283	(54.3)	(27.3)	(18.4)	(0.0)	100.0	46
Kebbi	0.5	0.4	1,136	*	*	*	*	100.0	4
Sokoto	0.9	0.8	910	*	*	*	*	100.0	7
Zamfara	5.3	3.7	1,328	(87.8)	(4.1)	(4.0)	(4.1)	100.0	49
South East									
Abia	25.0	21.8	630	53.2	45.6	1.2	0.0	100.0	137
Anambra	34.0	31.5	1,477	67.1	19.6	9.8	3.5	100.0	465
Ebonyi	7.5	5.7	1,027	37.1	29.3	25.9	7.7	100.0	59
Enugu	23.4	21.4	880	67.7	20.8	10.5	1.0	100.0	189
Imo	33.6	29.8	948	41.5	35.3	19.9	3.4	100.0	282
South South									
Akwa Ibom	29.3	25.5	948	53.9	29.1	15.1	1.9	100.0	241
Bayelsa	11.7	10.8	298	21.0	58.0	21.1	0.0	100.0	32
Cross River	29.8	22.9	574	54.2	31.1	10.8	3.8	100.0	131
Delta	24.7	23.9	931	39.5	41.1	19.0	0.5	100.0	223
Edo	25.2	23.6	555	50.5	32.7	16.8	0.0	100.0	131
Rivers	35.6	30.8	1,534	59.0	23.6	12.9	4.6	100.0	473
South West									
Ekiti	21.6	20.2	475	43.0	45.7	11.3	0.0	100.0	96
Lagos	60.1	54.2	2,891	47.3	27.1	16.6	9.0	100.0	1,566
Ogun	36.9	32.0	927	23.8	42.9	27.3	6.0	100.0	296
Ondo	19.0	18.2	683	61.0	28.6	10.0	0.3	100.0	124
Osun	20.2	18.3	938	76.4	13.3	10.3	0.0	100.0	172
Oyo	26.5	25.0	1,352	51.8	33.8	14.4	0.0	100.0	338
Education									
No education	0.3	0.3	14,603	(30.1)	(58.0)	(11.9)	(0.0)	100.0	41
Primary	1.6	1.2	6,039	41.7	34.1	19.6	4.6	100.0	74
Secondary	22.6	19.7	16,583	40.9	33.7	19.7	5.7	100.0	3,266
More than secondary	74.1	69.2	4,596	61.8	26.1	10.3	1.7	100.0	3,181

Continued...

Table 3.5.1—*Continued*

Background characteristic	Ever used the internet	Used the internet in the past 12 months	Number	Among respondents who have used the internet in the past 12 months, percentage who, in the past month, used the internet: Almost every day	At least once a week	Less than once a week	Not at all	Total	Number
Wealth quintile									
Lowest	0.3	0.3	7,222	*	*	*	*	100.0	20
Second	1.6	1.2	8,045	41.9	30.7	23.6	3.8	100.0	96
Middle	6.4	5.4	8,207	43.5	32.7	21.8	2.0	100.0	445
Fourth	20.0	17.4	8,990	45.3	32.1	19.1	3.5	100.0	1,563
Highest	51.5	47.4	9,357	54.1	29.1	12.9	3.9	100.0	4,438
Total	17.5	15.7	41,821	51.0	30.2	15.1	3.7	100.0	6,562

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 3.5.2 Internet usage: Men

Percentage of men age 15-49 who have ever used the internet, and percentage who have used the internet in the past 12 months; and among men who have used the internet in the past 12 months, percent distribution by frequency of internet use in the past month, according to background characteristics, Nigeria DHS 2018

Background characteristic	Ever used the internet	Used the internet in the past 12 months	Number	Among respondents who have used the internet in the past 12 months, percentage who, in the past month, used the internet: Almost every day	At least once a week	Less than once a week	Not at all	Total	Number
Age									
15-19	30.7	27.6	2,415	31.9	40.4	25.7	1.9	100.0	667
20-24	48.2	44.7	1,472	54.7	29.6	13.8	1.9	100.0	657
25-29	46.3	42.6	1,599	59.4	24.8	14.8	1.0	100.0	681
30-34	43.8	40.2	1,792	53.4	31.8	12.7	2.1	100.0	721
35-39	41.1	36.2	1,832	48.4	30.7	18.3	2.7	100.0	662
40-44	36.2	32.2	1,569	51.0	33.6	13.7	1.6	100.0	505
45-49	29.3	23.8	1,188	48.4	26.3	21.9	3.4	100.0	282
Residence									
Urban	55.1	50.1	5,512	56.1	29.6	12.7	1.6	100.0	2,761
Rural	25.3	22.3	6,356	37.3	34.8	25.1	2.7	100.0	1,415
Zone									
North Central	30.5	28.2	1,704	51.9	36.5	9.4	2.2	100.0	480
North East	23.0	20.8	1,936	44.1	39.8	13.1	3.0	100.0	403
North West	34.1	31.2	3,195	46.3	28.2	22.7	2.8	100.0	998
South East	41.9	34.3	1,355	46.6	38.2	14.6	0.6	100.0	465
South South	51.4	45.0	1,438	33.5	35.8	28.5	2.2	100.0	647
South West	57.3	52.8	2,240	63.9	23.9	11.0	1.2	100.0	1,183
State									
North Central									
FCT-Abuja	39.6	39.4	96	72.1	22.3	3.9	1.8	100.0	38
Benue	26.2	23.7	351	36.2	46.5	14.7	2.6	100.0	83
Kogi	41.9	37.6	156	43.8	46.2	7.5	2.5	100.0	59
Kwara	38.2	37.3	208	43.2	43.5	12.1	1.2	100.0	78
Nasarawa	30.5	30.4	206	42.7	44.6	12.7	0.0	100.0	62
Niger	27.1	22.8	442	68.7	24.0	5.5	1.8	100.0	101
Plateau	25.8	24.4	246	61.6	25.4	6.8	6.2	100.0	60
North East									
Adamawa	18.6	18.6	218	(27.9)	(55.2)	(15.7)	(1.3)	100.0	40
Bauchi	19.0	16.1	420	37.0	41.0	13.6	8.5	100.0	68
Borno	41.6	35.7	398	52.0	35.6	10.9	1.6	100.0	142
Gombe	23.7	22.5	240	33.8	28.1	31.1	7.0	100.0	54
Taraba	18.0	17.1	187	(46.5)	(49.8)	(3.7)	(0.0)	100.0	32
Yobe	14.5	14.2	472	51.6	42.8	5.7	0.0	100.0	67
North West									
Jigawa	30.4	26.5	291	40.9	28.7	18.5	11.8	100.0	77
Kaduna	31.5	25.9	636	61.1	19.7	15.1	4.1	100.0	165
Kano	39.2	37.1	676	57.3	26.5	13.4	2.8	100.0	251
Katsina	60.2	56.2	687	33.8	30.9	35.3	0.0	100.0	386
Kebbi	10.5	9.8	291	(40.7)	(37.9)	(21.4)	(0.0)	100.0	29
Sokoto	14.0	14.0	218	(42.4)	(39.8)	(17.7)	(0.0)	100.0	31
Zamfara	15.5	15.1	396	(51.5)	(29.9)	(10.2)	(8.4)	100.0	60
South East									
Abia	46.2	43.4	185	65.1	24.3	10.6	0.0	100.0	80
Anambra	41.9	38.3	409	41.0	49.8	8.7	0.5	100.0	157
Ebonyi	26.6	19.5	233	47.0	24.8	24.9	3.3	100.0	45
Enugu	68.8	41.9	192	60.3	22.8	16.9	0.0	100.0	80
Imo	34.7	30.3	337	29.5	49.5	20.5	0.5	100.0	102
South South									
Akwa Ibom	30.0	29.4	291	56.4	27.6	16.0	0.0	100.0	86
Bayelsa	49.1	45.3	109	28.2	47.6	12.7	11.5	100.0	49
Cross River	42.4	29.1	137	39.9	36.8	23.3	0.0	100.0	40
Delta	49.4	46.5	326	36.5	36.9	24.7	1.9	100.0	152
Edo	55.4	46.0	140	54.9	15.7	23.5	5.9	100.0	64
Rivers	69.5	59.0	435	18.7	40.4	40.1	0.8	100.0	257
South West									
Ekiti	37.1	34.4	139	76.0	14.7	8.4	0.9	100.0	48
Lagos	73.9	69.7	845	69.0	23.4	7.0	0.5	100.0	589
Ogun	56.5	42.9	309	58.1	27.5	13.0	1.4	100.0	132
Ondo	39.5	38.1	247	59.5	19.7	11.9	8.9	100.0	94
Osun	24.4	20.9	269	(54.8)	(40.2)	(3.4)	(1.6)	100.0	56
Oyo	62.5	60.9	432	56.4	23.2	20.4	0.0	100.0	263
Education									
No education	4.6	3.8	2,555	18.3	43.2	32.4	6.1	100.0	96
Primary	15.9	11.4	1,590	17.5	32.2	44.5	5.7	100.0	181
Secondary	44.8	39.2	5,697	41.1	36.7	20.0	2.2	100.0	2,231
More than secondary	85.1	82.4	2,025	66.5	23.4	8.9	1.1	100.0	1,668

Continued…

Table 3.5.2—*Continued*

Background characteristic	Ever used the internet	Used the internet in the past 12 months	Number	Among respondents who have used the internet in the past 12 months, percentage who, in the past month, used the internet: Almost every day	At least once a week	Less than once a week	Not at all	Total	Number
Wealth quintile									
Lowest	6.0	5.1	1,991	15.1	41.1	33.2	10.6	100.0	102
Second	21.7	18.6	2,123	28.5	36.0	31.9	3.5	100.0	394
Middle	30.1	26.0	2,393	38.1	34.3	24.2	3.4	100.0	623
Fourth	48.8	43.4	2,590	45.7	33.2	19.3	1.8	100.0	1,125
Highest	75.1	69.7	2,770	62.0	27.8	9.3	0.9	100.0	1,931
Total 15-49	39.1	35.2	11,868	49.7	31.4	16.9	2.0	100.0	4,176
50-59	22.2	19.6	1,443	49.0	31.6	18.6	0.8	100.0	282
Total 15-59	37.3	33.5	13,311	49.7	31.4	17.0	1.9	100.0	4,459

Note: Figures in parentheses are based on 25-49 unweighted cases.

Table 3.6.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Nigeria DHS 2018

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Number of women
	Currently employed[1]	Not currently employed			
Age					
15-19	35.6	3.0	61.4	100.0	8,448
20-24	55.4	3.4	41.2	100.0	6,835
25-29	67.7	4.4	27.9	100.0	7,255
30-34	75.6	3.6	20.8	100.0	6,178
35-39	80.4	3.5	16.1	100.0	5,463
40-44	83.8	2.5	13.7	100.0	3,940
45-49	83.8	3.1	13.1	100.0	3,701
Marital status					
Never married	46.5	2.9	50.7	100.0	10,550
Married or living together	70.5	3.6	25.9	100.0	29,090
Divorced/separated/widowed	80.7	4.0	15.3	100.0	2,181
Number of living children					
0	46.0	3.1	50.9	100.0	12,271
1-2	67.8	3.7	28.4	100.0	10,731
3-4	75.2	3.4	21.4	100.0	9,363
5+	76.3	3.5	20.3	100.0	9,457
Residence					
Urban	67.0	2.9	30.1	100.0	19,163
Rural	63.3	3.8	32.9	100.0	22,658
Zone					
North Central	70.9	4.1	25.1	100.0	5,891
North East	60.7	2.9	36.4	100.0	6,636
North West	50.8	4.0	45.1	100.0	12,225
South East	71.8	4.3	23.9	100.0	4,963
South South	72.7	2.8	24.5	100.0	4,840
South West	78.1	2.1	19.8	100.0	7,266
State					
North Central					
FCT-Abuja	47.9	5.4	46.6	100.0	319
Benue	85.7	4.1	10.3	100.0	1,354
Kogi	81.4	3.7	14.9	100.0	654
Kwara	69.7	1.8	28.5	100.0	684
Nasarawa	54.2	1.1	44.7	100.0	648
Niger	62.1	2.5	35.4	100.0	1,357
Plateau	75.2	10.4	14.4	100.0	875
North East					
Adamawa	61.0	4.2	34.8	100.0	903
Bauchi	63.1	4.5	32.5	100.0	1,343
Borno	47.8	2.8	49.4	100.0	1,469
Gombe	43.4	1.7	55.0	100.0	717
Taraba	76.5	2.0	21.5	100.0	877
Yobe	71.3	1.9	26.7	100.0	1,327
North West					
Jigawa	48.1	22.0	29.9	100.0	1,382
Kaduna	64.3	0.8	34.9	100.0	2,493
Kano	54.8	2.1	43.1	100.0	2,692
Katsina	42.1	4.1	53.8	100.0	2,283
Kebbi	50.6	0.1	49.3	100.0	1,136
Sokoto	48.6	1.8	49.6	100.0	910
Zamfara	37.1	0.3	62.6	100.0	1,328
South East					
Abia	73.9	0.5	25.6	100.0	630
Anambra	73.4	2.0	24.6	100.0	1,477
Ebonyi	94.0	1.7	4.3	100.0	1,027
Enugu	45.5	12.7	41.7	100.0	880
Imo	68.2	5.4	26.4	100.0	948
South South					
Akwa Ibom	58.9	3.9	37.2	100.0	948
Bayelsa	72.6	2.8	24.6	100.0	298
Cross River	80.3	4.4	15.3	100.0	574
Delta	74.7	1.2	24.1	100.0	931
Edo	71.1	1.1	27.8	100.0	555
Rivers	77.8	3.0	19.1	100.0	1,534

Continued...

Table 3.6.1—*Continued*

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Number of women
	Currently employed[1]	Not currently employed			
South West					
Ekiti	79.7	3.4	17.0	100.0	475
Lagos	75.5	3.7	20.8	100.0	2,891
Ogun	82.3	0.6	17.2	100.0	927
Ondo	74.8	1.7	23.5	100.0	683
Osun	78.4	0.6	21.0	100.0	938
Oyo	81.8	0.6	17.6	100.0	1,352
Education					
No education	58.7	3.9	37.4	100.0	14,603
Primary	76.6	3.5	20.0	100.0	6,039
Secondary	64.4	3.2	32.4	100.0	16,583
More than secondary	71.9	2.7	25.4	100.0	4,596
Wealth quintile					
Lowest	58.1	4.8	37.1	100.0	7,222
Second	63.2	3.6	33.1	100.0	8,045
Middle	66.5	3.3	30.2	100.0	8,207
Fourth	67.2	3.0	29.8	100.0	8,990
Highest	68.3	2.7	29.0	100.0	9,357
Total	65.0	3.4	31.6	100.0	41,821

[1] "Currently employed" is defined as having done work in the past 7 days. Includes persons who did not work in the past 7 days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table 3.6.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, Nigeria DHS 2018

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Number of men
	Currently employed[1]	Not currently employed			
Age					
15-19	56.2	4.0	39.8	100.0	2,415
20-24	76.7	3.5	19.8	100.0	1,472
25-29	91.9	2.2	5.9	100.0	1,599
30-34	96.9	1.0	2.1	100.0	1,792
35-39	97.9	0.7	1.4	100.0	1,832
40-44	99.2	0.4	0.4	100.0	1,569
45-49	98.1	0.7	1.2	100.0	1,188
Marital status					
Never married	68.7	3.6	27.7	100.0	4,951
Married or living together	98.5	0.6	0.9	100.0	6,786
Divorced/separated/widowed	93.0	4.2	2.8	100.0	131
Number of living children					
0	71.1	3.5	25.5	100.0	5,410
1-2	98.2	0.8	1.0	100.0	2,488
3-4	98.5	0.6	0.8	100.0	2,050
5+	99.0	0.4	0.6	100.0	1,920
Residence					
Urban	83.8	1.8	14.4	100.0	5,512
Rural	87.9	2.0	10.0	100.0	6,356
Zone					
North Central	87.3	1.3	11.5	100.0	1,704
North East	91.3	1.3	7.5	100.0	1,936
North West	88.9	2.4	8.6	100.0	3,195
South East	84.8	1.1	14.1	100.0	1,355
South South	73.8	4.5	21.6	100.0	1,438
South West	84.9	1.1	14.0	100.0	2,240
State					
North Central					
FCT-Abuja	74.8	2.5	22.8	100.0	96
Benue	90.8	0.9	8.3	100.0	351
Kogi	82.7	6.2	11.1	100.0	156
Kwara	80.0	0.5	19.5	100.0	208
Nasarawa	92.6	0.9	6.6	100.0	206
Niger	85.9	0.7	13.4	100.0	442
Plateau	94.2	0.2	5.6	100.0	246
North East					
Adamawa	96.5	3.3	0.2	100.0	218
Bauchi	89.0	1.2	9.7	100.0	420
Borno	98.2	0.0	1.8	100.0	398
Gombe	96.5	1.7	1.8	100.0	240
Taraba	89.4	1.5	9.1	100.0	187
Yobe	83.0	1.2	15.8	100.0	472
North West					
Jigawa	89.1	1.4	9.5	100.0	291
Kaduna	89.0	0.8	10.2	100.0	636
Kano	84.7	3.8	11.5	100.0	676
Katsina	88.9	3.0	8.1	100.0	687
Kebbi	91.0	4.7	4.3	100.0	291
Sokoto	86.0	0.3	13.7	100.0	218
Zamfara	96.1	2.0	2.0	100.0	396
South East					
Abia	80.7	0.0	19.3	100.0	185
Anambra	91.4	0.0	8.6	100.0	409
Ebonyi	88.8	1.1	10.0	100.0	233
Enugu	81.6	5.0	13.3	100.0	192
Imo	78.1	0.8	21.1	100.0	337
South South					
Akwa Ibom	73.1	2.9	24.0	100.0	291
Bayelsa	72.4	18.3	9.3	100.0	109
Cross River	76.7	1.0	22.2	100.0	137
Delta	66.0	2.8	31.2	100.0	326
Edo	78.8	3.0	18.1	100.0	140
Rivers	78.0	5.2	16.9	100.0	435

Continued...

Table 3.6.2—*Continued*

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Number of men
	Currently employed[1]	Not currently employed			
South West					
Ekiti	85.4	1.0	13.6	100.0	139
Lagos	83.7	1.1	15.2	100.0	845
Ogun	86.6	1.7	11.7	100.0	309
Ondo	91.4	1.4	7.2	100.0	247
Osun	82.9	1.3	15.8	100.0	269
Oyo	83.5	0.3	16.2	100.0	432
Education					
No education	92.9	1.3	5.8	100.0	2,555
Primary	92.0	1.1	6.9	100.0	1,590
Secondary	81.0	2.1	16.9	100.0	5,697
More than secondary	86.7	2.8	10.4	100.0	2,025
Wealth quintile					
Lowest	92.3	1.2	6.5	100.0	1,991
Second	88.6	1.8	9.7	100.0	2,123
Middle	86.3	2.2	11.5	100.0	2,393
Fourth	82.6	2.5	14.9	100.0	2,590
Highest	82.5	1.8	15.7	100.0	2,770
Total 15-49	86.0	1.9	12.1	100.0	11,868
50-59	96.5	1.0	2.5	100.0	1,443
Total 15-59	87.1	1.8	11.0	100.0	13,311

[1] "Currently employed" is defined as having done work in the past 7 days. Includes persons who did not work in the past 7 days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table 3.7.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Nigeria DHS 2018

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Other	Total	Number of women
Age									
15-19	5.1	0.6	54.9	8.6	0.1	30.1	0.5	100.0	3,264
20-24	8.8	1.2	60.0	8.3	0.1	21.1	0.5	100.0	4,020
25-29	10.1	1.9	62.4	6.1	0.1	19.1	0.3	100.0	5,229
30-34	10.2	1.7	66.3	5.0	0.1	16.6	0.2	100.0	4,896
35-39	10.4	1.7	65.6	3.7	0.1	18.5	0.1	100.0	4,583
40-44	8.3	1.7	65.0	2.3	0.1	22.5	0.0	100.0	3,399
45-49	8.3	2.3	58.4	2.5	0.0	28.3	0.2	100.0	3,218
Marital status									
Never married	12.8	2.8	52.7	8.3	0.2	22.6	0.5	100.0	5,205
Married or living together	8.2	1.3	64.8	4.7	0.1	20.7	0.2	100.0	21,555
Divorced/separated/widowed	7.5	1.4	59.8	2.8	0.3	28.0	0.2	100.0	1,847
Number of living children									
0	12.7	2.6	54.8	8.1	0.2	21.1	0.6	100.0	6,025
1-2	11.1	1.7	61.5	6.3	0.2	19.1	0.2	100.0	7,679
3-4	8.2	1.4	65.1	4.4	0.0	20.8	0.1	100.0	7,362
5+	4.7	0.8	66.3	2.8	0.0	25.2	0.2	100.0	7,542
Residence									
Urban	13.9	2.6	66.6	7.2	0.1	9.5	0.2	100.0	13,399
Rural	4.7	0.7	58.4	3.5	0.1	32.2	0.3	100.0	15,208
Zone									
North Central	6.9	1.3	41.3	3.2	0.1	46.8	0.5	100.0	4,415
North East	2.3	0.9	56.7	7.4	0.0	32.5	0.3	100.0	4,222
North West	5.5	0.6	84.0	3.7	0.1	5.9	0.3	100.0	6,711
South East	11.6	1.6	54.9	5.1	0.1	26.6	0.2	100.0	3,777
South South	11.4	3.3	57.5	3.4	0.2	23.9	0.3	100.0	3,654
South West	16.3	2.4	64.8	8.4	0.2	7.8	0.1	100.0	5,829
State									
North Central									
FCT-Abuja	10.6	8.7	49.3	10.8	1.5	19.1	0.0	100.0	170
Benue	3.6	0.8	24.2	2.3	0.0	67.7	1.4	100.0	1,215
Kogi	5.5	2.5	66.5	0.9	0.0	24.3	0.3	100.0	557
Kwara	17.7	0.1	50.0	9.2	0.1	22.5	0.4	100.0	489
Nasarawa	8.4	1.5	49.6	5.9	0.0	34.1	0.5	100.0	358
Niger	4.3	1.0	39.6	1.3	0.0	53.7	0.0	100.0	877
Plateau	7.6	0.7	40.7	1.5	0.0	49.5	0.0	100.0	749
North East									
Adamawa	1.0	1.0	36.1	0.2	0.0	61.8	0.0	100.0	589
Bauchi	2.1	0.3	75.0	9.2	0.0	13.2	0.3	100.0	907
Borno	4.1	1.8	55.6	20.4	0.0	18.1	0.1	100.0	743
Gombe	3.0	0.7	63.6	13.2	0.0	16.9	2.6	100.0	323
Taraba	3.4	1.0	53.8	0.1	0.0	41.8	0.0	100.0	688
Yobe	1.0	0.5	52.7	3.4	0.0	42.4	0.0	100.0	972
North West									
Jigawa	0.9	0.3	83.3	12.8	0.0	2.8	0.0	100.0	969
Kaduna	4.6	0.6	85.0	0.4	0.1	9.1	0.0	100.0	1,623
Kano	4.7	0.5	87.8	2.1	0.0	4.9	0.0	100.0	1,533
Katsina	5.2	0.9	83.4	6.6	0.2	2.1	1.5	100.0	1,054
Kebbi	22.8	0.2	59.6	0.8	0.0	16.5	0.1	100.0	576
Sokoto	3.3	0.0	89.8	2.0	0.0	4.8	0.2	100.0	459
Zamfara	2.6	1.1	95.0	0.0	0.0	1.2	0.2	100.0	497
South East									
Abia	10.3	0.6	69.3	6.9	0.0	12.3	0.6	100.0	469
Anambra	11.2	2.1	61.6	8.3	0.0	16.7	0.1	100.0	1,114
Ebonyi	8.4	1.0	29.0	1.9	0.0	59.4	0.3	100.0	983
Enugu	11.5	3.0	64.6	0.0	0.5	20.4	0.0	100.0	513
Imo	17.5	1.5	64.0	6.9	0.0	10.1	0.0	100.0	697
South South									
Akwa Ibom	15.8	2.3	68.0	3.1	0.4	9.9	0.4	100.0	595
Bayelsa	5.3	0.9	47.3	1.8	0.1	43.2	1.4	100.0	225
Cross River	6.1	3.2	47.1	1.0	0.2	42.3	0.1	100.0	486
Delta	8.5	2.2	51.7	7.8	0.3	29.4	0.1	100.0	707
Edo	9.6	2.9	53.5	9.5	0.4	24.0	0.2	100.0	400
Rivers	14.6	5.0	63.1	0.3	0.0	16.7	0.3	100.0	1,240

Continued...

Table 3.7.1—*Continued*

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Other	Total	Number of women
South West									
Ekiti	18.6	2.6	49.4	8.8	0.1	20.5	0.0	100.0	394
Lagos	23.4	2.6	63.3	10.1	0.2	0.4	0.0	100.0	2,290
Ogun	9.2	3.4	65.1	9.8	0.4	12.2	0.0	100.0	768
Ondo	12.5	1.1	54.8	12.7	0.0	18.8	0.2	100.0	523
Osun	17.6	1.0	64.9	4.5	0.0	11.9	0.0	100.0	741
Oyo	6.8	3.0	77.6	4.4	0.4	7.6	0.2	100.0	1,114
Education									
No education	2.0	0.1	67.4	3.7	0.0	26.6	0.2	100.0	9,138
Primary	2.4	0.2	61.4	4.3	0.0	31.5	0.2	100.0	4,834
Secondary	8.1	1.6	64.1	7.3	0.2	18.5	0.3	100.0	11,208
More than secondary	40.1	7.7	43.8	4.1	0.1	3.9	0.3	100.0	3,428
Wealth quintile									
Lowest	1.6	0.1	55.5	2.9	0.0	39.6	0.3	100.0	4,543
Second	2.6	0.1	56.4	3.1	0.1	37.4	0.3	100.0	5,379
Middle	5.0	1.0	62.6	4.9	0.1	26.2	0.3	100.0	5,730
Fourth	10.6	2.0	69.4	6.6	0.1	11.0	0.3	100.0	6,309
Highest	21.1	4.0	64.5	7.6	0.2	2.4	0.2	100.0	6,647
Total	9.0	1.6	62.2	5.3	0.1	21.5	0.3	100.0	28,607

Table 3.7.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Nigeria DHS 2018

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Other	Total	Number of men
Age									
15-19	4.3	0.2	24.7	8.5	1.3	59.7	1.3	100.0	1,455
20-24	9.8	0.6	27.4	13.0	5.5	43.1	0.6	100.0	1,180
25-29	11.9	1.1	27.2	13.7	6.0	39.9	0.2	100.0	1,505
30-34	13.8	3.0	27.5	13.7	8.1	33.8	0.1	100.0	1,754
35-39	16.6	2.1	25.2	12.9	9.2	33.8	0.2	100.0	1,807
40-44	16.8	2.7	26.9	9.9	8.1	35.4	0.4	100.0	1,562
45-49	14.5	2.5	24.1	9.7	7.0	42.2	0.0	100.0	1,174
Marital status									
Never married	9.9	1.2	28.9	12.4	3.5	43.3	0.8	100.0	3,582
Married or living together	14.3	2.1	24.7	11.4	8.3	39.1	0.2	100.0	6,727
Divorced/separated/widowed	13.9	1.9	26.7	11.1	7.2	39.1	0.0	100.0	127
Number of living children									
0	10.2	1.3	28.3	12.0	4.1	43.3	0.7	100.0	4,031
1-2	16.8	2.4	26.7	13.1	8.6	32.2	0.1	100.0	2,463
3-4	15.7	1.9	23.9	13.1	9.5	35.7	0.1	100.0	2,033
5+	9.7	1.9	23.4	8.1	6.2	50.5	0.3	100.0	1,909
Residence									
Urban	20.0	2.8	34.1	16.7	8.6	17.3	0.5	100.0	4,718
Rural	6.8	0.9	19.7	7.6	5.0	59.6	0.3	100.0	5,718
Zone									
North Central	16.3	1.8	16.8	7.3	4.3	53.0	0.4	100.0	1,509
North East	7.1	1.4	23.9	5.4	3.9	58.3	0.1	100.0	1,791
North West	9.0	0.9	28.6	7.6	4.6	48.6	0.7	100.0	2,919
South East	8.0	1.5	32.7	21.6	11.3	24.5	0.4	100.0	1,164
South South	12.2	2.6	31.6	20.4	8.1	24.6	0.4	100.0	1,127
South West	24.0	3.2	24.9	16.3	10.4	20.9	0.2	100.0	1,927
State									
North Central									
FCT-Abuja	8.9	9.9	17.8	14.6	6.4	42.1	0.2	100.0	74
Benue	14.4	1.6	6.0	4.1	4.2	68.5	1.4	100.0	322
Kogi	17.1	2.7	17.5	13.8	5.8	43.1	0.0	100.0	139
Kwara	35.3	0.7	12.0	8.9	9.6	33.5	0.0	100.0	168
Nasarawa	18.3	2.1	25.3	15.5	5.3	32.5	0.9	100.0	192
Niger	7.4	0.7	24.7	4.0	1.8	61.2	0.0	100.0	382
Plateau	20.2	1.3	14.6	3.1	2.3	58.4	0.0	100.0	232
North East									
Adamawa	7.1	0.2	33.1	2.9	4.0	52.7	0.0	100.0	218
Bauchi	6.4	1.3	21.2	6.4	2.3	62.4	0.0	100.0	379
Borno	11.1	2.5	36.2	5.4	3.4	41.5	0.0	100.0	391
Gombe	7.7	0.2	15.7	5.6	5.7	65.0	0.1	100.0	236
Taraba	7.3	0.7	13.6	7.1	4.7	66.5	0.0	100.0	170
Yobe	3.5	1.9	18.6	5.0	4.4	66.3	0.2	100.0	397
North West									
Jigawa	7.4	0.3	38.1	6.4	6.2	41.6	0.0	100.0	263
Kaduna	11.3	0.8	14.0	14.0	5.5	54.0	0.3	100.0	571
Kano	17.5	0.7	32.9	10.0	5.9	30.6	2.3	100.0	599
Katsina	5.9	1.6	42.9	4.6	2.4	42.5	0.0	100.0	631
Kebbi	4.2	0.3	17.3	4.4	5.9	67.9	0.0	100.0	279
Sokoto	3.8	1.0	32.1	3.3	2.3	56.2	1.3	100.0	188
Zamfara	4.8	1.2	19.7	4.5	3.5	65.8	0.5	100.0	388
South East									
Abia	9.9	3.2	33.7	30.0	11.9	10.1	1.2	100.0	149
Anambra	4.7	1.3	39.2	24.4	14.5	15.5	0.3	100.0	374
Ebonyi	8.3	1.1	17.4	7.9	6.7	58.6	0.0	100.0	209
Enugu	4.3	2.0	20.6	23.7	8.6	39.9	1.0	100.0	166
Imo	13.7	0.8	42.8	22.3	11.8	8.6	0.0	100.0	266
South South									
Akwa Ibom	18.6	2.0	34.3	22.7	10.9	11.5	0.0	100.0	221
Bayelsa	17.8	1.8	14.6	12.2	5.1	47.8	0.8	100.0	99
Cross River	9.0	0.7	28.1	7.3	6.8	48.2	0.0	100.0	107
Delta	7.4	3.2	41.5	13.8	5.1	28.1	0.9	100.0	224
Edo	15.2	0.7	14.5	30.6	8.6	29.5	0.8	100.0	115
Rivers	9.8	4.0	34.9	26.1	9.3	15.6	0.2	100.0	361

Continued...

Table 3.7.2—*Continued*

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Other	Total	Number of men
South West									
Ekiti	7.8	3.2	22.1	10.8	3.6	52.5	0.0	100.0	120
Lagos	34.3	4.6	34.7	12.5	12.8	1.2	0.0	100.0	716
Ogun	15.8	4.0	16.6	25.2	13.6	24.3	0.5	100.0	272
Ondo	19.5	2.5	9.7	11.4	7.2	49.7	0.0	100.0	229
Osun	26.7	0.4	2.5	15.7	12.8	41.5	0.4	100.0	226
Oyo	16.6	2.0	36.2	22.7	6.1	15.9	0.5	100.0	363
Education									
No education	2.3	0.1	18.0	4.0	4.0	71.5	0.1	100.0	2,408
Primary	6.2	0.5	24.6	11.6	9.7	47.0	0.4	100.0	1,481
Secondary	10.0	1.3	31.4	16.3	7.8	32.7	0.5	100.0	4,733
More than secondary	39.1	6.4	24.7	10.3	4.4	14.6	0.5	100.0	1,815
Wealth quintile									
Lowest	1.7	0.2	13.3	2.1	2.7	79.9	0.1	100.0	1,862
Second	4.7	0.4	19.1	5.7	3.8	65.8	0.4	100.0	1,918
Middle	9.7	1.5	26.3	11.5	7.4	43.0	0.6	100.0	2,119
Fourth	14.5	1.3	33.8	18.4	10.8	20.9	0.3	100.0	2,204
Highest	29.3	4.9	34.9	18.4	7.4	4.6	0.5	100.0	2,334
Total 15-49	12.8	1.8	26.2	11.7	6.6	40.5	0.4	100.0	10,436
50-59	16.6	3.2	18.1	7.3	6.8	47.3	0.7	100.0	1,407
Total 15-59	13.2	2.0	25.2	11.2	6.6	41.3	0.4	100.0	11,843

Table 3.8 Type of employment: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to type of employment (agricultural or nonagricultural), Nigeria DHS 2018

Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	31.6	80.8	70.1
Cash and in-kind	17.4	8.9	10.8
In-kind only	4.0	0.8	1.5
Not paid	46.9	9.5	17.6
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	38.7	9.3	15.7
Employed by non-family member	3.4	16.8	13.9
Self-employed	57.9	74.0	70.4
Total	100.0	100.0	100.0
Continuity of employment			
All year	44.2	84.1	75.5
Seasonal	48.6	9.9	18.3
Occasional	7.1	6.0	6.3
Total	100.0	100.0	100.0
Number of women employed during the last 12 months	6,165	22,370	28,607

Note: Total includes women with missing information on type of employment who are not shown separately.

Table 3.9.1 Health insurance coverage: Women

Percentage of women age 15-49 with specific types of health insurance coverage, and percentage with any health insurance, according to background characteristics, Nigeria DHS 2018

Background characteristic	Employer-based insurance	Mutual health organisation/ community-based insurance	Privately purchased commercial insurance	Other	None	Any health insurance	Number of women
Age							
15-19	1.1	0.4	0.1	0.1	98.3	1.7	8,448
20-24	1.1	0.5	0.1	0.1	98.2	1.8	6,835
25-29	1.6	0.4	0.2	0.1	97.8	2.2	7,255
30-34	2.5	0.7	0.2	0.1	96.6	3.4	6,178
35-39	3.2	0.6	0.3	0.1	95.9	4.1	5,463
40-44	2.9	0.4	0.2	0.0	96.5	3.5	3,940
45-49	2.5	0.3	0.2	0.1	97.1	2.9	3,701
Residence							
Urban	3.5	0.4	0.2	0.1	95.8	4.2	19,163
Rural	0.6	0.5	0.2	0.1	98.6	1.4	22,658
Zone							
North Central	2.2	0.0	0.1	0.0	97.6	2.4	5,891
North East	1.0	0.2	0.1	0.0	98.7	1.3	6,636
North West	1.7	1.0	0.1	0.1	97.2	2.8	12,225
South East	2.1	0.5	0.6	0.1	96.8	3.2	4,963
South South	2.3	0.4	0.1	0.2	97.1	2.9	4,840
South West	2.7	0.2	0.2	0.1	96.7	3.3	7,266
Education							
No education	0.2	0.6	0.0	0.0	99.2	0.8	14,603
Primary	0.4	0.2	0.1	0.0	99.3	0.7	6,039
Secondary	1.6	0.3	0.2	0.1	97.8	2.2	16,583
More than secondary	10.8	1.0	0.8	0.4	87.2	12.8	4,596
Wealth quintile							
Lowest	0.0	0.5	0.0	0.0	99.4	0.6	7,222
Second	0.1	0.4	0.0	0.0	99.5	0.5	8,045
Middle	0.5	0.4	0.0	0.1	99.0	1.0	8,207
Fourth	1.3	0.4	0.2	0.1	97.9	2.1	8,990
Highest	6.9	0.5	0.6	0.2	92.0	8.0	9,357
Total	1.9	0.5	0.2	0.1	97.4	2.6	41,821

Table 3.9.2 Health insurance coverage: Men

Percentage of men age 15-49 with specific types of health insurance coverage, and percentage with any health insurance, according to background characteristics, Nigeria DHS 2018

Background characteristic	Employer-based insurance	Mutual health organisation/ community-based insurance	Privately purchased commercial insurance	Other	None	Any health insurance	Number of men
Age							
15-19	0.3	0.0	0.0	0.1	99.6	0.4	2,415
20-24	0.8	0.2	0.3	0.2	98.6	1.4	1,472
25-29	1.2	0.1	0.1	0.4	98.2	1.8	1,599
30-34	3.6	0.2	0.1	0.2	95.9	4.1	1,792
35-39	3.7	0.2	0.0	0.1	96.1	3.9	1,832
40-44	5.6	0.2	0.0	0.1	94.1	5.9	1,569
45-49	4.9	0.5	0.0	0.0	94.6	5.4	1,188
Residence							
Urban	4.3	0.3	0.1	0.2	95.2	4.8	5,512
Rural	1.3	0.1	0.1	0.1	98.6	1.4	6,356
Zone							
North Central	4.0	0.2	0.1	0.1	95.5	4.5	1,704
North East	1.6	0.1	0.0	0.0	98.4	1.6	1,936
North West	2.0	0.0	0.0	0.2	97.8	2.2	3,195
South East	1.7	0.2	0.0	0.0	98.0	2.0	1,355
South South	1.6	0.1	0.2	0.2	98.0	2.0	1,438
South West	4.7	0.5	0.1	0.3	94.4	5.6	2,240
Education							
No education	0.1	0.0	0.0	0.0	99.9	0.1	2,555
Primary	0.3	0.0	0.0	0.0	99.7	0.3	1,590
Secondary	1.2	0.1	0.0	0.0	98.6	1.4	5,697
More than secondary	11.8	0.8	0.3	0.8	86.5	13.5	2,025
Wealth quintile							
Lowest	0.0	0.0	0.0	0.0	100.0	0.0	1,991
Second	0.6	0.0	0.0	0.0	99.4	0.6	2,123
Middle	0.8	0.1	0.0	0.0	99.1	0.9	2,393
Fourth	1.9	0.1	0.0	0.1	98.0	2.0	2,590
Highest	8.4	0.7	0.3	0.6	90.2	9.8	2,770
Total 15-49	2.7	0.2	0.1	0.1	97.0	3.0	11,868
50-59	5.6	0.3	0.1	0.2	93.8	6.2	1,443
Total 15-59	3.0	0.2	0.1	0.2	96.6	3.4	13,311

Table 3.10.1 Tobacco smoking: Women

Percentage of women age 15-49 who smoke various tobacco products, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage who smoke:[1] Cigarettes[2]	Other type of tobacco[3]	Any type of tobacco	Number of women
Age				
15-19	0.1	0.0	0.1	8,448
20-24	0.3	0.0	0.3	6,835
25-29	0.4	0.1	0.4	7,255
30-34	0.4	0.1	0.4	6,178
35-39	0.2	0.0	0.2	5,463
40-44	0.3	0.1	0.3	3,940
45-49	0.2	0.0	0.2	3,701
Residence				
Urban	0.3	0.0	0.3	19,163
Rural	0.2	0.1	0.2	22,658
Zone				
North Central	0.3	0.0	0.3	5,891
North East	0.3	0.1	0.3	6,636
North West	0.1	0.1	0.1	12,225
South East	0.0	0.0	0.0	4,963
South South	0.3	0.0	0.3	4,840
South West	0.6	0.0	0.6	7,266
Education				
No education	0.1	0.0	0.1	14,603
Primary	0.3	0.1	0.3	6,039
Secondary	0.4	0.1	0.4	16,583
More than secondary	0.3	0.0	0.3	4,596
Wealth quintile				
Lowest	0.1	0.0	0.1	7,222
Second	0.2	0.1	0.2	8,045
Middle	0.3	0.0	0.3	8,207
Fourth	0.4	0.0	0.4	8,990
Highest	0.3	0.0	0.3	9,357
Total	0.3	0.0	0.3	41,821

[1] Includes daily and occasional (less than daily) use
[2] Includes kreteks
[3] Includes pipes full of tobacco, cigars, cheroots, cigarillos, and water pipes

Table 3.10.2 Tobacco smoking: Men

Percentage of men age 15-49 who smoke various tobacco products, and percent distribution of men by smoking frequency, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage who smoke:[1]			Smoking frequency			Total	Number of men
	Cigarettes[2]	Other type of tobacco[3]	Any type of tobacco	Daily smoker	Occasional smoker[4]	Non-smoker		
Age								
15-19	0.8	0.3	0.8	0.5	0.3	99.2	100.0	2,415
20-24	3.1	0.4	3.1	2.3	1.0	96.6	100.0	1,472
25-29	6.2	1.1	6.5	3.8	2.9	93.3	100.0	1,599
30-34	7.8	1.9	8.0	5.4	3.1	91.5	100.0	1,792
35-39	8.5	1.8	8.6	6.0	3.1	90.8	100.0	1,832
40-44	7.6	1.5	8.0	5.4	2.6	91.9	100.0	1,569
45-49	5.8	1.9	6.3	5.0	1.6	93.4	100.0	1,188
Residence								
Urban	5.0	1.3	5.2	3.4	2.2	94.4	100.0	5,512
Rural	5.8	1.1	6.0	4.3	1.9	93.8	100.0	6,356
Zone								
North Central	5.8	1.0	6.1	4.3	2.0	93.8	100.0	1,704
North East	3.2	0.4	3.2	2.5	0.8	96.7	100.0	1,936
North West	4.0	0.9	4.2	3.3	1.1	95.6	100.0	3,195
South East	9.0	1.4	9.2	6.2	3.8	90.1	100.0	1,355
South South	10.0	1.9	10.1	5.1	5.5	89.4	100.0	1,438
South West	4.2	1.9	4.4	3.4	1.3	95.3	100.0	2,240
Education								
No education	4.9	1.1	5.2	4.2	1.0	94.8	100.0	2,555
Primary	9.4	1.9	9.8	6.5	3.6	89.9	100.0	1,590
Secondary	5.4	1.2	5.5	3.8	2.1	94.1	100.0	5,697
More than secondary	3.2	0.7	3.4	1.5	2.1	96.4	100.0	2,025
Wealth quintile								
Lowest	4.9	1.0	5.0	3.9	1.3	94.8	100.0	1,991
Second	5.6	1.2	5.8	4.7	1.3	94.0	100.0	2,123
Middle	6.7	1.4	6.9	4.8	2.5	92.7	100.0	2,393
Fourth	6.0	1.1	6.1	3.8	2.8	93.4	100.0	2,590
Highest	4.2	1.2	4.4	2.5	2.1	95.4	100.0	2,770
Total 15-49	5.5	1.2	5.6	3.9	2.0	94.1	100.0	11,868
50-59	4.6	0.9	4.8	3.2	1.7	95.1	100.0	1,443
Total 15-59	5.4	1.2	5.5	3.8	2.0	94.2	100.0	13,311

[1] Includes daily and occasional (less than daily) use
[2] Includes manufactured cigarettes, hand-rolled cigarettes, and kreteks
[3] Includes pipes, cigars, cheroots, cigarillos, and water pipes
[4] Occasional refers to less often than daily use.

Table 3.11 Average number of cigarettes smoked daily: Men

Among men age 15-49 who smoke cigarettes daily, percent distribution by average number of cigarettes smoked per day, according to background characteristics, Nigeria DHS 2018

Background characteristic	Average number of cigarettes smoked per day[1]					Total	Number of respondents who smoke cigarettes daily[1]
	<5	5-9	10-14	15-24	≥25		
Age							
15-19	*	*	*	*	*	100.0	13
20-24	(53.4)	(30.7)	(14.3)	(0.0)	(1.6)	100.0	29
25-29	46.5	32.8	10.3	8.6	1.8	100.0	55
30-34	43.8	33.0	11.1	9.7	2.4	100.0	87
35-39	26.4	34.0	22.8	11.6	5.3	100.0	99
40-44	40.1	36.8	14.8	5.9	2.4	100.0	79
45-49	32.6	31.8	19.8	6.2	9.6	100.0	49
Residence							
Urban	39.3	32.8	12.3	11.8	3.8	100.0	162
Rural	37.8	32.9	18.9	6.2	4.2	100.0	250
Zone							
North Central	22.9	43.6	27.6	5.9	0.0	100.0	63
North East	59.6	18.7	9.5	11.2	1.0	100.0	47
North West	25.6	47.6	18.6	5.8	2.4	100.0	97
South East	47.6	33.1	13.5	4.3	1.5	100.0	75
South South	30.0	34.1	20.6	10.9	4.3	100.0	60
South West	53.3	10.8	6.4	14.8	14.7	100.0	69
Education							
No education	25.9	37.1	24.8	5.0	7.2	100.0	101
Primary	45.1	32.3	9.6	10.7	2.2	100.0	91
Secondary	40.7	31.8	16.0	8.3	3.1	100.0	193
More than secondary	(45.2)	(26.4)	(9.1)	(14.3)	(5.0)	100.0	27
Wealth quintile							
Lowest	33.5	25.7	29.4	5.1	6.2	100.0	73
Second	38.7	41.4	10.9	6.9	2.0	100.0	90
Middle	31.0	34.3	15.2	16.2	3.3	100.0	98
Fourth	48.3	28.8	14.4	7.2	1.3	100.0	90
Highest	40.8	32.6	13.1	3.9	9.7	100.0	61
Total 15-49	38.4	32.9	16.3	8.4	4.0	100.0	412
50-59	39.8	26.0	20.7	10.7	2.8	100.0	42
Total 15-59	38.5	32.2	16.7	8.6	3.9	100.0	454

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes manufactured cigarettes, hand-rolled cigarettes, and kreteks

Table 3.12 Smokeless tobacco use and any tobacco use

Percentage of women and men age 15-49 who currently use smokeless tobacco, according to type of tobacco product, and percentage who use any type of tobacco, Nigeria DHS 2018

Tobacco product	Women	Men
Snuff, by mouth	0.0	0.5
Snuff, by nose	0.1	0.9
Chewing tobacco	0.0	0.2
Betel quid with tobacco	0.0	0.1
Other type of smokeless tobacco	0.0	0.1
Any type of smokeless tobacco[1]	0.1	1.2
Any type of tobacco[2]	0.5	6.6
Number	41,821	11,868

Note: Table includes women and men who use smokeless tobacco daily or occasionally (less than daily).
[1] Includes snuff by mouth, snuff by nose, chewing tobacco, and betel quid with tobacco
[2] Includes all types of smokeless tobacco shown in this table along with cigarettes, kreteks, pipes, cigars, cheroots, cigarillos, and water pipes

MARRIAGE AND SEXUAL ACTIVITY 4

Key Findings

- ***Current marital status:*** 70% of women and 57% of men age 15-49 are currently in union.
- ***Polygyny:*** 31% of currently married women report that their husband has multiple wives.
- ***Age at first marriage:*** The median age at first marriage among women age 20-49 is 19.1 years. Men marry later than women, with the median age at first marriage among men age 30-59 being 27.7 years.
- ***Sexual initiation:*** The median age at first sexual intercourse among women is 17.2 years, while the median age among men is 21.7 years.

Marriage and sexual activity help determine the extent to which women are exposed to the risk of pregnancy. Thus, they are important determinants of fertility levels. However, the timing and circumstances of marriage and sexual activity also have profound consequences for women's and men's lives.

4.1 Marital Status

Currently married

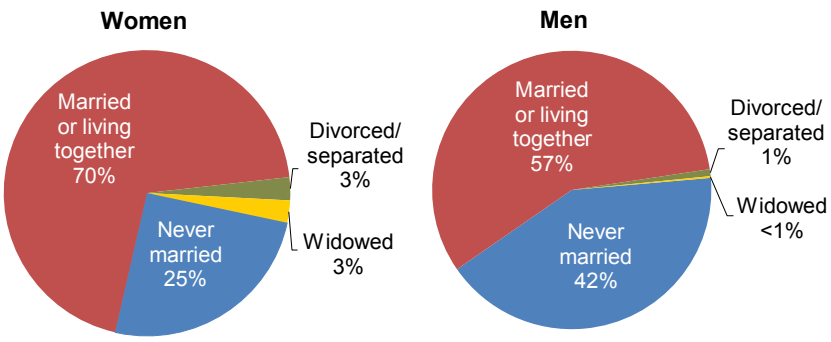
Women and men who report being married or living together with a partner as though married at the time of the survey.

Sample: Women and men age 15-49

Seventy percent of women and 57% of men are currently married or living together with a partner. By age 45-49, only 2% of both women and men have never been married (**Table 4.1** and **Figure 4.1**). Overall, women are more likely than men to be divorced, separated, or widowed. Women are less likely to be single; 25% of women and 42% of men have never been married.

Figure 4.1 **Marital status**

Percent distribution of women and men age 15-49



Trends: Overall, the percentage of women who are currently in union is consistent with the percentage in 2013, when 7 of 10 women were in union. There has been an increase among men, from 50% to 57%.

4.2 POLYGYNY

Polygyny
Women who report that their husband or partner has other wives are considered to be in a polygynous marriage.
Sample: Currently married women age 15-49

Thirty-one percent of women age 15-49 reported that their husband or partner has other wives, while 13% of men age 15-49 reported having more than one wife (**Table 4.2.1** and **Table 4.2.2**).

Trends: Thirty-one percent of currently married women are in a polygynous union, as compared with 41% in 1990 and 33% in 2013 (**Figure 4.2**).

Patterns by background characteristics

- Thirty-seven percent of rural women have one or more co-wives, compared with 21% of urban women (**Table 4.2.1**).

Figure 4.2 **Trends in polygyny**

Percentage of married women age 15-49 in a polygynous union

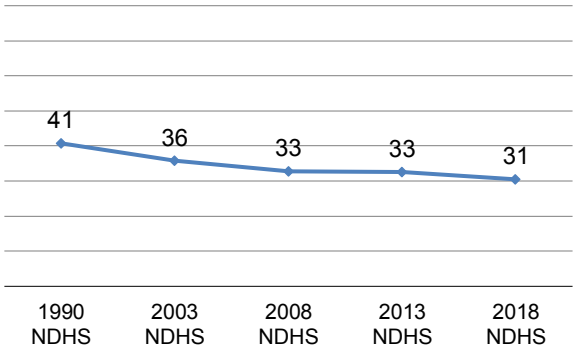
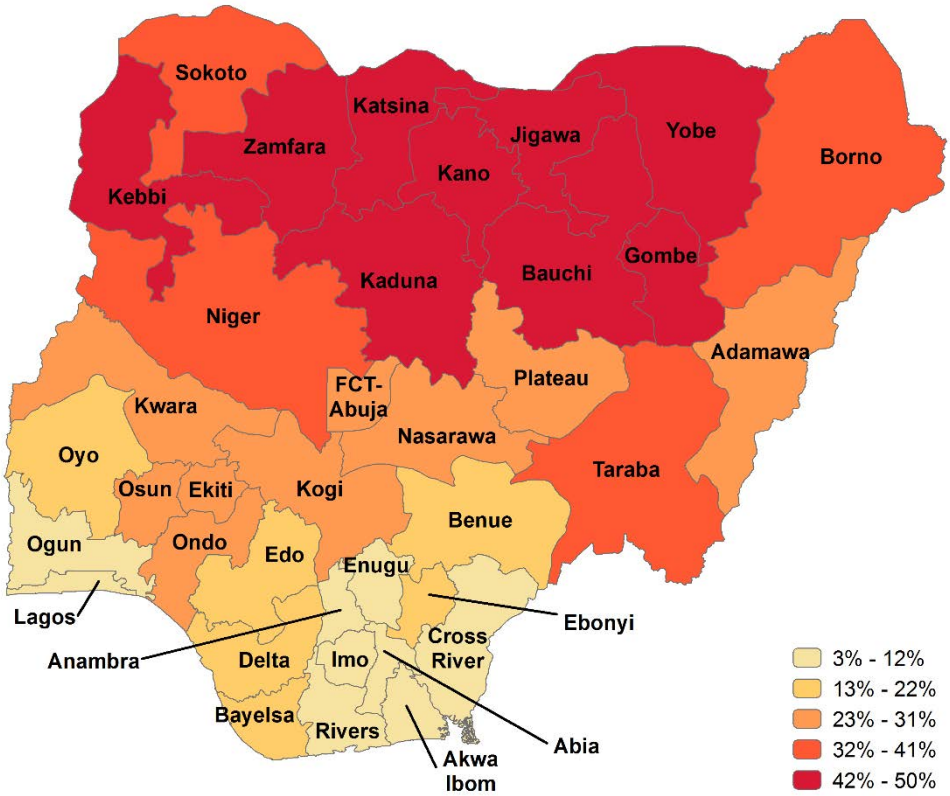


Figure 4.3 **Polygyny by state**

Percentage of currently married women age 15-49 in a polygynous union



- The percentage of women with one or more co-wives is highest in Katsina (50%) and lowest in Abia (3%) (**Figure 4.3**).

- Women with no education are much more likely to have co-wives (47%) than women who have more than a secondary education (9%).
- Forty-one percent of women in the lowest wealth quintile report that they have one or more co-wives, as compared with 13% of women in the highest quintile.
- Twenty-seven percent of men in Kebbi and Katsina have two or more wives, compared with less than1% in Anambra (**Table 4.2.2**).

4.3 Age at First Marriage

Median age at first marriage
Age by which half of respondents have been married.
Sample: Women age 20-49 and 25-49 and men age 20-49, 25-49, and 30-59

The median age at first marriage is 19.1 years among women age 20-49 and 25-49. The median age at first marriage among men age 30-59 is 27.7 years. This corroborates the fact that women tend to marry earlier than men. Forty-three percent of women and only 4% of men age 25-49 marry before their 18th birthday (**Table 4.3**).

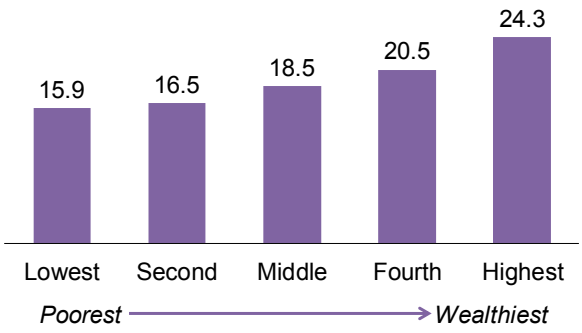
Trends: The median age at first marriage among women age 20-49 has increased slightly since 2013, from 18.3 years to 19.1 years. Within the same age group, the percentage of women marrying before age 18 has declined from 48% to 43%. Similarly, the percentage of women age 15-19 marrying before age 15 has declined from 12% to 8%.

Patterns by background characteristics

- Rural women age 25-49 marry at younger ages than their urban counterparts (17.2 years versus 21.6 years) (**Table 4.4**).
- Women in the North West marry at a much earlier age (15.8 years) than women in the South East (23.6 years).
- Women with no education marry 6 years earlier than women with a secondary education (15.9 years versus 21.9 years).
- Women in the lowest wealth quintile marry more than 8 years earlier than women in the highest quintile (15.9 years versus 24.3 years) (**Figure 4.4**).

Figure 4.4 **Women's median age at marriage by wealth**

Median age at first marriage among women age 25-49



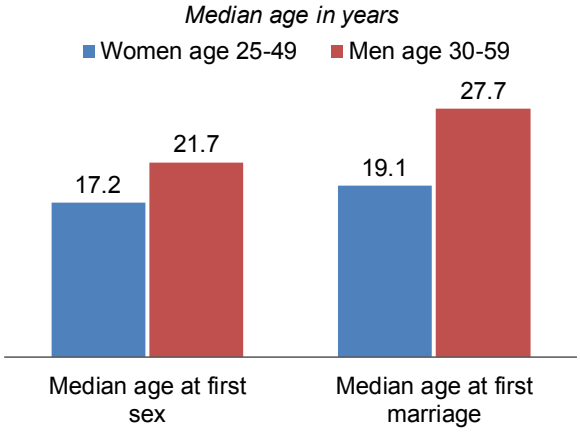
4.4 Age at First Sexual Intercourse

Median age at first sexual intercourse
Age by which half of respondents have had sexual intercourse.
Sample: Women age 20-49 and 25-49 and men age 20-49, 25-49, 25-59, and 30-59

The median age at first sexual intercourse among women age 25-49 in Nigeria is 17.2 years, while the median age among men is 21.7 years. On average, women initiate sexual intercourse 4.5 years earlier than men (**Table 4.5**).

The median age at first sexual intercourse is 6 years earlier than the median age at first marriage among men, while the median age at first sexual intercourse is 1.9 years earlier than the median age at first marriage among women (**Figure 4.5**). This indicates that the gap between age at initiation of sexual intercourse and age at first marriage is longer among men than among women. .

Figure 4.5 **Median age at first sex and first marriage**

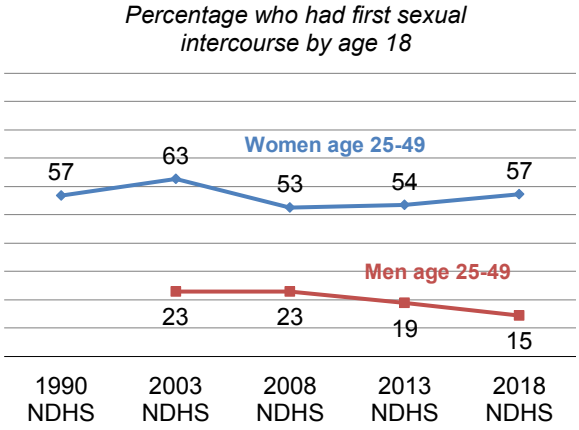


Nineteen percent of women initiate sexual intercourse by age 15 and 57% by age 18. By age 20, 7 out of 10 women have had sexual intercourse (**Table 4.5**). Three percent of men age 20-49 have their first sexual intercourse by age 15, and 3 out of 10 men have had sexual intercourse by age 20.

Trends: The percentage of women who have had sexual intercourse by age 18 has increased since 2013 (from 54% to 57%), while the percentage among men has declined (from 19% to 15%) (**Figure 4.6**).

Women's median age at first sexual intercourse has decreased slightly since 2013, from 17.6 years to 17.2 years.

Figure 4.6 **Trends in early sexual intercourse**



Patterns by background characteristics

- On average, women age 25-49 in rural areas engage in sexual intercourse earlier than women in urban areas (16.0 years versus 18.6 years). The difference among men age 25-59 is marginal, with urban men initiating sexual intercourse 0.8 years earlier than rural men (**Table 4.6**).
- The median age at first sexual intercourse among women is lowest in Katsina (15.3 years) and in Bauchi (15.4 years) and highest of in Enugu (20.3 years) and Lagos (20.1 years).
- Women with no education engage in sexual intercourse earlier than women with more than a secondary education (15.6 years versus 20.6 years).
- Women in the lowest wealth quintile initiate sexual intercourse earlier than women in the highest quintile (15.5 years versus 19.7 years).

4.5 Recent Sexual Activity

The survey collected data on recent sexual activity. Overall, more than half of women and men age 15-49 (58% and 54%, respectively) reported having sexual intercourse during the 4 weeks before the survey. Sixteen percent of women and 29% of men reported that they have not had sexual intercourse. For more information on recent sexual activity, see **Tables 4.7.1** and **4.7.2**.

List of Tables

For more information on marriage and sexual activity, see the following tables:

- **Table 4.1 Current marital status**
- **Table 4.2.1 Number of women's co-wives**
- **Table 4.2.2 Number of men's wives**
- **Table 4.3 Age at first marriage**
- **Table 4.4 Median age at first marriage by background characteristics**
- **Table 4.5 Age at first sexual intercourse**
- **Table 4.6 Median age at first sexual intercourse according to background characteristics**
- **Table 4.7.1 Recent sexual activity: Women**
- **Table 4.7.2 Recent sexual activity: Men**

Table 4.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Nigeria DHS 2018

Age	Marital status						Total	Percentage of respondents currently in union	Number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed			
				WOMEN					
15-19	76.6	22.1	0.7	0.4	0.1	0.1	100.0	22.8	8,448
20-24	33.5	60.8	3.0	1.5	0.9	0.2	100.0	63.8	6,835
25-29	13.3	80.3	3.2	1.6	1.1	0.6	100.0	83.5	7,255
30-34	7.3	85.0	2.7	1.5	1.8	1.7	100.0	87.7	6,178
35-39	4.0	86.1	2.5	1.7	2.5	3.2	100.0	88.6	5,463
40-44	2.1	85.2	2.5	1.6	2.1	6.5	100.0	87.7	3,940
45-49	1.8	79.9	1.9	1.6	2.4	12.5	100.0	81.8	3,701
Total 15-49	25.2	67.2	2.3	1.3	1.3	2.5	100.0	69.6	41,821
				MEN					
15-19	99.7	0.2	0.0	0.0	0.1	0.0	100.0	0.3	2,415
20-24	83.8	15.7	0.1	0.2	0.1	0.0	100.0	15.8	1,472
25-29	49.4	47.9	1.4	0.9	0.2	0.1	100.0	49.4	1,599
30-34	19.6	74.2	4.6	0.6	0.8	0.2	100.0	78.8	1,792
35-39	5.8	88.0	4.4	0.8	0.8	0.3	100.0	92.4	1,832
40-44	2.6	91.1	4.7	0.5	0.5	0.6	100.0	95.8	1,569
45-49	1.9	92.3	4.5	0.2	0.6	0.6	100.0	96.8	1,188
Total 15-49	41.7	54.5	2.7	0.4	0.4	0.2	100.0	57.2	11,868
50-59	0.8	92.0	4.7	0.8	0.3	1.4	100.0	96.6	1,443
Total 15-59	37.3	58.6	2.9	0.5	0.4	0.4	100.0	61.5	13,311

Table 4.2.1 Number of women's co-wives

Percent distribution of currently married women age 15-49 by number of co-wives, and percentage of currently married women with one or more co-wives, according to background characteristics, Nigeria DHS 2018

Background characteristic	Number of co-wives				Total	Percentage with one or more co-wives[1]	Number of women
	0	1	2+	Don't know			
Age							
15-19	77.2	20.3	2.4	0.1	100.0	22.7	1,927
20-24	75.3	20.5	4.0	0.2	100.0	24.4	4,362
25-29	72.8	22.9	4.1	0.3	100.0	26.9	6,060
30-34	69.0	24.1	6.5	0.4	100.0	30.6	5,417
35-39	66.1	25.6	7.6	0.6	100.0	33.2	4,841
40-44	61.7	27.5	10.3	0.5	100.0	37.8	3,457
45-49	61.2	26.8	11.6	0.5	100.0	38.4	3,026
Residence							
Urban	78.3	16.3	4.9	0.5	100.0	21.2	11,790
Rural	62.9	29.2	7.6	0.3	100.0	36.8	17,299
Zone							
North Central	70.5	22.6	6.6	0.3	100.0	29.1	4,086
North East	60.2	31.2	8.5	0.1	100.0	39.7	4,841
North West	54.7	35.9	9.4	0.0	100.0	45.3	9,826
South East	91.2	6.9	1.8	0.1	100.0	8.7	2,893
South South	88.3	7.6	2.2	1.9	100.0	9.8	2,777
South West	82.3	12.9	4.0	0.8	100.0	16.9	4,666
State							
North Central							
FCT-Abuja	74.0	19.4	6.4	0.1	100.0	25.9	202
Benue	81.9	13.3	4.5	0.3	100.0	17.8	876
Kogi	71.6	21.6	5.3	1.6	100.0	26.8	428
Kwara	71.1	25.1	3.1	0.6	100.0	28.3	486
Nasarawa	69.9	20.7	9.3	0.0	100.0	30.1	416
Niger	59.5	30.5	9.9	0.1	100.0	40.4	1,108
Plateau	72.3	22.5	5.2	0.0	100.0	27.7	570
North East							
Adamawa	71.1	21.9	6.4	0.7	100.0	28.2	624
Bauchi	53.4	36.4	10.2	0.0	100.0	46.6	1,134
Borno	67.2	23.7	9.0	0.0	100.0	32.8	953
Gombe	56.1	34.1	9.7	0.0	100.0	43.9	554
Taraba	63.0	27.1	9.9	0.0	100.0	37.0	580
Yobe	55.2	38.9	5.9	0.0	100.0	44.8	996
North West							
Jigawa	55.3	36.3	8.4	0.0	100.0	44.7	1,158
Kaduna	56.2	34.9	8.9	0.0	100.0	43.8	1,975
Kano	52.9	36.4	10.7	0.0	100.0	47.1	2,085
Katsina	49.9	39.0	11.1	0.0	100.0	50.1	1,772
Kebbi	55.7	39.2	5.1	0.0	100.0	44.3	945
Sokoto	63.4	31.6	5.1	0.0	100.0	36.6	777
Zamfara	55.6	31.9	12.4	0.1	100.0	44.3	1,116
South East							
Abia	96.7	2.6	0.7	0.0	100.0	3.3	376
Anambra	93.7	5.6	0.6	0.0	100.0	6.3	905
Ebonyi	81.1	12.1	6.5	0.2	100.0	18.6	600
Enugu	92.3	6.4	0.9	0.3	100.0	7.3	458
Imo	93.4	6.5	0.1	0.0	100.0	6.6	554
South South							
Akwa Ibom	92.5	5.3	0.4	1.8	100.0	5.7	490
Bayelsa	80.2	12.0	3.7	4.2	100.0	15.6	195
Cross River	90.5	5.9	2.6	0.9	100.0	8.5	318
Delta	81.4	9.8	4.4	4.4	100.0	14.2	551
Edo	84.0	12.6	3.3	0.1	100.0	15.9	370
Rivers	93.1	5.1	0.7	1.1	100.0	5.9	855
South West							
Ekiti	72.1	19.1	8.6	0.2	100.0	27.7	326
Lagos	86.3	10.5	1.3	1.9	100.0	11.8	1,645
Ogun	88.7	9.9	1.2	0.2	100.0	11.1	624
Ondo	76.6	18.3	4.6	0.5	100.0	22.9	421
Osun	73.1	18.6	8.4	0.0	100.0	26.9	625
Oyo	83.4	11.0	5.6	0.0	100.0	16.6	1,024
Education							
No education	53.2	36.8	9.9	0.0	100.0	46.7	12,955
Primary	70.1	22.7	6.9	0.4	100.0	29.5	4,580
Secondary	85.3	11.1	2.7	0.8	100.0	13.9	8,767
More than secondary	90.3	7.0	2.0	0.7	100.0	9.0	2,788

Continued...

Table 4.2.1—*Continued*

Background characteristic	Number of co-wives				Total	Percentage with one or more co-wives[1]	Number of women
	0	1	2+	Don't know			
Wealth quintile							
Lowest	58.9	34.7	6.4	0.0	100.0	41.1	6,008
Second	58.2	32.4	9.3	0.1	100.0	41.7	6,224
Middle	68.0	23.9	7.7	0.4	100.0	31.6	5,601
Fourth	76.3	17.1	5.9	0.7	100.0	23.0	5,599
Highest	86.0	10.2	3.1	0.8	100.0	13.3	5,657
Total	69.1	24.0	6.5	0.4	100.0	30.5	29,090

[1] Excludes women who responded "don't know" when asked if their husband has other wives

Table 4.2.2 Number of men's wives

Percent distribution of currently married men age 15-49 by number of wives, according to background characteristics, Nigeria DHS 2018

Background characteristic	Number of wives 1	2+	Total	Number of men
Age				
15-19	*	*	100.0	7
20-24	99.2	0.8	100.0	233
25-29	94.5	5.5	100.0	790
30-34	90.9	9.1	100.0	1,412
35-39	88.5	11.5	100.0	1,693
40-44	83.2	16.8	100.0	1,502
45-49	78.8	21.2	100.0	1,150
Residence				
Urban	93.6	6.4	100.0	3,122
Rural	81.9	18.1	100.0	3,663
Zone				
North Central	85.4	14.6	100.0	968
North East	80.8	19.2	100.0	1,026
North West	75.5	24.5	100.0	1,703
South East	98.4	1.6	100.0	797
South South	98.2	1.8	100.0	782
South West	94.6	5.4	100.0	1,509
State				
North Central				
FCT-Abuja	90.2	9.8	100.0	58
Benue	94.6	5.4	100.0	216
Kogi	84.4	15.6	100.0	84
Kwara	79.0	21.0	100.0	106
Nasarawa	89.3	10.7	100.0	96
Niger	79.0	21.0	100.0	284
Plateau	84.4	15.6	100.0	125
North East				
Adamawa	93.2	6.8	100.0	131
Bauchi	77.8	22.2	100.0	238
Borno	80.4	19.6	100.0	229
Gombe	78.0	22.0	100.0	111
Taraba	82.8	17.2	100.0	115
Yobe	77.4	22.6	100.0	202
North West				
Jigawa	76.4	23.6	100.0	173
Kaduna	73.8	26.2	100.0	385
Kano	77.5	22.5	100.0	311
Katsina	73.3	26.7	100.0	325
Kebbi	72.7	27.3	100.0	171
Sokoto	80.0	20.0	100.0	124
Zamfara	78.1	21.9	100.0	214
South East				
Abia	99.5	0.5	100.0	93
Anambra	99.7	0.3	100.0	277
Ebonyi	96.6	3.4	100.0	154
Enugu	94.4	5.6	100.0	101
Imo	99.5	0.5	100.0	172
South South				
Akwa Ibom	98.9	1.1	100.0	147
Bayelsa	97.5	2.5	100.0	60
Cross River	97.8	2.2	100.0	73
Delta	97.2	2.8	100.0	185
Edo	95.9	4.1	100.0	65
Rivers	99.6	0.4	100.0	252
South West				
Ekiti	92.1	7.9	100.0	95
Lagos	99.3	0.7	100.0	562
Ogun	86.1	13.9	100.0	236
Ondo	88.5	11.5	100.0	126
Osun	97.2	2.8	100.0	188
Oyo	94.1	5.9	100.0	302
Education				
No education	75.2	24.8	100.0	1,665
Primary	86.1	13.9	100.0	1,133
Secondary	92.5	7.5	100.0	2,752
More than secondary	92.9	7.1	100.0	1,235

Continued...

Table 4.2.2—*Continued*

Background characteristic	Number of wives 1	Number of wives 2+	Total	Number of men
Wealth quintile				
Lowest	78.9	21.1	100.0	1,106
Second	78.0	22.0	100.0	1,203
Middle	85.8	14.2	100.0	1,360
Fourth	92.7	7.3	100.0	1,445
Highest	95.9	4.1	100.0	1,672
Total 15-49	87.3	12.7	100.0	6,786
50-59	75.4	24.6	100.0	1,395
Total 15-59	85.2	14.8	100.0	8,180

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 4.3 Age at first marriage

Percentage of women and men age 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Nigeria DHS 2018

Current age	Percentage first married by exact age: 15	18	20	22	25	Percentage never married	Number of respondents	Median age at first marriage
				WOMEN				
15-19	8.3	na	na	na	na	76.6	8,448	a
20-24	15.7	43.4	56.2	na	na	33.5	6,835	19.0
25-29	17.7	42.8	56.7	67.8	80.6	13.3	7,255	19.0
30-34	18.9	43.4	53.5	63.3	75.6	7.3	6,178	19.3
35-39	15.3	39.4	52.4	62.5	73.2	4.0	5,463	19.6
40-44	20.9	44.6	56.1	67.1	79.4	2.1	3,940	18.9
45-49	21.3	46.4	59.6	68.6	78.9	1.8	3,701	18.5
20-49	17.9	43.1	55.5	na	na	12.2	33,373	19.1
25-49	18.5	43.0	55.4	65.7	77.5	6.7	26,537	19.1
				MEN				
15-19	0.0	na	na	na	na	99.7	2,415	a
20-24	0.0	3.2	8.0	na	na	83.8	1,472	a
25-29	0.0	3.1	7.9	16.6	36.7	49.4	1,599	a
30-34	0.0	3.7	9.4	18.8	38.7	19.6	1,792	26.5
35-39	0.0	4.3	9.9	19.1	33.6	5.8	1,832	27.7
40-44	0.0	4.0	9.4	17.2	32.7	2.6	1,569	28.0
45-49	0.1	3.4	9.8	17.2	29.9	1.9	1,188	28.4
20-49	0.0	3.7	9.1	na	na	26.9	9,453	a
25-49	0.0	3.7	9.3	17.8	34.6	16.4	7,980	a
30-59	0.1	3.9	9.7	18.1	33.3	6.8	7,824	27.7

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner.
na = Not applicable due to censoring
a = Omitted because less than 50% of the women or men began living with their spouse or partner for the first time before reaching the beginning of the age group

Table 4.4 Median age at first marriage by background characteristics

Median age at first marriage among women age 20-49 and age 25-49, and median age at first marriage among men age 30-59, according to background characteristics, Nigeria DHS 2018

Background characteristic	Women age		Men age
	20-49	25-49	30-59
Residence			
Urban	a	21.6	29.4
Rural	17.2	17.2	26.0
Zone			
North Central	19.2	19.0	27.9
North East	16.7	16.6	25.2
North West	15.9	15.8	25.3
South East	a	23.6	a
South South	a	22.5	29.9
South West	a	23.3	29.0
State			
North Central			
FCT-Abuja	a	21.5	29.8
Benue	19.2	19.0	28.6
Kogi	19.6	19.6	28.1
Kwara	a	21.1	28.3
Nasarawa	19.4	19.1	27.8
Niger	17.7	17.5	26.9
Plateau	19.8	19.6	27.7
North East			
Adamawa	19.2	19.2	27.0
Bauchi	15.5	15.5	24.6
Borno	17.5	17.4	25.9
Gombe	15.9	15.8	23.6
Taraba	18.0	18.0	26.3
Yobe	15.9	15.9	24.2
North West			
Jigawa	15.8	15.7	23.6
Kaduna	16.6	16.7	25.5
Kano	16.0	15.9	26.1
Katsina	15.5	15.3	25.6
Kebbi	15.8	15.7	21.6
Sokoto	15.9	15.9	25.8
Zamfara	15.7	15.5	26.7
South East			
Abia	a	25.0	a
Anambra	a	23.5	a
Ebonyi	a	21.0	28.2
Enugu	a	23.2	29.7
Imo	a	a	a
South South			
Akwa Ibom	a	21.8	29.6
Bayelsa	a	20.5	26.0
Cross River	a	22.4	28.8
Delta	a	22.2	28.8
Edo	a	21.7	29.1
Rivers	a	24.2	a
South West			
Ekiti	a	21.5	29.0
Lagos	a	a	a
Ogun	a	23.0	26.9
Ondo	a	21.4	27.4
Osun	a	21.5	27.7
Oyo	a	22.4	28.2
Education			
No education	15.8	15.9	24.7
Primary	18.0	18.2	26.9
Secondary	a	21.9	28.2
More than secondary	a	a	a
Wealth quintile			
Lowest	15.8	15.9	24.6
Second	16.5	16.5	25.3
Middle	18.5	18.5	26.8
Fourth	a	20.5	28.4
Highest	a	24.3	a
Total	19.1	19.1	27.7

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner.
a = Omitted because less than 50% of the respondents began living with their spouse/partner for the first time before reaching the beginning of the age group

Table 4.5 Age at first sexual intercourse

Percentage of women and men age 15-49 who had first sexual intercourse by specific exact ages, percentage who never had sexual intercourse, and median age at first sexual intercourse, according to current age, Nigeria DHS 2018

	Percentage who had first sexual intercourse by exact age:					Percentage who never had intercourse	Number	Median age at first intercourse
Current age	15	18	20	22	25			
				WOMEN				
15-19	8.6	na	na	na	na	64.6	8,448	a
20-24	15.8	55.9	74.7	na	na	14.2	6,835	17.4
25-29	16.6	54.6	72.9	86.1	92.6	2.9	7,255	17.5
30-34	19.4	56.8	72.5	83.2	90.6	0.9	6,178	17.2
35-39	17.3	56.0	72.4	85.0	91.2	0.5	5,463	17.4
40-44	22.2	59.6	75.9	86.2	91.4	0.2	3,940	16.9
45-49	23.4	63.2	78.0	88.1	92.3	0.1	3,701	16.6
20-49	18.5	57.1	74.0	na	na	3.8	33,373	17.3
25-49	19.2	57.3	73.9	85.5	91.6	1.1	26,537	17.2
15-24	11.8	na	na	na	na	42.1	15,284	a
				MEN				
15-19	2.4	na	na	na	na	90.2	2,415	a
20-24	2.2	13.8	30.6	na	na	53.2	1,472	a
25-29	2.2	15.0	31.3	49.5	68.9	21.5	1,599	22.1
30-34	3.6	13.7	29.7	51.3	70.4	6.5	1,792	21.8
35-39	3.6	16.5	31.8	54.2	71.3	1.7	1,832	21.5
40-44	2.8	13.8	28.6	52.7	71.2	0.6	1,569	21.7
45-49	3.4	13.0	28.6	51.2	68.2	0.7	1,188	21.8
20-49	3.0	14.4	30.2	na	na	13.7	9,453	a
25-49	3.1	14.5	30.1	51.9	70.1	6.4	7,980	21.7
15-24	2.3	na	na	na	na	76.2	3,888	a
25-59	3.0	14.1	29.5	na	na	5.4	9,423	21.8
30-59	3.2	13.9	29.1	51.9	70.1	2.2	7,824	21.7

na = Not applicable due to censoring
a = Omitted because less than 50% of the respondents had sexual intercourse for the first time before reaching the beginning of the age group

Table 4.6 Median age at first sexual intercourse according to background characteristics

Median age at first sexual intercourse among women age 20-49 and age 25-49, and median age at first sexual intercourse among men age 25-59 and age 30-59, according to background characteristics, Nigeria DHS 2018

Background characteristic	Women age		Men age	
	20-49	25-49	25-59	30-59
Residence				
Urban	18.6	18.6	21.4	21.5
Rural	16.1	16.0	22.2	22.1
Zone				
North Central	17.5	17.4	22.5	22.5
North East	16.0	15.9	23.1	23.0
North West	15.8	15.7	24.4	24.4
South East	19.0	19.0	20.8	20.8
South South	17.9	17.9	19.6	19.6
South West	19.3	19.4	20.8	20.9
State				
North Central				
FCT-Abuja	18.2	18.2	20.8	20.7
Benue	16.7	16.6	22.1	22.2
Kogi	17.3	17.2	19.3	20.0
Kwara	18.5	18.5	20.5	20.6
Nasarawa	18.2	18.2	22.3	22.2
Niger	17.0	16.8	24.0	23.9
Plateau	18.2	18.2	a	25.7
North East				
Adamawa	17.1	17.0	20.2	20.4
Bauchi	15.5	15.4	23.4	23.5
Borno	17.5	17.3	22.4	22.3
Gombe	15.9	15.8	23.4	22.8
Taraba	16.0	15.9	21.0	21.2
Yobe	15.7	15.6	a	25.2
North West				
Jigawa	15.8	15.7	23.5	23.3
Kaduna	15.8	15.8	22.3	22.5
Kano	16.0	15.8	25.0	24.6
Katsina	15.5	15.3	a	25.8
Kebbi	15.9	15.8	21.9	21.5
Sokoto	15.7	15.6	a	25.5
Zamfara	15.6	15.5	a	26.4
South East				
Abia	18.8	18.7	20.4	20.4
Anambra	19.2	19.3	21.3	21.6
Ebonyi	18.1	18.0	19.0	19.0
Enugu	a	20.3	21.0	21.1
Imo	19.3	19.3	21.4	21.4
South South				
Akwa Ibom	17.4	17.0	22.3	22.8
Bayelsa	16.3	16.3	18.3	18.4
Cross River	17.5	17.3	19.2	19.8
Delta	17.9	17.8	20.8	20.8
Edo	18.5	18.5	19.4	19.7
Rivers	18.1	18.2	17.1	17.2
South West				
Ekiti	18.8	18.9	19.3	19.7
Lagos	20.0	20.1	20.3	20.3
Ogun	19.3	19.6	a	25.6
Ondo	18.3	18.1	19.5	19.7
Osun	18.8	18.8	20.1	20.2
Oyo	18.7	19.0	23.1	23.2
Education				
No education	15.6	15.6	23.1	23.0
Primary	16.6	16.8	21.5	21.4
Secondary	18.6	18.6	20.9	20.9
More than secondary	a	20.6	22.5	22.5
Wealth quintile				
Lowest	15.6	15.5	23.1	22.9
Second	15.9	15.8	22.2	21.9
Middle	17.0	16.9	21.7	21.8
Fourth	18.2	18.1	21.2	21.4
Highest	19.8	19.7	21.3	21.4
Total	17.3	17.2	21.8	21.7

a = Omitted because less than 50% of the respondents had intercourse for the first time before reaching the beginning of the age group

Table 4.7.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, Nigeria DHS 2018

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Never had sexual intercourse	Total	Number of women
Age						
15-19	22.7	9.5	3.2	64.6	100.0	8,448
20-24	58.6	20.2	7.0	14.2	100.0	6,835
25-29	70.8	19.4	6.9	2.9	100.0	7,255
30-34	72.8	18.3	8.0	0.9	100.0	6,178
35-39	72.2	18.1	9.3	0.5	100.0	5,463
40-44	69.7	18.3	11.8	0.2	100.0	3,940
45-49	58.8	20.0	21.1	0.1	100.0	3,701
Marital status						
Never married	11.6	15.9	8.7	63.8	100.0	10,550
Married or living together	78.7	16.9	4.4	0.0	100.0	29,090
Divorced/separated/widowed	13.9	25.6	60.4	0.0	100.0	2,181
Marital duration[2]						
0-4 years	78.2	18.9	2.9	0.0	100.0	5,709
5-9 years	79.5	16.9	3.6	0.0	100.0	6,011
10-14 years	79.5	16.2	4.3	0.0	100.0	4,586
15-19 years	80.0	15.9	4.1	0.0	100.0	4,048
20-24 years	77.7	17.2	5.1	0.0	100.0	2,818
25+ years	73.8	18.2	7.9	0.0	100.0	2,992
Married more than once	80.9	14.4	4.7	0.0	100.0	2,925
Residence						
Urban	51.2	18.4	10.0	20.3	100.0	19,163
Rural	64.4	16.0	7.0	12.6	100.0	22,658
Zone						
North Central	53.0	19.9	11.6	15.5	100.0	5,891
North East	65.7	11.1	6.0	17.1	100.0	6,636
North West	70.7	10.1	3.7	15.5	100.0	12,225
South East	40.0	25.4	15.8	18.7	100.0	4,963
South South	51.6	24.6	9.8	13.9	100.0	4,840
South West	52.2	21.6	9.7	16.4	100.0	7,266
State						
North Central						
FCT-Abuja	49.7	19.5	11.2	19.6	100.0	319
Benue	55.0	19.9	11.0	14.1	100.0	1,354
Kogi	43.3	28.9	13.8	14.0	100.0	654
Kwara	46.8	22.9	12.7	17.6	100.0	684
Nasarawa	59.8	13.6	8.4	18.2	100.0	648
Niger	61.3	16.0	10.0	12.7	100.0	1,357
Plateau	45.6	21.6	15.1	17.7	100.0	875
North East						
Adamawa	69.0	13.0	5.9	12.1	100.0	903
Bauchi	73.5	10.6	4.1	11.8	100.0	1,343
Borno	56.7	11.7	7.0	24.6	100.0	1,469
Gombe	68.3	9.2	5.9	16.6	100.0	717
Taraba	63.2	16.2	7.0	13.6	100.0	877
Yobe	66.0	7.3	6.5	20.2	100.0	1,327
North West						
Jigawa	76.4	8.4	1.8	13.5	100.0	1,382
Kaduna	71.2	11.2	3.9	13.7	100.0	2,493
Kano	67.0	10.8	3.9	18.4	100.0	2,692
Katsina	66.5	10.2	4.5	18.7	100.0	2,283
Kebbi	74.0	9.1	3.0	13.9	100.0	1,136
Sokoto	74.2	10.6	4.1	11.1	100.0	910
Zamfara	73.9	8.9	3.8	13.5	100.0	1,328
South East						
Abia	45.8	25.2	11.3	17.7	100.0	630
Anambra	44.1	28.0	11.9	16.0	100.0	1,477
Ebonyi	32.5	21.7	24.7	21.1	100.0	1,027
Enugu	33.7	26.3	17.7	22.3	100.0	880
Imo	44.0	24.7	13.7	17.6	100.0	948
South South						
Akwa Ibom	42.9	29.8	12.2	15.1	100.0	948
Bayelsa	62.0	18.2	6.2	13.6	100.0	298
Cross River	46.0	27.9	14.1	12.1	100.0	574
Delta	53.5	22.7	8.0	15.8	100.0	931
Edo	50.7	19.4	13.9	16.0	100.0	555
Rivers	56.4	24.5	7.1	12.0	100.0	1,534

Continued...

Table 4.7.1—*Continued*

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Never had sexual intercourse	Total	Number of women
South West						
Ekiti	44.0	28.4	13.4	14.2	100.0	475
Lagos	51.2	20.2	8.6	20.0	100.0	2,891
Ogun	54.7	19.8	12.9	12.6	100.0	927
Ondo	40.5	32.6	12.3	14.6	100.0	683
Osun	50.1	20.5	11.9	17.4	100.0	938
Oyo	62.9	18.7	5.9	12.5	100.0	1,352
Education						
No education	74.8	12.8	6.3	6.1	100.0	14,603
Primary	58.0	18.7	13.5	9.8	100.0	6,039
Secondary	44.8	19.2	8.1	27.9	100.0	16,583
More than secondary	55.7	21.3	9.2	13.9	100.0	4,596
Wealth quintile						
Lowest	70.3	13.0	6.3	10.5	100.0	7,222
Second	64.9	14.9	7.7	12.5	100.0	8,045
Middle	55.5	18.4	9.9	16.2	100.0	8,207
Fourth	52.3	19.5	9.6	18.6	100.0	8,990
Highest	51.9	18.9	8.1	21.0	100.0	9,357
Total	58.4	17.1	8.4	16.1	100.0	41,821

[1] Excludes women who had sexual intercourse within the last 4 weeks
[2] Excludes women who are not currently married

Table 4.7.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Nigeria DHS 2018

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Never had sexual intercourse	Total	Number of men
Age						
15-19	3.0	5.2	1.6	90.2	100.0	2,415
20-24	26.4	15.2	5.2	53.2	100.0	1,472
25-29	55.4	18.7	4.5	21.5	100.0	1,599
30-34	73.7	16.2	3.6	6.5	100.0	1,792
35-39	79.7	15.3	3.3	1.7	100.0	1,832
40-44	82.3	14.3	2.8	0.6	100.0	1,569
45-49	83.4	13.0	2.9	0.7	100.0	1,188
Marital status						
Never married	13.1	12.4	4.5	70.0	100.0	4,951
Married or living together	84.4	13.8	1.8	0.0	100.0	6,786
Divorced/separated/widowed	27.1	34.6	38.3	0.0	100.0	131
Marital duration[2]						
0-4 years	82.9	15.2	1.8	0.1	100.0	1,609
5-9 years	83.7	14.6	1.7	0.0	100.0	1,712
10-14 years	84.1	14.2	1.7	0.0	100.0	1,249
15-19 years	86.0	12.0	2.0	0.0	100.0	966
20-24 years	87.1	10.7	2.2	0.0	100.0	479
25+ years	85.1	10.9	4.1	0.0	100.0	192
Married more than once	86.0	13.3	0.7	0.0	100.0	580
Residence						
Urban	53.2	16.1	3.5	27.2	100.0	5,512
Rural	54.7	11.1	3.1	31.0	100.0	6,356
Zone						
North Central	51.8	14.6	3.6	30.0	100.0	1,704
North East	52.2	8.1	2.2	37.5	100.0	1,936
North West	51.3	4.8	1.5	42.5	100.0	3,195
South East	54.0	19.9	6.4	19.7	100.0	1,355
South South	61.0	18.1	4.1	16.9	100.0	1,438
South West	56.6	22.7	4.3	16.4	100.0	2,240
State						
North Central						
FCT-Abuja	51.3	11.4	5.6	31.8	100.0	96
Benue	51.0	18.6	3.8	26.5	100.0	351
Kogi	42.3	31.8	9.3	16.5	100.0	156
Kwara	47.7	22.0	4.9	25.5	100.0	208
Nasarawa	52.0	12.9	1.5	33.7	100.0	206
Niger	60.4	6.7	1.9	30.9	100.0	442
Plateau	47.3	8.4	2.5	41.8	100.0	246
North East						
Adamawa	54.9	23.0	6.3	15.7	100.0	218
Bauchi	56.6	5.7	0.8	36.9	100.0	420
Borno	55.6	12.6	1.4	30.5	100.0	398
Gombe	46.1	2.5	1.9	49.6	100.0	240
Taraba	60.1	11.3	2.6	26.0	100.0	187
Yobe	44.0	1.3	2.3	52.3	100.0	472
North West						
Jigawa	53.5	7.3	2.0	37.3	100.0	291
Kaduna	63.6	5.1	1.9	29.4	100.0	636
Kano	44.6	3.0	2.2	50.3	100.0	676
Katsina	44.5	4.6	0.2	50.7	100.0	687
Kebbi	53.6	6.2	1.9	38.3	100.0	291
Sokoto	46.1	8.7	2.4	42.8	100.0	218
Zamfara	54.2	2.6	0.5	42.7	100.0	396
South East						
Abia	51.4	18.8	11.1	18.7	100.0	185
Anambra	57.2	22.3	5.4	15.1	100.0	409
Ebonyi	45.7	24.7	8.4	21.2	100.0	233
Enugu	59.5	11.7	4.9	23.9	100.0	192
Imo	54.2	19.1	4.6	22.1	100.0	337
South South						
Akwa Ibom	52.0	24.8	6.4	16.8	100.0	291
Bayelsa	65.0	17.3	3.3	14.4	100.0	109
Cross River	43.5	27.6	10.9	18.0	100.0	137
Delta	65.5	9.1	0.3	25.2	100.0	326
Edo	48.9	21.5	6.2	23.4	100.0	140
Rivers	72.1	16.4	2.8	8.8	100.0	435

Continued...

Table 4.7.2—*Continued*

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Never had sexual intercourse	Total	Number of men
South West						
Ekiti	60.3	21.1	3.4	15.2	100.0	139
Lagos	57.8	24.2	4.7	13.4	100.0	845
Ogun	63.7	16.4	1.9	18.0	100.0	309
Ondo	43.8	29.6	8.6	17.9	100.0	247
Osun	52.4	30.1	2.5	15.0	100.0	269
Oyo	58.2	16.2	4.1	21.5	100.0	432
Education						
No education	61.2	6.6	1.9	30.3	100.0	2,555
Primary	60.7	13.5	4.5	21.3	100.0	1,590
Secondary	47.1	14.8	3.2	34.9	100.0	5,697
More than secondary	59.1	18.3	4.4	18.1	100.0	2,025
Wealth quintile						
Lowest	51.3	7.4	2.9	38.5	100.0	1,991
Second	52.3	10.7	2.4	34.7	100.0	2,123
Middle	53.0	13.9	3.5	29.7	100.0	2,393
Fourth	52.8	16.8	3.5	26.9	100.0	2,590
Highest	59.3	16.4	4.0	20.2	100.0	2,770
Total 15-49	54.0	13.5	3.3	29.2	100.0	11,868
50-59	75.4	17.5	6.8	0.2	100.0	1,443
Total 15-59	56.3	13.9	3.7	26.1	100.0	13,311

[1] Excludes men who had sexual intercourse within the last 4 weeks
[2] Excludes men who are not currently married

FERTILITY 5

Key Findings

- ***Total fertility rate:*** The total fertility rate for the 3 years preceding the survey is 5.3 children per woman (4.5 in urban areas and 5.9 in rural areas).
- ***Fertility patterns:*** Fertility decreases with increasing education and wealth.
- ***Age at first birth:*** The median age at first birth among women age 25-49 is 20.4 years. This means that half of women age 25-49 give birth for the first time before age 21.
- ***Birth intervals:*** The median birth interval in Nigeria is 30.9 months. Twenty-five percent of non-first births occur within 2 years after the preceding birth. Almost 4 in 10 births (38%) occur 24-35 months after the previous birth.
- ***Teenage childbearing:*** 19% of teenage women age 15-19 have begun childbearing; 14% have given birth, and 4% are pregnant with their first child.

The number of children that a woman bears depends on many factors, including the age she begins childbearing, how long she waits between births, and her fecundity. Postponing first births and extending the interval between births have played a role in reducing fertility levels in many countries. These factors also have positive health consequences. In contrast, short birth intervals (of less than 24 months) can lead to harmful outcomes for both newborns and their mothers, such as preterm birth, low birth weight, and death. Childbearing at a very young age is associated with an increased risk of complications during pregnancy and childbirth and higher rates of neonatal mortality.

This chapter describes the current level of fertility in Nigeria and some of its proximate determinants. It presents information on the total fertility rate, birth intervals, insusceptibility to pregnancy (due to postpartum amenorrhoea, postpartum abstinence, or menopause), age at first birth, and teenage childbearing.

5.1 Current Fertility

Total fertility rate

The average number of children a woman would have by the end of her childbearing years if she bore children at the current age-specific fertility rates. Age-specific fertility rates are calculated for the 3 years before the survey, based on detailed birth histories provided by women.

Sample: Women age 15-49

The total fertility rate (TFR) in Nigeria is 5.3 children per woman. The age-specific fertility rate in the 15-19 age group is 106 births per 1,000 women; the rate peaks in the 25-29 age group (256 births per 1,000 women) and drops thereafter, to 23 births per 1,000 women in the 45-49 age group. Age-specific fertility

rates are lower in urban areas than in rural areas among women in all age groups (**Table 5.1** and **Table 5.3.1**). On average, rural women have 1.4 more children than urban women (5.9 versus 4.5 children) (**Table 5.1**).

Trends: There has been a gradual decline in the TFR over time, from 6.0 children per woman in 1990 to 5.3 in 2018. There has been a similar decline among women in both rural areas (from 6.3 to 5.9) and urban areas (from 5.0 to 4.5) during the same period (**Figure 5.1**). In the last three NDHS surveys (2008, 2013, and 2018), the age-specific fertility rate has been highest among women age 25-29 (**Table 5.3.2** and **Figure 5.2**).

Figure 5.1 **Trends in fertility by residence**

TFR for the 3 years before each survey

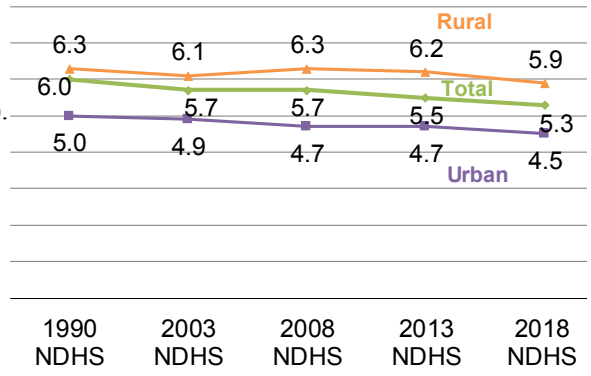


Figure 5.2 **Trends in age-specific fertility**

Births per 1,000 women

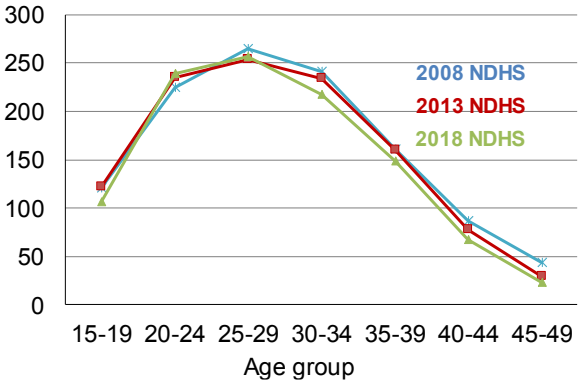
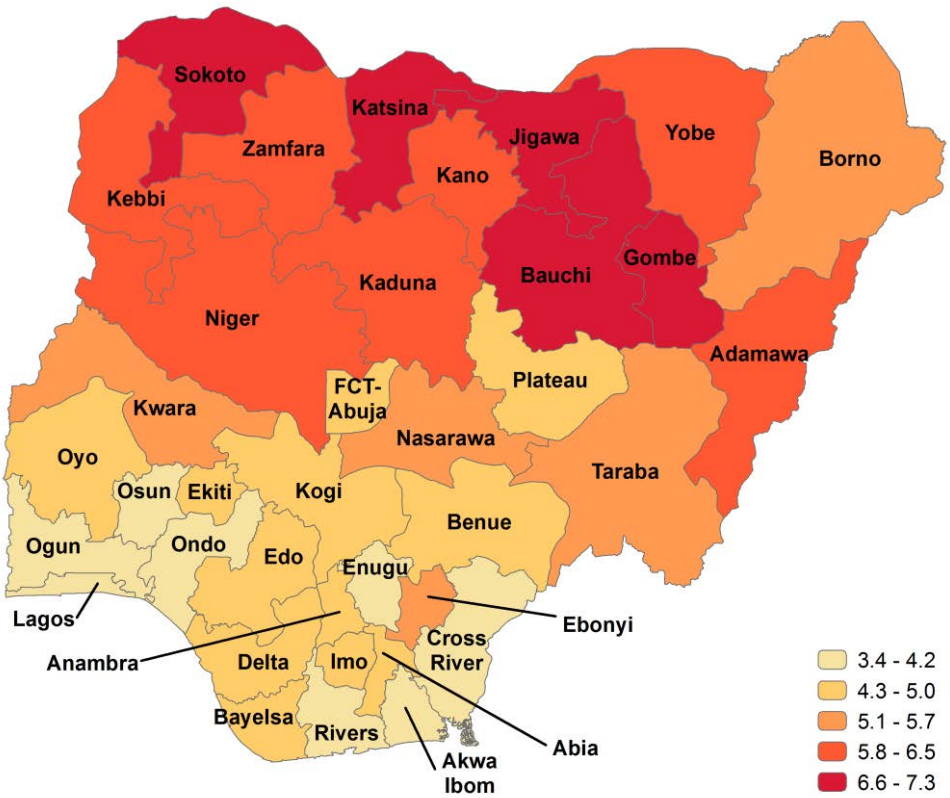


Figure 5.3 **Fertility by state**

Total fertility rate for the 3 years before the survey

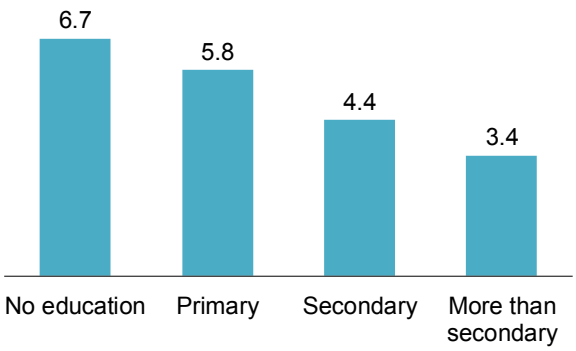


Patterns by background characteristics

- The TFR is highest in the North West (6.6 children per woman) and lowest in the South West (3.9 children per woman) (**Table 5.2**). By state, it ranges from 3.4 children per woman in Lagos to 7.3 children per woman in Katsina (**Figure 5.3**).
- The number of children per woman declines with increasing education. Women with no education have 3.3 more children than women with more than a secondary education (6.7 children versus 3.4 children) (**Figure 5.4**).
- The number of children per woman also declines with increasing wealth, from 6.7 among those in the lowest wealth quintile to 3.8 among those in the highest quintile.
- The mean number of children ever born to women age 40-49 is nearly twice as high in the North West as in the South West (8.3 versus 4.4) (**Table 5.2**).

Figure 5.4 **Fertility by mother's education**

TFR for the 3 years before the survey



5.2 Children Ever Born and Living

The 2018 NDHS also collected information on the number of children ever born to women age 15-49 and those still surviving by the time of the survey. Women have a mean of 3.0 children overall and a mean of 2.6 surviving children (a difference of 0.4). Among married women, the corresponding numbers are 4.0 children and 3.4 children (a difference of 0.6). On average, women age 45-49 have given birth to 6.4 children, of whom 5.2 survived to the time of the survey (**Table 5.4**). Of the 6.7 children on average born to currently married women age 45-49, 5.4 survived to the time of the survey. In Nigeria, 2% of currently married women age 45-49 have never given birth. Since voluntary childlessness is rare, this is often viewed as a measure of primary sterility (**Table 5.4**).

5.3 Birth Intervals

Median birth interval

Number of months since the preceding birth by which half of children are born.

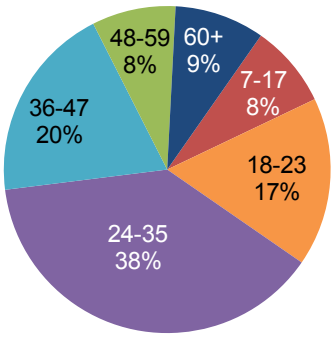
Sample: Non-first births in the 5 years before the survey

Short birth intervals, particularly those less than 24 months, place newborns and their mothers at increased health risk. The median birth interval in Nigeria is 30.9 months. Twenty-five percent of non-first births occur within 2 years after the preceding birth (**Table 5.5**). Almost 4 in 10 births (38%) occur 24-35 months after the previous birth (**Figure 5.5**).

Trends: There have been no substantial differences in median birth intervals over the last 18 years. Median intervals were 30.2 months in 1990, 31.7 months in 2003, 33.4 months in 2008, 31.7 months in 2013, and 30.9 months in 2018.

Figure 5.5 **Birth intervals**

Percent distribution of non-first births by number of months since the preceding birth



Patterns by background characteristics

- Births to older women occur after longer intervals than births to younger women. The median birth interval among women age 40-49 is more than 10 months longer than the interval among women age 15-19 (37.3 months versus 26.9 months) (**Table 5.5**).
- The median birth interval is nearly 5 months longer if the child from the preceding birth is living than if the child has died. In contrast, there is no difference in the median birth interval by sex of the preceding child (**Table 5.5**).

5.4 Insusceptibility to Pregnancy

Postpartum amenorrhoea
The period of time after the birth of a child before the resumption of menstruation.

Postpartum abstinence
The period of time after the birth of a child before the resumption of sexual intercourse.

Postpartum insusceptibility
The period of time during which a woman is considered not at risk of pregnancy because she is postpartum amenorrhoeic and/or abstaining from sexual intercourse postpartum.
Sample: Women age 15-49

Median duration of postpartum amenorrhoea
Number of months after childbirth by which time half of women have begun menstruating.
Sample: Women who gave birth in the 3 years before the survey

Median duration of postpartum insusceptibility
Number of months after childbirth by which time half of women are no longer protected against pregnancy by either postpartum amenorrhoea or abstinence from sexual intercourse.
Sample: Women who gave birth in the 3 years before the survey

Postpartum amenorrhoea refers to the interval between the birth of a child and the resumption of menstruation. The length and intensity of breastfeeding influence the duration of amenorrhoea, which offers protection from conception. Postpartum abstinence refers to the period between childbirth and the time when a woman resumes sexual activity.

Following births in the 3 years preceding the survey, the median duration of postpartum amenorrhoea is 11.7 months, while the median duration of abstinence from sexual intercourse is 2.9 months. Overall, women are insusceptible to pregnancy after childbirth for a median duration of 12.7 months (**Table 5.6**).

Trends: In Nigeria, the median duration of postpartum amenorrhoea has declined steadily since 1990, from 14.7 months to 11.7 months. There has been a steeper decline in the median duration of postpartum abstinence (10.8 months in 1990 versus 2.9 months in 2018). Overall, the median duration of insusceptibility has declined from 19.2 months to 12.7 months.

Patterns by background characteristics

- The duration of postpartum insusceptibility is longest in the North West (16.0 months) and shortest in the South South (8.1 months). The reason is that the period of postpartum amenorrhoea is longer among women in the North West than among women in the South South (15.1 months and 6.8 months, respectively). The duration of postpartum abstinence is shortest in the North West and longest in the North Central (2.4 months and 5.4 months, respectively) (**Table 5.7**).

- The duration of postpartum amenorrhoea and the duration of postpartum insusceptibility decrease as mother's education increases.

- The duration of postpartum insusceptibility decreases with increasing wealth, from 17.3 months among women in the lowest quintile to 9.0 months among women in the highest quintile.

Menopause
Women are considered to have reached menopause if they are neither pregnant nor postpartum amenorrhoeic and have not had a menstrual period in the 6 months before the survey, if they report being menopausal or having had a hysterectomy, or if they have never menstruated.
Sample: Women age 30-49

Women who have reached menopause are no longer able to become pregnant. In Nigeria, 10% of women age 30-49 are menopausal. The percentage of menopausal women increases with age, from 1% among those age 30-34 to 51% among those age 48-49 (**Table 5.8**).

5.5 Age at First Birth

Median age at first birth
Age by which half of women have had their first child.
Sample: Women age 20-49 and 25-49

The age at which childbearing commences is an important determinant of the overall level of fertility as well as the health and well-being of the mother and child. In Nigeria, the median age at first birth among women age 25-49 is 20.4 years. This means that half of women age 25-49 give birth for the first time before age 21 (**Table 5.9**). Seventy-five percent of women have given birth by age 25.

Patterns by background characteristics

- Urban women age 25-49 begin childbearing 3.3 years later than their peers in rural areas (22.3 years versus 19.0 years) (**Table 5.10**).

- The median age at first birth ranges from 18.1 years among women in the North West to 24.3 years among women in the South East.

- Women in Lagos begin childbearing 7.3 years later (24.8 years) than their counterparts in Katsina and Zamfara (17.5 years each).

- Women with no education begin childbearing 4.5 years earlier than women with a secondary education (18.0 years versus 22.5 years).

- Women in the highest wealth quintile start childbearing 6.7 years later than women in the lowest quintile (24.8 years versus 18.1 years).

5.6 TEENAGE CHILDBEARING

Teenage childbearing

Percentage of women age 15-19 who have given birth or are pregnant with their first child.

Sample: Women age 15-19

Teenage pregnancy is a major health concern because of its association with higher morbidity and mortality for both the mother and the child. Childbearing during adolescence is known to have adverse social consequences, particularly regarding educational attainment, as women who become mothers in their teens are more likely to drop out of school. In Nigeria, 19% of women age 15-19 have begun childbearing; 14% have given birth, and 4% are pregnant with their first child (**Table 5.11**).

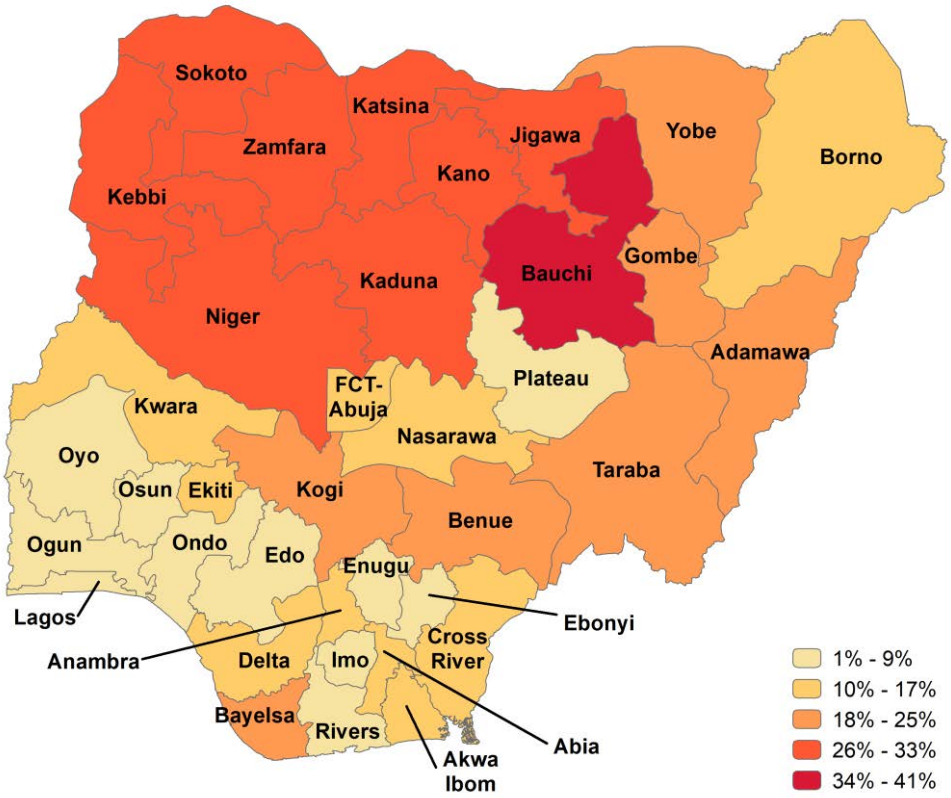
Trends: The percentage of teenagers who have given birth or are pregnant with their first child has decreased since 1990, from 28% to 19%.

Patterns by background characteristics

- Teenagers in rural areas are three times as likely to have begun childbearing as their urban peers; 27% of rural teenagers have had a live birth or are pregnant, as compared with 8% of urban teenagers (**Table 5.11**).
- Teenagers in the North West are almost five times as likely to have begun childbearing as their peers in the South West (29% versus 6%).

Figure 5.6 **Teenage pregnancy and motherhood by state**

Percentage of women age 15-19 who have begun childbearing



- Only 1% of teenagers in Lagos have begun childbearing, compared with 41% of their peers in Bauchi (**Figure 5.6**).

- Teenage childbearing decreases with increasing education. The percentage of teenagers who have begun childbearing rises from 1% among those with more than a secondary education to 23% among those with a primary education and 44% among those with no education.

- Teenage childbearing is less common in the wealthiest households: 3% of women in the highest wealth quintile have begun childbearing, as compared with 32% of those in the lowest quintile.

The tendency to initiate sexual intercourse before age 15 is higher among women than men (9% versus 2%). Eight percent of women age 15-19 were married by age 15, and 1% had given birth by that age. No men reported fathering a child before age 15 (**Table 5.12**).

LIST OF TABLES

For more information on fertility levels and some of the determinants of fertility, see the following tables:

- **Table 5.1 Current fertility**
- **Table 5.2 Fertility by background characteristics**
- **Table 5.3.1 Trends in age-specific fertility rates**
- **Table 5.3.2 Trends in age-specific and total fertility rates**
- **Table 5.4 Children ever born and living**
- **Table 5.5 Birth intervals**
- **Table 5.6 Postpartum amenorrhoea, abstinence, and insusceptibility**
- **Table 5.7 Median duration of amenorrhoea, postpartum abstinence, and postpartum insusceptibility**
- **Table 5.8 Menopause**
- **Table 5.9 Age at first birth**
- **Table 5.10 Median age at first birth**
- **Table 5.11 Teenage pregnancy and motherhood**
- **Table 5.12 Sexual and reproductive health behaviours before age 15**

Table 5.1 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the 3 years preceding the survey, by residence, Nigeria DHS 2018

	Residence		
Age group	Urban	Rural	Total
10-14	[0]	[3]	[2]
15-19	58	144	106
20-24	199	269	239
25-29	236	273	256
30-34	194	239	217
35-39	137	161	149
40-44	57	75	67
45-49	[18]	[26]	[23]
TFR (15-49)	4.5	5.9	5.3
GFR	154	206	182
CBR	34	42	38

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates for the 45-49 age group may be slightly biased due to truncation. Rates are for the period 1-36 months preceding the interview. Rates for the 10-14 age group are based on retrospective data from women age 15-17.
TFR: Total fertility rate, expressed per woman
GFR: General fertility rate, expressed per 1,000 women age 15-44
CBR: Crude birth rate, expressed per 1,000 population

Table 5.2 Fertility by background characteristics

Total fertility rate for the 3 years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49, according to background characteristics, Nigeria DHS 2018

Background characteristic	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	4.5	7.9	5.3
Rural	5.9	12.0	6.8
Zone			
North Central	5.0	10.6	5.8
North East	6.1	12.0	7.2
North West	6.6	13.6	8.3
South East	4.7	7.8	4.7
South South	4.0	6.5	4.6
South West	3.9	6.2	4.4
State			
North Central			
FCT-Abuja	4.3	6.2	4.8
Benue	4.5	9.9	5.4
Kogi	4.8	11.0	5.8
Kwara	5.2	10.0	5.4
Nasarawa	5.3	8.1	6.2
Niger	5.8	12.3	6.4
Plateau	4.7	12.4	6.0
North East			
Adamawa	6.1	9.8	6.2
Bauchi	7.2	15.9	8.1
Borno	5.2	12.0	6.4
Gombe	6.6	11.2	7.7
Taraba	5.4	10.7	6.6
Yobe	5.9	11.2	8.0
North West			
Jigawa	7.1	15.2	9.2
Kaduna	5.9	11.3	7.1
Kano	6.5	15.2	8.0
Katsina	7.3	12.4	9.2
Kebbi	6.5	14.5	9.2
Sokoto	7.0	14.5	8.0
Zamfara	6.4	13.7	7.6
South East			
Abia	4.9	5.8	4.1
Anambra	4.7	8.2	4.5
Ebonyi	5.4	8.8	5.7
Enugu	4.1	6.6	4.8
Imo	4.5	8.6	4.3
South South			
Akwa Ibom	3.6	5.9	4.8
Bayelsa	4.4	8.2	3.8
Cross River	3.7	4.3	5.1
Delta	4.4	8.8	4.7
Edo	4.8	8.0	5.2
Rivers	3.9	5.5	4.1
South West			
Ekiti	4.6	6.5	5.1
Lagos	3.4	5.7	3.7
Ogun	3.8	6.3	4.1
Ondo	4.1	7.7	5.1
Osun	3.8	5.4	4.9
Oyo	4.5	7.0	4.7
Education			
No education	6.7	14.1	7.6
Primary	5.8	9.0	6.0
Secondary	4.4	8.0	4.5
More than secondary	3.4	7.1	3.6
Wealth quintile			
Lowest	6.7	13.8	7.7
Second	6.2	12.8	7.2
Middle	5.6	10.6	6.2
Fourth	4.6	7.9	5.5
Highest	3.8	6.7	4.2
Total	5.3	10.1	6.1

Note: Total fertility rates are for the period 1-36 months preceding the interview.

Table 5.3.1 Trends in age-specific fertility rates

Age-specific fertility rates for 5-year periods preceding the survey, according to age group, Nigeria DHS 2018

	Number of years preceding survey			
Age group	0-4	5-9	10-14	15-19
10-14	[2]	[9]	[11]	[14]
15-19	118	141	140	137
20-24	249	258	241	248
25-29	265	279	277	286
30-34	228	255	255	[279]
35-39	156	185	[208]	
40-44	73	[103]		
45-49	[24]			

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates exclude the month of the interview. For the 0-4 year period, rates for the 10-14 age group are based on retrospective data from women age 15-19.

Table 5.3.2 Trends in age-specific and total fertility rates

Age-specific and total fertility rates for the 3-year period preceding several surveys, according to mother's age at time of birth, Nigeria DHS 2018

	2003 NDHS	2008 NDHS	2013 NDHS	2018 NDHS
Mother's age at birth	2000 to 2003	2005 to 2008	2010 to 2013	2015 to 2018
10-14	[6]	[5]	[3]	[2]
15-19	126	121	122	106
20-24	229	225	235	239
25-29	274	265	253	256
30-34	244	241	234	217
35-39	168	161	160	149
40-44	72	87	78	67
45-49	[18]	[44]	[29]	[23]
TFR 15-49	5.7	5.7	5.5	5.3

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates exclude the month of the interview. Rates for the 10-14 age group are based on retrospective data from women age 15-19.

Table 5.4 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Nigeria DHS 2018

	Number of children ever born														
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	Number of women	Mean number of children ever born	Mean number of living children
ALL WOMEN															
15-19	85.6	11.5	2.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	8,448	0.18	0.16
20-24	37.0	23.9	22.3	11.7	4.1	0.8	0.2	0.0	0.0	0.0	0.0	100.0	6,835	1.25	1.11
25-29	14.9	14.0	19.4	19.4	15.8	10.1	4.7	1.3	0.2	0.1	0.0	100.0	7,255	2.65	2.32
30-34	8.2	8.9	13.3	14.5	15.0	14.2	11.6	8.4	3.9	1.4	0.7	100.0	6,178	3.89	3.37
35-39	5.1	5.4	9.1	12.9	13.5	14.3	11.4	10.4	8.4	4.9	4.5	100.0	5,463	4.88	4.20
40-44	3.4	3.8	6.4	8.9	11.6	13.3	13.0	10.0	8.7	8.3	12.6	100.0	3,940	5.86	4.91
45-49	2.9	2.8	5.7	7.4	10.7	12.3	12.8	10.2	9.2	8.0	18.0	100.0	3,701	6.36	5.19
Total	28.4	11.3	11.8	10.7	9.4	8.2	6.4	4.7	3.4	2.3	3.5	100.0	41,821	3.03	2.58
CURRENTLY MARRIED WOMEN															
15-19	43.5	44.1	11.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,927	0.70	0.62
20-24	10.2	31.0	33.1	17.8	6.2	1.2	0.3	0.0	0.0	0.0	0.0	100.0	4,362	1.84	1.62
25-29	4.7	13.8	21.7	22.2	18.4	11.8	5.6	1.5	0.3	0.1	0.0	100.0	6,060	3.03	2.66
30-34	3.3	7.7	13.8	15.0	16.1	15.2	12.8	9.4	4.4	1.6	0.7	100.0	5,417	4.21	3.64
35-39	2.4	4.4	8.4	13.1	13.9	15.0	12.1	11.1	9.3	5.4	4.9	100.0	4,841	5.15	4.44
40-44	2.3	2.8	6.0	8.6	11.8	12.9	13.0	10.8	9.3	9.0	13.5	100.0	3,457	6.09	5.09
45-49	2.1	2.4	5.1	6.5	10.1	11.7	12.6	10.2	9.7	8.7	20.8	100.0	3,026	6.67	5.38
Total	6.9	13.2	15.4	14.1	12.5	10.7	8.5	6.3	4.5	3.2	4.7	100.0	29,090	4.01	3.42

Table 5.5 Birth intervals

Percent distribution of non-first births in the 5 years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Nigeria DHS 2018

Background characteristic	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
Mother's age									
15-19	12.0	25.2	46.3	13.7	2.5	0.2	100.0	268	26.9
20-29	9.7	19.4	42.1	18.2	6.3	4.3	100.0	11,709	28.8
30-39	7.5	15.2	36.9	20.8	9.2	10.5	100.0	12,329	32.3
40-49	5.5	11.6	30.2	20.4	12.3	20.0	100.0	3,192	37.3
Sex of preceding birth									
Male	7.8	16.9	38.5	19.8	7.9	9.1	100.0	13,908	30.9
Female	8.7	16.5	38.3	19.3	8.7	8.6	100.0	13,591	30.9
Survival of preceding birth									
Living	6.4	16.2	39.3	20.3	8.6	9.2	100.0	23,810	31.5
Dead	20.0	19.7	33.1	14.8	5.9	6.5	100.0	3,689	26.7
Birth order									
2-3	8.7	17.6	38.4	19.0	7.6	8.7	100.0	11,545	30.4
4-6	7.7	15.7	38.6	19.7	8.7	9.7	100.0	10,507	31.4
7+	8.4	16.6	38.3	20.4	8.8	7.5	100.0	5,446	31.2
Residence									
Urban	8.0	16.3	36.9	19.1	8.8	10.9	100.0	10,308	31.2
Rural	8.4	16.9	39.3	19.8	7.9	7.6	100.0	17,191	30.7
Zone									
North Central	7.0	14.7	39.5	20.4	9.2	9.1	100.0	3,626	31.6
North East	9.1	16.5	39.9	19.9	7.9	6.7	100.0	5,177	30.4
North West	8.1	18.2	40.5	19.8	7.4	6.0	100.0	10,571	30.0
South East	10.6	20.7	39.4	14.6	6.2	8.5	100.0	2,630	28.0
South South	8.7	17.0	32.4	17.4	8.9	15.6	100.0	2,244	32.4
South West	6.4	10.6	31.6	22.8	11.5	17.1	100.0	3,249	36.6
State									
North Central									
FCT-Abuja	6.9	14.6	36.7	20.6	8.8	12.3	100.0	177	32.6
Benue	7.0	14.5	42.8	18.8	8.0	8.8	100.0	685	30.7
Kogi	7.4	16.0	36.6	17.9	12.7	9.3	100.0	361	31.8
Kwara	4.8	13.7	38.8	21.0	10.9	10.7	100.0	439	32.5
Nasarawa	12.0	14.2	36.9	17.8	8.7	10.4	100.0	423	30.1
Niger	5.7	16.1	40.4	22.3	8.4	7.1	100.0	1,053	31.9
Plateau	7.3	12.8	39.2	22.1	9.1	9.6	100.0	488	32.1
North East									
Adamawa	7.5	15.3	36.5	20.9	11.5	8.3	100.0	607	32.1
Bauchi	7.2	14.9	44.3	18.7	7.8	7.2	100.0	1,241	30.9
Borno	13.6	17.6	40.1	17.0	6.3	5.4	100.0	1,028	28.0
Gombe	9.3	17.8	40.3	19.0	7.0	6.6	100.0	614	30.0
Taraba	4.8	15.2	36.5	24.2	9.0	10.2	100.0	605	33.5
Yobe	10.3	18.0	38.1	21.7	7.5	4.4	100.0	1,082	29.7
North West									
Jigawa	6.2	21.3	44.5	17.8	6.7	3.4	100.0	1,291	29.1
Kaduna	11.7	18.1	36.3	18.2	7.6	8.1	100.0	1,940	29.0
Kano	6.6	18.4	41.4	20.6	7.1	5.9	100.0	2,306	30.3
Katsina	8.1	19.0	42.4	18.3	6.9	5.4	100.0	2,080	29.5
Kebbi	9.5	20.6	40.9	19.4	5.5	4.1	100.0	1,063	29.2
Sokoto	10.3	13.1	38.4	23.0	9.4	5.7	100.0	847	31.4
Zamfara	3.9	14.5	38.8	23.9	10.2	8.8	100.0	1,045	33.7
South East									
Abia	13.6	18.8	37.6	16.7	4.3	9.0	100.0	320	27.4
Anambra	11.7	19.0	39.6	13.7	6.2	9.8	100.0	768	28.4
Ebonyi	6.2	20.3	43.7	15.6	7.1	7.0	100.0	669	28.6
Enugu	9.7	18.7	37.7	15.7	8.1	10.1	100.0	370	28.6
Imo	13.5	26.7	35.7	12.4	4.9	6.8	100.0	503	25.9
South South									
Akwa Ibom	8.9	17.3	34.0	17.7	8.0	14.2	100.0	383	32.3
Bayelsa	12.1	16.7	30.8	17.9	8.9	13.6	100.0	165	31.1
Cross River	11.1	11.9	27.3	19.1	8.9	21.8	100.0	236	35.9
Delta	5.3	15.4	32.2	18.9	11.0	17.3	100.0	453	34.1
Edo	7.2	18.8	39.4	17.5	7.7	9.4	100.0	328	29.8
Rivers	9.9	18.8	30.4	15.6	8.6	16.6	100.0	679	31.4

Continued...

Table 5.5—*Continued*

Background characteristic	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
South West									
Ekiti	8.4	11.6	37.4	23.0	7.7	11.8	100.0	244	33.5
Lagos	5.6	11.6	33.2	22.5	10.9	16.2	100.0	1,093	35.8
Ogun	5.8	10.9	29.2	25.5	10.7	17.9	100.0	448	38.1
Ondo	5.9	8.7	36.0	19.9	10.2	19.2	100.0	307	35.7
Osun	5.9	11.3	29.9	22.3	11.1	19.6	100.0	406	36.6
Oyo	7.8	8.9	27.7	22.9	15.0	17.6	100.0	752	38.6
Mother's education									
No education	8.3	17.3	39.7	20.3	7.7	6.7	100.0	13,646	30.5
Primary	6.9	15.5	38.3	19.1	9.1	11.1	100.0	4,358	31.8
Secondary	8.9	15.9	36.6	18.7	8.9	11.0	100.0	7,577	31.1
More than secondary	8.5	17.7	36.9	18.6	7.5	10.8	100.0	1,918	30.8
Wealth quintile									
Lowest	7.4	16.4	41.8	20.7	7.3	6.5	100.0	6,445	30.7
Second	8.2	17.7	39.4	19.2	8.4	7.0	100.0	6,413	30.4
Middle	8.7	16.9	38.3	19.8	8.1	8.1	100.0	5,682	30.6
Fourth	8.8	16.3	35.9	18.6	9.0	11.4	100.0	4,903	31.1
Highest	8.1	15.7	34.8	19.1	8.8	13.5	100.0	4,054	32.2
Total	8.2	16.7	38.4	19.5	8.3	8.9	100.0	27,498	30.9

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

Table 5.6 Postpartum amenorrhoea, abstinence, and insusceptibility

Percentage of births in the 3 years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Nigeria DHS 2018

	Percentage of births for which the mother is:			
Months since birth	Amenorrhoeic	Abstaining	Insusceptible[1]	Number of births
<2	94.8	82.7	98.1	1,187
2-3	85.2	38.9	88.5	1,037
4-5	73.9	22.2	78.4	1,146
6-7	68.1	17.1	73.5	1,217
8-9	62.9	15.0	66.8	1,082
10-11	54.9	13.3	59.0	992
12-13	43.3	11.3	47.9	1,345
14-15	37.0	9.1	41.5	1,183
16-17	29.1	8.1	33.5	1,210
18-19	25.0	8.4	30.1	1,111
20-21	18.3	5.5	21.8	908
22-23	10.3	5.8	14.3	771
24-25	5.2	3.9	8.5	1,312
26-27	4.5	3.7	7.5	1,165
28-29	2.2	2.3	4.2	1,135
30-31	3.2	3.8	6.0	1,135
32-33	2.9	3.5	5.6	904
34-35	3.1	3.5	5.5	806
Total	35.8	14.8	39.6	19,646
Median	11.7	2.9	12.7	na
Mean	13.5	6.2	14.8	na

Note: Estimates are based on status at the time of the survey.
na = Not applicable
[1] Includes births for which mothers are either still amenorrhoeic or still abstaining (or both) following birth

Table 5.7 Median duration of amenorrhoea, postpartum abstinence, and postpartum insusceptibility

Median number of months of postpartum amenorrhoea, postpartum abstinence, and postpartum insusceptibility following births in the 3 years preceding the survey, according to background characteristics, Nigeria DHS 2018

Background characteristic	Postpartum amenorrhoea	Postpartum abstinence	Postpartum insusceptibility[1]
Mother's age			
15-29	11.3	2.9	12.4
30-49	12.3	3.0	13.2
Residence			
Urban	9.8	3.0	10.8
Rural	12.9	2.9	14.1
Zone			
North Central	11.5	5.4	13.3
North East	12.9	2.7	13.8
North West	15.1	2.4	16.0
South East	7.3	3.7	10.3
South South	6.8	4.0	8.1
South West	9.8	3.0	10.7
State			
North Central			
FCT-Abuja	8.9	6.6	10.4
Benue	13.1	4.8	14.2
Kogi	7.1	10.2	14.1
Kwara	12.0	8.2	15.1
Nasarawa	8.3	5.3	9.3
Niger	12.7	4.3	13.2
Plateau	11.1	6.1	15.4
North East			
Adamawa	8.9	(2.4)	9.5
Bauchi	12.5	2.9	13.1
Borno	11.1	*	11.1
Gombe	15.1	(2.7)	15.3
Taraba	11.0	3.8	13.0
Yobe	18.1	(2.6)	18.1
North West			
Jigawa	14.7	2.3	15.1
Kaduna	10.9	2.4	11.4
Kano	16.3	2.2	16.5
Katsina	17.4	2.6	18.2
Kebbi	16.5	(2.1)	17.3
Sokoto	21.6	(2.5)	21.6
Zamfara	17.1	2.5	17.5
South East			
Abia	5.0	3.2	8.6
Anambra	6.8	3.6	10.0
Ebonyi	9.8	4.9	14.4
Enugu	7.8	*	9.8
Imo	7.4	4.0	9.5
South South			
Akwa Ibom	6.6	3.9	6.9
Bayelsa	7.7	3.5	7.9
Cross River	(8.6)	(8.5)	(10.1)
Delta	7.6	(3.6)	9.7
Edo	(8.5)	(3.4)	(9.2)
Rivers	5.7	3.7	6.2
South West			
Ekiti	(8.2)	(9.9)	(11.8)
Lagos	6.9	a	10.1
Ogun	10.3	(3.6)	13.4
Ondo	(11.6)	4.3	(12.6)
Osun	(9.8)	*	(11.4)
Oyo	10.1	*	10.2
Mother's education			
No education	15.0	2.6	15.7
Primary	11.4	3.4	13.4
Secondary	9.3	3.5	10.7
More than secondary	6.5	2.6	7.8
Wealth quintile			
Lowest	16.4	2.7	17.3
Second	12.6	2.9	14.3
Middle	11.5	3.1	12.6
Fourth	9.7	3.2	10.8
Highest	6.6	2.8	9.0
Total	11.7	2.9	12.7

Note: Medians are based on status at the time of the survey (current status). Figures in parentheses are based on 25-49 unweighted cases (smoothed data). An asterisk indicates that a figure is based on fewer than 25 unweighted cases (smoothed data) and has been suppressed.
a = Omitted because less than 50% of women are abstaining
[1] Includes births for which mothers are either still amenorrhoeic or still abstaining (or both) following birth

Table 5.8 Menopause

Percentage of women age 30-49 who are menopausal, according to age, Nigeria DHS 2018

Age	Percentage menopausal[1]	Number of women
30-34	1.3	6,178
35-39	2.3	5,463
40-41	7.6	2,091
42-43	9.0	1,400
44-45	23.1	1,680
46-47	28.6	1,017
48-49	51.4	1,453
Total	10.0	19,283

[1] Percentage of women (1) who are not pregnant, (2) who have had a birth in the past 5 years and are not postpartum amenorrhoeic, and (3) for whom one of the following additional conditions applies: (a) their last menstrual period occurred 6 or more months preceding the survey, (b) they declared that they are in menopause or have had a hysterectomy, or (c) they have never menstruated

Table 5.9 Age at first birth

Percentage of women age 15-49 who gave birth by specific exact ages, percentage who have never given birth, and median age at first birth, according to current age, Nigeria DHS 2018

	Percentage who gave birth by exact age							
Current age	15	18	20	22	25	Percentage who have never given birth	Number of women	Median age at first birth
15-19	1.4	na	na	na	na	85.6	8,448	a
20-24	4.8	27.9	46.9	na	na	37.0	6,835	a
25-29	4.8	29.0	46.4	62.0	78.2	14.9	7,255	20.4
30-34	6.9	30.9	46.8	59.3	73.0	8.2	6,178	20.5
35-39	5.4	27.7	43.3	57.2	71.5	5.1	5,463	20.8
40-44	8.4	33.2	48.3	62.6	77.1	3.4	3,940	20.2
45-49	7.9	35.0	50.9	64.2	77.6	2.9	3,701	19.9
20-49	6.1	30.1	46.8	na	na	13.9	33,373	a
25-49	6.4	30.6	46.8	60.8	75.4	8.0	26,537	20.4

na = Not applicable due to censoring
a = Omitted because less than 50% of women had a birth before reaching the beginning of the age group

Table 5.10 Median age at first birth

Median age at first birth among women age 25-49, according to background characteristics, Nigeria DHS 2018

Background characteristic	Women age 25-49
Residence	
Urban	22.3
Rural	19.0
Zone	
North Central	20.3
North East	18.6
North West	18.1
South East	24.3
South South	22.6
South West	23.4
State	
North Central	
FCT-Abuja	21.8
Benue	20.4
Kogi	20.2
Kwara	21.4
Nasarawa	20.3
Niger	19.3
Plateau	20.6
North East	
Adamawa	20.2
Bauchi	17.7
Borno	19.4
Gombe	17.8
Taraba	19.2
Yobe	18.0
North West	
Jigawa	18.0
Kaduna	18.9
Kano	18.3
Katsina	17.5
Kebbi	17.6
Sokoto	18.3
Zamfara	17.5
South East	
Abia	a
Anambra	24.5
Ebonyi	21.7
Enugu	23.8
Imo	a
South South	
Akwa Ibom	22.3
Bayelsa	21.2
Cross River	20.8
Delta	22.3
Edo	22.6
Rivers	23.6
South West	
Ekiti	22.5
Lagos	24.8
Ogun	23.3
Ondo	22.1
Osun	22.3
Oyo	22.7
Education	
No education	18.0
Primary	19.4
Secondary	22.5
More than secondary	a
Wealth quintile	
Lowest	18.1
Second	18.4
Middle	19.9
Fourth	21.2
Highest	24.8
Total	20.4

a = Omitted because less than 50% of women had a birth before reaching the beginning of the age group

Table 5.11 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage of women age 15-19 who: Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing	Number of women
Age				
15-17	6.7	3.2	9.9	5,242
15	0.8	1.5	2.4	2,078
16	4.5	3.9	8.4	1,585
17	16.6	4.7	21.3	1,579
18	24.4	6.1	30.6	1,921
19	30.9	6.1	37.0	1,286
Residence				
Urban	6.5	1.9	8.4	3,813
Rural	20.9	6.3	27.2	4,635
Zone				
North Central	12.1	4.2	16.3	1,183
North East	19.6	4.9	24.5	1,497
North West	21.3	7.2	28.5	2,737
South East	7.5	1.3	8.8	928
South South	8.6	1.9	10.6	888
South West	4.2	1.3	5.5	1,215
State				
North Central				
FCT-Abuja	8.9	1.7	10.6	63
Benue	13.2	4.7	17.9	279
Kogi	17.0	3.4	20.4	148
Kwara	8.6	2.1	10.7	141
Nasarawa	7.8	2.3	10.1	128
Niger	18.0	8.0	26.1	242
Plateau	5.4	2.8	8.2	180
North East				
Adamawa	20.5	3.4	23.9	183
Bauchi	32.3	8.3	40.7	307
Borno	10.0	3.5	13.5	357
Gombe	19.8	3.2	23.0	142
Taraba	19.4	5.3	24.7	189
Yobe	17.6	4.6	22.2	320
North West				
Jigawa	19.2	7.8	26.9	293
Kaduna	25.8	5.5	31.3	522
Kano	20.8	6.2	27.0	607
Katsina	21.0	6.3	27.3	585
Kebbi	18.5	8.6	27.2	219
Sokoto	19.6	12.5	32.1	188
Zamfara	20.7	8.7	29.4	322
South East				
Abia	10.1	0.8	10.9	112
Anambra	10.9	1.3	12.2	249
Ebonyi	6.9	1.4	8.2	223
Enugu	5.6	1.5	7.0	166
Imo	3.5	1.5	5.0	177
South South				
Akwa Ibom	10.7	2.1	12.8	178
Bayelsa	19.0	0.9	19.9	51
Cross River	11.5	2.5	14.0	102
Delta	5.9	4.0	9.9	184
Edo	6.5	2.1	8.7	112
Rivers	7.0	0.3	7.3	262
South West				
Ekiti	14.2	1.3	15.5	83
Lagos	1.1	0.0	1.1	544
Ogun	4.4	3.4	7.8	118
Ondo	7.8	1.3	9.1	129
Osun	5.6	2.1	7.7	172
Oyo	4.9	3.3	8.2	168
Education				
No education	33.8	9.9	43.7	2,182
Primary	17.8	5.4	23.2	881
Secondary	6.2	2.0	8.2	5,162
More than secondary	0.4	0.4	0.8	224

Continued...

Table 5.11—*Continued*

Background characteristic	Percentage of women age 15-19 who: Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing	Number of women
Wealth quintile				
Lowest	25.9	6.2	32.0	1,427
Second	22.5	8.5	31.0	1,740
Middle	15.2	4.2	19.4	1,758
Fourth	8.1	2.2	10.3	1,810
Highest	2.4	1.0	3.4	1,713
Total	14.4	4.3	18.7	8,448

Table 5.12 Sexual and reproductive health behaviours before age 15

Among women and men age 15-19, percentage who had sexual intercourse, were married, and had a live birth/fathered a child before age 15, according to sex, Nigeria DHS 2018

Sex	Had sexual intercourse before age 15	Were married before age 15	Gave birth/fathered a child before age 15	Number
Women	8.6	8.3	1.4	8,448
Men	2.4	0.0	0.0	2,415

FERTILITY PREFERENCES 6

Key Findings

- ***Desire for another child:*** 34% of currently married women age 15-49 want to have another child within 2 years, and 30% want to wait at least 2 years.
- ***Limiting childbearing:*** 24% of currently married women and 19% of currently married men age 15-49 want no more children or are sterilised.
- ***Ideal family size:*** In Nigeria, men desire more children than women (7.2 children versus 6.1 children).
- ***Unwanted births:*** Of all births in the past 5 years and current pregnancies, 90% were wanted at the time of conception, 8% were mistimed, and 3% were unwanted.
- ***Wanted births:*** The wanted fertility rate is 4.8, while the total fertility rate is 5.3. This suggests that Nigerian women are currently having, on average, 0.5 more children than they want.

Information on fertility preferences can help family planning programme planners assess the desire for children, the extent of mistimed and unwanted pregnancies, and the demand for contraception to space or limit births. This information may suggest the direction that fertility patterns will take in the future.

This chapter presents information on whether and when married women and men want more children, ideal family size, whether the last birth was wanted, and the theoretical fertility rate if all unwanted births were prevented.

6.1 Desire for Another Child

Desire for another child

Women and men were asked whether they wanted more children and, if so, how long they would prefer to wait before the birth of the next child. Women and men who are sterilised are assumed not to want any more children.

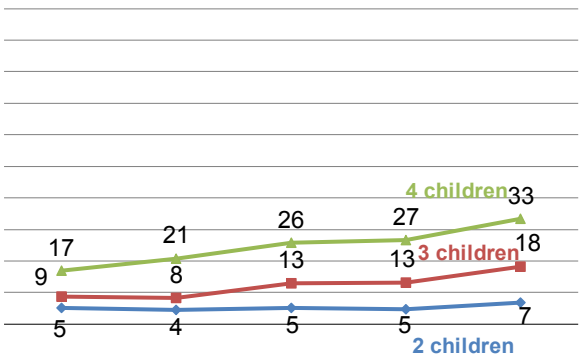
Sample: Currently married women and men age 15-49

Sixty-seven percent of currently married women age 15-49 want to have another child; 34% of these women want to have another child within 2 years, 30% want to wait at least 2 years, and 4% are undecided on when they would want another child. The majority of other women want to limit childbearing: 24% of currently married women want no more children or are sterilised. Overall, 77% of currently married men age 15-49 want to have another child; 44% want the child within 2 years, 29% want to wait at least 2 years, and 4% are undecided with respect to time. Nineteen percent of currently married men want no more children or are sterilised (**Table 6.1**).

Trends: With respect to number of living children, the percentage of currently married women with three living children who want no more children has increased slightly since 2013, from 13% to 18%, while the percentage of women with four living children who want no more children has increased from 27% to 33% (**Figure 6.1**).

Figure 6.1 **Trends in desire to limit childbearing by number of living children**

Percentage of currently married women age 15-49 who want no more children

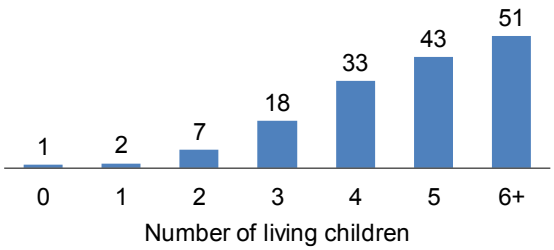


Patterns by background characteristics

- The more children a woman already has, the more likely she is to want no more children. Fifty-one percent of currently married women with six or more children want no more children or are sterilised, as compared with 2% of women who have one child (**Figure 6.2**).

Figure 6.2 **Desire to limit childbearing by number of living children**

Percentage of currently married women age 15-49 who want no more children



- Among women with four children, those in urban areas are more likely than those in rural areas to want no more children (45% versus 25%). The pattern is similar among men (**Table 6.2.1** and **Table 6.2.2**).

- Women's desire for a smaller family tends to increase with increasing education. For example, among women who have four children, 20% of those with no education want no more children, as compared with 49% of those with more than a secondary education.

- The desire to limit childbearing increases with increasing wealth; 31% of women and 29% of men in the highest wealth quintile want no more children, compared with 17% of women and 6% of men in the lowest quintile.

- The percentage of women who want no more children is lowest in the North East (16%) and North West (17%) and highest in the South West (37%). The pattern is similar among men.

6.2 Ideal Family Size

Ideal family size

Respondents with no children were asked "If you could choose exactly the number of children to have in your whole life, how many would that be?" Respondents who had children were asked "If you could go back to the time when you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?"

Sample: Women and men age 15-49

In Nigeria, men desire more children than women (7.2 children and 6.1 children, respectively) (**Table 6.3**). The ideal family size is slightly larger among women and men who are currently married (**Figure 6.3**). Eighty-four percent of women consider four or more children to be ideal, while 13% prefer to have three or fewer children.

Trends: The mean ideal number of children among currently married women has decreased slightly since 2013, from 6.5 to 6.1.

Patterns by background characteristics

- In general, the more children respondents already have, the more children they consider ideal. Women who have no children consider 5.1 children to be ideal on average. On the other hand, women with six or more children consider 8.1 children to be ideal (**Figure 6.4**). Among men and women with the same number of children, men consistently consider a slightly higher number of children to be ideal than women.
- The mean ideal number of children among women age 15-49 is lower in urban areas (5.2 children) than in rural areas (6.8 children) (**Table 6.4**).
- Women's mean ideal number of children is highest in the North East (7.9 children) and lowest in the South West (4.0 children).
- The mean ideal number of children among women with no education is 7.9, as compared with 4.4 among women with more than a secondary education.

Figure 6.3 **Ideal family size**

Mean ideal number of children among women and men age 15-49

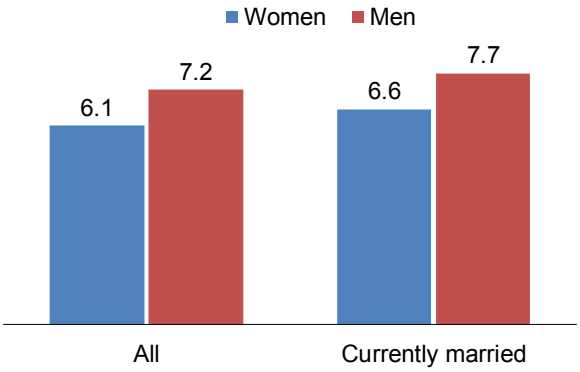
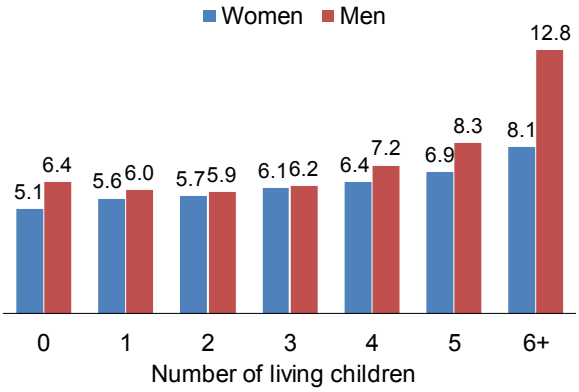


Figure 6.4 **Ideal family size by number of living children**

Mean ideal number of children



6.3 Fertility Planning Status

Planning status of births/pregnancies

Women reported whether their births/pregnancies were wanted at the time (planned birth), at a later time (mistimed birth), or not at all (unwanted birth).

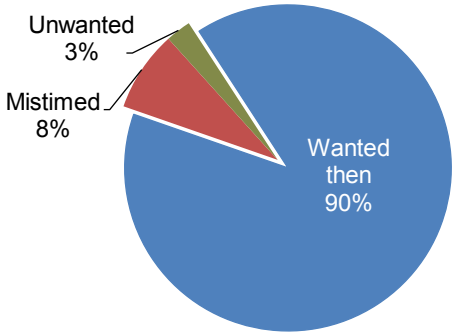
Sample: Current pregnancies and births in the 5 years before the survey to women age 15-49

Most births were wanted at the time of conception (90%), while 8% were mistimed (that is, wanted at a later date). Only 3% of births were not wanted at all (**Table 6.5** and **Figure 6.5**).

Trends: Over the past 5 years, the proportion of births that were wanted at the time of conception has remained constant at 90%. Similarly, there have been only minimal changes in the percentages of unwanted births (2% in 2013 and 3% in 2018) and mistimed births (7% in 2013 and 8% in 2018).

Figure 6.5 **Fertility planning status**

Percent distribution of births to women age 15-49 in the 5 years before the survey (including current pregnancies) by planning status of births



Figures may not add to 100% due to rounding.

Patterns by background characteristics

- The more children a woman has, the more likely it is that her most recent birth was unwanted. Less than 1% (0.3%) of first births were unwanted, as compared with 5% of fourth- or higher-order births.
- The likelihood of unwanted births increases with mother's age. One percent of births to women less than age 25 were unwanted, compared with 12% of births to women age 45-49 (**Table 6.5**).

6.4 Wanted Fertility Rates

Unwanted birth

Any birth in excess of the number of children a woman reported as her ideal number.

Wanted birth

Any birth fewer than or equal to the number of children a woman reported as her ideal number.

Wanted fertility rate

The average number of children a woman would have by the end of her childbearing years if she bore children at the current age-specific fertility rates, excluding unwanted births.

Sample: Women age 15-49

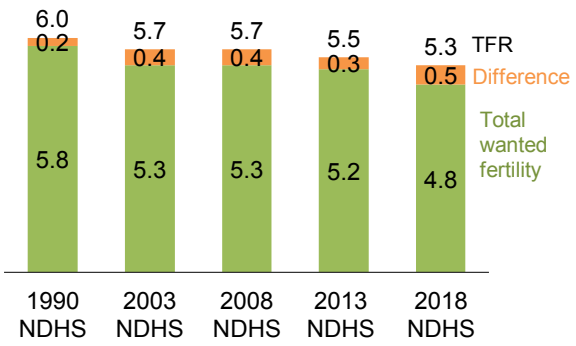
The wanted fertility rate measures the potential demographic impact of fertility that would have prevailed in the 3 years preceding the survey if all unwanted births were prevented. It is calculated in the same manner as the total fertility rate, except that only wanted births are included. A birth is considered wanted if the number of living children at the time of conception is fewer than the ideal number of children reported by the respondent.

The wanted fertility rate in Nigeria is 4.8 children, as compared with the actual total fertility rate of 5.3 children. In other words, on average, women in Nigeria have 0.5 more children than they want (**Table 6.6**).

Trends: The total fertility rate in Nigeria has declined slightly over the past 5 years, from 5.5 children in 2013 to 5.3 children in 2018. The wanted fertility rate has decreased to 4.8 since 2013, widening the gap between wanted and actual fertility (from 0.3 to 0.5) (**Figure 6.6**).

Figure 6.6 **Trends in wanted and actual fertility**

Wanted and actual number of children per woman



Patterns by background characteristics

- The gap between wanted and actual fertility is the same among rural and urban women (0.5 children) (**Table 6.6**).
- The gap between wanted and actual fertility generally narrows with increasing education. For example, the gap falls from 0.6 among women with no education to 0.2 among women with more than a secondary education (**Table 6.6**).

List of Tables

For more information on fertility preferences, see the following tables:

- **Table 6.1 Fertility preferences by number of living children**
- **Table 6.2.1 Desire to limit childbearing: Women**
- **Table 6.2.2 Desire to limit childbearing: Men**
- **Table 6.3 Ideal number of children by number of living children**
- **Table 6.4 Mean ideal number of children**
- **Table 6.5 Fertility planning status**
- **Table 6.6 Wanted fertility rates**

Table 6.1 Fertility preferences by number of living children

Percent distribution of currently married women and currently married men age 15-49 by desire for children, according to number of living children, Nigeria DHS 2018

Desire for children	Number of living children[1] 0	1	2	3	4	5	6+	Total 15-49	Total 15-59
WOMEN									
Have another soon[2]	87.5	49.9	40.9	31.4	24.4	21.4	16.4	33.6	na
Have another later[3]	3.7	39.7	41.1	36.8	29.7	22.3	19.0	30.0	na
Have another, undecided when	2.4	5.5	5.6	4.8	3.2	2.3	1.0	3.6	na
Undecided	0.9	2.1	4.2	7.2	7.2	8.3	8.7	6.0	na
Want no more	1.1	1.8	6.8	18.0	33.1	42.4	50.3	24.2	na
Sterilised[4]	0.0	0.0	0.1	0.3	0.3	0.3	0.5	0.2	na
Declared infecund	4.3	1.1	1.2	1.6	2.1	3.0	4.1	2.3	na
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	na
Number	1,539	4,360	5,032	4,691	4,253	3,485	5,729	29,090	na
MEN[5]									
Have another soon[2]	82.7	59.0	48.0	40.3	33.1	30.7	36.8	43.9	41.4
Have another later[3]	6.0	32.1	35.2	28.9	25.2	28.0	29.4	29.2	26.3
Have another, undecided when	2.7	4.3	5.9	5.7	3.6	2.1	2.3	4.1	3.8
Undecided	2.9	1.7	1.9	3.5	4.6	4.8	4.3	3.3	3.3
Want no more	2.5	2.6	8.3	21.3	33.2	34.1	26.5	19.0	24.3
Sterilised[4]	0.0	0.0	0.3	0.0	0.0	0.2	0.1	0.1	0.1
Declared infecund	3.2	0.3	0.4	0.4	0.3	0.1	0.6	0.5	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	283	1,104	1,279	1,187	914	694	1,324	6,786	8,180

na = Not applicable
[1] The number of living children includes the current pregnancy.
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilisation
[5] The number of living children includes one additional child if the respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Table 6.2.1 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, Nigeria DHS 2018

Background characteristic	Number of living children[1] 0	1	2	3	4	5	6+	Total
Residence								
Urban	0.8	1.5	9.8	25.1	44.7	55.9	59.0	29.6
Rural	1.3	2.0	4.6	12.5	25.3	34.2	46.6	21.0
Zone								
North Central	1.3	2.0	4.4	17.0	35.0	47.6	59.0	25.7
North East	1.6	1.9	4.4	7.6	13.3	20.3	37.7	16.0
North West	1.3	1.4	3.2	7.4	13.5	22.1	39.4	16.5
South East	0.9	2.4	9.3	16.8	50.3	65.4	82.4	35.8
South South	0.2	2.1	8.0	26.7	53.4	63.8	81.8	33.1
South West	0.0	1.7	13.4	37.4	64.2	76.4	87.5	37.0
Education								
No education	1.4	2.3	4.4	9.1	19.5	27.5	41.6	20.1
Primary	1.0	1.8	7.5	20.2	36.9	55.9	64.7	35.2
Secondary	0.7	1.3	6.3	21.0	46.3	56.8	70.5	24.9
More than secondary	1.0	1.8	13.8	36.4	48.9	64.9	60.2	25.7
Wealth quintile								
Lowest	2.2	2.2	3.6	9.0	15.3	23.3	37.8	17.3
Second	0.9	1.8	4.6	11.3	22.4	33.2	44.9	20.0
Middle	1.6	1.2	5.2	14.9	30.3	40.3	56.8	25.6
Fourth	0.7	2.2	7.0	19.3	42.5	57.5	61.6	29.3
Highest	0.0	1.6	12.0	32.4	55.9	67.5	71.5	31.1
Total	1.1	1.8	6.9	18.3	33.4	42.8	50.7	24.5

Note: Women who have been sterilised are considered to want no more children.
[1] The number of living children includes the current pregnancy.

Table 6.2.2 Desire to limit childbearing: Men

Percentage of currently married men age 15-49 who want no more children, by number of living children, according to background characteristics, Nigeria DHS 2018

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	2.6	3.8	11.7	25.4	43.9	46.7	40.5	24.3
Rural	2.4	1.5	5.0	16.0	24.7	24.1	20.6	14.6
Zone								
North Central	2.4	2.8	7.8	12.5	28.1	33.8	27.7	17.0
North East	(0.0)	2.4	3.3	8.7	14.1	14.8	17.0	10.4
North West	2.2	0.0	0.6	4.9	3.3	6.6	10.9	5.5
South East	(7.3)	4.8	8.0	16.1	30.4	49.0	60.2	24.0
South South	(0.0)	2.7	8.7	25.2	53.0	62.6	55.0	27.9
South West	(3.8)	4.0	15.7	39.6	66.6	70.1	77.2	34.4
Education								
No education	0.0	1.6	4.4	6.5	8.5	10.4	11.7	7.7
Primary	(12.6)	4.2	4.8	18.1	32.2	37.4	38.2	24.8
Secondary	1.7	1.7	8.0	23.2	44.3	47.5	36.3	22.3
More than secondary	0.0	4.3	14.0	32.1	37.7	47.7	35.3	21.9
Wealth quintile								
Lowest	0.0	1.9	3.2	4.3	7.1	8.7	10.6	6.4
Second	0.0	2.6	2.1	14.9	19.3	23.4	16.1	12.4
Middle	8.9	0.0	5.7	18.0	27.7	29.8	32.8	19.0
Fourth	3.8	3.1	8.7	18.0	41.1	46.7	44.7	23.0
Highest	0.0	4.1	15.0	33.2	56.8	60.5	54.5	28.8
Total 15-49	2.5	2.6	8.6	21.3	33.2	34.3	26.6	19.1
50-59	(9.6)	(19.0)	42.1	48.3	64.9	66.0	46.5	50.4
Total 15-59	2.9	3.1	10.4	24.0	37.7	42.0	33.9	24.4

Note: Men who have been sterilised or who state in response to the question about desire for children that their wife has been sterilised are considered to want no more children. Figures in parentheses are based on 25-49 unweighted cases.
[1] The number of living children includes one additional child if the respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Table 6.3 Ideal number of children by number of living children

Percent distribution of women and men age 15-49 by ideal number of children, and mean ideal number of children for all respondents and for currently married respondents, according to number of living children, Nigeria DHS 2018

	Number of living children							
Ideal number of children	0	1	2	3	4	5	6+	Total
			WOMEN[1]					
0	1.9	1.6	2.1	2.1	3.3	3.6	5.5	2.8
1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
2	4.3	2.4	2.5	0.9	0.6	0.7	0.4	2.1
3	13.8	11.9	8.2	7.6	2.1	2.3	0.6	7.8
4	30.0	26.4	28.0	22.5	20.6	10.5	5.3	22.0
5	16.0	16.0	16.0	17.1	13.6	17.3	6.0	14.5
6+	31.3	39.1	40.8	46.9	56.4	61.7	78.6	47.9
Non-numeric responses	2.6	2.5	2.2	2.8	3.3	3.8	3.5	2.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	11,401	5,310	5,515	5,098	4,601	3,771	6,126	41,821
Mean ideal number of children for:[2]								
All women	5.1	5.6	5.7	6.1	6.4	6.9	8.1	6.1
Number of women	11,106	5,177	5,394	4,955	4,448	3,627	5,913	40,621
Currently married women	6.5	5.8	5.7	6.1	6.5	6.9	8.2	6.6
Number of currently married women	1,505	4,267	4,923	4,561	4,117	3,350	5,525	28,249
			MEN[3]					
0	2.7	0.4	0.7	1.2	1.4	0.6	0.9	1.7
1	0.1	0.3	0.0	0.1	0.1	0.0	0.1	0.1
2	4.4	2.4	3.4	1.8	1.0	0.6	0.3	2.9
3	9.8	15.2	12.0	9.3	3.1	2.2	0.7	8.5
4	19.6	26.5	29.5	26.6	22.6	10.7	4.2	20.1
5	16.6	17.3	16.0	18.6	15.2	16.0	4.6	15.3
6+	41.1	35.6	35.3	38.5	51.4	63.3	80.2	46.2
Non-numeric responses	5.7	2.3	3.1	3.9	5.3	6.6	9.0	5.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	5,201	1,181	1,318	1,206	927	703	1,331	11,868
Mean ideal number of children for:[2]								
All men	6.4	6.0	5.9	6.2	7.2	8.3	12.8	7.2
Number of men	4,905	1,155	1,277	1,158	877	657	1,211	11,240
Currently married men	6.4	6.0	5.9	6.2	7.1	8.3	12.9	7.7
Number of currently married men	260	1,080	1,239	1,139	865	650	1,205	6,439
Mean ideal number of children for men 15-59:[2]								
All men	6.4	5.9	5.9	6.1	7.0	7.9	13.1	7.4
Number of men	4,933	1,188	1,351	1,291	1,031	877	1,904	12,575
Currently married men	6.4	5.9	5.9	6.1	7.0	7.9	13.1	8.1
Number of currently married men	277	1,113	1,306	1,266	1,011	865	1,890	7,727

[1] The number of living children includes the current pregnancy.
[2] Means are calculated excluding respondents who gave non-numeric responses.
[3] The number of living children includes one additional child if the respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Table 6.4 Mean ideal number of children

Mean ideal number of children for all women age 15-49, according to background characteristics, Nigeria DHS 2018

Background characteristic	Mean	Number of women[1]
Age		
15-19	5.5	8,202
20-24	5.8	6,686
25-29	6.1	7,073
30-34	6.2	5,998
35-39	6.3	5,291
40-44	6.6	3,809
45-49	6.9	3,562
Residence		
Urban	5.2	18,594
Rural	6.8	22,027
Zone		
North Central	5.7	5,715
North East	7.9	6,319
North West	7.5	12,063
South East	5.0	4,926
South South	4.6	4,795
South West	4.0	6,802
State		
North Central		
FCT-Abuja	4.7	300
Benue	5.1	1,351
Kogi	4.8	615
Kwara	5.0	635
Nasarawa	6.0	647
Niger	7.4	1,304
Plateau	5.4	863
North East		
Adamawa	7.9	711
Bauchi	8.6	1,296
Borno	7.6	1,463
Gombe	8.5	653
Taraba	6.9	873
Yobe	7.9	1,323
North West		
Jigawa	8.7	1,382
Kaduna	7.2	2,486
Kano	7.4	2,686
Katsina	6.6	2,141
Kebbi	8.8	1,135
Sokoto	8.1	906
Zamfara	7.0	1,328
South East		
Abia	4.9	630
Anambra	4.6	1,475
Ebonyi	5.9	1,004
Enugu	5.0	876
Imo	4.7	941
South South		
Akwa Ibom	4.4	941
Bayelsa	4.9	298
Cross River	4.5	549
Delta	5.0	930
Edo	4.5	544
Rivers	4.4	1,532
South West		
Ekiti	4.3	472
Lagos	3.9	2,612
Ogun	4.0	925
Ondo	4.5	620
Osun	3.9	931
Oyo	4.1	1,243
Education		
No education	7.9	14,187
Primary	6.2	5,820
Secondary	4.9	16,089
More than secondary	4.4	4,525

Continued...

Table 6.4—*Continued*

Background characteristic	Mean	Number of women[1]
Wealth quintile		
Lowest	8.0	7,017
Second	7.2	7,787
Middle	6.1	7,978
Fourth	5.3	8,703
Highest	4.5	9,136
Total	6.1	40,621

[1] Number of women who gave a numeric response

Table 6.5 Fertility planning status

Percent distribution of births to women age 15-49 in the 5 years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Nigeria DHS 2018

Birth order and mother's age at birth	Planning status of birth			Total	Number of births
	Wanted then	Wanted later	Wanted no more		
Birth order					
1	89.5	10.2	0.3	100.0	7,437
2	91.0	8.6	0.4	100.0	7,007
3	90.8	8.2	0.9	100.0	5,988
4+	88.5	6.8	4.8	100.0	17,996
Mother's age at birth					
<20	90.0	9.5	0.5	100.0	5,174
20-24	90.7	8.8	0.5	100.0	9,798
25-29	90.3	8.5	1.2	100.0	10,190
30-34	89.4	7.2	3.4	100.0	7,350
35-39	86.6	5.7	7.6	100.0	4,146
40-44	84.6	4.0	11.3	100.0	1,506
45-49	79.6	8.2	12.2	100.0	265
Total	89.5	8.0	2.5	100.0	38,429

Table 6.6 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the 3 years preceding the survey, according to background characteristics, Nigeria DHS 2018

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	4.0	4.5
Rural	5.4	5.9
Zone		
North Central	4.7	5.0
North East	5.6	6.1
North West	5.9	6.6
South East	4.3	4.7
South South	3.6	4.0
South West	3.5	3.9
State		
North Central		
FCT-Abuja	3.9	4.3
Benue	4.2	4.5
Kogi	4.3	4.8
Kwara	4.9	5.2
Nasarawa	5.0	5.3
Niger	5.7	5.8
Plateau	4.2	4.7
North East		
Adamawa	5.6	6.1
Bauchi	6.8	7.2
Borno	4.7	5.2
Gombe	6.3	6.6
Taraba	5.0	5.4
Yobe	5.4	5.9
North West		
Jigawa	6.9	7.1
Kaduna	5.4	5.9
Kano	6.1	6.5
Katsina	5.5	7.3
Kebbi	6.1	6.5
Sokoto	6.6	7.0
Zamfara	5.3	6.4
South East		
Abia	4.6	4.9
Anambra	4.1	4.7
Ebonyi	5.0	5.4
Enugu	3.8	4.1
Imo	4.1	4.5
South South		
Akwa Ibom	3.2	3.6
Bayelsa	4.0	4.4
Cross River	3.1	3.7
Delta	4.0	4.4
Edo	4.3	4.8
Rivers	3.5	3.8
South West		
Ekiti	4.3	4.6
Lagos	3.1	3.4
Ogun	3.5	3.8
Ondo	3.7	4.1
Osun	3.0	3.8
Oyo	4.0	4.5
Education		
No education	6.1	6.7
Primary	5.2	5.8
Secondary	4.0	4.4
More than secondary	3.2	3.4
Wealth quintile		
Lowest	6.2	6.7
Second	5.7	6.2
Middle	5.0	5.6
Fourth	4.1	4.6
Highest	3.5	3.8
Total	4.8	5.3

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 5.2.

FAMILY PLANNING 7

Key Findings

- ***Current contraceptive use:*** Modern contraceptive use is higher among sexually active unmarried women (28%) than among currently married women (12%). The contraceptive prevalence rate for any method is 17% among currently married women.
- ***Contraceptive discontinuation:*** Two of every five times (41%) that women began using a contraceptive method in the 5 years preceding the survey, they discontinued the method within 12 months. The most common reason for discontinuation was the desire to become pregnant (35%).
- ***Demand for family planning:*** The total demand for family planning among currently married women is 36%; 34% of total demand is satisfied by modern methods.
- ***Unmet need for family planning:*** Unmet need for family planning is higher among sexually active unmarried women (48%) than among currently married women (19%).
- ***Future use of contraception:*** 35% of currently married women who are not using contraception intend to use family planning in the future.

Couples can use contraceptive methods to limit or space the number of children they have. This chapter presents information on the use and sources of contraceptive methods, informed choice of methods, and rates and reasons for discontinuing contraceptives. It also examines the potential demand for family planning and how much contact nonusers have with family planning providers.

The Federal Government of Nigeria, through the Federal Ministry of Health (FMOH), has set a modern contraceptive prevalence rate (mCPR) target of 27% by 2020. In order to achieve this, the government has developed the following:

- National Communication Plan (2017-2020)
- National guideline and training manuals for the introduction and scale-up of DMPA-SC self-injection (2019)
- Manual for the Training of Doctors, Nurse/Midwives and Community Health Extension Workers on Postpartum Family Planning (2016)
- Task shifting/task sharing policy for essential health care services in Nigeria as well as the standard of practice (SOP) (Federal Government of Nigeria 2018)

7.1 Contraceptive Knowledge and Use

Knowledge of modern contraceptive methods is higher among sexually active unmarried women (98%) than currently married women (94%), with the former knowing about 9 methods on average and the latter knowing about 7 methods (**Table 7.1**). The most commonly known modern methods among currently married women are injectables (88%) and pills (87%), followed by implants (78%), male condoms (77%), and lactational amenorrhoea (58%). Seventy-two percent of currently married women are aware of a traditional method of contraception.

Contraceptive prevalence rate

Percentage of women who use any contraceptive method.

Sample: All women age 15-49, currently married women age 15-49, and sexually active unmarried women age 15-49

The contraceptive prevalence rate (CPR) is 17% among currently married women age 15-49. Most currently married women using contraception use a modern method (12%), while 5% use a traditional method. Thirty-seven percent of sexually active unmarried women use a contraceptive method, with 28% using a modern method and 9% using a traditional method (**Table 7.2**).

Modern methods

Include male and female sterilisation, injectables, intrauterine devices (IUDs), contraceptive pills, implants, female and male condoms, the standard days method, the lactational amenorrhoea method (LAM), and emergency contraception.

The most commonly used modern methods of contraception among currently married women are injectables and implants (3% each), while the most common modern method used by sexually active unmarried women is the male condom (19%) (**Figure 7.1**).

Trends: Contraceptive use among currently married women increased from 15% in 2013 to 17% in 2018. Use of any modern method of contraception also increased, from 10% to 12% (**Figure 7.2**). In addition, there has been a noticeable rise in the use of implants since 2008, from 0% to 3% (**Table 7.3**).

Figure 7.1 **Contraceptive use**

Percentage of women age 15-49 currently using a contraceptive method

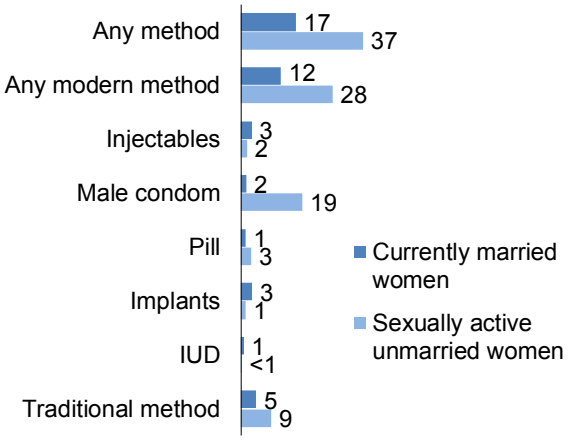
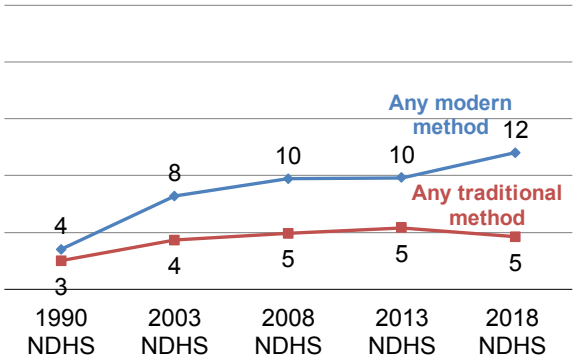


Figure 7.2 **Trends in contraceptive use**

Percentage of currently married women currently using a contraceptive method

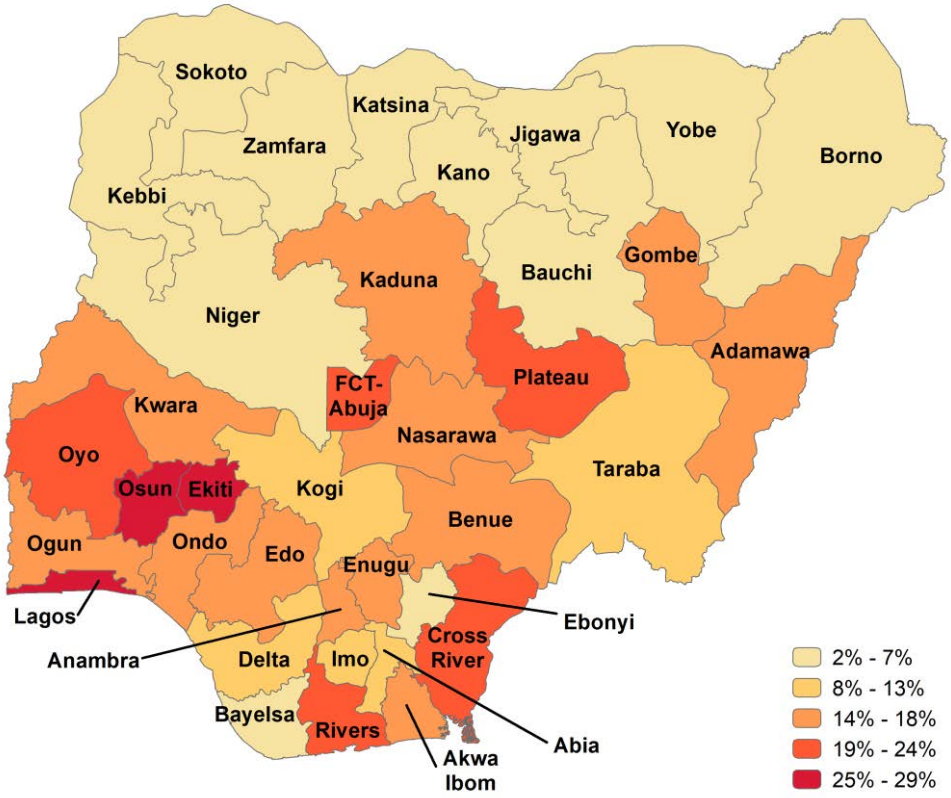


Patterns by background characteristics

- Modern contraceptive use is higher among currently married women with 3-4 living children (15%) than among those with 1-2 living children (11%) (**Table 7.4**).
- Use of any contraceptive method is higher among currently married women in urban areas (26%) than among those in rural areas (10%).

Figure 7.3 **Modern contraceptive use by state**

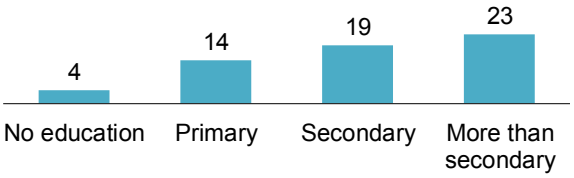
Percentage of currently married women age 15-49



- Modern contraceptive use among currently married women ranges from 2% in Yobe and Sokoto to 29% in Lagos (**Figure 7.3**).
- The proportion of currently married women using modern contraceptive methods is higher among those with more than a secondary education (23%) than among those with no education (4%) (**Table 7.4** and **Figure 7.4**).
- The percentage of currently married women using modern contraceptives increases with increasing household wealth, from 4% among those in the lowest wealth quintile to 22% among those in the highest quintile (**Table 7.4**).

Figure 7.4 **Use of modern methods by education**

Percentage of currently married women age 15-49



Knowledge of the Fertile Period

Among women using the rhythm method, more than half incorrectly perceive the fertile period to be right

after a woman's menstrual period has ended (58%). Thirty percent of women using the rhythm method correctly perceive the fertile period to be halfway between two menstrual periods (**Table 7.5**).

With the exception of women age 15-19, approximately one quarter of women in each age bracket correctly identified the fertile period (**Table 7.6**).

7.2 Source of Modern Contraceptive Methods

Source of modern contraceptives

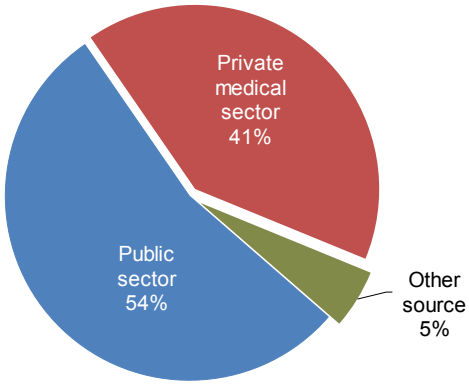
The place where the modern method currently being used was obtained the last time it was acquired.

Sample: Women age 15-49 currently using a modern contraceptive method

In Nigeria, the public sector plays a more prominent role than the private sector in providing modern contraceptive methods (54% and 41%, respectively) (**Figure 7.5**). However, this role varies by method type. The public sector is the predominant source for female sterilisation (75%), IUDs (79%), implants (93%), and injectables (74%). The private sector is the main source for male condoms (81%), emergency contraception (80%), and pills (67%) (**Table 7.7**).

Figure 7.5 **Source of modern contraceptive methods**

Percent distribution of current users of modern methods age 15-49 by most recent source of method



In the public sector, implants and injectables are mainly obtained from government health centres (47% and 46%, respectively), while IUDs are mainly obtained from government hospitals (41%). In the private sector, emergency contraception, male condoms, and pills are primarily obtained from private chemists/patent medicine store (PMS) stores (61%, 51%, and 34%, respectively) (**Table 7.7**).

Among users of social marketing branded pills, the most common brands are Duofem Confidence (23%) and Combination 3 (21%). Among users of social marketing branded condoms, Gold Circle is the most common brand (66%) and Rough Rider is the least common (7%) (**Table 7.8**).

7.3 Informed Choice

Informed choice

Informed choice indicates that women were informed about their method's side effects, about what to do if they experience side effects, and about other methods they could use.

Sample: Women age 15-49 who are currently using selected modern contraceptive methods and who started the last episode of use within the 5 years before the survey

Three quarters (74%) of all women currently using modern contraceptive methods were informed about side effects associated with the method they used, and 68% were informed about what to do if they experienced side effects. A higher percentage (83%) were informed about other available methods. Overall, 65% of women currently using modern contraceptives were informed about the method information index (side effects of the method, what to do if they experience side effects, and other available methods) at the time they started their last episode of use (**Table 7.9**).

Women obtaining a method from the public sector were more likely to be informed of the method information index (72%) than those who obtained their method from the private sector (41%). The percentage of women who were informed about the method information index was highest among IUD users (85%) and lowest among pill users (39%). Women who initially obtained their method in a family planning clinic were most likely to be informed of the method information index (82%) (**Table 7.9**).

7.4 Discontinuation of Contraceptives

Contraceptive discontinuation rate

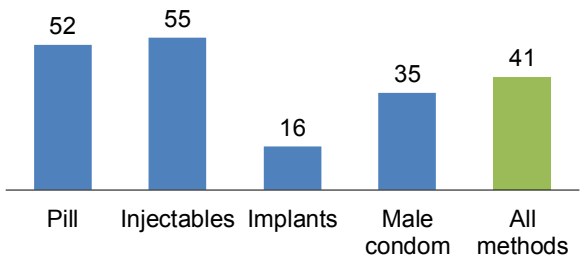
Percentage of contraceptive use episodes discontinued within 12 months.

Sample: Episodes of contraceptive use in the 5 years before the survey experienced by women who are currently age 15-49 (one woman may contribute more than one episode)

The overall 12-month contraceptive discontinuation rate was 41% in the 5 years preceding the survey (**Table 7.10**). The contraceptive discontinuation rate was highest for injectables (55%) and pills (52%) (**Figure 7.6**).

Figure 7.6 **Contraceptive discontinuation rates**

Percentage of contraceptive episodes discontinued within 12 months among women age 15-49



The most common reason for discontinuation was the desire to become pregnant (35%). Other prominent reasons cited for discontinuation included becoming pregnant while using the method (15%), side effects/health concerns (14%), and infrequent sex/husband being away (11%) (**Table 7.11**). Injectables were mostly discontinued due to side effects/health concerns (37%), while pills were mostly discontinued due to a desire to become pregnant (33%).

7.5 Demand for Family Planning

Unmet need for family planning

Proportion of women who (1) are not pregnant and not postpartum amenorrhoeic and are considered fecund and want to postpone their next birth for 2 or more years or stop childbearing altogether but are not using a contraceptive method, or (2) have a mistimed or unwanted current pregnancy, or (3) are postpartum amenorrhoeic and their last birth in the last 2 years was mistimed or unwanted.

Sample: All women age 15-49, currently married women age 15-49, and sexually active unmarried women age 15-49

Demand for family planning:

Unmet need for family planning
+ current contraceptive use (any method)

Proportion of demand satisfied:

$$\frac{\text{Current contraceptive use (any method)}}{\text{Unmet need + current contraceptive use (any method)}}$$

Proportion of demand satisfied by modern methods:

$$\frac{\text{Current contraceptive use (any modern method)}}{\text{Unmet need + current contraceptive use (any method)}}$$

Thirty-six percent of currently married women have a demand for family planning, 14% for limiting and 22% for spacing. Seventeen percent of currently married women are already using contraception. However, 19% have an unmet need for family planning (7% for limiting and 12% for spacing) (**Figure 7.7**). If all currently married women who say they want to space or limit their children were to use a family planning method, the contraceptive prevalence rate would increase from 17% to 36% (**Table 7.12.1**).

Trends: Total demand for family planning among currently married women has increased since 1990, from 27% to 36% (**Figure 7.8**). Over the same period, the proportion of demand satisfied by modern methods has increased from 14% to 34%. Unmet need decreased from 22% in 1990 to 16% in 2013 before rising to 19% in 2018 (**Figure 7.8**).

Figure 7.7 **Demand for family planning**

Percent distribution of currently married women age 15-49 by need for family planning

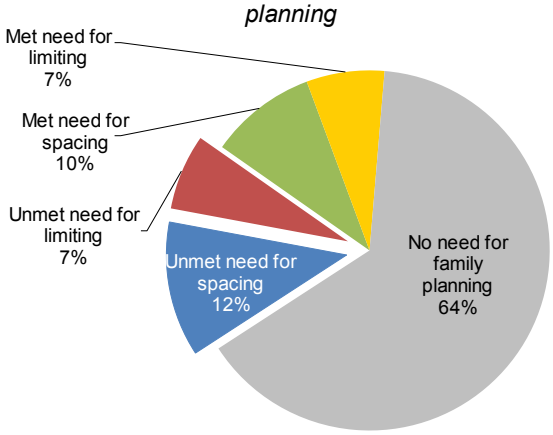
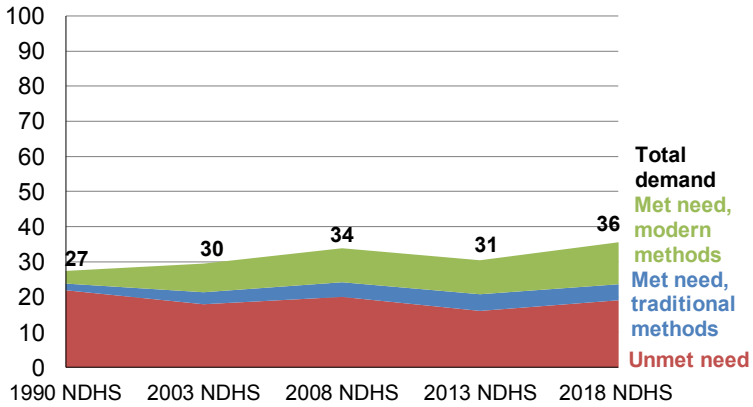


Figure 7.8 **Trends in demand for family planning**

Percentage of currently married women age 15-49

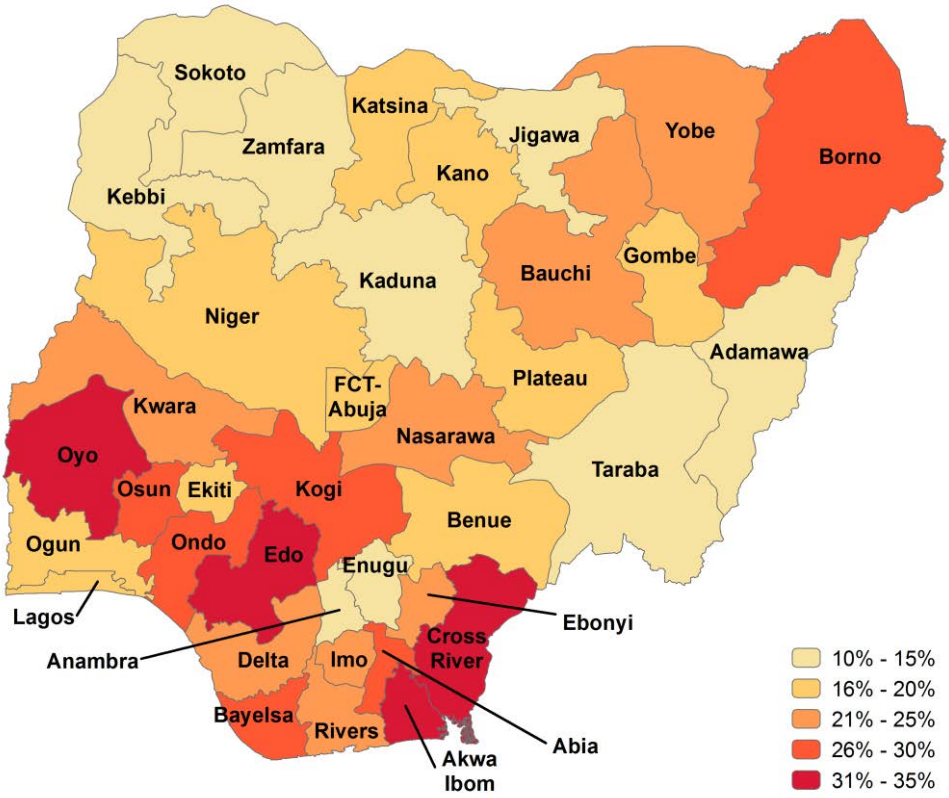


Patterns by background characteristics

- Unmet need for family planning among currently married women is 20% in urban areas and 18% in rural areas. The percentage of demand satisfied with modern methods is 39% in urban areas and 28% in rural areas (**Table 7.12.1**).
- Demand for family planning is lowest among currently married women in the North West (21%), particularly women in Kebbi and Sokoto (15% each). Demand is highest among women in the South West (57%), particularly women in Lagos (66%) (**Table 7.12.1**).

Figure 7.9 **Unmet need by state**

Percentage of currently married women age 15-49 with unmet need for family planning



- Unmet need for family planning among currently married women is highest in Cross River (35%) and Edo (33%) and lowest in Anambra and Adamawa (10% each) (**Figure 7.9**).
- Demand for family planning increases with increasing household wealth, from 21% among women in the lowest wealth quintile to 52% among women in the highest quintile (**Table 7.12.1**).
- Sexually active unmarried women have a higher demand for family planning than currently married women (85% versus 36%). They also have a higher unmet need (48% versus 19%) (**Table 7.12.2**).

Decision Making about Family Planning

Among currently married women who are users of family planning, 66% reported that they decided jointly with their husband to use family planning, whereas 23% said that they made their own decision (**Table 7.13**). Among currently married women who are nonusers, 41% decided jointly with their husband to not use family planning, 38% made their own decision, and 19% reported that it was mainly their husband's decision to not use family planning (**Table 7.13**).

Future Use of Contraception

Thirty-five percent of currently married women who are not using contraception intend to use family planning in the future. However, 58% of women do not intend to use contraception in the future, and 7% are unsure about future use. Future intention to use contraception increases from 26% among women with no living children to a peak of 40% among those with two living children before declining to 33% among those with four or more living children (**Table 7.14**).

Exposure to Family Planning Messages in the Media

The survey also collected information on exposure to family planning messages in the media and other sources among women and men age 15-49. The radio is the most common source of family planning messages in Nigeria, with 31% of women and 39% of men having heard a family planning message on the radio in the past few months. Among women, 19% reported having seen a family planning message on television and 4% saw one in a newspaper or magazine, while among men these proportions were 23% and 13%, respectively. On the other hand, 65% of women and 56% of men have not been exposed to family planning messages through any of the four media sources (radio, television, newspaper/magazine, and mobile phone) in the past few months (**Table 7.15.1** and **Table 7.15.2**). Among other sources of information, 18% of women and 25% of men reporting seeing a family planning message on a poster.

For details on the types of family planning messages to which women and men in Nigeria are exposed, see **Table 7.16**.

7.6 Contact of Nonusers with Family Planning Providers

Contact of nonusers with family planning providers

Respondent discussed family planning in the 12 months before the survey with a fieldworker or during a visit to a health facility.

Sample: Women age 15-49 who are not currently using any contraceptive methods

Eighty-four percent of women age 15-49 who are not using contraception said they did not discuss family planning with a fieldworker or health facility staff member in the 12 months before the survey. Four percent were visited by a fieldworker who discussed family planning, and 14% discussed family planning with a staff member during a health facility visit. Twenty-four percent of women visited a health facility but did not discuss family planning with a health facility worker (**Table 7.17**).

Patterns by background characteristics

- Women in urban areas are more likely than women in rural areas to have discussed family planning during a heath facility visit (16% and 12%, respectively).
- The percentage of women who did not discuss family planning either with a fieldworker or at a health facility ranges from a high of 97% in Zamfara to a low of 70% in Ekiti.
- The percentage of women who did not discuss family planning with a fieldworker or at a health facility was highest among those with no education (88%) and lowest among those with more than a secondary education (78%).

LIST OF TABLES

For more information on family planning, see the following tables:

- **Table 7.1** **Knowledge of contraceptive methods**
- **Table 7.2** **Current use of contraception by age**
- **Table 7.3** **Trends in current use of contraception**
- **Table 7.4** **Current use of contraception according to background characteristics**
- **Table 7.5** **Knowledge of fertile period**
- **Table 7.6** **Knowledge of fertile period by age**
- **Table 7.7** **Source of modern contraception methods**
- **Table 7.8** **Use of social marketing brand pills and condoms**
- **Table 7.9** **Informed choice**
- **Table 7.10** **Twelve-month contraceptive discontinuation rates**
- **Table 7.11** **Reasons for discontinuation**
- **Table 7.12.1** **Need and demand for family planning among currently married women**
- **Table 7.12.2** **Need and demand for family planning for all women and for sexually active unmarried women**
- **Table 7.13** **Decision making about family planning**
- **Table 7.14** **Future use of contraception**
- **Table 7.15.1** **Exposure to family planning messages: Women**
- **Table 7.15.2** **Exposure to family planning messages: Men**
- **Table 7.16** **Exposure to specific family planning messages**
- **Table 7.17** **Contact of nonusers with family planning providers**

Table 7.1 Knowledge of contraceptive methods

Percentage of all respondents, currently married respondents, and sexually active unmarried respondents age 15-49 who know any contraceptive method, by specific method, Nigeria DHS 2018

	Women			Men		
Method	All women	Currently married women	Sexually active unmarried women[1]	All men	Currently married men	Sexually active unmarried men[1]
Any method	92.7	94.5	98.4	94.1	98.2	99.1
Any modern method	92.1	93.9	98.3	93.8	97.8	99.1
Female sterilisation	45.1	48.8	50.2	39.7	48.3	47.4
Male sterilisation	17.8	18.7	25.5	32.6	38.4	44.4
Pill	82.2	87.2	87.8	73.8	83.1	85.1
IUD	45.8	50.8	51.5	31.6	40.0	32.6
Injectables	82.1	88.4	84.6	62.3	72.9	66.9
Implants	70.3	77.5	74.3	45.0	57.4	45.3
Male condom	77.9	76.6	97.7	92.0	96.0	98.5
Female condom	42.4	41.7	72.9	51.1	58.1	70.6
Emergency contraception	36.7	36.6	65.7	36.0	43.3	52.0
Standard days method	23.0	25.5	27.0	24.8	31.5	27.6
Lactational amenorrhoea (LAM)	51.5	58.4	52.6	35.2	47.1	24.6
Other modern method	0.6	0.6	2.4	0.2	0.3	0.9
Any traditional method	68.2	72.1	89.5	71.1	84.1	84.1
Rhythm	50.5	52.0	73.9	35.0	43.9	43.1
Withdrawal	59.5	63.1	85.9	69.4	82.6	82.0
Other traditional method	11.1	13.7	11.5	0.4	0.5	0.4
Mean number of methods known by respondents 15-49	7.0	7.4	8.6	6.3	7.4	7.2
Number of respondents	41,821	29,090	1,535	11,868	6,786	694
Mean number of methods known by respondents 15-59	na	na	na	6.4	7.5	7.2
Number of respondents	na	na	na	13,311	8,180	697

na = Not applicable
[1] Had last sexual intercourse within 30 days preceding the survey

Table 7.2 Current use of contraception by age

Percent distribution of all women, currently married women, and sexually active unmarried women age 15-49 by contraceptive method currently used, according to age, Nigeria DHS 2018

			Modern method										Traditional method					
Age	Any method	Any modern method	Female sterili-sation	Pill	IUD	Inject-ables	Implants	Male condom	Emer-gency contra-ception	LAM	Other[1]	Any tradi-tional method	Rhythm	With-drawal	Other	Not currently using	Total	Number of women
									ALL WOMEN									
15-19	2.9	2.4	0.0	0.2	0.0	0.1	0.1	1.6	0.1	0.1	0.1	0.6	0.2	0.3	0.1	97.1	100.0	8,448
20-24	11.9	9.1	0.0	0.8	0.1	1.6	1.6	3.7	0.4	0.8	0.1	2.9	0.8	1.7	0.4	88.1	100.0	6,835
25-29	17.0	13.0	0.0	1.4	0.4	2.9	2.9	3.7	0.2	1.5	0.1	3.9	0.9	2.3	0.7	83.0	100.0	7,255
30-34	20.1	14.2	0.1	1.6	0.7	3.6	3.9	2.7	0.3	1.3	0.1	5.9	1.6	3.5	0.8	79.9	100.0	6,178
35-39	22.4	16.1	0.2	2.4	1.0	4.3	4.5	2.4	0.1	1.2	0.1	6.3	1.9	3.8	0.7	77.5	100.0	5,463
40-44	19.8	14.1	0.6	1.4	1.6	3.5	4.1	1.6	0.4	0.6	0.2	5.7	2.1	2.4	1.3	80.2	100.0	3,940
45-49	11.7	8.4	0.8	0.7	1.3	2.2	2.0	0.6	0.4	0.2	0.0	3.4	1.9	1.1	0.4	88.3	100.0	3,701
Total	14.3	10.5	0.2	1.2	0.6	2.4	2.5	2.5	0.2	0.8	0.1	3.8	1.2	2.1	0.6	85.7	100.0	41,821
									CURRENTLY MARRIED WOMEN									
15-19	3.2	2.3	0.0	0.1	0.1	0.5	0.3	0.9	0.1	0.4	0.0	0.9	0.3	0.4	0.2	96.8	100.0	1,927
20-24	10.9	8.2	0.0	0.8	0.2	2.3	2.4	1.3	0.1	1.1	0.1	2.6	0.6	1.8	0.2	89.1	100.0	4,362
25-29	16.3	12.3	0.1	1.4	0.5	3.3	3.1	2.1	0.1	1.8	0.0	4.0	1.0	2.3	0.7	83.7	100.0	6,060
30-34	19.7	14.0	0.1	1.6	0.8	3.9	4.3	1.8	0.1	1.4	0.1	5.7	1.5	3.6	0.5	80.3	100.0	5,417
35-39	23.3	16.5	0.2	2.5	1.0	4.4	4.9	2.0	0.1	1.3	0.0	6.7	2.0	4.0	0.7	76.7	100.0	4,841
40-44	21.1	14.9	0.7	1.5	1.8	3.8	4.4	1.5	0.3	0.7	0.2	6.2	2.2	2.5	1.4	78.9	100.0	3,457
45-49	13.0	9.1	0.9	0.7	1.5	2.5	2.2	0.5	0.5	0.2	0.0	3.9	2.3	1.3	0.4	87.0	100.0	3,026
Total	16.6	12.0	0.2	1.4	0.8	3.2	3.4	1.6	0.2	1.2	0.1	4.6	1.4	2.6	0.6	83.4	100.0	29,090
									SEXUALLY ACTIVE UNMARRIED WOMEN[2]									
15-19	28.3	22.2	0.0	2.5	0.0	0.7	0.3	16.8	1.3	0.0	0.6	6.0	1.7	3.6	0.7	71.7	100.0	310
20-24	37.1	28.2	0.0	2.8	0.0	1.3	0.5	20.5	2.8	0.0	0.3	8.9	2.8	4.8	1.3	62.9	100.0	450
25+	40.3	29.5	0.0	3.5	0.5	2.5	2.3	17.9	2.1	0.0	0.7	10.7	2.5	5.1	3.2	59.6	100.0	775
Total	36.9	27.7	0.0	3.1	0.2	1.8	1.4	18.5	2.2	0.0	0.6	9.2	2.4	4.7	2.1	63.0	100.0	1,535

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = Lactational amenorrhoea method
[1] Includes female condom, standard days method, and other modern methods
[2] Women who have had sexual intercourse within 30 days preceding the survey

Table 7.3 Trends in current use of contraception

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to several surveys, Nigeria DHS 1990-2018

Method	1990 NDHS	2003 NDHS	2008 NDHS	2013 NDHS	2018 NDHS
Any method	6.0	12.6	14.6	15.1	16.6
Any modern method	3.5	8.2	9.7	9.8	12.0
Female sterilisation	0.3	0.2	0.4	0.3	0.2
IUD	0.8	0.7	1.0	1.1	0.8
Pill	1.2	1.8	1.7	1.8	1.4
Injectables	0.7	2.0	2.6	3.2	3.2
Implants	u	0.0	0.0	0.4	3.4
Male condom	0.4	1.9	2.4	2.1	1.6
LAM	u	1.4	1.6	0.4	1.2
Other modern methods	0.1	0.2	0.0	0.4	0.3
Any traditional method	2.5	4.3	4.9	5.4	4.6
Rhythm	1.4	2.1	2.1	2.2	1.4
Withdrawal	0.5	1.3	2.0	2.5	2.6
Other	0.6	1.0	0.9	0.7	0.6
Not currently using	94.0	87.4	85.4	84.9	83.4
Total	100.0	100.0	100.0	100.0	100.0
Number of women	6,880	5,336	23,578	27,830	29,090

LAM = Lactational amenorrhoea method
u = Unknown (not available)

Table 7.4 Current use of contraception according to background characteristics

Percent distribution of currently married and sexually active unmarried women age 15-49 by contraceptive method currently used, according to background characteristics, Nigeria DHS 2018

Background characteristic	Any method	Any modern method	Modern method: Female sterilisation	Pill	IUD	Injectables	Implants	Male condom	Emergency contraception	LAM	Other[1]	Any traditional method	Traditional method: Rhythm	Withdrawal	Other	Not currently using	Total	Number of women
CURRENTLY MARRIED WOMEN																		
Number of living children																		
0	1.9	1.2	0.0	0.1	0.0	0.0	0.2	0.8	0.1	0.0	0.0	0.7	0.2	0.4	0.0	98.1	100.0	2,333
1-2	15.1	10.7	0.1	1.0	0.5	2.7	2.3	2.4	0.1	1.4	0.1	4.5	1.2	2.7	0.5	84.9	100.0	9,363
3-4	21.1	15.3	0.3	2.0	1.0	4.1	4.5	1.7	0.3	1.4	0.0	5.8	1.9	3.3	0.6	78.9	100.0	8,615
5+	17.8	13.2	0.4	1.5	1.2	3.9	4.3	0.8	0.1	1.0	0.1	4.6	1.5	2.2	0.9	82.2	100.0	8,779
Residence																		
Urban	26.3	18.2	0.3	2.3	1.6	4.3	4.8	2.9	0.3	1.7	0.1	8.1	2.5	4.7	0.9	73.6	100.0	11,790
Rural	10.0	7.8	0.2	0.8	0.3	2.5	2.4	0.7	0.1	0.8	0.0	2.2	0.7	1.1	0.4	90.0	100.0	17,299
Zone																		
North Central	16.2	13.8	0.2	1.3	0.8	4.5	4.7	1.8	0.0	0.3	0.1	2.4	0.5	1.4	0.5	83.8	100.0	4,086
North East	9.5	7.8	0.5	1.0	0.1	2.3	1.7	0.2	0.0	1.9	0.0	1.7	0.9	0.4	0.4	90.5	100.0	4,841
North West	6.7	6.2	0.2	0.7	0.3	2.2	2.6	0.1	0.0	0.2	0.0	0.5	0.1	0.1	0.3	93.2	100.0	9,826
South East	28.1	12.9	0.1	1.3	1.1	2.1	2.9	2.8	0.1	2.5	0.0	15.2	7.1	7.8	0.3	71.9	100.0	2,893
South South	21.7	15.8	0.3	2.2	0.5	3.5	4.6	3.1	0.4	1.1	0.1	6.0	1.8	3.6	0.6	78.3	100.0	2,777
South West	35.1	24.3	0.2	2.8	2.8	5.9	5.2	4.2	0.6	2.5	0.2	10.8	1.8	7.1	1.9	64.9	100.0	4,666
State																		
North Central																		
FCT-Abuja	23.6	20.0	0.5	3.2	0.6	7.0	4.3	3.8	0.2	0.4	0.1	3.6	0.5	2.4	0.7	76.1	100.0	202
Benue	17.1	15.5	0.5	1.2	0.7	3.1	6.4	2.8	0.0	0.7	0.0	1.6	0.7	0.6	0.3	82.9	100.0	876
Kogi	18.3	11.8	0.4	1.2	0.9	2.9	2.4	3.4	0.2	0.1	0.4	6.5	1.9	4.1	0.5	81.7	100.0	428
Kwara	22.4	17.1	0.1	2.5	1.7	6.3	3.8	2.5	0.2	0.0	0.0	5.3	0.8	3.4	1.2	77.6	100.0	486
Nasarawa	14.8	14.3	0.1	1.8	0.8	3.0	7.2	0.9	0.0	0.4	0.2	0.6	0.0	0.4	0.2	85.2	100.0	416
Niger	7.6	6.4	0.1	0.4	0.2	2.5	2.3	0.8	0.0	0.2	0.0	1.1	0.0	0.8	0.3	92.4	100.0	1,108
Plateau	22.7	21.4	0.1	1.4	1.2	10.3	7.3	0.7	0.0	0.0	0.3	1.3	0.5	0.2	0.5	77.3	100.0	570
North East																		
Adamawa	25.1	18.2	0.1	0.8	0.1	6.0	4.1	0.2	0.0	6.9	0.0	6.9	6.1	0.1	0.7	74.9	100.0	624
Bauchi	6.5	5.2	0.2	1.6	0.0	1.9	1.0	0.1	0.0	0.3	0.0	1.3	0.1	0.3	0.9	93.5	100.0	1,134
Borno	6.2	5.4	1.2	1.2	0.2	1.5	0.6	0.6	0.1	0.0	0.0	0.8	0.0	0.8	0.0	93.8	100.0	953
Gombe	17.0	16.2	0.2	1.0	0.2	3.0	3.3	0.2	0.0	8.0	0.2	0.8	0.0	0.4	0.4	83.0	100.0	554
Taraba	10.3	8.6	1.1	0.8	0.2	2.6	3.2	0.5	0.0	0.1	0.0	1.7	0.9	0.6	0.2	89.7	100.0	580
Yobe	1.9	1.7	0.1	0.4	0.0	0.8	0.4	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.1	98.1	100.0	996
North West																		
Jigawa	4.0	3.9	0.1	0.5	0.0	2.5	0.8	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	96.0	100.0	1,158
Kaduna	14.9	13.7	0.3	0.8	0.5	4.0	7.0	0.4	0.0	0.7	0.0	1.2	0.5	0.2	0.4	85.1	100.0	1,975
Kano	6.3	5.6	0.1	0.7	0.7	1.5	2.3	0.1	0.0	0.1	0.0	0.7	0.0	0.2	0.5	93.7	100.0	2,085
Katsina	3.4	3.3	0.1	0.7	0.0	1.2	1.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	96.6	100.0	1,772
Kebbi	3.5	3.2	0.0	0.8	0.0	1.6	0.7	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.3	96.5	100.0	945
Sokoto	2.3	2.1	0.0	0.6	0.0	0.8	0.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	97.7	100.0	777
Zamfara	7.3	6.7	0.6	0.8	0.2	2.7	2.2	0.2	0.0	0.0	0.0	0.6	0.0	0.2	0.4	92.7	100.0	1,116

Continued...

Table 7.4—*Continued*

Background characteristic	Any method	Any modern method	Modern method: Female sterilisation	Pill	IUD	Injectables	Implants	Male condom	Emergency contraception	LAM	Other[1]	Any traditional method	Traditional method: Rhythm	Withdrawal	Other	Not currently using	Total	Number of women
South East																		
Abia	12.9	10.8	0.5	1.1	0.6	5.0	1.9	1.6	0.0	0.2	0.0	2.1	0.1	2.0	0.0	87.1	100.0	376
Anambra	44.6	17.2	0.0	0.8	2.6	1.9	2.8	5.0	0.0	4.2	0.0	27.4	14.6	12.3	0.5	55.4	100.0	905
Ebonyi	8.2	5.9	0.0	0.7	0.1	1.6	2.6	0.7	0.0	0.2	0.0	2.3	0.7	1.6	0.0	91.8	100.0	600
Enugu	30.9	17.6	0.0	2.4	0.4	1.9	6.3	2.3	0.3	3.9	0.0	13.4	5.0	8.2	0.1	69.1	100.0	458
Imo	30.7	10.9	0.1	1.7	0.6	1.3	1.6	2.6	0.5	2.4	0.2	19.8	8.4	10.8	0.5	69.3	100.0	554
South South																		
Akwa Ibom	19.8	15.7	0.0	3.0	0.7	3.8	3.0	4.1	0.0	1.1	0.0	4.1	2.9	0.9	0.3	80.2	100.0	490
Bayelsa	3.7	3.3	0.0	0.4	0.0	0.2	1.9	0.9	0.0	0.0	0.0	0.3	0.0	0.3	0.0	96.3	100.0	195
Cross River	20.0	18.9	0.3	1.9	0.4	3.4	11.5	1.0	0.0	0.2	0.1	1.2	0.3	0.9	0.0	80.0	100.0	318
Delta	16.5	12.9	0.4	2.1	1.2	2.9	3.0	1.0	0.0	1.8	0.3	3.6	1.3	1.4	0.9	83.5	100.0	551
Edo	19.4	15.0	0.2	3.5	0.3	5.1	3.6	1.4	0.1	0.8	0.0	4.3	1.6	2.7	0.0	80.6	100.0	370
Rivers	32.0	19.6	0.4	1.7	0.0	3.7	4.9	6.0	1.3	1.4	0.1	12.3	2.7	8.6	1.1	68.0	100.0	855
South West																		
Ekiti	38.5	25.4	0.4	3.4	4.3	4.1	5.5	6.2	0.5	1.0	0.0	13.1	3.3	9.0	0.8	61.5	100.0	326
Lagos	49.4	29.0	0.0	4.9	1.9	3.1	4.5	6.9	1.4	6.0	0.3	20.3	3.8	12.2	4.3	50.6	100.0	1,645
Ogun	32.1	16.6	0.5	1.6	0.6	7.3	2.3	3.8	0.2	0.2	0.1	15.5	0.2	13.3	2.0	67.9	100.0	624
Ondo	20.1	17.7	0.4	1.5	2.2	3.7	7.8	1.4	0.1	0.6	0.0	2.4	1.0	1.1	0.3	79.9	100.0	421
Osun	29.4	27.0	0.6	1.6	5.0	7.1	6.7	3.8	0.4	1.3	0.5	2.4	0.6	1.8	0.0	70.6	100.0	625
Oyo	22.6	22.2	0.0	1.1	4.2	10.1	6.0	0.8	0.0	0.0	0.0	0.4	0.0	0.2	0.1	77.4	100.0	1,024
Education																		
No education	5.2	4.3	0.2	0.4	0.2	1.5	1.1	0.1	0.1	0.7	0.0	0.9	0.3	0.2	0.4	94.8	100.0	12,955
Primary	19.4	14.1	0.2	1.7	0.9	4.8	4.0	1.2	0.2	1.2	0.1	5.3	1.3	3.0	1.0	80.6	100.0	4,580
Secondary	26.8	19.0	0.3	2.2	1.3	4.6	5.5	3.0	0.3	1.7	0.1	7.8	2.4	4.6	0.8	73.2	100.0	8,767
More than secondary	33.3	22.7	0.3	2.7	2.5	4.4	6.1	4.7	0.1	1.7	0.1	10.6	4.3	6.0	0.3	66.7	100.0	2,788
Wealth quintile																		
Lowest	4.4	3.7	0.1	0.2	0.2	1.5	1.0	0.1	0.0	0.6	0.0	0.7	0.2	0.3	0.3	95.6	100.0	6,008
Second	7.8	6.3	0.2	0.6	0.2	2.2	1.9	0.4	0.0	0.7	0.0	1.5	0.5	0.6	0.4	92.2	100.0	6,224
Middle	14.6	11.2	0.2	1.3	0.5	3.4	3.7	0.9	0.1	0.9	0.1	3.4	1.1	1.9	0.5	85.4	100.0	5,601
Fourth	25.2	17.9	0.3	2.5	1.3	4.4	4.9	2.3	0.4	1.7	0.1	7.3	2.1	4.0	1.2	74.8	100.0	5,599
Highest	33.0	22.2	0.4	2.5	2.0	4.9	5.6	4.4	0.3	1.9	0.1	10.7	3.6	6.3	0.8	67.0	100.0	5,657
Total	16.6	12.0	0.2	1.4	0.8	3.2	3.4	1.6	0.2	1.2	0.1	4.6	1.4	2.6	0.6	83.4	100.0	29,090
SEXUALLY ACTIVE UNMARRIED WOMEN[2]																		
Residence																		
Urban	38.9	28.1	0.0	3.4	0.3	1.7	1.6	17.6	2.6	0.0	0.9	10.8	2.1	5.8	2.9	60.9	100.0	909
Rural	34.0	27.0	0.0	2.7	0.1	1.9	1.0	19.7	1.5	0.0	0.1	6.9	2.8	3.1	1.0	66.0	100.0	626
Total	36.9	27.7	0.0	3.1	0.2	1.8	1.4	18.5	2.2	0.0	0.6	9.2	2.4	4.7	2.1	63.0	100.0	1,535

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = Lactational amenorrhoea method
[1] Includes female condom, standard days method, and other modern methods
[2] Women who have had sexual intercourse within 30 days preceding the survey

Table 7.5 Knowledge of fertile period

Percent distribution of rhythm users and all women age 15-49 by knowledge of the fertile period during the ovulatory cycle, Nigeria DHS 2018

Perceived fertile period	Users of rhythm method	All women
Just before her menstrual period begins	5.6	11.4
During her menstrual period	0.8	1.1
Right after her menstrual period has ended	57.8	51.9
Halfway between two menstrual periods	30.3	24.2
Other	0.7	0.2
No specific time	0.4	4.3
Don't know	4.5	7.0
Total	100.0	100.0
Number of women	490	41,821

Table 7.6 Knowledge of fertile period by age

Percentage of women age 15-49 with correct knowledge of the fertile period during the ovulatory cycle, according to age, Nigeria DHS 2018

Age	Percentage with correct knowledge of the fertile period	Number of women
15-19	15.1	8,448
20-24	24.1	6,835
25-29	25.9	7,255
30-34	28.0	6,178
35-39	27.9	5,463
40-44	27.2	3,940
45-49	27.4	3,701
Total	24.2	41,821

Note: Correct knowledge of the fertile period is defined as "halfway between two menstrual periods."

Table 7.7 Source of modern contraception methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Nigeria DHS 2018

Source	Female sterilisation	IUD	Injectables	Implants	Pill	Male condom	Emergency contraception	Total
Public sector	**74.5**	**79.1**	**74.4**	**92.8**	**31.4**	**5.4**	**0.0**	**54.0**
Government hospital	70.6	40.9	25.9	39.4	12.0	1.8	0.0	22.4
Government health centre	3.9	35.2	45.5	47.4	16.8	2.6	0.0	28.5
Family planning clinic	0.0	2.5	2.4	3.1	2.1	0.3	0.0	1.9
Public mobile clinic	0.0	0.0	0.2	0.8	0.3	0.2	0.0	0.3
Public fieldworker	0.0	0.5	0.4	2.1	0.4	0.5	0.0	0.8
Private sector	**25.5**	**20.1**	**23.1**	**6.9**	**66.5**	**81.4**	**80.2**	**40.8**
Private hospital/clinic	21.5	16.9	7.1	5.0	3.2	1.2	0.0	5.2
Private pharmacy	0.0	0.0	3.8	0.0	28.1	29.0	19.7	12.4
Private chemist/PMS store	1.3	0.8	9.0	0.4	33.9	50.9	60.5	21.5
Private doctor	1.1	1.8	1.8	0.6	0.2	0.0	0.0	0.8
Private mobile clinic	0.0	0.3	0.6	0.4	1.0	0.1	0.0	0.4
Private fieldworker	1.5	0.4	0.6	0.1	0.0	0.0	0.0	0.3
Other private medical sector	0.0	0.0	0.2	0.4	0.0	0.1	0.0	0.2
Other source	**0.0**	**0.8**	**2.0**	**0.3**	**2.0**	**10.9**	**19.8**	**4.4**
Shop	0.0	0.0	0.2	0.0	0.8	4.9	16.8	1.9
Church	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.1
Friend/relative	0.0	0.2	1.7	0.0	1.2	5.8	3.0	2.3
NGO	0.0	0.4	0.0	0.3	0.0	0.2	0.0	0.2
Other	0.0	0.0	0.4	0.0	0.0	2.2	0.0	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	73	247	1,007	1,051	484	1,046	104	4,050

Note: Total includes other modern methods not listed separately but excludes the lactational amenorrhoea method (LAM).
NGO = Nongovernmental organisation

Table 7.8 Use of social marketing brand pills and condoms

Percentage of pill and condom users age 15-49 using a social marketing brand, by background characteristics, Nigeria DHS 2018

	Among pill users						Among condom users[1]				
Background characteristic	Duofem Confidence	Combi-nation 3	Micro-gynon	Lofemenal	Other	Number of women	Gold Circle	Durex	Rough Rider	Other	Number of women
Age											
15-19	*	*	*	*	*	13	69.5	14.5	7.3	8.2	129
20-24	33.0	3.5	22.2	14.2	27.2	48	66.7	12.9	10.3	9.7	237
25-29	19.6	20.6	24.0	17.6	18.2	100	61.6	15.8	5.9	15.3	250
30-34	17.1	22.7	16.7	11.6	31.9	92	65.2	11.8	9.5	12.0	147
35-39	18.2	30.7	10.6	12.3	28.1	113	71.3	11.9	3.2	12.6	116
40-44	22.8	16.7	21.5	10.9	28.1	49	(52.4)	(30.7)	(6.3)	(10.6)	55
45-49	(42.7)	(25.3)	(11.5)	(8.5)	(12.0)	24	*	*	*	*	19
Residence											
Urban	23.3	20.2	16.1	12.8	27.5	292	60.2	17.9	8.8	11.8	607
Rural	22.5	23.2	20.4	12.8	21.1	147	74.8	8.8	4.8	11.3	345
Zone											
North Central	21.1	30.9	3.9	22.6	21.5	49	61.3	10.6	7.2	20.4	136
North East	31.2	6.4	37.5	3.9	21.0	58	52.5	23.9	23.6	0.0	54
North West	14.9	5.8	47.4	16.4	15.5	71	*	*	*	*	30
South East	(12.3)	(47.4)	(14.4)	(8.7)	(17.1)	34	69.4	16.7	9.6	3.8	190
South South	28.5	28.8	5.6	5.1	32.0	80	75.6	11.5	5.1	7.5	284
South West	23.8	21.1	7.0	16.6	31.4	147	56.4	17.8	4.9	18.5	256
Education											
No education	28.4	5.9	34.9	7.4	23.5	48	*	*	*	*	15
Primary	17.3	37.8	14.1	16.4	14.4	80	75.3	9.6	5.0	10.0	69
Secondary	25.6	21.3	18.3	11.7	23.2	215	70.2	12.0	6.5	11.1	567
More than secondary	19.4	14.8	10.0	15.2	40.5	95	52.9	21.1	10.0	13.6	301
Wealth quintile											
Lowest	*	*	*	*	*	12	*	*	*	*	15
Second	(29.3)	(12.0)	(31.7)	(10.5)	(16.5)	39	66.5	15.3	6.4	11.9	68
Middle	26.1	24.0	23.2	5.9	20.8	79	72.8	8.8	8.5	9.9	140
Fourth	28.4	25.2	8.7	12.3	25.4	147	70.3	12.8	6.8	9.4	303
Highest	13.5	19.6	19.1	17.8	30.0	162	59.4	17.6	7.8	13.6	425
Total	23.0	21.2	17.5	12.8	25.4	439	65.5	14.6	7.4	11.6	952

Note: Table excludes pill and condom users who do not know the brand name. Condom use is based on women's reports. Figures in parentheses are based on 25-49 unweighted cases. As asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Among condom users not also using the pill

Table 7.9 Informed choice

Among current users of modern methods age 15-49 who started the last episode of use within the 5 years preceding the survey, percentage who were informed about possible side effects or problems of that method, percentage who were informed about what to do if they experienced side effects, percentage who were informed about other methods they could use, and percentage who were informed of all three, according to method and initial source, Nigeria DHS 2018

	Among women who started last episode of modern contraceptive method within 5 years preceding the survey:				
Method/source	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if they experienced side effects	Percentage who were informed by a health or family planning worker of other methods that could be used	Percentage who were informed of all three (method information index)	Number of women
Method					
Female sterilisation	(64.6)	(53.9)	(54.6)	(44.7)	30
IUD	88.1	85.8	95.7	84.8	182
Injectables	71.8	65.9	83.6	63.0	921
Implants	83.1	77.3	87.9	73.7	981
Pill	51.7	41.5	64.0	39.3	412
Initial source of method[1]					
Public sector	80.5	75.2	88.7	72.2	1,910
Government hospital	82.4	76.3	92.0	74.8	762
Government health centre	78.7	73.5	86.0	69.5	1,040
Family planning clinic	83.9	82.9	96.3	81.8	65
Other public sector	(83.0)	(83.0)	(84.6)	(75.6)	43
Private sector	54.2	44.1	64.1	40.8	581
Private hospital/clinic	78.2	72.8	90.1	71.3	169
Private pharmacy	41.4	26.3	50.4	23.2	144
Private chemist/PMS store	40.5	30.6	51.2	26.4	219
Other private medical sector	69.9	57.4	72.7	51.8	49
Other source[2]	(51.9)	(45.8)	(53.7)	(45.8)	29
Other	*	*	*	*	7
Total	74.0	67.6	82.6	64.6	2,526

Note: Table includes users of only the methods listed individually. Figures in parentheses are based on 25-49 unweighted cases. As asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Source at start of current episode of use
[2] Includes shop, church, friend/relative, and nongovernmental organisation

Table 7.10 Twelve-month contraceptive discontinuation rates

Among episodes of contraceptive use experienced within the 5 years preceding the survey, percentage of episodes discontinued within 12 months, according to reason for discontinuation and specific method, Nigeria DHS 2018

Method	Method failure	Desire to become pregnant	Other fertility-related reasons[1]	Side effects/ health concerns	Wanted more effective method	Other method-related reasons[2]	Other reasons	Any reason[3]	Switched to another method[4]	Number of episodes of use[5]
IUD	(2.1)	(6.4)	(0.0)	(3.7)	(1.6)	(0.2)	(1.5)	(15.5)	(1.5)	276
Injectables	2.4	13.4	3.1	22.7	4.9	4.1	4.1	54.7	3.0	1,916
Implants	1.1	3.8	0.3	8.9	0.4	0.3	0.9	15.7	1.6	1,241
Pill	7.3	14.5	3.8	13.4	6.2	4.7	2.5	52.3	6.6	1,141
Male condom	4.3	10.2	9.4	0.9	2.8	3.5	3.9	34.9	2.7	1,605
Emergency contraception	(6.0)	(10.5)	(8.7)	(9.4)	(3.3)	(2.0)	(2.5)	(42.4)	(5.7)	220
Rhythm	9.6	16.2	3.0	0.1	2.0	1.1	0.7	32.8	1.6	845
Withdrawal	10.5	15.8	4.7	0.1	3.5	1.4	2.5	38.5	2.2	1,646
Other[6]	5.9	16.4	4.2	1.0	12.4	6.3	6.4	52.6	14.4	1,426
All methods	5.6	12.7	4.3	7.2	4.6	3.1	3.2	40.6	4.5	10,384

Note: Figures are based on life table calculations using information on episodes of use that occurred 3-62 months preceding the survey. Figures in parentheses are based on 125-249 women exposed to method use.
[1] Includes infrequent sex/husband away, difficult to get pregnant/menopausal, and marital dissolution/separation
[2] Includes lack of access/too far, costs too much, and inconvenient to use
[3] Reasons for discontinuation are mutually exclusive and add to the total given in this column.
[4] A woman is considered to have switched to another method if she used a different method in the month following discontinuation or if she gave "wanted a more effective method" as the reason for discontinuation and started another method within 2 months of discontinuation.
[5] All episodes of use that occurred within the 5 years preceding the survey are included. Episodes of use include both episodes that were discontinued during the period of observation and episodes that were not discontinued during the period of observation.
[6] Includes lactational amenorrhoea method (LAM), female condom, and standard days method

Table 7.11 Reasons for discontinuation

Percent distribution of discontinuations of contraceptive methods in the 5 years preceding the survey by main reason stated for discontinuation, according to specific method, Nigeria DHS 2018

Reason	IUD	Injectables	Implants	Pill	Male condom	Emergency contra-ception	Rhythm	Withdrawal	Other[1]	All methods
Became pregnant while using	7.9	4.8	5.0	14.8	11.9	11.9	28.6	25.1	14.0	14.6
Wanted to become pregnant	45.5	29.0	31.4	32.7	34.4	26.7	47.1	43.3	31.8	35.3
Husband/partner disapproved	4.3	4.2	2.2	2.4	7.4	7.3	0.1	3.0	0.7	3.2
Wanted a more effective method	6.9	8.4	3.6	10.1	7.7	6.2	6.0	9.4	20.3	10.1
Side effects/health concerns	21.6	37.3	42.9	21.7	1.5	15.1	0.1	0.5	2.3	14.0
Lack of access/too far	0.0	1.9	1.0	1.5	0.5	0.0	0.0	0.0	0.6	0.8
Cost too much	0.0	1.4	0.1	0.9	0.5	2.5	0.0	0.0	0.1	0.5
Inconvenient to use	2.5	3.4	2.0	4.6	7.5	1.4	2.9	2.8	8.4	4.7
Up to God/fatalistic	0.0	0.3	1.0	0.3	0.3	0.0	0.3	0.2	0.5	0.3
Difficult to get pregnant/menopausal	0.6	0.3	0.8	0.3	0.2	0.0	1.1	0.2	0.3	0.4
Infrequent sex/husband away	2.2	5.7	4.1	8.1	23.9	26.5	10.1	12.5	8.3	11.0
Marital dissolution/separation	0.0	0.7	0.0	0.1	1.0	0.4	1.0	0.4	0.0	0.5
Other	8.6	2.0	4.9	2.3	1.8	2.1	2.4	1.5	11.1	3.7
Don't know	0.0	0.7	1.1	0.1	1.4	0.0	0.1	1.3	1.7	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of discontinuations	107	1,243	350	856	909	160	577	1,127	1,037	6,365

[1] Includes lactational amenorrhoea method (LAM), female condom, and standard days method

Table 7.12.1 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, total demand for family planning, and percentage of the demand for family planning that is satisfied, according to background characteristics, Nigeria DHS 2018

Background characteristic	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]			Number of women	Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
Age												
15-19	11.9	0.2	12.2	3.1	0.1	3.2	15.0	0.3	15.3	1,927	20.6	15.0
20-24	15.5	0.6	16.1	10.5	0.4	10.9	26.0	0.9	27.0	4,362	40.3	30.5
25-29	15.2	1.8	17.1	14.2	2.1	16.3	29.4	3.9	33.4	6,060	48.9	37.0
30-34	15.0	5.8	20.8	13.4	6.3	19.7	28.4	12.1	40.6	5,417	48.7	34.7
35-39	11.8	11.4	23.1	10.4	12.9	23.3	22.2	24.3	46.5	4,841	50.2	35.7
40-44	5.9	16.5	22.4	5.1	16.0	21.1	11.0	32.5	43.4	3,457	48.5	34.2
45-49	3.4	13.2	16.6	0.8	12.3	13.0	4.2	25.4	29.6	3,026	44.0	30.7
Residence												
Urban	12.7	7.2	19.9	14.9	11.4	26.4	27.6	18.6	46.2	11,790	57.0	39.4
Rural	11.7	6.5	18.2	6.0	4.0	10.0	17.8	10.5	28.2	17,299	35.5	27.7
Zone												
North Central	12.9	7.6	20.5	8.9	7.2	16.2	21.9	14.8	36.7	4,086	44.1	37.6
North East	14.4	4.6	19.0	7.0	2.6	9.5	21.4	7.2	28.6	4,841	33.4	27.4
North West	9.2	5.2	14.4	4.9	1.9	6.8	14.1	7.1	21.1	9,826	32.0	29.5
South East	10.2	7.4	17.7	13.5	14.6	28.1	23.8	22.0	45.8	2,893	61.4	28.1
South South	17.6	10.2	27.8	12.9	8.8	21.7	30.6	19.0	49.5	2,777	43.9	31.8
South West	12.9	9.3	22.3	18.8	16.4	35.1	31.7	25.7	57.4	4,666	61.2	42.4
State												
North Central												
FCT-Abuja	11.2	7.9	19.1	11.5	12.3	23.9	22.7	20.2	43.0	202	55.6	47.2
Benue	9.5	7.2	16.7	8.6	8.5	17.1	18.1	15.7	33.8	876	50.7	45.8
Kogi	15.2	10.7	25.9	10.8	7.5	18.3	26.0	18.2	44.2	428	41.4	26.8
Kwara	13.0	11.3	24.4	8.7	13.7	22.4	21.8	25.1	46.8	486	47.9	36.6
Nasarawa	13.8	9.9	23.7	9.2	5.7	14.8	23.0	15.5	38.5	416	38.5	37.0
Niger	15.7	3.5	19.2	5.4	2.1	7.6	21.2	5.6	26.8	1,108	28.3	24.0
Plateau	10.8	9.0	19.8	13.9	8.8	22.7	24.7	17.8	42.4	570	53.4	50.4
North East												
Adamawa	3.3	6.9	10.2	19.4	5.7	25.1	22.7	12.6	35.2	624	71.1	51.7
Bauchi	14.1	6.7	20.8	4.8	1.7	6.5	18.9	8.4	27.3	1,134	23.8	18.9
Borno	24.2	1.8	26.0	4.0	2.2	6.2	28.2	4.0	32.2	953	19.3	16.8
Gombe	12.1	4.6	16.8	12.8	4.2	17.0	25.0	8.8	33.8	554	50.4	48.0
Taraba	8.5	4.6	13.1	6.2	4.0	10.3	14.8	8.6	23.4	580	43.8	36.5
Yobe	17.0	3.6	20.6	1.7	0.3	1.9	18.7	3.9	22.5	996	8.6	7.4
North West												
Jigawa	9.9	4.6	14.5	2.4	1.6	4.0	12.3	6.2	18.4	1,158	21.6	21.1
Kaduna	6.6	5.7	12.3	10.4	4.5	14.9	17.0	10.1	27.2	1,975	54.8	50.6
Kano	10.5	6.0	16.5	5.0	1.3	6.3	15.5	7.3	22.8	2,085	27.8	24.7
Katsina	9.1	6.6	15.7	2.3	1.1	3.4	11.4	7.7	19.1	1,772	17.7	17.1
Kebbi	9.9	1.9	11.8	2.5	1.0	3.5	12.4	2.9	15.3	945	22.6	20.8
Sokoto	8.1	4.9	13.0	2.0	0.4	2.3	10.1	5.2	15.3	777	15.1	13.8
Zamfara	11.2	3.9	15.0	5.4	1.9	7.3	16.6	5.7	22.3	1,116	32.6	29.9
South East												
Abia	17.4	11.1	28.5	5.4	7.4	12.9	22.8	18.5	41.4	376	31.1	26.1
Anambra	5.9	3.7	9.6	22.0	22.6	44.6	27.9	26.3	54.2	905	82.3	31.8
Ebonyi	14.3	8.7	23.0	4.6	3.6	8.2	18.9	12.3	31.2	600	26.4	19.0
Enugu	5.4	8.4	13.8	12.3	18.7	30.9	17.7	27.1	44.8	458	69.1	39.2
Imo	12.0	9.0	21.0	15.8	14.9	30.7	27.8	23.9	51.7	554	59.4	21.1
South South												
Akwa Ibom	20.1	12.0	32.0	12.6	7.2	19.8	32.6	19.2	51.8	490	38.2	30.4
Bayelsa	17.7	12.2	29.9	1.7	1.9	3.7	19.4	14.1	33.5	195	10.9	9.9
Cross River	26.8	7.6	34.5	10.8	9.3	20.0	37.6	16.9	54.5	318	36.8	34.6
Delta	13.3	10.3	23.7	10.3	6.2	16.5	23.6	16.5	40.2	551	41.1	32.0
Edo	20.3	12.4	32.7	8.9	10.5	19.4	29.2	22.9	52.0	370	37.2	28.9
Rivers	14.5	8.5	23.0	19.9	12.1	32.0	34.4	20.6	55.0	855	58.1	35.7
South West												
Ekiti	8.4	9.9	18.2	18.0	20.5	38.5	26.4	30.4	56.7	326	67.9	44.7
Lagos	9.2	7.3	16.5	28.1	21.4	49.4	37.3	28.7	65.9	1,645	75.0	44.1
Ogun	11.6	6.0	17.6	16.4	15.7	32.1	28.0	21.7	49.8	624	64.6	33.4
Ondo	18.5	10.8	29.4	9.3	10.9	20.1	27.8	21.7	49.5	421	40.7	35.8
Osun	13.0	12.6	25.6	16.5	12.9	29.4	29.5	25.5	55.0	625	53.5	49.1
Oyo	18.8	11.8	30.6	10.9	11.7	22.6	29.7	23.5	53.2	1,024	42.5	41.8

Continued...

Table 7.12.1—*Continued*

Background characteristic	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]			Number of women	Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
Education												
No education	10.9	5.9	16.8	2.8	2.4	5.2	13.6	8.3	22.0	12,955	23.6	19.5
Primary	11.5	9.9	21.4	8.4	11.0	19.4	19.9	20.9	40.8	4,580	47.6	34.6
Secondary	14.5	6.8	21.2	16.9	9.9	26.8	31.4	16.7	48.1	8,767	55.8	39.6
More than secondary	11.5	5.6	17.1	20.6	12.7	33.3	32.1	18.3	50.4	2,788	66.0	45.0
Wealth quintile												
Lowest	10.8	5.5	16.3	2.7	1.7	4.4	13.5	7.1	20.7	6,008	21.1	17.8
Second	11.2	6.0	17.2	4.6	3.2	7.8	15.8	9.2	25.0	6,224	31.1	25.0
Middle	13.3	7.8	21.1	8.4	6.2	14.6	21.7	14.0	35.7	5,601	40.9	31.4
Fourth	13.7	7.9	21.6	14.4	10.8	25.2	28.0	18.8	46.8	5,599	53.9	38.3
Highest	11.7	6.9	18.6	19.1	13.9	33.0	30.8	20.8	51.6	5,657	64.0	43.2
Total	12.1	6.8	18.9	9.6	7.0	16.6	21.8	13.8	35.5	29,090	46.9	33.9

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al. 2012.
[1] Total demand is the sum of unmet need and met need.
[2] Percentage of demand satisfied is met need divided by total demand.
[3] Modern methods include female sterilisation, male sterilisation, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhoea method (LAM), and other modern methods.

Table 7.12.2 Need and demand for family planning for all women and for sexually active unmarried women

Percentage of all women and sexually active unmarried women age 15-49 with unmet need for family planning, percentage with met need for family planning, total demand for family planning, and percentage of the demand for family planning that is satisfied, according to background characteristics, Nigeria DHS 2018

Background characteristic	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]			Number of women	Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
ALL WOMEN												
Age												
15-19	5.6	0.1	5.7	2.9	0.0	2.9	8.5	0.1	8.6	8,448	34.1	27.5
20-24	13.9	0.4	14.3	11.6	0.3	11.9	25.5	0.7	26.2	6,835	45.5	34.6
25-29	14.9	1.6	16.5	15.1	1.9	17.0	30.1	3.4	33.5	7,255	50.8	39.0
30-34	14.3	5.3	19.6	14.3	5.8	20.1	28.6	11.1	39.7	6,178	50.7	35.9
35-39	10.9	10.5	21.4	10.4	12.0	22.5	21.3	22.6	43.9	5,463	51.2	36.8
40-44	5.4	15.0	20.4	5.0	14.8	19.8	10.4	29.8	40.2	3,940	49.2	35.1
45-49	2.9	11.1	14.0	0.7	11.0	11.7	3.6	22.1	25.7	3,701	45.7	32.6
Residence												
Urban	10.1	4.6	14.7	12.5	7.4	19.9	22.5	12.0	34.6	19,163	57.5	40.5
Rural	10.5	5.1	15.6	6.3	3.3	9.6	16.8	8.4	25.2	22,658	38.1	30.1
Zone												
North Central	10.7	5.6	16.3	8.0	5.3	13.3	18.7	10.9	29.6	5,891	44.9	38.7
North East	12.4	3.5	15.9	6.4	1.9	8.4	18.8	5.4	24.2	6,636	34.4	28.6
North West	7.6	4.1	11.7	4.2	1.5	5.7	11.8	5.7	17.5	12,225	32.9	30.5
South East	8.1	4.5	12.6	11.9	9.1	21.0	20.0	13.6	33.6	4,963	62.4	31.5
South South	14.1	6.2	20.2	14.5	6.0	20.6	28.6	12.2	40.8	4,840	50.4	37.9
South West	11.5	6.3	17.8	15.3	10.9	26.2	26.8	17.3	44.0	7,266	59.6	41.8
Education												
No education	10.0	5.3	15.3	2.6	2.2	4.8	12.6	7.5	20.1	14,603	23.9	19.9
Primary	9.8	7.9	17.7	7.3	9.0	16.3	17.1	16.9	34.0	6,039	47.9	35.5
Secondary	10.7	3.8	14.5	12.9	5.6	18.5	23.5	9.4	32.9	16,583	56.0	40.4
More than secondary	10.5	3.6	14.0	18.8	8.0	26.8	29.3	11.6	40.8	4,596	65.7	46.6
Wealth quintile												
Lowest	9.9	4.6	14.5	2.6	1.5	4.1	12.4	6.1	18.5	7,222	21.9	18.7
Second	9.9	4.9	14.8	4.5	2.7	7.2	14.5	7.5	22.0	8,045	32.8	26.8
Middle	10.9	5.6	16.5	8.1	4.5	12.6	19.0	10.2	29.2	8,207	43.3	33.5
Fourth	11.1	5.1	16.2	12.7	7.3	20.0	23.8	12.4	36.2	8,990	55.2	39.7
Highest	9.6	4.3	13.9	15.6	8.7	24.3	25.1	13.0	38.2	9,357	63.7	44.1
Total	10.3	4.9	15.2	9.1	5.2	14.3	19.4	10.1	29.5	41,821	48.5	35.7
SEXUALLY ACTIVE UNMARRIED WOMEN[4]												
Age												
15-19	64.5	1.1	65.6	27.8	0.4	28.3	92.4	1.5	93.9	310	30.1	23.7
20-24	51.1	0.3	51.4	36.8	0.3	37.1	87.9	0.6	88.5	450	41.9	31.8
25-29	46.0	0.0	46.0	40.2	1.3	41.5	86.2	1.3	87.5	309	47.4	36.5
30-34	32.8	4.9	37.7	45.5	5.1	50.6	78.3	10.0	88.3	199	57.3	35.7
35-39	19.3	15.2	34.5	25.1	10.2	35.3	44.4	25.3	69.8	132	50.6	39.2
40-44	10.4	30.8	41.2	16.7	11.9	28.6	27.1	42.8	69.8	71	40.9	34.6
45-49	4.3	21.5	25.8	3.9	23.1	27.0	8.2	44.6	52.8	63	51.2	46.0
Residence												
Urban	42.4	3.3	45.7	35.8	3.3	39.1	78.2	6.6	84.8	909	46.1	33.3
Rural	46.0	6.3	52.3	30.2	3.7	34.0	76.2	10.1	86.3	626	39.4	31.3
Zone												
North Central	45.3	10.8	56.1	28.6	3.4	32.0	73.9	14.2	88.1	185	36.3	33.4
North East	59.7	3.0	62.7	28.4	1.3	29.7	88.1	4.3	92.4	193	32.2	27.1
North West	(38.3)	(0.0)	(38.3)	(50.9)	(0.0)	(50.9)	(89.2)	(0.0)	(89.2)	44	(57.0)	(57.0)
South East	40.0	3.5	43.5	41.9	6.4	48.3	81.9	9.9	91.8	194	52.6	29.9
South South	35.9	2.9	38.8	38.5	4.0	42.6	74.5	6.9	81.3	477	52.3	40.0
South West	47.2	5.3	52.6	26.9	2.9	29.8	74.2	8.2	82.4	442	36.2	25.3
Education												
No education	48.4	9.7	58.1	9.9	7.4	17.3	58.3	17.2	75.4	89	23.0	22.6
Primary	32.5	12.7	45.2	20.7	10.8	31.4	53.2	23.5	76.6	157	41.0	35.7
Secondary	45.7	3.7	49.4	36.3	2.6	38.9	82.0	6.3	88.3	930	44.1	31.8
More than secondary	43.1	1.9	45.0	37.7	1.6	39.2	80.8	3.4	84.2	360	46.6	35.3

Continued...

Table 7.12.2—*Continued*

Background characteristic	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]			Number of women	Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
Wealth quintile												
Lowest	61.4	5.6	66.9	12.6	6.1	18.7	74.0	11.7	85.7	83	21.8	21.2
Second	44.0	9.8	53.8	25.1	4.9	30.0	69.1	14.7	83.9	172	35.8	31.5
Middle	45.8	7.8	53.6	29.9	3.9	33.8	75.7	11.7	87.4	282	38.7	28.4
Fourth	40.0	2.5	42.5	40.2	2.8	43.0	80.2	5.3	85.5	495	50.3	36.7
Highest	43.7	2.8	46.5	35.2	3.0	38.2	78.9	5.8	84.7	503	45.1	32.8
Total	43.9	4.5	48.4	33.5	3.5	37.0	77.4	8.0	85.4	1,535	43.3	32.5

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al. 2012. Figures in parentheses are based on 25-49 unweighted cases.
[1] Total demand is the sum of unmet need and met need.
[2] Percentage of demand satisfied is met need divided by total demand.
[3] Modern methods include female sterilisation, male sterilisation, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhoea method (LAM), and other modern methods.
[4] Women who have had sexual intercourse within 30 days preceding the survey

Table 7.13 Decision making about family planning

Among currently married women age 15-49 who are current users of family planning, percent distribution by who makes the decision to use family planning, and among currently married women who are not currently using family planning, percent distribution by who makes the decision not to use family planning, according to background characteristics, Nigeria DHS 2018

	Among currently married women who are current users of family planning						Among currently married women who are not currently using family planning					
Background characteristic	Mainly wife	Wife and husband jointly	Mainly husband	Other/ don't know/ missing	Total	Number of women	Mainly wife	Wife and husband jointly	Mainly husband	Other/ don't know/ missing	Total	Number of women
Age												
15-19	16.7	66.1	17.2	0.0	100.0	61	37.8	37.1	23.4	1.8	100.0	1,364
20-24	20.2	61.9	17.3	0.6	100.0	474	37.5	38.0	23.1	1.4	100.0	2,973
25-29	18.3	69.0	12.4	0.3	100.0	988	35.9	40.8	21.3	2.0	100.0	3,925
30-34	23.7	67.5	8.2	0.6	100.0	1,070	36.0	43.2	19.3	1.6	100.0	3,532
35-39	23.9	67.6	8.3	0.2	100.0	1,129	37.1	44.1	17.0	1.8	100.0	3,225
40-44	27.9	64.1	8.0	0.0	100.0	728	40.7	41.5	16.2	1.6	100.0	2,539
45-49	28.6	62.3	9.1	0.0	100.0	394	41.9	42.1	13.2	2.8	100.0	2,574
Number of living children												
0	(21.5)	(64.7)	(13.7)	(0.0)	100.0	44	34.3	42.8	18.2	4.6	100.0	1,496
1-2	19.4	68.3	11.7	0.5	100.0	1,418	35.7	45.2	17.2	1.9	100.0	6,398
3-4	23.7	67.1	9.1	0.1	100.0	1,820	36.6	42.6	19.3	1.5	100.0	5,735
5+	26.2	63.7	9.9	0.2	100.0	1,562	41.9	36.1	20.7	1.3	100.0	6,503
Residence												
Urban	22.9	68.0	8.8	0.3	100.0	3,108	36.1	47.7	14.0	2.2	100.0	7,237
Rural	23.9	63.3	12.6	0.3	100.0	1,735	38.8	37.8	21.8	1.6	100.0	12,894
Zone												
North Central	18.6	67.8	13.3	0.3	100.0	660	37.4	35.2	22.7	4.8	100.0	2,814
North East	31.0	48.0	20.7	0.3	100.0	462	30.6	39.0	29.8	0.7	100.0	3,590
North West	21.6	63.9	14.0	0.5	100.0	664	48.1	30.8	20.6	0.5	100.0	7,512
South East	21.3	71.9	6.3	0.5	100.0	813	31.1	53.2	11.8	3.9	100.0	1,723
South South	21.1	71.6	7.4	0.0	100.0	603	35.7	49.2	13.8	1.2	100.0	1,885
South West	25.3	67.2	7.3	0.2	100.0	1,640	24.9	68.2	4.0	2.9	100.0	2,608
State												
North Central												
FCT-Abuja	31.3	58.5	10.2	0.0	100.0	48	31.4	52.0	15.5	1.0	100.0	134
Benue	13.9	71.9	13.3	0.9	100.0	150	39.7	31.5	19.6	9.2	100.0	595
Kogi	30.5	54.8	13.9	0.8	100.0	78	54.8	38.1	6.8	0.2	100.0	281
Kwara	12.6	84.6	2.9	0.0	100.0	109	24.7	65.2	9.2	0.9	100.0	311
Nasarawa	15.1	60.1	24.8	0.0	100.0	62	21.0	44.2	34.7	0.1	100.0	302
Niger	19.6	48.7	31.7	0.0	100.0	84	34.5	21.8	37.1	6.6	100.0	857
Plateau	18.1	76.4	5.5	0.0	100.0	129	54.8	30.7	9.0	5.5	100.0	334
North East												
Adamawa	26.9	49.2	23.6	0.3	100.0	156	26.1	63.0	10.8	0.2	100.0	380
Bauchi	29.7	56.0	12.8	1.6	100.0	74	35.8	37.6	25.1	1.5	100.0	848
Borno	(25.5)	(32.3)	(42.2)	(0.0)	100.0	59	21.9	34.1	44.0	0.0	100.0	721
Gombe	51.5	41.6	6.9	0.0	100.0	94	40.5	49.9	8.9	0.7	100.0	380
Taraba	21.2	71.7	7.1	0.0	100.0	59	15.6	60.9	23.0	0.6	100.0	431
Yobe	*	*	*	*	100.0	19	37.9	17.2	44.1	0.8	100.0	832
North West												
Jigawa	(27.6)	(47.2)	(25.2)	(0.0)	100.0	46	61.2	26.3	12.5	0.1	100.0	903
Kaduna	17.2	71.4	11.0	0.3	100.0	294	59.4	17.2	22.3	1.1	100.0	1,401
Kano	35.1	50.9	13.4	0.6	100.0	132	64.5	16.6	18.4	0.6	100.0	1,547
Katsina	(18.8)	(74.3)	(4.7)	(2.2)	100.0	60	48.1	36.4	15.5	0.0	100.0	1,431
Kebbi	(14.2)	(76.2)	(9.6)	(0.0)	100.0	33	21.5	67.2	11.3	0.0	100.0	748
Sokoto	*	*	*	*	100.0	18	29.7	33.0	34.9	2.3	100.0	629
Zamfara	14.6	63.6	21.8	0.0	100.0	81	22.6	40.6	36.8	0.0	100.0	853
South East												
Abia	8.1	86.2	5.7	0.0	100.0	48	18.1	76.6	5.2	0.0	100.0	294
Anambra	12.5	83.0	4.0	0.5	100.0	404	17.7	72.6	5.6	4.1	100.0	389
Ebonyi	30.9	64.1	5.0	0.0	100.0	49	47.4	25.4	26.3	0.9	100.0	467
Enugu	17.3	65.2	17.6	0.0	100.0	142	16.3	69.6	12.7	1.3	100.0	264
Imo	46.6	49.6	2.8	1.0	100.0	170	48.2	34.4	3.2	14.2	100.0	309
South South												
Akwa Ibom	21.9	62.5	15.7	0.0	100.0	97	45.1	38.6	15.0	1.3	100.0	345
Bayelsa	*	*	*	*	100.0	7	6.6	31.1	62.1	0.2	100.0	163
Cross River	22.5	69.0	8.5	0.0	100.0	64	38.0	50.0	11.4	0.6	100.0	232
Delta	28.2	65.6	6.2	0.0	100.0	91	33.6	58.4	8.0	0.0	100.0	384
Edo	27.9	66.8	5.3	0.0	100.0	72	66.0	24.6	5.5	4.0	100.0	256
Rivers	16.9	79.0	4.1	0.0	100.0	273	23.9	67.5	7.1	1.4	100.0	505
South West												
Ekiti	37.9	50.4	11.7	0.0	100.0	125	49.9	43.4	5.9	0.8	100.0	171
Lagos	32.3	58.2	9.1	0.4	100.0	813	30.5	60.4	4.2	5.0	100.0	680
Ogun	10.5	77.5	12.0	0.0	100.0	201	5.2	83.6	11.2	0.0	100.0	368
Ondo	20.3	77.7	1.9	0.0	100.0	85	35.8	57.0	2.8	4.5	100.0	291
Osun	23.1	74.7	2.2	0.0	100.0	184	16.2	81.4	2.4	0.0	100.0	395
Oyo	10.1	89.3	0.5	0.0	100.0	231	24.1	70.9	0.9	4.1	100.0	703

Continued...

Table 7.13—*Continued*

Background characteristic	Among currently married women who are current users of family planning						Among currently married women who are not currently using family planning					
	Mainly wife	Wife and husband jointly	Mainly husband	Other/ don't know/ missing	Total	Number of women	Mainly wife	Wife and husband jointly	Mainly husband	Other/ don't know/ missing	Total	Number of women
Education												
No education	30.6	50.6	18.3	0.5	100.0	674	40.1	33.2	25.3	1.4	100.0	10,241
Primary	26.5	63.5	9.7	0.3	100.0	890	40.9	42.0	14.4	2.6	100.0	3,164
Secondary	21.5	69.8	8.6	0.2	100.0	2,352	34.1	51.6	12.4	1.9	100.0	5,187
More than secondary	19.2	71.8	8.7	0.4	100.0	928	29.2	59.2	8.6	3.1	100.0	1,540
Wealth quintile												
Lowest	35.8	52.9	11.3	0.0	100.0	262	38.7	34.7	25.1	1.4	100.0	4,757
Second	22.4	62.0	15.2	0.3	100.0	485	40.6	34.9	22.6	1.9	100.0	4,728
Middle	22.8	64.9	11.8	0.5	100.0	818	40.8	39.0	19.0	1.2	100.0	3,946
Fourth	25.6	65.0	9.2	0.3	100.0	1,412	37.5	46.2	14.3	2.0	100.0	3,511
Highest	20.1	71.0	8.7	0.2	100.0	1,867	29.1	58.4	9.6	2.9	100.0	3,190
Total	23.2	66.3	10.1	0.3	100.0	4,843	37.8	41.3	19.0	1.8	100.0	20,132

Note: Table excludes women who are currently pregnant. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 7.14 Future use of contraception

Percent distribution of currently married women age 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, Nigeria DHS 2018

	Number of living children[1]					
Intention to use in the future	0	1	2	3	4+	Total
Intends to use	26.0	39.4	40.4	37.0	32.5	35.2
Unsure	9.7	9.5	7.3	6.8	4.9	6.6
Does not intend to use	64.3	51.1	52.3	56.2	62.6	58.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,496	3,842	4,133	3,763	11,013	24,246

[1] Includes current pregnancy

Table 7.15.1 Exposure to family planning messages: Women

Percentage of women age 15-49 who heard or saw a family planning message on radio, on television, in a newspaper or magazine, or on a mobile phone in the past few months, according to background characteristics, Nigeria DHS 2018

	Media sources					Other sources						
Background characteristic	Radio	Television	News-paper/ magazine	Mobile phone	None of these four media sources[1]	Social media	Poster	Leaflet or brochure	Town crier	Mobile public announce-ment	None of these sources[2]	Number of women
Age												
15-19	19.9	11.3	2.2	1.7	75.8	3.9	10.2	3.9	3.9	4.8	69.3	8,448
20-24	29.6	16.8	4.1	4.0	65.8	5.9	18.3	7.4	6.8	7.6	57.5	6,835
25-29	34.2	20.8	5.3	4.6	61.6	6.2	20.9	9.0	6.2	8.1	53.6	7,255
30-34	35.9	23.5	6.1	4.6	59.4	6.4	21.1	9.0	7.5	9.3	52.3	6,178
35-39	37.6	22.6	5.3	4.3	58.7	5.3	21.2	9.2	8.2	10.5	51.2	5,463
40-44	36.1	20.5	5.1	3.9	60.4	4.3	18.3	7.8	7.8	9.5	53.0	3,940
45-49	32.6	17.3	3.7	2.7	64.8	2.8	15.9	6.0	7.1	8.2	58.7	3,701
Residence												
Urban	41.7	30.8	7.2	5.3	51.7	8.7	24.2	11.7	9.0	12.4	44.2	19,163
Rural	22.5	8.2	2.1	2.2	75.6	2.1	12.2	3.7	4.4	4.2	68.4	22,658
Zone												
North Central	18.7	11.7	2.3	2.7	78.0	2.2	11.3	3.3	1.4	2.9	71.2	5,891
North East	14.0	5.5	1.6	1.6	83.5	1.8	13.7	3.7	1.7	2.2	75.2	6,636
North West	30.6	9.4	0.8	0.9	66.7	1.0	12.9	3.4	2.4	0.7	60.2	12,225
South East	47.9	26.4	11.5	7.0	50.3	11.5	30.1	16.3	7.6	8.0	44.5	4,963
South South	34.0	26.0	7.8	8.3	59.3	7.2	24.5	6.6	9.3	12.4	50.4	4,840
South West	45.4	41.0	7.8	5.5	46.5	11.8	21.7	15.1	19.4	26.7	38.2	7,266
State												
North Central												
FCT-Abuja	24.2	21.7	5.3	7.0	68.2	5.8	15.9	3.6	2.2	2.9	59.4	319
Benue	16.6	13.9	2.8	1.8	79.8	2.5	12.4	0.4	0.6	3.7	72.4	1,354
Kogi	15.4	8.7	1.8	0.6	82.1	1.6	5.6	3.1	0.4	0.3	78.6	654
Kwara	34.5	19.9	1.8	0.8	62.5	2.1	27.8	13.2	4.7	11.3	47.5	684
Nasarawa	29.7	14.9	5.5	3.8	66.9	4.0	20.7	3.6	1.8	2.6	54.3	648
Niger	13.3	6.8	1.2	5.5	83.7	1.3	2.4	0.8	0.8	0.9	81.7	1,357
Plateau	10.3	6.1	0.4	0.1	87.3	1.0	6.1	3.6	1.0	0.3	83.3	875
North East												
Adamawa	11.4	6.9	3.1	0.6	85.4	1.5	16.3	7.6	0.3	1.7	77.6	903
Bauchi	17.3	4.8	1.7	1.7	81.0	1.5	15.0	3.5	4.3	3.5	71.4	1,343
Borno	8.5	2.7	0.7	1.6	89.5	1.8	4.7	2.8	0.5	0.3	85.7	1,469
Gombe	27.5	6.4	0.6	1.3	71.1	0.7	34.3	0.2	0.2	0.2	52.4	717
Taraba	4.2	2.1	0.1	0.1	94.4	0.7	2.8	0.5	1.0	1.6	90.6	877
Yobe	17.7	10.1	3.0	3.1	77.4	3.4	16.5	6.1	2.6	4.8	67.7	1,327
North West												
Jigawa	22.3	3.2	0.3	0.1	76.7	0.1	5.1	0.3	2.3	0.1	72.7	1,382
Kaduna	39.4	24.5	1.7	1.8	53.3	1.4	28.0	11.9	0.4	0.5	45.3	2,493
Kano	39.8	9.2	0.5	0.6	58.3	1.6	13.7	1.2	0.7	0.5	53.8	2,692
Katsina	17.5	4.2	0.6	0.4	80.7	0.9	10.2	0.8	8.8	1.8	67.1	2,283
Kebbi	16.5	7.1	0.8	0.1	82.5	0.1	9.9	3.4	2.4	0.6	73.4	1,136
Sokoto	41.1	5.2	1.3	3.1	57.5	1.0	5.0	1.2	0.9	0.8	56.8	910
Zamfara	31.6	1.6	0.2	0.4	67.8	0.8	3.6	0.9	0.1	0.1	67.1	1,328
South East												
Abia	50.6	34.4	21.0	18.8	47.8	19.1	32.9	30.3	27.5	32.1	41.3	630
Anambra	53.1	35.1	8.2	2.8	44.3	8.2	35.0	10.9	2.6	1.7	37.4	1,477
Ebonyi	60.4	17.3	7.4	4.1	38.5	13.6	37.7	14.4	5.5	4.2	32.4	1,027
Enugu	42.7	33.8	20.2	13.3	56.6	11.8	18.3	23.4	9.9	9.0	55.2	880
Imo	29.0	10.5	6.5	3.3	68.2	9.1	23.4	10.9	2.2	5.0	60.8	948
South South												
Akwa Ibom	42.0	27.0	11.2	7.8	53.0	9.7	19.7	10.6	3.7	4.0	47.7	948
Bayelsa	19.1	12.5	4.4	1.8	77.3	2.1	10.7	4.2	10.0	9.5	65.2	298
Cross River	40.9	18.8	7.6	5.4	52.1	6.7	14.5	4.1	24.5	17.3	40.3	574
Delta	19.5	21.1	4.7	2.3	72.2	3.5	29.2	11.8	4.3	13.6	55.1	931
Edo	30.8	34.6	4.0	1.5	59.0	2.9	20.3	1.6	0.4	4.6	54.1	555
Rivers	39.3	30.6	9.7	17.0	54.5	10.7	32.5	4.1	13.2	18.5	48.7	1,534
South West												
Ekiti	48.7	16.7	5.9	4.4	48.8	2.4	27.1	5.2	4.9	3.5	44.4	475
Lagos	44.5	48.9	10.7	5.7	42.9	21.7	21.8	16.9	9.6	22.6	35.0	2,891
Ogun	17.4	17.3	1.7	2.4	79.0	1.8	7.1	2.4	1.2	9.1	70.9	927
Ondo	27.1	18.7	4.7	4.9	66.4	4.4	11.2	3.5	7.4	10.9	56.0	683
Osun	46.0	44.9	1.7	1.6	51.0	2.5	6.1	5.1	3.5	5.3	50.1	938
Oyo	74.2	57.5	12.3	10.4	17.8	10.9	45.6	36.4	74.9	78.7	3.4	1,352
Education												
No education	19.6	3.5	0.3	0.5	79.5	0.4	7.6	1.6	2.6	2.2	73.2	14,603
Primary	30.1	14.0	1.5	1.2	67.3	1.5	15.7	4.7	7.6	7.4	59.5	6,039
Secondary	36.4	25.2	5.0	4.2	58.2	5.8	22.0	9.6	8.6	11.1	50.1	16,583
More than secondary	51.8	48.3	19.4	14.4	37.1	22.7	36.8	20.8	10.1	15.8	30.1	4,596

Continued...

Table 7.15.1—*Continued*

Background characteristic	Media sources					Other sources						
	Radio	Television	News-paper/ magazine	Mobile phone	None of these four media sources[1]	Social media	Poster	Leaflet or brochure	Town crier	Mobile public announce-ment	None of these sources[2]	Number of women
Wealth quintile												
Lowest	16.6	1.7	0.4	0.3	83.1	0.6	6.9	1.4	2.0	1.1	77.7	7,222
Second	20.3	3.7	0.6	0.8	78.6	0.8	10.4	2.3	3.5	2.5	70.6	8,045
Middle	29.7	11.3	2.2	2.0	68.1	2.3	15.7	5.0	6.1	6.2	60.1	8,207
Fourth	39.3	26.7	5.4	4.5	55.5	5.5	23.5	10.2	9.5	12.0	47.3	8,990
Highest	45.8	42.8	11.8	9.1	44.2	14.5	28.5	15.6	10.2	15.8	37.2	9,357
Total	31.3	18.5	4.4	3.6	64.6	5.1	17.7	7.4	6.5	8.0	57.3	41,821

[1] Radio, television, newspaper or magazine, or mobile phone
[2] Includes those with no exposure to any source (radio, television, newspaper or magazine, mobile phone, social media, poster, leaflet or brochure, town crier, or mobile public announcement)

Table 7.15.2 Exposure to family planning messages: Men

Percentage of men age 15-49 who heard or saw a family planning message on radio, on television, in a newspaper or magazine, or on a mobile phone in the past few months, according to background characteristics, Nigeria DHS 2018

	Media sources					Other sources						
Background characteristic	Radio	Television	News-paper/ magazine	Mobile phone	None of these four media sources[1]	Social media	Poster	Leaflet or brochure	Town crier	Mobile public announce-ment	None of these sources[2]	Number of men
Age												
15-19	19.5	11.5	4.4	2.5	75.9	5.9	12.6	7.2	6.3	8.3	67.3	2,415
20-24	31.4	18.5	11.9	8.0	63.0	14.7	24.0	16.2	10.1	12.5	52.1	1,472
25-29	40.3	22.4	13.6	8.2	54.3	16.3	27.1	15.3	9.0	11.6	45.3	1,599
30-34	46.4	28.4	15.7	9.8	49.0	13.9	27.2	17.5	11.4	15.0	41.6	1,792
35-39	48.8	28.6	16.9	9.9	46.8	13.0	29.5	21.2	12.0	16.5	39.6	1,832
40-44	50.5	29.6	18.9	9.6	45.1	14.0	29.5	19.0	14.0	15.1	39.7	1,569
45-49	48.7	27.1	15.7	7.8	46.3	8.9	28.2	19.2	11.2	16.8	39.5	1,188
Residence												
Urban	50.1	35.4	20.3	11.3	43.3	18.2	32.7	22.5	12.4	17.0	35.0	5,512
Rural	30.1	12.2	7.2	4.5	66.6	6.7	17.5	10.2	8.4	10.1	59.0	6,356
Zone												
North Central	20.9	13.9	7.7	5.4	73.0	8.9	12.8	7.1	2.8	8.1	64.2	1,704
North East	32.2	17.2	9.8	6.6	64.8	8.6	24.6	8.8	6.8	8.1	57.6	1,936
North West	34.9	12.7	7.8	5.7	60.3	11.2	23.4	15.7	11.9	13.3	50.0	3,195
South East	57.2	30.3	21.5	11.5	37.5	11.7	38.0	25.6	11.5	10.5	30.2	1,355
South South	35.6	24.6	12.7	7.2	57.5	12.2	14.9	10.5	6.4	10.0	49.9	1,438
South West	57.7	44.0	23.6	11.0	38.5	18.8	33.3	26.6	18.5	25.4	33.3	2,240
State												
North Central												
FCT-Abuja	14.5	17.9	5.2	1.7	75.2	1.7	20.8	3.7	0.2	1.2	67.0	96
Benue	17.9	10.6	9.6	3.4	79.4	6.6	4.8	3.9	3.0	3.5	76.1	351
Kogi	(28.7)	(23.5)	(16.7)	(6.1)	(55.2)	26.0	16.8	9.5	9.8	15.0	46.6	156
Kwara	37.0	27.7	11.0	6.4	51.1	11.9	16.4	10.6	4.4	15.9	47.8	208
Nasarawa	35.2	18.9	7.5	13.0	56.6	13.2	10.2	5.3	1.9	28.8	38.5	206
Niger	(11.5)	(7.1)	(2.1)	(2.8)	(86.6)	4.2	17.7	9.8	1.2	1.3	72.4	442
Plateau	14.1	7.4	7.6	6.9	82.2	6.3	8.8	5.1	1.5	1.5	77.9	246
North East												
Adamawa	6.3	2.4	0.9	0.0	93.2	1.5	12.8	1.8	0.0	0.2	85.4	218
Bauchi	(22.6)	(6.9)	(4.2)	(1.8)	(74.7)	4.9	15.6	5.9	7.6	7.0	65.8	420
Borno	(61.0)	(46.7)	(30.7)	(25.7)	(34.0)	27.0	50.7	22.2	20.7	21.9	28.6	398
Gombe	44.3	12.5	5.3	1.2	53.5	2.8	55.1	7.6	0.6	4.3	37.1	240
Taraba	(20.0)	(10.0)	(1.6)	(0.7)	(79.0)	6.9	12.4	12.7	3.3	2.4	72.3	187
Yobe	*	*	*	*	*	3.2	5.2	2.2	2.1	5.2	66.4	472
North West												
Jigawa	(18.6)	(1.8)	(0.8)	(0.8)	(80.3)	3.2	3.3	1.9	0.4	0.5	78.7	291
Kaduna	34.9	23.8	15.3	15.6	52.1	17.9	38.1	38.0	42.7	46.9	23.5	636
Kano	43.9	14.4	9.6	7.1	50.7	13.5	15.9	11.3	10.1	5.1	45.4	676
Katsina	*	*	*	*	*	18.3	40.2	17.1	2.5	9.8	38.5	687
Kebbi	*	*	*	*	*	4.7	34.5	15.2	4.1	5.1	41.1	291
Sokoto	*	*	*	*	*	2.7	1.2	3.0	2.8	3.7	88.3	218
Zamfara	(10.1)	(2.6)	(2.0)	(0.8)	(87.1)	0.0	2.7	2.4	0.8	0.4	84.9	396
South East												
Abia	(68.5)	(63.1)	(42.4)	(32.8)	(20.3)	20.9	69.4	42.6	31.1	30.4	7.8	185
Anambra	74.2	40.8	27.7	6.8	23.5	11.6	49.8	47.0	15.7	8.6	19.1	409
Ebonyi	(67.0)	(17.2)	(8.2)	(1.1)	(32.2)	3.9	35.3	5.6	2.4	3.0	28.7	233
Enugu	47.7	9.1	5.3	3.3	48.2	3.0	29.1	12.5	1.8	3.1	28.5	192
Imo	29.1	20.7	20.9	17.2	61.7	17.0	13.2	11.6	7.3	11.4	57.9	337
South South												
Akwa Ibom	22.2	15.0	5.8	2.9	72.6	5.4	8.0	7.7	5.1	4.8	65.2	291
Bayelsa	*	*	*	*	*	14.5	42.5	35.6	8.6	15.4	27.2	109
Cross River	(63.0)	(41.3)	(30.5)	(8.4)	(31.6)	16.2	35.7	22.1	14.9	15.1	27.0	137
Delta	27.1	29.3	14.5	8.5	65.2	13.5	8.1	6.9	10.6	20.9	58.7	326
Edo	(38.1)	(29.4)	(14.1)	(2.0)	(56.8)	10.1	13.0	5.5	2.9	2.1	52.1	140
Rivers	38.5	17.8	10.1	9.7	54.0	14.7	11.6	6.8	1.9	5.1	45.3	435
South West												
Ekiti	54.7	28.1	17.9	13.6	41.6	15.0	28.8	23.4	24.4	26.3	28.8	139
Lagos	74.5	65.1	32.7	11.5	21.2	25.7	53.0	40.6	13.1	24.7	14.0	845
Ogun	4.8	1.0	0.7	1.1	93.5	0.5	2.6	0.9	0.0	0.2	92.4	309
Ondo	68.5	44.4	18.8	8.8	20.7	19.5	29.1	17.5	46.0	54.2	14.2	247
Osun	36.6	23.6	14.4	1.1	62.8	6.0	12.4	3.9	0.9	3.8	59.9	269
Oyo	70.7	51.0	32.4	23.5	27.1	27.3	33.6	37.9	35.6	41.4	24.7	432
Education												
No education	22.7	4.7	1.0	0.7	76.4	1.2	10.5	4.5	6.2	7.7	68.4	2,555
Primary	41.3	15.4	5.6	3.2	56.3	2.2	18.1	11.6	9.7	12.0	49.6	1,590
Secondary	39.9	25.0	12.1	6.8	54.6	11.5	26.1	16.4	10.5	13.2	46.5	5,697
More than secondary	57.4	46.1	38.2	22.3	32.8	35.1	43.0	32.3	15.5	21.6	24.4	2,025

Continued...

Table 7.15.2—*Continued*

Background characteristic	Media sources					Other sources						
	Radio	Television	News-paper/ magazine	Mobile phone	None of these four media sources[1]	Social media	Poster	Leaflet or brochure	Town crier	Mobile public announce-ment	None of these sources[2]	Number of men
Wealth quintile												
Lowest	18.6	2.0	1.0	0.8	80.6	1.1	7.7	2.3	2.9	3.1	76.5	1,991
Second	30.6	7.1	3.7	2.6	66.6	5.1	18.5	9.0	7.5	10.2	58.1	2,123
Middle	37.3	16.5	8.4	4.6	58.9	7.4	21.7	13.6	10.0	12.8	49.0	2,393
Fourth	47.2	30.9	16.4	8.8	46.1	14.1	28.5	20.1	14.0	16.5	37.3	2,590
Highest	55.6	48.4	30.7	18.0	36.0	27.4	40.2	28.9	14.5	20.4	28.3	2,770
Total 15-49	39.4	23.0	13.3	7.6	55.8	12.1	24.6	15.9	10.3	13.3	47.9	11,868
50-59	51.6	27.2	16.3	8.6	44.4	8.8	29.0	20.3	15.0	16.2	38.3	1,443
Total 15-59	40.7	23.4	13.6	7.7	54.6	11.7	25.1	16.4	10.8	13.6	46.8	13,311

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed

[1] Radio, television, newspaper or magazine, or mobile phone

[2] Includes those with no exposure to any source (radio, television, newspaper or magazine, mobile phone, social media, poster, leaflet or brochure, town crier, or mobile public announcement)

Table 7.16 Exposure to specific family planning messages

Percentage of women and men age 15-49 who heard or saw a family planning message in the past few months, according to background characteristics, Nigeria DHS 2018

	Women						Men					
Background characteristic	As for me and my partner, we *dey kampe* with female condom	Unspaced children makes the going tough. For the love of your family, go for child spacing today	Well-spaced children are every parent's joy	It's not too late to prevent unwanted pregnancy	Why is your wife looking so good?	Number of women	As for me and my partner, we *dey kampe* with female condom	Unspaced children makes the going tough. For the love of your family, go for child spacing today	Well-spaced children are every parent's joy	It's not too late to prevent unwanted pregnancy	Why is your wife looking so good?	Number of men
Age												
15-19	24.0	25.9	30.8	28.1	15.2	2,597	23.3	15.7	34.8	18.1	14.2	789
20-24	25.7	29.7	34.0	28.5	14.8	2,904	27.2	22.5	37.1	21.4	18.9	706
25-29	27.1	31.4	35.4	25.8	16.6	3,363	27.9	25.7	35.7	24.2	16.7	875
30-34	29.2	32.3	35.3	24.9	17.7	2,949	28.5	23.1	38.2	24.7	18.1	1,047
35-39	30.7	30.8	34.2	24.4	17.2	2,667	33.5	27.2	38.5	23.6	21.1	1,106
40-44	28.6	31.4	36.1	23.5	15.9	1,850	35.5	24.2	41.0	21.4	20.8	946
45-49	26.4	31.5	34.6	23.6	16.5	1,528	31.2	23.4	38.5	20.1	20.3	719
Residence												
Urban	32.9	31.7	32.9	25.7	18.1	10,699	32.4	23.6	36.5	24.0	18.9	3,584
Rural	19.2	28.4	36.5	25.9	13.5	7,159	26.4	23.1	39.5	19.6	18.4	2,604
Zone												
North Central	20.4	21.0	35.0	22.4	7.6	1,694	30.0	33.8	42.3	33.7	28.0	610
North East	15.4	31.4	36.6	28.1	25.1	1,649	13.2	24.1	37.1	14.7	24.2	822
North West	9.1	31.2	33.9	18.7	16.2	4,868	10.6	21.8	39.0	11.2	13.1	1,597
South East	35.5	33.8	41.2	24.3	18.6	2,756	41.1	25.7	47.3	25.8	15.1	946
South South	31.2	34.0	42.2	36.7	9.8	2,402	46.0	10.9	34.7	13.4	8.9	720
South West	47.4	28.6	25.3	28.9	18.5	4,489	44.7	25.1	30.5	35.3	24.9	1,494
State												
North Central												
FCT-Abuja	47.2	24.9	26.5	18.8	23.2	130	58.0	17.9	26.5	26.1	13.4	32
Benue	21.2	18.2	49.4	20.7	0.7	374	52.7	44.8	49.4	44.4	23.3	84
Kogi	13.8	26.1	28.2	42.8	5.3	140	15.4	27.2	25.0	4.6	37.9	83
Kwara	29.7	21.9	23.8	7.4	19.2	359	17.8	28.2	29.3	30.5	26.4	109
Nasarawa	11.2	9.7	25.8	24.1	5.0	296	20.3	34.4	71.8	54.7	26.3	126
Niger	10.6	23.6	42.2	32.5	0.8	248	43.6	41.7	35.9	30.1	32.5	122
Plateau	13.4	36.1	49.4	27.1	2.1	146	17.3	27.8	38.9	31.3	25.2	54
North East												
Adamawa	25.5	11.7	41.1	51.7	45.7	203	(6.1)	(80.4)	(68.4)	(0.0)	(3.1)	32
Bauchi	5.6	43.6	36.6	13.5	14.6	385	13.2	19.7	29.0	24.9	11.3	144
Borno	19.3	56.1	58.2	22.0	16.2	209	6.4	17.0	40.2	9.2	31.8	284
Gombe	3.0	27.2	33.2	44.0	28.3	342	2.6	13.2	20.3	23.9	38.7	151
Taraba	10.5	31.8	37.3	9.4	4.4	82	2.0	75.0	48.0	4.9	7.4	52
Yobe	28.4	21.2	26.3	23.9	30.7	428	40.6	23.2	45.0	12.5	18.4	159
North West												
Jigawa	0.6	43.2	63.7	6.7	18.6	377	2.9	27.8	47.6	21.8	15.2	62
Kaduna	2.5	24.2	42.4	20.1	13.6	1,364	3.0	20.0	58.0	16.1	16.4	486
Kano	7.5	53.1	9.6	4.1	19.4	1,245	8.4	19.2	20.7	9.8	15.2	369
Katsina	18.6	31.2	45.7	51.6	18.6	752	17.0	19.7	36.6	5.4	6.4	422
Kebbi	19.3	4.3	23.7	37.6	13.4	302	10.8	30.1	31.1	11.8	18.2	172
Sokoto	4.3	19.6	43.7	0.5	2.4	393	(49.0)	(16.6)	(51.6)	(20.2)	(7.6)	25
Zamfara	22.0	9.0	28.9	13.4	24.0	436	(33.5)	(38.6)	(22.8)	(2.7)	(5.2)	60
South East												
Abia	18.0	23.3	48.6	20.2	9.4	370	68.6	44.0	74.1	62.3	40.2	170
Anambra	57.4	47.4	43.8	20.4	19.2	925	37.1	17.5	49.0	2.7	9.7	331
Ebonyi	22.1	37.1	51.9	29.0	22.3	694	13.2	34.0	60.0	4.3	1.9	166
Enugu	31.5	2.9	13.6	22.2	5.9	395	21.8	15.4	18.3	49.2	8.2	137
Imo	27.8	36.8	36.7	31.9	32.8	372	68.3	22.9	24.4	38.7	20.0	142
South South												
Akwa Ibom	24.9	25.2	28.0	46.7	8.4	496	50.4	4.9	20.8	9.3	12.9	101
Bayelsa	29.6	57.7	11.8	8.8	5.0	104	74.1	6.9	13.4	6.1	27.4	79
Cross River	20.1	38.4	32.2	19.2	6.6	342	46.4	26.7	64.8	24.9	11.1	100
Delta	6.1	24.4	50.4	21.3	5.9	418	75.4	5.8	2.8	14.7	0.7	135
Edo	25.9	15.0	14.9	19.8	2.7	255	2.2	6.4	3.5	8.8	0.0	67
Rivers	55.2	45.7	63.9	55.2	17.1	787	30.4	12.2	61.8	13.3	7.4	238
South West												
Ekiti	20.8	18.3	23.0	15.9	35.9	264	67.6	9.5	5.9	21.2	3.1	99
Lagos	33.0	22.0	17.4	23.0	13.5	1,880	34.7	20.6	28.6	28.9	14.4	726
Ogun	22.7	34.0	35.8	24.2	3.3	270	*	*	*	*	*	23
Ondo	13.0	16.4	27.0	47.8	38.0	300	42.1	10.0	20.6	27.2	15.5	212
Osun	65.9	41.6	24.6	17.0	4.6	468	31.5	25.3	36.1	30.7	10.4	108
Oyo	79.7	37.1	35.0	41.1	25.8	1,306	66.6	50.6	48.8	62.9	66.9	326

Continued...

Table 7.16—*Continued*

Background characteristic	Women						Men					
	As for me and my partner, we *dey kampe* with female condom	Unspaced children makes the going tough. For the love of your family, go for child spacing today	Well-spaced children are every parent's joy	It's not too late to prevent unwanted pregnancy	Why is your wife looking so good?	Number of women	As for me and my partner, we *dey kampe* with female condom	Unspaced children makes the going tough. For the love of your family, go for child spacing today	Well-spaced children are every parent's joy	It's not too late to prevent unwanted pregnancy	Why is your wife looking so good?	Number of men
Education												
No education	14.2	27.6	33.1	19.2	14.0	3,914	13.2	18.2	36.3	14.9	19.5	808
Primary	23.5	30.6	35.8	22.6	16.2	2,447	28.5	21.0	36.3	19.6	13.5	801
Secondary	31.5	30.1	34.0	27.8	16.1	8,282	31.7	22.2	38.0	23.0	17.8	3,048
More than secondary	35.9	34.4	35.5	30.9	19.6	3,214	35.9	29.9	39.0	25.7	22.8	1,531
Wealth quintile												
Lowest	15.9	27.5	34.7	15.9	15.9	1,608	15.9	19.3	27.8	13.8	16.2	468
Second	14.0	28.7	33.9	25.3	13.2	2,362	17.1	22.0	39.1	17.0	14.0	890
Middle	23.2	28.3	36.0	25.8	16.7	3,273	22.4	24.5	38.9	19.9	17.8	1,221
Fourth	32.0	32.3	35.3	27.2	15.7	4,734	34.5	23.1	39.1	23.5	18.4	1,622
Highest	34.6	31.4	32.7	27.5	17.9	5,879	39.7	24.6	37.9	26.7	22.2	1,988
Total 15-49	27.4	30.4	34.3	25.8	16.3	17,858	29.9	23.4	37.8	22.2	18.7	6,188
50-59	na	na	na	na	na	0	25.6	20.4	43.8	23.4	18.0	891
Total 15-59	na	na	na	na	na	0	29.3	23.0	38.6	22.3	18.6	7,079

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

Table 7.17 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, percentage who during the past 12 months were visited by a fieldworker who discussed family planning, percentage who visited a health facility and discussed family planning, percentage who visited a health facility but did not discuss family planning, and percentage who did not discuss family planning either with a fieldworker or at a health facility, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage of women who were visited by a fieldworker who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who:		Percentage of women who did not discuss family planning either with a fieldworker or at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Age					
15-19	1.0	3.9	16.8	95.5	8,201
20-24	3.6	16.6	26.2	81.7	6,020
25-29	5.6	21.5	27.3	76.3	6,022
30-34	5.1	21.3	26.6	76.5	4,934
35-39	5.3	18.1	26.2	79.2	4,236
40-44	3.9	11.2	25.0	86.5	3,161
45-49	3.3	6.0	23.7	92.0	3,267
Residence					
Urban	3.6	16.0	23.0	82.5	15,353
Rural	3.9	12.4	24.6	85.7	20,487
Zone					
North Central	6.9	14.3	25.7	82.4	5,109
North East	3.6	14.7	26.9	83.4	6,082
North West	1.6	11.7	29.7	87.5	11,522
South East	3.2	17.0	16.0	81.6	3,922
South South	7.1	17.2	17.4	79.4	3,845
South West	3.4	12.7	17.2	85.8	5,361
State					
North Central					
FCT-Abuja	1.4	17.2	37.2	82.0	253
Benue	13.9	18.1	20.0	75.0	1,181
Kogi	3.3	12.2	29.8	85.6	541
Kwara	7.0	24.0	10.7	74.3	562
Nasarawa	13.3	22.4	17.7	71.3	576
Niger	2.5	4.3	36.8	94.2	1,264
Plateau	2.3	12.5	26.4	86.5	731
North East					
Adamawa	0.2	12.2	15.1	87.7	689
Bauchi	5.9	6.4	42.8	89.8	1,267
Borno	1.2	17.7	15.5	81.9	1,394
Gombe	2.4	29.0	27.9	70.5	618
Taraba	3.8	13.8	27.8	83.3	806
Yobe	6.4	14.5	28.7	82.5	1,308
North West					
Jigawa	1.3	12.5	54.6	86.8	1,336
Kaduna	1.3	13.4	13.1	86.3	2,166
Kano	1.5	20.6	37.2	78.7	2,555
Katsina	1.0	6.6	36.2	92.9	2,223
Kebbi	4.2	9.8	23.2	88.2	1,102
Sokoto	3.0	8.5	22.1	89.9	892
Zamfara	0.8	2.7	15.8	96.6	1,247
South East					
Abia	4.8	18.7	8.5	79.6	579
Anambra	0.7	14.1	15.0	85.4	985
Ebonyi	5.3	26.7	12.9	71.0	967
Enugu	2.6	11.6	9.3	88.0	683
Imo	3.2	11.7	34.5	86.3	708
South South					
Akwa Ibom	3.7	15.6	11.7	82.4	786
Bayelsa	4.1	8.2	3.9	89.0	288
Cross River	20.9	13.5	13.4	72.1	480
Delta	2.1	12.6	31.3	86.9	812
Edo	5.1	17.4	26.4	81.5	471
Rivers	9.0	26.5	12.2	70.6	1,008
South West					
Ekiti	6.4	28.1	21.2	69.9	315
Lagos	2.3	9.3	24.2	89.5	1,932
Ogun	6.0	8.5	4.0	88.4	681
Ondo	2.5	13.2	22.1	85.7	584
Osun	0.9	8.6	12.8	91.2	732
Oyo	5.0	19.1	12.1	78.7	1,116

Continued…

Table 7.17—*Continued*

Background characteristic	Percentage of women who were visited by fieldworker who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who:		Percentage of women who did not discuss family planning either with fieldworker or at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Education					
No education	2.5	10.8	26.4	87.8	13,900
Primary	4.6	15.6	23.1	82.1	5,055
Secondary	4.3	15.0	20.1	83.0	13,522
More than secondary	5.1	20.0	30.3	78.4	3,364
Wealth quintile					
Lowest	2.7	10.6	26.3	88.0	6,930
Second	3.1	11.4	24.6	86.9	7,464
Middle	4.3	15.8	21.8	82.2	7,170
Fourth	4.2	16.1	22.5	81.9	7,196
Highest	4.4	15.6	24.6	82.5	7,081
Total	3.7	13.9	24.0	84.3	35,840

INFANT AND CHILD MORTALITY 8

Key Findings

- ***Current levels:*** The infant mortality rate was 67 deaths per 1,000 live births for the 5-year period preceding the survey, while under-5 mortality was 132 deaths per 1,000 live births. This implies that more than 1 in 8 children in Nigeria die before their 5th birthday.
- ***Trends:*** The under-5 mortality rate has decreased since 2008, from 157 deaths per 1,000 live births to 132 deaths per 1,000 live births. Similarly, there has been a slight reduction in infant mortality, from 75 to 67 deaths per 1,000 live births. However, there has been no noticeable change in the neonatal mortality rate over the same period.
- ***High-risk fertility behaviour:*** 80% of currently married women have the potential for a high-risk birth. In the 5 years preceding the survey, 63% of infants were at elevated odds of dying from avoidable risks: 40% fell into a single high-risk category, and 23% fell into a multiple high-risk category. Only 23% of births were not in any high-risk category.

Information on infant and child mortality is relevant to a demographic assessment of a country's population and is an important indicator of the country's socioeconomic development and quality of life. It can also help identify children who may be at higher risk of death and lead to strategies to reduce this risk, such as promoting birth spacing.

This chapter presents information on levels, trends, and differentials in perinatal, neonatal, infant, and under-5 mortality rates. It also examines biodemographic factors and fertility behaviours that increase mortality risks for infants and children. The information was collected as part of a retrospective birth history in which female respondents listed all of the children to whom they had given birth, along with each child's date of birth, survivorship status, and current age or age at death.

The quality of mortality estimates calculated from birth histories depends on the mother's ability to recall all of the children she has given birth to, as well as their birth dates and ages at death. Potential data quality problems include:

- The selective omission from birth histories of those births that did not survive, which can result in underestimation of childhood mortality.
- The displacement of birth dates, which may distort mortality trends. This can occur if an interviewer knowingly records a birth as occurring in a different year than the one in which it occurred. This may happen if an interviewer is trying to cut down on her overall workload, because live births occurring during the 5 years before the interview are the subject of a lengthy set of additional questions.

- The quality of reporting of age at death. Misreporting the child's age at death may distort the age pattern of mortality, especially if the net effect of the age misreporting is to transfer deaths from one age bracket to another.

- Any method of measuring childhood mortality that relies on mothers' reports (e.g., birth histories) assumes that female adult mortality is not high or, if it is high, that there is little or no correlation between the mortality risks of mothers and those of their children.

Selected indicators of the quality of the mortality data on which the estimates of mortality in this chapter are based are presented in Appendix C, Tables C.3-C.6.

8.1 Infant and Child Mortality

Neonatal mortality: The probability of dying within the first month of life.

Postneonatal mortality: The probability of dying between the first month of life and the first birthday (computed as the difference between infant and neonatal mortality).

Infant mortality: The probability of dying between birth and the first birthday.

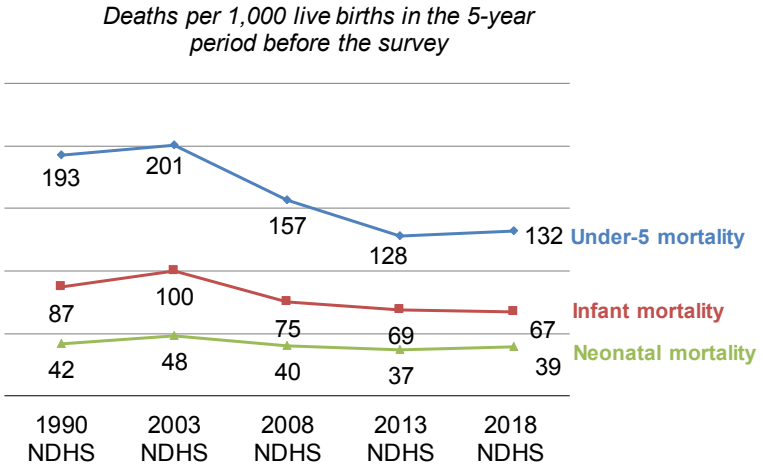
Child mortality: The probability of dying between the first and the fifth birthday.

Under-5 mortality: The probability of dying between birth and the fifth birthday.

The 2018 NDHS results (**Table 8.1**) show that the infant mortality rate was 67 deaths per 1,000 live births for the 5 years preceding the survey. The child mortality rate was 69 deaths per 1,000 live births, while the under-5 mortality rate was 132 deaths per 1,000 live births. This implies that more than 1 in 8 children in Nigeria die before their 5th birthday. With respect to other early childhood mortality rates, the neonatal mortality rate was 39 deaths per 1,000 live births and the postneonatal mortality rate was 28 deaths per 1,000.

Trends: Under-5 mortality declined from 157 deaths per 1,000 live births in 2008 to 132 deaths per 1,000 live births in 2018 (**Figure 8.1**). Similarly, the infant mortality rate declined from 75 deaths per 1,000 live births in 2008 to 67 deaths per 1,000 live births in 2018. There have not been any substantial changes in neonatal mortality in the last decade (40 deaths per 1,000 live births in 2008 versus 39 deaths per 1,000 live births in 2018).

Figure 8.1 **Trends in early childhood mortality rates**

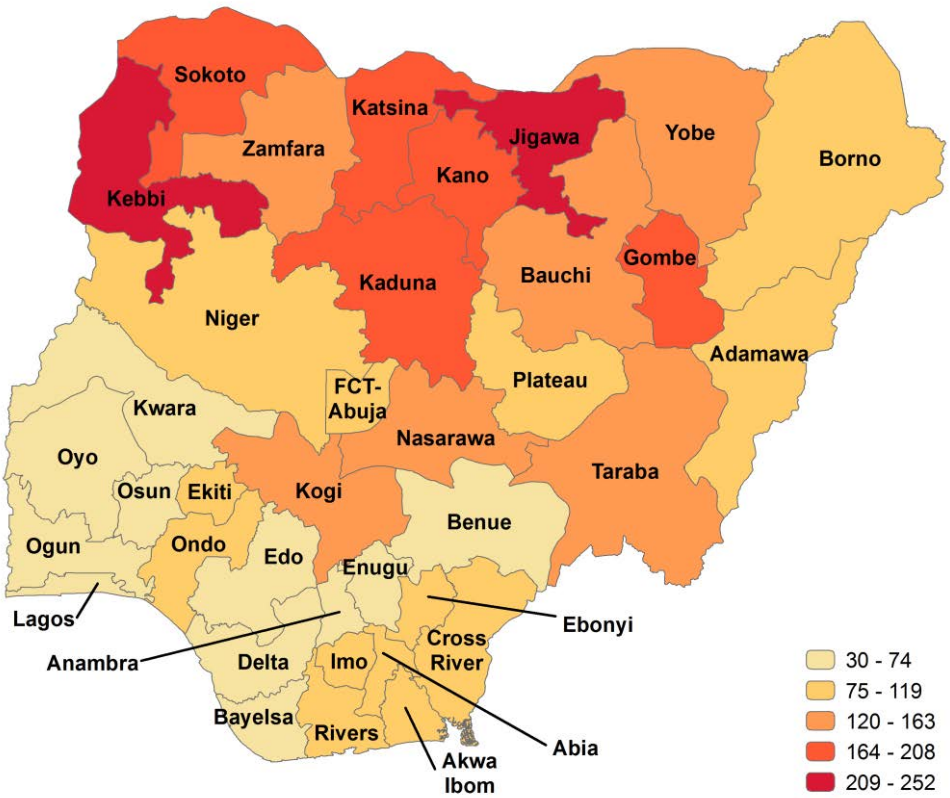


Patterns by demographic characteristics

- The under-5 mortality rate is highest in the North West (187 deaths per 1,000 live births) and lowest in the South West (62 deaths per 1,000 live births).

Figure 8.2 **Under-5 mortality by state**

Deaths per 1,000 live births for the 10-year period before the survey



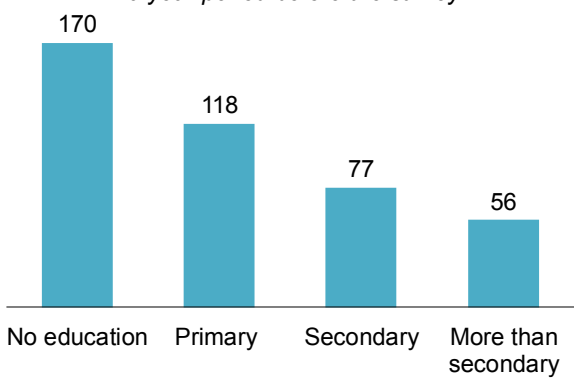
- Among the states, the under-5 mortality rate is highest in Kebbi (252 deaths per 1,000 live births) and lowest in Ogun (30 deaths per 1,000 live births) (**Figure 8.2**). Meanwhile, neonatal mortality is highest in Kaduna (63 deaths per 1,000 live births) and lowest in Bayelsa (13 deaths per 1,000 live births).

- Under-5 mortality declines with increasing mother's education, from 170 deaths per 1,000 live births among children whose mothers have no education to 56 deaths per 1,000 live births among children whose mothers have more than a secondary education (**Figure 8.3**).

- Under-5 mortality also decreases with increasing household wealth, from 173 deaths per 1,000 live births in the lowest wealth quintile to 53 deaths per 1,000 live births in the highest quintile.

Figure 8.3 **Under-5 mortality by mother's education**

Deaths per 1,000 live births for the 10-year period before the survey



8.2 BIODEMOGRAPHIC RISK FACTORS

The demographic characteristics of both mothers and children have been found to play an important role in the survival of children. **Tables 8.2** and **8.3** present childhood mortality rates by demographic characteristics (sex of the child, residence, mother's age at birth, birth order, previous birth interval, and infant's size at birth).

Patterns by demographic characteristics

- Boys are more likely than girls to die in childhood. The difference is particularly pronounced for the under-5 mortality rate (137 male deaths per 1,000 live births versus 127 female deaths per 1,000 live births) (**Table 8.2**).

- The under-5 mortality rate is higher in rural areas than in urban areas (157 and 92 deaths per 1,000 live births, respectively).

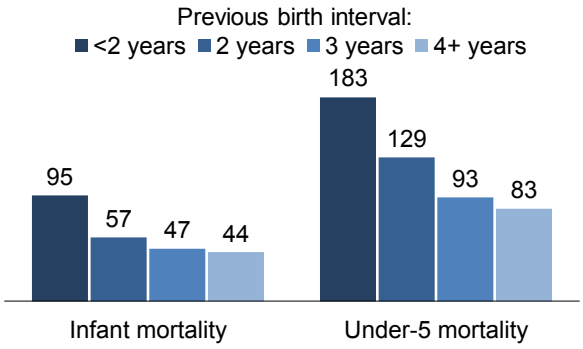
- For the 10-year period preceding the survey, under-5 mortality was higher among children of mothers who were less than age 20 and age 40-49 at the time of the birth (160 and 168 deaths per 1,000 live births, respectively than among children of mothers who were age 20-29 and age 30-39 at the time of the birth (120 and 124 deaths per 1,000 live births, respectively) (**Table 8.3**).

- Under-5 mortality is highest among children of mothers who have given birth to seven or more children (190 deaths per 1,000 live births).

- The under-5 mortality rate is higher among children with birth intervals of less than 2 years (183 deaths per 1,000 live births) than among children with birth intervals of 4 or more years (83 deaths per 1,000 live births) (**Figure 8.4**).

Figure 8.4 **Childhood mortality by previous birth interval**

Deaths per 1,000 live births for the 10-year period before the survey



8.3 Perinatal Mortality

Perinatal mortality rate

Perinatal deaths comprise stillbirths (pregnancy losses occurring after 7 months of gestation) and early neonatal deaths (deaths of live births within the first 7 days of life). The perinatal mortality rate is calculated as the number of perinatal deaths per 1,000 pregnancies of 7 or more months' duration.

Sample: Number of pregnancies of 7 or more months' duration to women age 15-49 in the 5 years before the survey

The causes of stillbirths and early neonatal deaths are closely linked, and it can be difficult to determine whether a death is attributable to one cause or the other. The perinatal mortality rate encompasses both stillbirths and early neonatal deaths and offers a better measure of the level of mortality and quality of antenatal care (ANC) services at delivery. During the 5 years before the survey, the perinatal mortality rate was 49 deaths per 1,000 pregnancies (**Table 8.4**).

Patterns by background characteristics

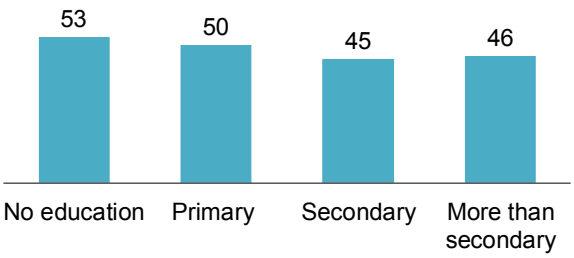
- Perinatal mortality is highest among children whose mothers age were less than age 20 (64 deaths per 1,000 pregnancies) and age 40-49 (74 deaths per 1,000 pregnancies) at the time of the birth (**Table 8.4**).

- The perinatal mortality rate is relatively high for first pregnancies (59 deaths per 1,000 pregnancies) and among women with a pregnancy interval of less than 15 months (65 deaths per 1,000 pregnancies).

- The perinatal mortality rate is higher in rural areas than in urban areas (52 versus 45 deaths per 1,000 pregnancies).
- The perinatal mortality rate is highest for mothers with no education (53 deaths per 1,000 pregnancies) and lowest for mothers with a secondary education (45 deaths per 1,000 pregnancies) (**Figure 8.5**).

Figure 8.5 **Perinatal mortality by mother's education**

Deaths per 1,000 pregnancies of 7 or more months' duration in the 5-year period before the survey



8.4 HIGH-RISK FERTILITY BEHAVIOUR

Findings from scientific studies have confirmed a strong relationship between a child's chance of dying and specific fertility behaviours, meaning that the survival of infants and children depends in part on the demographic and biological characteristics of their mothers. The probability of dying in infancy is much greater among children born to mothers who are too young (under age 18) or too old (over age 34), children born after a short birth interval (less than 24 months after the preceding birth), and children born to mothers of high parity (more than three children). The risk is elevated when a child is born to a mother who has a combination of these risk characteristics.

Table 8.5 presents the percent distribution of children born in the 5 years preceding the survey who fall into different risk categories: not in any high-risk category, in an unavoidable risk category, in a single high-risk category, or in a multiple high-risk category.

In the 5 years before the survey, three-fifths of infants in Nigeria (63%) were at elevated odds of dying from avoidable risks: 40% were in a single high-risk category, and 23% were in a multiple high-risk category. Twenty-three percent of births were not in any high-risk category, while 15% were in the unavoidable risk category.

In general, risk ratios are higher for children in a multiple high-risk category than for children in a single high-risk category. Risk ratios are highest for births in which the mother was older than age 34, the birth interval was less than 24 months, and the birth order was higher than three (2.90) and births in which the mother was less than age 18 and the birth interval was less than 24 months (2.50).

Overall, 80% of currently married women have the potential for a high-risk birth, with 32% falling into a single high-risk category and 49% falling into a multiple high-risk category.

LIST OF TABLES

For more information on infant and child mortality, see the following tables:

- **Table 8.1 Early childhood mortality rates**
- **Table 8.2 Five-year early childhood mortality rates according to background characteristics**
- **Table 8.3 Ten-year early childhood mortality rates according to additional characteristics**
- **Table 8.4 Perinatal mortality**
- **Table 8.5 High-risk fertility behaviour**

Table 8.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-5 mortality rates for 5-year periods preceding the survey, Nigeria DHS 2018

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
0-4	39	28	67	69	132
5-9	34	29	63	66	125
10-14	32	32	64	80	139

[1] Computed as the difference between the infant and neonatal mortality rates

Table 8.2 Five-year early childhood mortality rates according to background characteristics

Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 5-year period preceding the survey, according to background characteristics, Nigeria DHS 2018

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Child's sex					
Male	42	29	71	71	137
Female	37	27	63	68	127
Residence					
Urban	36	21	56	38	92
Rural	42	33	74	90	157
Total	39	28	67	69	132

[1] Computed as the difference between the infant and neonatal mortality rates

Table 8.3 Ten-year early childhood mortality rates according to additional characteristics

Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 10-year period preceding the survey, according to additional characteristics, Nigeria DHS 2018

Characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Mother's age at birth					
<20	53	32	85	82	160
20-29	32	26	59	65	120
30-39	34	29	64	65	124
40-49	55	38	94	81	168
Birth order					
1	47	23	69	50	116
2-3	30	24	54	59	110
4-6	33	30	64	69	129
7+	47	42	89	111	190
Previous birth interval[2]					
<2 years	52	43	95	97	183
2 years	29	29	57	76	129
3 years	27	20	47	49	93
4+ years	24	21	44	40	83
Birth size[3]					
Small/very small	74	43	116	na	na
Average or larger	32	26	59	na	na
Zone					
North Central	32	26	58	39	95
North East	37	37	73	65	134
North West	46	35	80	117	187
South East	27	22	48	29	75
South South	27	21	49	25	73
South West	31	12	43	20	62
State					
North Central					
FCT-Abuja	27	20	46	30	75
Benue	25	15	40	19	59
Kogi	50	43	93	60	148
Kwara	31	20	52	23	74
Nasarawa	36	28	64	60	120
Niger	29	27	57	44	98
Plateau	36	29	65	44	106
North East					
Adamawa	32	36	68	39	104
Bauchi	38	31	69	84	147
Borno	27	25	52	36	86
Gombe	45	59	104	95	189
Taraba	37	27	63	70	129
Yobe	44	47	90	68	152
North West					
Jigawa	47	34	81	144	213
Kaduna	63	34	97	100	187
Kano	37	26	62	109	164
Katsina	38	28	66	131	188
Kebbi	55	58	112	157	252
Sokoto	50	52	102	106	197
Zamfara	33	33	66	69	130
South East					
Abia	39	25	65	23	86
Anambra	17	18	35	24	58
Ebonyi	35	22	57	36	91
Enugu	21	19	40	22	61
Imo	27	27	54	35	87
South South					
Akwa Ibom	37	33	70	30	98
Bayelsa	13	10	23	8	31
Cross River	32	27	60	21	80
Delta	21	11	32	22	53
Edo	29	23	52	20	71
Rivers	27	21	48	33	79
South West					
Ekiti	42	15	57	40	95
Lagos	35	12	47	13	59
Ogun	15	4	19	11	30
Ondo	30	19	49	32	79
Osun	32	15	47	24	70
Oyo	30	11	41	24	64

Continued...

Table 8.3—*Continued*

Characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Mother's education					
No education	40	36	77	101	170
Primary	38	28	66	56	118
Secondary	32	19	51	27	77
More than secondary	28	16	44	12	56
Wealth quintile					
Lowest	39	39	78	103	173
Second	41	36	77	99	169
Middle	41	27	69	64	128
Fourth	32	21	53	35	86
Highest	28	12	40	14	53

na = Not available
[1] Computed as the difference between the infant and neonatal mortality rates
[2] Excludes first-order births
[3] Rates for the 5-year period before the survey

Table 8.4 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the 5-year period preceding the survey, according to background characteristics, Nigeria DHS 2018

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7+ months' duration
Mother's age at birth				
<20	105	200	64	4,758
20-29	274	513	44	18,036
30-39	177	326	49	10,279
40-49	50	64	74	1,551
Previous pregnancy interval in months[4]				
First pregnancy	134	240	59	6,363
<15	128	269	65	6,146
15-26	166	279	45	9,804
27-38	76	153	38	6,087
39+	102	162	42	6,224
Residence				
Urban	186	405	45	13,274
Rural	419	699	52	21,349
Zone				
North Central	76	153	49	4,666
North East	143	203	55	6,330
North West	272	449	56	12,787
South East	42	90	38	3,437
South South	47	68	38	3,001
South West	26	140	38	4,402
Mother's education				
No education	338	517	53	16,153
Primary	78	180	50	5,149
Secondary	146	321	45	10,488
More than secondary	43	86	46	2,833
Wealth quintile				
Lowest	170	235	52	7,712
Second	141	245	49	7,886
Middle	121	270	55	7,139
Fourth	106	194	47	6,328
Highest	68	159	41	5,558
Total	605	1,104	49	34,623

[1] Stillbirths are foetal deaths in pregnancies lasting 7 or more months.
[2] Early neonatal deaths are deaths at age 0-6 days among live-born children.
[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of 7 or more months' duration, expressed per 1,000
[4] Category cut-offs correspond to birth intervals of <24 months, 24-35 months, 36-47 months, and 48+ months assuming a pregnancy duration of 9 months.

Table 8.5 High-risk fertility behaviour

Percent distribution of children born in the 5 years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Nigeria DHS 2018

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women[1]
	Percentage of births	Risk ratio	
Not in any high-risk category	23.1	1.00	14.7[a]
Unavoidable risk category			
First-order births between age 18 and age 34	14.5	1.23	4.9
In any avoidable high-risk category	62.5	1.59	80.4
Single high-risk category			
Mother's age <18 only	5.4	1.94	1.2
Mother's age >34 only	1.5	0.80	5.0
Birth interval <24 months only	8.1	1.75	9.3
Birth order >3 only	24.5	1.29	16.3
Subtotal	39.5	1.45	31.7
Multiple high-risk category			
Age <18 and birth interval <24 months[2]	0.6	2.50	0.3
Age >34 and birth interval <24 months	0.2	0.27	0.4
Age >34 and birth order >3	11.0	1.27	29.7
Age >34 and birth interval <24 months and birth order >3	2.3	2.90	5.7
Birth interval <24 months and birth order >3	8.9	2.24	12.5
Subtotal	23.0	1.83	48.7
Total	100.0	na	100.0
Subtotals by individual avoidable high-risk category			
Mother's age <18	6.0	2.00	1.5
Mother's age >34	15.0	1.46	40.8
Birth interval <24 months	20.0	2.10	28.3
Birth order >3	46.6	1.54	64.3
Number of births/women	34,193	na	29,090

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category.
na = Not applicable
[1] Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.
[2] Includes the category age <18 and birth order >3
[a] Includes sterilised women

MATERNAL HEALTH CARE

9

Key Findings

- ***Antenatal care coverage:*** 67% of women age 15-49 who gave birth in the 5 years preceding the survey received antenatal care (ANC) from a skilled provider during the pregnancy for their most recent birth. Fifty-seven percent had at least four ANC visits.
- ***Components of antenatal care:*** High proportions of women who received antenatal care services had their blood pressure measured (94%), a urine sample taken (86%), and a blood sample taken (88%).
- ***Protection against neonatal tetanus:*** 62% of women who gave birth in the 5 years preceding the survey had a sufficient number of tetanus toxoid injections to ensure that their most recent birth was protected against neonatal tetanus.
- ***Delivery:*** 39% of live births in the 5 years preceding the survey took place in a health facility. Forty-three percent of births were assisted by a skilled provider. Three percent of health facility births in the 5 years before the survey were delivered via caesarean section.
- ***Means of transportation to health facility for delivery:*** Motorcycles/scooters are the most common means of transportation, used for 31% of births that took place in a facility. Other means of transportation, including ambulances were used for just 3 in 1,000 births.
- ***Cord care:*** 11% of most recent live births in the 2 years preceding the survey had chlorhexidine applied to the umbilical cord.
- ***Maternal postnatal check:*** Among women who gave birth in the 2 years preceding the survey, 42% received a postnatal check in the first 2 days after birth.
- ***Newborn postnatal check:*** Among newborns in the 2 years preceding the survey, 38% received a postnatal check in the first 2 days after birth.

Health care services during pregnancy and childbirth and after delivery are important for the survival and well-being of both the mother and the infant. Ensuring access to a continuum of care for women during the antenatal, intrapartum, and postpartum periods is critical for maternal and newborn survival and is a priority of the Federal Ministry of Health. The 2018 NDHS obtained information on key indicators of maternal and newborn care in Nigeria. These findings will help policymakers and programme implementers in assessing current policies and programmes as well as in decision making to improve maternal and newborn health care services in Nigeria.

9.1 Antenatal Care Coverage and Content

9.1.1 Skilled Providers

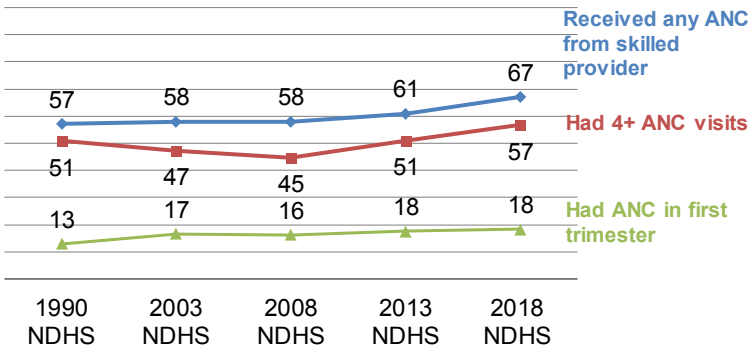
Antenatal care (ANC) from a skilled provider

Pregnancy care received from skilled providers, such as doctors, nurses/midwives, and auxiliary nurses/midwives.

Sample: Women age 15-49 who had a live birth in the 5 years before the survey

Figure 9.1 **Trends in antenatal care coverage**

Percentage of women age 15-49 who had a live birth in the 5 years before the survey (for the most recent birth)



Access to quality ANC services during pregnancy can help prevent maternal deaths. ANC visits allow providers to identify and manage infections as well as obstetric complications and to provide preventive injections, medications, and supplements to women. During ANC visits, women receive education about health behaviours during pregnancy, counselling on pregnancy danger signs, and information on family planning. Sixty-seven percent of women age 15-49 received ANC from a skilled provider for their most recent birth (**Table 9.1**). The majority of women (48%) received ANC from nurses/midwives, while 17% received care from doctors.

Trends: The proportion of women receiving ANC from a skilled provider has increased steadily since 2008, from 58% to 67%. Between 2013 and 2018, there was a 6 percentage point increase in the proportion of women receiving ANC from a skilled provider (**Figure 9.1**). Over the same period, there was a 10 percentage point reduction in the proportion of mothers with no antenatal care.

Patterns by background characteristics

- Women age 20-34 were more likely (69%) to receive antenatal care services from a skilled provider than women in other age groups.
- Urban women (84%) were more likely than rural women (56%) to receive antenatal care from a skilled provider.
- The proportion of pregnant women who received antenatal care from a skilled provider ranged from 15% in Kebbi to 97% in Imo.
- Disparities along socioeconomic characteristics exist in use of ANC services. Forty-five percent of women with no education received ANC services from a skilled provider, as compared with 97% of women with more than a secondary education. Similarly, women in the highest quintile (93%) were more likely to receive ANC from a skilled provider than women in the lowest wealth quintile (41%).

9.1.2 Timing and Number of ANC Visits

Fifty-seven percent of women had at least four ANC visits for their most recent birth in the 5 years preceding the survey (**Table 9.2**). Urban women (74%) were more likely than rural women (46%) to have

four or more ANC visits. The majority of pregnant women (36%) had their first antenatal care visit in the fourth or fifth month of pregnancy. Only 18% of women started ANC in the first trimester, and 19% did not seek care until the sixth month of pregnancy. Urban women (24%) were more likely than rural women (14%) to seek ANC services in the first trimester.

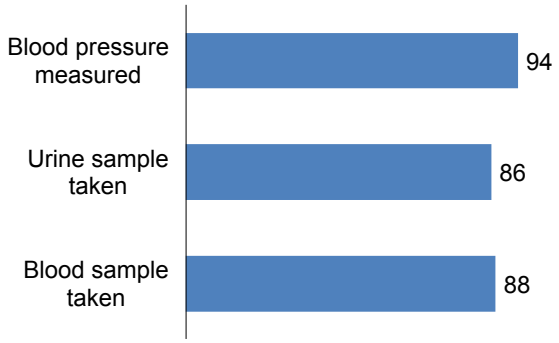
Trends: The proportion of women with four or more ANC visits increased from 45% in 2008 to 57% in 2018 (**Figure 9.1**). Within the same time period, the proportion of women with an ANC visit in the first trimester of pregnancy increased from 16% to 18%.

9.2 Components of ANC Visits

Sixty-nine percent of women took iron tablets or syrup during their most recent pregnancy, while only 17% took intestinal parasite drugs (**Table 9.3**). Among women who received ANC for their most recent birth, 94% had their blood pressure checked, 86% had a urine sample taken, and 88% had a blood sample taken (**Figure 9.2**). There was substantial variation by background characteristics in the components of ANC. Women age 20-49 were more likely than women less than age 20 to have their blood pressure checked and to have urine and blood samples taken. In general, women living in urban areas, women at higher educational levels, and women in the higher wealth quintiles were more likely than their counterparts to have their blood pressure measured and blood and urine samples taken.

Figure 9.2 **Components of antenatal care**

Among women who received ANC for their most recent birth, the percentage with selected services



Trends: The proportion of women who receive iron tablets or syrup has increased since 2008, from 54% to 69%. There has also been an increase in the proportion of women who receive intestinal parasite drugs, from 10% to 17%.

9.3 Protection against Neonatal Tetanus

Protection against neonatal tetanus

The number of tetanus toxoid injections needed to protect a baby from neonatal tetanus depends on the mother's vaccinations. A birth is protected against neonatal tetanus if the mother has received any of the following:

- Two tetanus toxoid injections during the pregnancy
- Two or more injections, the last one within 3 years of the birth
- Three or more injections, the last one within 5 years of the birth
- Four or more injections, the last one within 10 years of the birth
- Five or more injections at any time prior to the birth

Sample: Last live births in the 5 years before the survey to women age 15-49

Neonatal tetanus, a leading cause of death among neonates in developing countries, is often due to failure to observe hygienic procedures during delivery. Fifty-three percent of women with a live birth in the 5 years before the survey received two or more tetanus toxoid injections to protect their last live birth against neonatal tetanus. Sixty-two percent of women's most recent live births were protected against neonatal tetanus (**Table 9.4**).

Trends: The proportion of mothers whose births were protected against neonatal tetanus has increased by 14 percentage points since 2008, from 48% to 62%, while the proportion of women receiving two or more doses of tetanus toxoid has increased by 8 percentage points, from 45% to 53%.

Patterns by background characteristics

- Only 22% of women in Zamfara had their last live birth protected against neonatal tetanus, as compared with 97% of women in Imo and 94% of women in Abia.
- Protection against neonatal tetanus increases with increasing education (from 40% for women with no education to 90% for women with more than a secondary education) and wealth (from 38% for women in the lowest wealth quintile to 87% for women in the highest wealth quintile).

9.4 Delivery Services

9.4.1 Institutional Deliveries

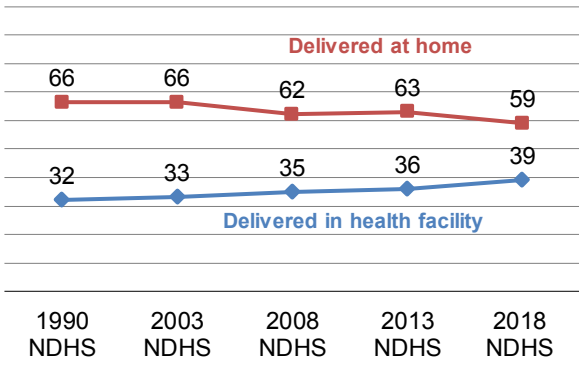
Institutional deliveries
Deliveries that occur in a health facility.
Sample: All live births in the 5 years before the survey

In order to reduce maternal and newborn mortality, deliveries should occur in facilities where providers can manage obstetric and newborn complications that may arise during delivery. Only 39% of women in Nigeria delivered their last live birth in a health facility (**Table 9.5**). Of these women, 26% delivered in a public facility and 13% in a private facility. Fifty-nine percent of women delivered at home.

Trends: The percentage of deliveries taking place at health facilities has increased over time, from 35% in 2008 and 36% in 2013 to 39% in 2018 (**Figure 9.3**).

Figure 9.3 **Trends in place of birth**

Percentage of live births in the 5 years before the survey



Patterns by background characteristics

- Seventy percent of births to mothers less than age 20 were delivered at home, as compared with 57% of births to mothers age 20-34 and 59% to mothers age 35-49.
- First-order births are more likely (53%) to occur in a health facility than sixth- and higher-order births (23%).
- Fifty-nine percent of most recent births to mothers with four or more ANC visits were delivered at a health facility, compared with only 6% of births to mothers with no ANC visits.
- Sixty-one percent of urban births were delivered in a health facility, as compared with only 26% of rural births.

- Births to mothers with more than a secondary education (88%) were much more likely to be delivered at a facility than births to mothers with no education (14%) (**Figure 9.4**).

Figure 9.4 **Health facility births by mother's education**

Percentage of live births in the 5 years before the survey that were delivered in a health facility

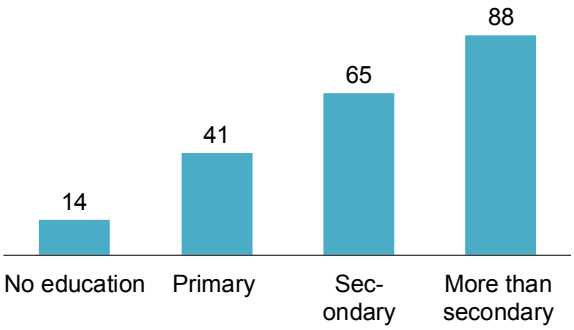
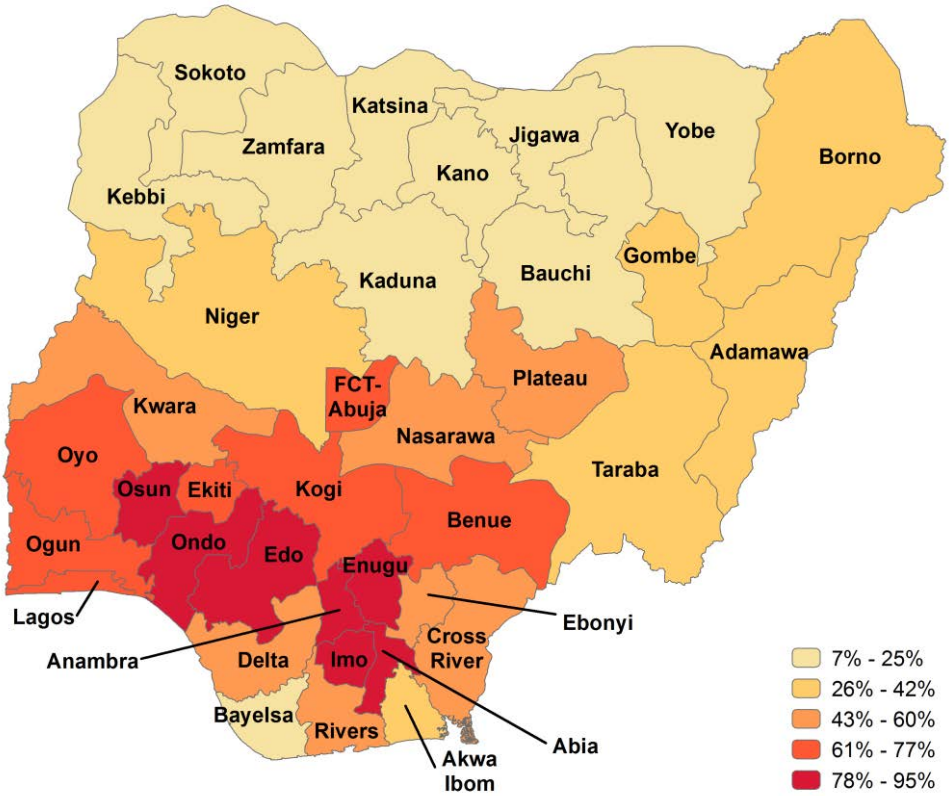


Figure 9.5 **Health facility births by state**

Percentage of live births in the 5 years before the survey that were delivered in a health facility



- Facility deliveries are lowest in the North West (16%) and highest in the South East (82%). By state, the percentage of facility deliveries ranges from 7% in Kebbi to 95% in Imo (**Figure 9.5**).

9.4.2 Skilled Assistance during Delivery

Skilled assistance during delivery

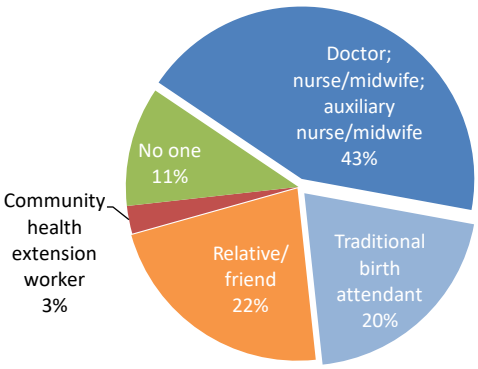
Births delivered with the assistance of doctors, nurses/midwives, and auxiliary nurses/midwives.

Sample: All live births in the 5 years before the survey

Assistance from a skilled birth attendant during delivery is considered a key factor in reducing maternal and neonatal mortality. In Nigeria, less than half (43%) of deliveries are assisted by a skilled provider (32% by nurses/midwives and 9% by doctors) (**Table 9.6**). Unskilled providers such as traditional birth attendants assist in 20% of deliveries, while 11% of births receive no assistance (**Table 9.6** and **Figure 9.6**). It is important to note that relatives of pregnant women assist in 22% of deliveries.

***Figure 9.6* Assistance during delivery**

Percent distribution of births in the 5 years before the survey



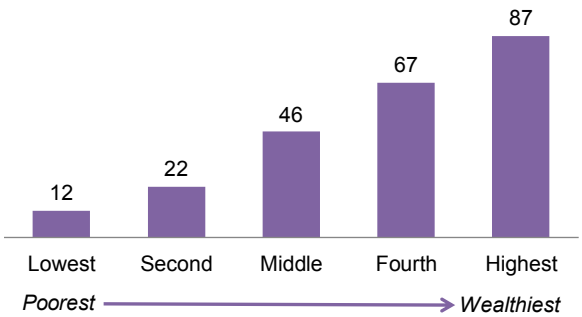
Trends: The proportion of births assisted by skilled birth attendants has increased over the past decade, from 39% in 2008 to 43% in 2018. Meanwhile, the proportion of deliveries attended by traditional birth attendants has declined during the last 5 years, from 22% in 2013 to 20% in 2018.

Patterns by background characteristics

- First-order births (56%) are more likely than sixth- and higher-order births (25%) to be delivered by a skilled provider (**Table 9.6**).
- Sixty-eight percent of births in urban areas are assisted by a skilled provider, as compared with 28% in rural areas.
- Only 18% of births in the North West are attended by a skilled provider, compared with 85% each in the South East and South West. The proportion of deliveries with skilled assistance ranges from 3% in Kebbi to 98% in Imo.
- The proportion of births attended by skilled providers increases with increasing mother's education, from 14% among births to mothers with no education to 93% among births to mothers with more than a secondary education.
- Wealth quintile is another important factor associated with skilled delivery assistance, with a remarkable gap between births in the lowest quintile (12%) and those in the highest quintile (87%) (**Figure 9.7**).

***Figure 9.7* Skilled assistance at delivery by household wealth**

Percentage of live births in the 5 years before the survey assisted by a skilled provider



9.4.3 Delivery by Caesarean

Access to caesarean sections can reduce maternal and neonatal mortality and complications of labour. WHO advises that caesarean sections be done only when medically necessary and does not recommend a target rate for countries to achieve at the population level. Research conducted by WHO has found that increases in countries' caesarean section rates up to 10% are associated with a decline in maternal and neonatal mortality. However, increases in caesarean section rates beyond 10% are not associated with reductions in maternal and newborn mortality rates (WHO 2015a). The caesarean section delivery rate in Nigeria is 3%. For 2% of total births, the decision to have a caesarean section was made after the onset of labour, while for 1% of births the decision was made before the onset of labour (**Table 9.7**). The major

reason for choosing to have a caesarean section is a medical condition experienced by the mother (57%) (**Table 9.8**).

Trends: There has been little change over the years in the proportion of births delivered by caesarean section (3% in 1990, 2% in 2008, and 3% in 2018).

Patterns by background characteristics

- Caesarean section deliveries are most common (5%) among first-order births and decrease as birth order increases.
- Caesarean section delivery rates are higher in urban areas (5%) than in rural areas (1%).
- The caesarean section rate is lowest in the North West and North East (1%) and highest in the South West (7%). By state, the rate ranges from a high of 13% in Lagos to a low of less than 1% each in Zamfara, Sokoto, Kebbi, and Yobe.
- The proportion of C-sections deliveries increases with increasing education and wealth (**Table 9.7**).

Duration of Stay in Health Facility after Birth

Table 9.9 shows that about one-third (34%) of women who had a vaginal delivery in a health facility were discharged within 6 hours of delivery. Among women who gave birth by C-section, 94% stayed at the health facility for 3 or more days, as compared with only 7% of women who had a vaginal birth.

9.4.4 Referral to Place of Delivery

Functioning referral systems are an important part of maternal and newborn health care provision. Patients receiving care and treatment in primary health care centres should be able to access secondary- and tertiary-level facilities for more advanced services as the situation requires. Referral is the process by which clients' needs for health services are assessed and prioritized and clients are provided with assistance to access services. The process requires facility- and community-level support services for clients and requires that care providers have a working knowledge of the availability and locations of these services. Referrals should also include proactive actions necessary to facilitate initial contacts with support service providers.

The maternity referral rate from one health facility to another for the most recent birth in the 5 years preceding the survey was 2%. Three in 1,000 live births were referred to a health facility from another non-facility location during the same period. The majority of live births (97%) were not referred but came directly from home to the health facility (**Table 9.10**).

Patterns by background characteristics

- Every 14 out of 1,000 births taking place at public health facilities were referred from another facility. Similarly, every 18 out of 1,000 births at private facilities were referred from another facility.
- Among live births that took place in a public facility, 2 of 1,000 were referred from another non-facility location; among births occurring in a private facility, 6 of 1,000 were referred from a non-facility location.
- Rates of referral from another health facility are 17 in 1,000 births in urban areas and 15 in 1,000 births in rural areas.

9.4.5 Reasons for Referral and Time Taken

Pregnant women of childbearing age should receive or be referred for reproductive health services including comprehensive emergency obstetric care (CEmOC) services, postpartum family planning, prevention of mother-to-child transmission of HIV (PMTCT), and adolescent pregnancy health care services. Referral to a high-level facility capable of managing obstetric and newborn complications can prevent maternal and neonatal mortality.

Table 9.11 shows that the most common reason for delivery referrals is a problem during labour/emergency (68%), followed by non-availability of a health professional (14%). In the majority of delivery referrals (58%) in the 5 years preceding the survey, the time taken to decide on the referral and reach the facility was more than 1 hour. A quarter of births (25%) were accompanied by a health provider when they were referred to the facility.

9.4.6 Means of Transportation to Health Facility

Prompt and reliable transportation is important for improved outcomes when complications during childbirth occur. Three common delays affect women's ability to access quality and life-saving care: (1) delays in recognizing illness and deciding to seek care, (2) delays in reaching an appropriate source of care, and (3) delays in receiving adequate care. In rural areas of Nigeria, major health facilities are far away from communities, roads are bad, and populations are sparse. These factors are significant contributors to delays in reaching an appropriate source of care.

The 2018 NDHS results show that motorcycles/scooters are the most common means of transportation, used for 31% of births that took place in a health facility. Ambulances were used for just 3 in 1,000 births (**Table 9.12**).

9.4.7 Thermal Care for Newborns

To prevent hypothermia, newborns should be kept warm. Skin-to-skin care, immediate drying, and delayed bathing are key interventions that can help newborns regulate their temperature. Among the most recent live births in the 2 years preceding the survey, 12% of newborns had skin-to-skin contact immediately after birth, 77% were wiped dry within minutes after birth, and 13% were bathed 24 or more hours after birth (**Table 9.13**).

Patterns by background characteristics

- Fourteen percent of newborns delivered in urban areas receive skin-to-skin thermal care, as compared with 11% of newborns delivered in rural areas.
- Eighteen percent of live births delivered at health facilities receive skin-to-skin thermal care, compared with 8% of births delivered elsewhere.
- Among live births delivered at a health facility, 22% were bathed 24 or more hours after birth as recommended by national guidelines. On the contrary, 78% of newborns not delivered in a health facility were bathed less than 6 hours after birth.
- Mother's education plays an important role in newborns receiving appropriate care. Newborns whose mothers had more than a secondary education were more likely to have skin-to-skin contact immediately after birth than newborns whose mothers had no education (20% versus 9%).

9.4.8 Cord Care

Cord care is an important process that, if not done, can lead to infection. Signs of infection of the umbilical cord stump include a red or swollen base, continued bleeding, yellowish oozing or white pus, and a foul-

smelling discharge. Omphalitis, a potentially life-threatening infection of the umbilical cord, can cause neonatal sepsis and eventually death. Omphalitis is considered a serious condition and needs to be treated immediately.

Eleven percent of most recent live births in the 2 years preceding the survey had chlorhexidine applied to the cord (**Table 9.14**). However, only 9% had chlorohexidine applied within 24 hours of birth (**Table 9.15**). Thirty-eight percent of newborns had nothing applied to the cord, while 32% had other antiseptic materials applied (**Table 9.14)**. It is encouraging to note that 78% of newborns had nothing harmful applied to the cord after birth.

Patterns by background characteristics

- First-order births more often had chlorhexidine applied to the cord than sixth- or higher-order births (13% and 9%, respectively).
- Proper cord care practices (i.e., nothing harmful being applied to the cord) were more likely for deliveries taking place in a health facility than for deliveries occurring elsewhere (84% and 73%, respectively).
- Sixteen percent of births in urban areas had chlorhexidine applied to the cord, as compared with only 8% of births in rural areas.

9.5 Postnatal Care

9.5.1 Postnatal Health Check for Mothers

Globally, approximately half of maternal deaths occur within the first 24 hours after delivery. In line with WHO guidelines, Nigeria's safe motherhood programme recommends that women who deliver in a health facility receive a postnatal health care check within the first 24 hours after delivery, while those who give birth outside a health facility should be referred for postnatal checks in health facilities within 12 hours after delivery.

In Nigeria, 42% of mothers who gave birth in the 2 years preceding the survey reported seeing someone for a check within the first 2 days after birth, with 36% reporting that they were checked within 4 hours after giving birth (**Table 9.16**). Most women (35%) receiving postnatal care reported seeing a doctor, nurse, or midwife for their postnatal check (**Table 9.17**).

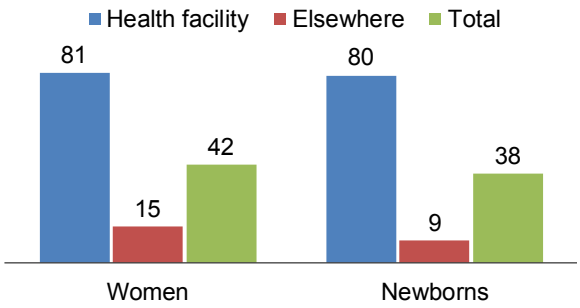
Trends: The proportion of women age 15-49 with a live birth in the 2 years preceding survey who received a postnatal check within 2 days after delivery has increased over the last decade, from 30% in 2008 to 42% in 2018.

Patterns by background characteristics

- The higher the birth order, the less likely a woman will have a postnatal check during the first 2 days after birth
- Women who deliver in a health facility (81%) are more likely to receive a postnatal health check within 2 days of delivery than women who deliver elsewhere (15%) (**Figure 9.8**).

Figure 9.8 **Postnatal care by place of delivery**

Percentage of last births in the 2 years before the survey for which women and newborns received a postnatal check during the first 2 days after birth



- Women in urban areas are more likely than those in rural areas to receive a postnatal check during the first 2 days after delivery (61% and 30%, respectively).
- The proportion of women with a postnatal check during the first 2 days after birth increases with increasing education and wealth.

9.5.2 Postnatal Health Check for Newborns

Proper care for newborns is essential to reduce neonatal problems and death. According to the World Health Organization, postnatal care services for newborns should start immediately after birth because many neonatal deaths occur within the first 48 hours of life (WHO 2015b).

Thirty-eight percent of infants born in the 2 years before the survey received a postnatal check during the first 2 days after birth; however, 60% did not receive a postnatal check (**Table 9.18**). The majority (33%) of babies who received a postnatal check were seen by a doctor, nurse, or midwife (**Table 9.19**). A quarter of newborns (25%) had at least two signal functions performed during the first 2 days after birth (**Table 9.20**).

Patterns by background characteristics

- Newborns delivered in a health facility were more likely to receive a postnatal health check within 2 days of birth than those delivered elsewhere (80% and 9%, respectively) (**Figure 9.8**).
- Only 17% of newborns in the North West received postnatal care during the first 2 days after birth, compared with 72% of newborns in the South West.
- By state, the proportion of newborns receiving postnatal care during the first 2 days after birth ranged from 6% in Kebbi to 82% in Osun.
- Socioeconomic disparities exist among women whose babies received a postnatal check. Seventy-seven percent of babies born to women with more than a secondary education received postnatal care within the first 2 days after birth, as compared with only 16% of babies born to women with no education. Babies born to women in the lowest wealth quintile were much less likely (15%) to receive postnatal care within 2 days of birth than babies born to women in the highest quintile (71%).
- The proportion of newborns with at least two signal functions performed increases with mother's age at birth, mother's education, and wealth quintile but decreases with birth order (**Table 9.20**).

9.6 Problems in Accessing Health Care

Problems in accessing health care

Women were asked whether each of the following factors is a big problem in seeking medical advice or treatment for themselves when they are sick:

- Getting permission to go to the doctor
- Getting money for advice or treatment
- Distance to a health facility
- Not wanting to go alone

Sample: Women age 15-49

More than half of women (52%) in Nigeria report at least one problem associated with accessing health care for themselves. The least and most common problems women face in accessing health care are getting permission to go for treatment (11%) and getting money for treatment (46%), respectively (**Table 9.21**).

Patterns by background characteristics

- More women in rural areas (60%) than urban areas (42%) have problems in accessing health care.
- Women with five or more children more often reported getting money for treatment (51%) and distance to a health facility (29%) as problems than women with no children (42% and 22%, respectively).
- Overall, women from the North East more often reported having at least one problem in accessing health care than those from the South West (69% versus 37%) (**Table 9.21**). The proportion of women reporting at least one problem in accessing health care ranges from a low of 13% in Osun to a high of 91% in Adamawa.
- The proportion of women who reported at least one problem in accessing health care decreases with increasing education and wealth.

9.7 FISTULA

Obstetric fistula, a complication that arises from obstructed or prolonged labour, creates a hole or opening in the birth canal. Prolonged obstructed labour that does not receive prompt medical care stops the blood supply to the tissues of the vagina, bladder, and/or rectum. Unrelieved obstructed labour can compress a woman's bladder, urethra, rectum, and vaginal wall between the foetal head and maternal pubis. This compression and the resultant loss of blood supply produce necrosis of the compressed tissues. Necrosis then causes uncontrolled leakage of urine from the bladder through the vagina (vesico-vaginal fistula) and leakage of stool from the vagina (recto-vaginal fistula) (HERA and ICRH 2010).

The 2018 NDHS included a series of questions on fistula that measured awareness levels, estimated the prevalence of fistula among Nigerian women, and examined events that can precipitate fistula symptoms and access to treatment.

The findings indicate that 31% of women have heard of fistula symptoms, while less than 1% have experienced such symptoms (data not shown separately). The percentage of women with knowledge of fistula has remained stagnant at 31% over the last decade.

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Table 9.1 Antenatal care

Percent distribution of women age 15-49 who had a live birth in the 5 years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth and percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, Nigeria DHS 2018

Background characteristic	Antenatal care provider						No ANC	Total	Percentage receiving antenatal care from a skilled provider[1]	Number of women
	Doctor	Nurse/ midwife	Auxiliary nurse/ midwife	Other health worker	Traditional birth attendant	Other				
Age at birth										
<20	8.9	45.8	2.7	8.4	1.4	0.8	32.0	100.0	57.4	2,672
20-34	18.9	48.2	2.2	6.5	1.2	0.8	22.3	100.0	69.3	15,151
35-49	16.7	46.2	1.9	5.9	1.1	0.9	27.2	100.0	64.9	4,088
Birth order										
1	23.4	47.9	2.7	5.6	1.6	0.8	18.1	100.0	73.9	3,796
2-3	21.4	48.4	2.0	5.6	1.4	0.8	20.4	100.0	71.8	7,312
4-5	16.5	48.1	2.3	6.7	1.2	0.9	24.3	100.0	67.0	5,161
6+	8.4	45.7	2.2	8.5	0.6	0.9	33.8	100.0	56.3	5,642
Residence										
Urban	30.4	50.9	2.3	3.8	2.0	0.5	10.1	100.0	83.6	8,712
Rural	8.5	45.4	2.2	8.4	0.7	1.0	33.8	100.0	56.1	13,199
Zone										
North Central	19.1	46.2	0.8	5.7	0.2	0.3	27.6	100.0	66.2	3,031
North East	4.4	48.3	5.9	12.0	0.3	0.7	28.5	100.0	58.5	3,862
North West	6.1	47.1	0.7	8.6	0.1	1.1	36.3	100.0	53.9	7,644
South East	32.1	52.8	4.4	5.5	0.6	0.9	3.8	100.0	89.2	2,138
South South	29.5	46.4	1.2	0.6	3.8	0.5	18.0	100.0	77.1	2,019
South West	39.8	46.2	2.2	0.7	4.7	0.9	5.5	100.0	88.2	3,218
State										
North Central										
FCT-Abuja	31.9	55.9	0.0	0.4	0.0	0.0	11.8	100.0	87.7	148
Benue	25.7	47.3	1.0	0.4	0.1	0.0	25.4	100.0	74.1	637
Kogi	36.7	42.6	0.2	2.5	0.3	0.3	17.4	100.0	79.5	299
Kwara	36.6	35.8	0.5	0.7	1.0	0.2	25.3	100.0	72.8	360
Nasarawa	15.2	61.6	0.4	0.5	0.0	0.0	22.4	100.0	77.1	329
Niger	3.3	36.6	1.6	17.3	0.1	0.4	40.7	100.0	41.5	844
Plateau	11.9	60.1	0.3	2.8	0.0	1.1	23.7	100.0	72.4	415
North East										
Adamawa	0.7	80.8	0.6	1.9	0.4	0.2	15.4	100.0	82.1	518
Bauchi	3.0	46.0	2.6	15.0	0.2	0.1	33.1	100.0	51.6	919
Borno	3.7	44.2	2.9	11.5	0.0	0.1	37.6	100.0	50.7	732
Gombe	1.9	16.9	27.6	26.2	1.6	0.4	25.4	100.0	46.4	444
Taraba	7.2	49.1	1.1	21.6	0.0	0.6	20.4	100.0	57.4	495
Yobe	8.9	50.8	6.6	1.0	0.0	2.5	30.2	100.0	66.3	755
North West										
Jigawa	0.2	77.6	0.8	0.9	0.0	0.0	20.5	100.0	78.6	898
Kaduna	7.9	59.9	1.2	0.1	0.1	0.8	30.0	100.0	69.0	1,453
Kano	13.8	51.0	0.5	17.9	0.1	0.3	16.4	100.0	65.3	1,682
Katsina	6.9	46.1	0.0	0.0	0.0	0.2	46.8	100.0	53.1	1,440
Kebbi	0.2	13.7	0.8	36.4	0.1	0.9	47.9	100.0	14.7	716
Sokoto	0.2	22.0	2.1	12.5	0.2	9.9	53.1	100.0	24.3	608
Zamfara	1.9	33.3	0.0	1.2	0.0	0.0	63.6	100.0	35.2	848
South East										
Abia	22.9	71.9	0.4	0.0	0.6	0.3	3.8	100.0	95.2	259
Anambra	36.6	52.9	3.7	0.6	0.9	2.0	3.3	100.0	93.3	664
Ebonyi	27.6	32.9	9.8	22.8	0.8	0.6	5.6	100.0	70.3	493
Enugu	21.9	72.0	0.8	0.4	0.3	0.9	3.7	100.0	94.7	317
Imo	43.9	49.5	4.0	0.1	0.0	0.0	2.4	100.0	97.4	405
South South										
Akwa Ibom	30.8	43.3	0.4	0.0	5.7	0.9	19.0	100.0	74.5	360
Bayelsa	10.2	40.9	0.3	0.3	1.0	0.0	47.4	100.0	51.4	144
Cross River	20.5	59.0	0.0	1.1	3.3	0.1	16.0	100.0	79.5	231
Delta	21.9	51.1	0.2	1.1	1.6	1.3	22.8	100.0	73.2	408
Edo	29.7	59.3	0.2	1.6	0.7	0.0	8.5	100.0	89.2	270
Rivers	41.7	35.8	3.5	0.0	6.5	0.2	12.3	100.0	81.0	606
South West										
Ekiti	24.8	64.5	1.3	0.0	0.5	2.0	6.8	100.0	90.6	226
Lagos	47.6	37.3	1.5	0.0	9.2	0.4	4.0	100.0	86.4	1,142
Ogun	34.4	46.9	3.6	3.8	5.2	2.2	3.8	100.0	85.0	423
Ondo	34.4	55.9	1.7	0.1	2.8	0.7	4.4	100.0	92.0	312
Osun	42.4	54.0	0.5	1.0	0.6	0.2	1.2	100.0	96.9	409
Oyo	36.0	45.5	3.9	0.3	1.4	1.2	11.7	100.0	85.4	706

Continued...

Table 9.1—*Continued*

Background characteristic	Antenatal care provider						No ANC	Total	Percentage receiving antenatal care from a skilled provider[1]	Number of women
	Doctor	Nurse/ midwife	Auxiliary nurse/ midwife	Other health worker	Traditional birth attendant	Other				
Education										
No education	4.2	38.8	2.2	10.2	0.3	1.2	43.2	100.0	45.2	9,738
Primary	14.4	57.3	2.8	6.1	2.4	0.7	16.2	100.0	74.6	3,293
Secondary	27.2	56.1	2.5	3.4	2.1	0.6	8.2	100.0	85.7	6,962
More than secondary	52.1	44.5	0.7	1.2	0.5	0.1	1.0	100.0	97.3	1,919
Wealth quintile										
Lowest	3.4	34.8	2.3	9.7	0.3	1.7	47.8	100.0	40.5	4,716
Second	6.3	43.8	2.8	10.7	0.5	0.9	35.1	100.0	52.8	4,850
Middle	13.3	56.7	2.6	6.9	0.9	0.5	19.2	100.0	72.5	4,448
Fourth	25.2	57.2	2.0	3.1	2.3	0.5	9.8	100.0	84.3	4,103
Highest	44.6	47.2	1.3	0.9	2.3	0.4	3.2	100.0	93.1	3,794
Total	17.2	47.6	2.2	6.6	1.2	0.8	24.4	100.0	67.0	21,911

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.
[1] Skilled provider includes doctor, nurse, midwife, and auxiliary nurse/midwife.

Table 9.2 Number of antenatal care visits and timing of first visit

Percent distribution of women age 15-49 who had a live birth in the 5 years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, and by the timing of the first visit, and among women with ANC, median months pregnant at first visit, according to residence, Nigeria DHS 2018

Number of ANC visits and timing of first visit	Residence		
	Urban	Rural	Total
Number of ANC visits			
None	10.1	33.8	24.4
1	1.8	3.2	2.6
2-3	11.3	16.7	14.5
4+	73.7	45.7	56.8
Don't know/missing	3.1	0.6	1.6
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	10.1	33.8	24.4
<4	24.4	14.3	18.3
4-5	43.9	31.1	36.2
6-7	19.6	18.6	19.0
8+	1.8	2.2	2.0
Don't know/missing	0.2	0.1	0.1
Total	100.0	100.0	100.0
Number of women	8,712	13,199	21,911
Median months pregnant at first visit (for those with ANC)	4.8	5.2	5.0
Number of women with ANC	7,834	8,741	16,575

Table 9.3 Components of antenatal care

Among women age 15-49 with a live birth in the 5 years preceding the survey, percentage who took iron tablets or syrup and drugs for intestinal parasites during the pregnancy of the most recent live birth, and among women receiving antenatal care (ANC) for the most recent live birth in the 5 years preceding the survey, percentage receiving specific antenatal services, according to background characteristics, Nigeria DHS 2018

	Among women with a live birth in the past 5 years, percentage who during the pregnancy of their most recent live birth:			Among women who received antenatal care for their most recent birth in the past 5 years, percentage with selected services			
Background characteristic	Took iron tablets or syrup	Took intestinal parasite drugs	Number of women with a live birth in the past 5 years	Blood pressure measured	Urine sample taken	Blood sample taken	Number of women with ANC for their most recent birth
Age at birth							
<20	62.9	14.7	2,672	90.9	82.9	82.6	1,818
20-34	71.0	17.6	15,151	94.3	86.7	88.4	11,779
35-49	67.2	14.8	4,088	94.4	87.1	87.7	2,978
Birth order							
1	73.3	18.6	3,796	93.7	87.0	87.6	3,111
2-3	71.8	17.2	7,312	94.4	88.1	88.5	5,819
4-5	69.6	17.1	5,161	94.0	85.8	87.6	3,908
6+	63.3	14.5	5,642	93.2	83.6	86.2	3,737
Residence							
Urban	80.1	18.6	8,712	96.1	91.2	92.1	7,834
Rural	62.2	15.5	13,199	92.0	82.0	83.6	8,741
Zone							
North Central	66.8	15.5	3,031	95.3	93.0	91.3	2,193
North East	69.1	21.6	3,862	94.4	79.8	80.3	2,761
North West	61.5	11.8	7,644	92.9	86.7	87.3	4,869
South East	93.3	19.5	2,138	95.5	86.6	91.2	2,057
South South	66.9	19.4	2,019	89.3	81.3	84.6	1,655
South West	76.1	20.3	3,218	95.5	89.6	91.3	3,040
State							
North Central							
FCT-Abuja	67.1	15.0	148	98.5	96.7	96.8	131
Benue	65.8	31.0	637	99.0	98.7	96.2	475
Kogi	63.3	18.6	299	95.2	95.3	90.1	247
Kwara	73.7	10.7	360	97.9	94.2	94.2	269
Nasarawa	76.6	22.0	329	95.8	97.8	97.7	255
Niger	60.3	2.1	844	91.8	88.4	86.3	501
Plateau	69.9	15.7	415	91.8	83.7	82.8	316
North East							
Adamawa	82.8	41.4	518	98.8	90.2	76.6	438
Bauchi	69.3	16.7	919	94.5	81.9	87.2	615
Borno	58.5	9.5	732	96.8	93.0	85.7	456
Gombe	72.6	12.5	444	94.0	84.5	87.8	332
Taraba	56.7	14.1	495	93.0	64.3	70.9	394
Yobe	75.6	35.7	755	90.1	66.0	73.1	527
North West							
Jigawa	78.5	20.1	898	95.6	92.7	92.3	714
Kaduna	67.8	10.5	1,453	90.4	79.1	74.8	1,017
Kano	79.8	10.8	1,682	93.6	89.2	91.0	1,405
Katsina	52.2	12.0	1,440	90.7	89.8	90.2	766
Kebbi	52.9	18.3	716	95.8	79.9	91.7	373
Sokoto	37.0	5.7	608	90.2	85.7	81.3	285
Zamfara	37.4	6.3	848	95.3	87.2	93.1	309
South East							
Abia	87.5	32.9	259	95.0	93.1	95.6	249
Anambra	96.3	14.7	664	97.3	97.3	95.3	643
Ebonyi	88.8	20.6	493	93.8	66.2	81.6	465
Enugu	97.6	20.2	317	96.2	92.5	94.5	305
Imo	94.0	16.9	405	94.4	84.7	90.6	395
South South							
Akwa Ibom	76.2	32.4	360	89.6	79.4	88.6	291
Bayelsa	54.9	21.5	144	93.8	96.2	95.6	76
Cross River	57.9	32.6	231	88.4	79.3	85.7	194
Delta	69.5	9.0	408	92.9	84.3	85.9	315
Edo	50.2	12.8	270	95.0	87.6	88.2	247
Rivers	73.4	16.0	606	84.2	76.1	77.9	532
South West							
Ekiti	90.5	11.7	226	98.1	84.3	94.9	210
Lagos	53.0	18.1	1,142	91.8	86.4	87.8	1,096
Ogun	90.5	31.3	423	97.0	89.6	87.5	407
Ondo	86.4	5.2	312	95.6	85.1	88.1	299
Osun	95.2	27.1	409	98.3	91.7	95.5	404
Oyo	84.8	22.5	706	98.3	97.5	97.4	623

Continued...

Table 9.3—*Continued*

Background characteristic	Among women with a live birth in the past 5 years, percentage who during the pregnancy of their most recent live birth:			Among women who received antenatal care for their most recent birth in the past 5 years, percentage with selected services			
	Took iron tablets or syrup	Took intestinal parasite drugs	Number of women with a live birth in the past 5 years	Blood pressure measured	Urine sample taken	Blood sample taken	Number of women with ANC for their most recent birth
Education							
No education	54.6	11.2	9,738	91.9	81.2	82.4	5,528
Primary	75.4	19.5	3,293	91.4	83.1	85.6	2,758
Secondary	82.1	21.7	6,962	95.3	89.2	90.2	6,389
More than secondary	87.1	21.7	1,919	98.6	96.5	96.8	1,900
Wealth quintile							
Lowest	51.2	11.7	4,716	90.0	76.2	78.6	2,463
Second	60.3	13.5	4,850	92.1	80.6	83.0	3,147
Middle	75.8	18.8	4,448	93.6	86.2	86.7	3,593
Fourth	82.2	20.5	4,103	95.2	90.4	91.5	3,699
Highest	81.8	20.6	3,794	97.1	94.1	94.6	3,672
Total	69.3	16.7	21,911	93.9	86.4	87.6	16,575

Table 9.4 Tetanus toxoid injections

Among mothers age 15-49 with a live birth in the 5 years preceding the survey, percentage receiving two or more tetanus toxoid injections during the pregnancy for the most recent live birth and percentage whose last live birth was protected against neonatal tetanus, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage receiving two or more injections during the pregnancy for the last live birth	Percentage whose most recent live birth was protected against neonatal tetanus[1]	Number of mothers
Age at birth			
<20	44.7	48.7	2,672
20-34	54.7	64.1	15,151
35-49	51.4	61.1	4,088
Birth order			
1	59.9	64.2	3,796
2-3	56.6	67.0	7,312
4-5	53.2	63.0	5,161
6+	43.0	51.9	5,642
Residence			
Urban	64.8	77.4	8,712
Rural	45.0	51.3	13,199
Zone			
North Central	51.3	57.9	3,031
North East	46.6	54.0	3,862
North West	38.3	45.7	7,644
South East	84.1	92.0	2,138
South South	67.8	75.7	2,019
South West	66.4	83.2	3,218
State			
North Central			
FCT-Abuja	62.6	70.8	148
Benue	64.4	68.5	637
Kogi	59.3	67.3	299
Kwara	56.2	65.6	360
Nasarawa	48.6	66.5	329
Niger	37.2	39.8	844
Plateau	48.3	53.6	415
North East			
Adamawa	71.0	74.4	518
Bauchi	45.7	47.6	919
Borno	24.8	42.0	732
Gombe	43.2	61.4	444
Taraba	46.2	49.6	495
Yobe	54.5	58.1	755
North West			
Jigawa	51.2	57.8	898
Kaduna	44.3	50.9	1,453
Kano	48.7	65.3	1,682
Katsina	37.4	42.5	1,440
Kebbi	22.4	23.5	716
Sokoto	22.2	28.6	608
Zamfara	19.9	21.9	848
South East			
Abia	88.8	93.6	259
Anambra	90.2	93.4	664
Ebonyi	71.5	87.3	493
Enugu	80.8	89.0	317
Imo	89.4	96.9	405
South South			
Akwa Ibom	58.7	69.5	360
Bayelsa	23.1	52.2	144
Cross River	66.2	71.3	231
Delta	70.0	76.3	408
Edo	73.3	82.1	270
Rivers	80.6	83.2	606
South West			
Ekiti	78.8	88.2	226
Lagos	76.7	84.1	1,142
Ogun	67.0	83.2	423
Ondo	75.9	82.0	312
Osun	78.2	80.9	409
Oyo	34.6	82.3	706

Continued...

Table 9.4—*Continued*

Background characteristic	Percentage receiving two or more injections during the pregnancy for the last live birth	Percentage whose most recent live birth was protected against neonatal tetanus[1]	Number of mothers
Education			
No education	34.1	40.4	9,738
Primary	57.9	67.6	3,293
Secondary	70.2	80.9	6,962
More than secondary	76.5	89.7	1,919
Wealth quintile			
Lowest	33.4	38.2	4,716
Second	42.3	48.4	4,850
Middle	54.8	64.6	4,448
Fourth	65.4	77.3	4,103
Highest	74.9	87.3	3,794
Total	52.9	61.7	21,911

[1] Includes mothers with two injections during the pregnancy of their most recent live birth, or two or more injections (the last within 3 years of the most recent live birth), or three or more injections (the last within 5 years of the most recent live birth), or four or more injections (the last within 10 years of the most recent live birth), or five or more injections at any time prior to the most recent birth

Table 9.5 Place of delivery

Percent distribution of live births in the 5 years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Nigeria DHS 2018

Background characteristic	Health facility		Home	Other	Total	Percentage delivered in a health facility	Number of births
	Public sector	Private sector					
Mother's age at birth							
<20	22.9	5.7	70.2	1.2	100.0	28.6	4,677
20-34	27.4	14.1	56.8	1.7	100.0	41.5	24,392
35-49	24.5	14.5	59.4	1.6	100.0	39.0	5,124
Birth order							
1	34.2	18.3	45.7	1.7	100.0	52.6	6,694
2-3	29.2	15.7	53.1	2.0	100.0	44.9	11,545
4-5	24.6	12.5	61.1	1.8	100.0	37.1	7,855
6+	17.5	5.3	76.3	0.9	100.0	22.8	8,098
Antenatal care visits[1]							
None	3.9	1.8	93.2	1.1	100.0	5.7	5,336
1-3	22.6	5.5	70.8	1.1	100.0	28.1	3,761
4+	39.4	19.9	38.4	2.3	100.0	59.3	12,456
Don't know/missing	36.8	37.4	21.9	3.9	100.0	74.2	358
Residence							
Urban	37.2	23.9	36.3	2.6	100.0	61.1	13,170
Rural	19.6	6.2	73.2	1.0	100.0	25.8	21,023
Zone							
North Central	34.1	15.1	50.1	0.7	100.0	49.2	4,619
North East	23.6	1.8	74.5	0.1	100.0	25.4	6,213
North West	14.0	1.6	84.4	0.0	100.0	15.6	12,558
South East	37.3	44.5	17.2	1.0	100.0	81.8	3,428
South South	31.5	18.7	43.8	6.0	100.0	50.2	2,968
South West	45.5	30.8	16.8	6.9	100.0	76.3	4,407
State							
North Central							
FCT-Abuja	46.9	16.2	36.5	0.4	100.0	63.2	225
Benue	43.2	23.9	32.6	0.3	100.0	67.1	949
Kogi	33.2	39.1	26.1	1.6	100.0	72.4	451
Kwara	35.9	19.3	42.8	2.1	100.0	55.1	533
Nasarawa	44.8	5.0	50.2	0.0	100.0	49.8	521
Niger	24.0	1.8	74.2	0.0	100.0	25.8	1,312
Plateau	27.1	16.8	54.7	1.4	100.0	43.9	628
North East							
Adamawa	37.7	1.1	60.7	0.4	100.0	38.9	786
Bauchi	19.9	1.9	78.1	0.1	100.0	21.8	1,469
Borno	24.6	1.6	73.8	0.0	100.0	26.2	1,219
Gombe	26.6	1.1	72.2	0.1	100.0	27.7	728
Taraba	23.6	6.4	69.8	0.2	100.0	30.0	758
Yobe	16.2	0.0	83.8	0.0	100.0	16.2	1,253
North West							
Jigawa	19.6	0.5	79.9	0.0	100.0	20.1	1,497
Kaduna	13.8	3.8	82.3	0.1	100.0	17.6	2,402
Kano	16.4	2.8	80.8	0.0	100.0	19.2	2,738
Katsina	16.0	0.4	83.5	0.0	100.0	16.5	2,428
Kebbi	7.4	0.0	92.6	0.0	100.0	7.4	1,228
Sokoto	7.6	0.2	92.2	0.0	100.0	7.8	978
Zamfara	9.8	1.0	89.2	0.0	100.0	10.8	1,287
South East							
Abia	53.7	38.3	6.3	1.7	100.0	92.0	426
Anambra	37.5	52.9	9.2	0.3	100.0	90.4	1,045
Ebonyi	35.7	20.8	41.6	1.9	100.0	56.5	814
Enugu	43.5	36.1	19.2	1.2	100.0	79.5	486
Imo	23.6	70.9	5.1	0.4	100.0	94.5	657
South South							
Akwa Ibom	25.8	8.9	55.3	10.0	100.0	34.7	522
Bayelsa	22.4	0.4	76.5	0.7	100.0	22.9	217
Cross River	44.1	8.5	42.4	5.1	100.0	52.6	318
Delta	38.7	16.1	41.3	3.8	100.0	54.9	595
Edo	39.8	40.3	17.6	2.3	100.0	80.1	411
Rivers	24.0	24.1	43.5	8.3	100.0	48.2	906
South West							
Ekiti	57.7	14.1	22.6	5.6	100.0	71.8	329
Lagos	27.4	48.3	15.6	8.7	100.0	75.7	1,545
Ogun	47.6	25.7	21.3	5.3	100.0	73.4	586
Ondo	67.8	12.9	12.2	7.1	100.0	80.7	423
Osun	62.8	28.8	5.6	2.8	100.0	91.6	549
Oyo	49.4	20.7	22.3	7.7	100.0	70.1	976

Continued...

Table 9.5—*Continued*

Background characteristic	Health facility		Home	Other	Total	Percentage delivered in a health facility	Number of births
	Public sector	Private sector					
Mother's education							
No education	12.3	1.5	86.0	0.2	100.0	13.8	15,858
Primary	29.9	10.6	56.4	3.1	100.0	40.5	5,103
Secondary	40.0	24.6	32.2	3.1	100.0	64.6	10,413
More than secondary	48.7	39.0	10.8	1.5	100.0	87.7	2,818
Wealth quintile							
Lowest	9.9	1.7	88.0	0.4	100.0	11.6	7,572
Second	16.7	4.4	78.3	0.6	100.0	21.1	7,782
Middle	29.6	10.7	58.1	1.7	100.0	40.3	7,043
Fourth	39.9	19.2	37.8	3.0	100.0	59.2	6,254
Highest	43.0	36.5	17.4	3.1	100.0	79.5	5,541
Total	26.4	13.0	59.0	1.6	100.0	39.4	34,193

[1] Includes only the most recent birth in the 5 years preceding the survey

Table 9.6 Assistance during delivery

Percent distribution of live births in the 5 years preceding the survey by person providing assistance during delivery, percentage of births assisted by a skilled provider, and among births delivered by skilled providers, percentage whose mothers received an injection in the thigh or buttock immediately after delivery, according to background characteristics, Nigeria DHS 2018

	Person providing assistance during delivery										Among deliveries by a skilled provider	
Background characteristic	Doctor	Nurse/ midwife	Auxiliary nurse/ midwife	Commu-nity health extension worker	Tradi-tional birth attendant	Relative/ other	No one	Total	Percent-age delivered by a skilled provider[1]	Number of births	Percent-age of mothers receiving an injection in thigh or buttock imme-diately after delivery	Number of births delivered by a skilled provider
Mother's age at birth												
<20	4.0	24.1	3.5	2.6	25.7	32.1	8.1	100.0	30.7	4,677	78.5	1,435
20-34	9.8	33.3	2.7	2.7	19.4	21.2	11.0	100.0	45.8	24,392	80.8	11,176
35-49	10.4	29.8	2.8	2.4	20.8	18.7	15.1	100.0	42.6	5,124	83.3	2,183
Birth order												
1	14.5	39.0	3.1	2.8	16.5	20.7	3.3	100.0	56.4	6,694	78.2	3,774
2-3	11.0	35.6	2.7	3.1	18.1	21.8	7.7	100.0	49.7	11,545	81.1	5,737
4-5	7.7	31.0	2.5	2.6	20.2	23.2	12.8	100.0	41.2	7,855	82.8	3,238
6+	3.4	19.9	2.9	2.0	27.2	23.5	21.1	100.0	25.3	8,098	82.7	2,045
Antenatal care visits[2]												
None	0.9	5.5	1.9	1.5	32.7	37.8	19.7	100.0	7.9	5,336	57.2	421
1-3	3.6	24.8	3.6	2.4	22.4	30.2	13.1	100.0	30.7	3,761	80.2	1,156
4+	14.6	46.7	3.0	3.7	13.1	12.4	6.4	100.0	65.0	12,456	81.5	8,096
Don't know/missing	34.7	46.3	2.0	2.8	10.4	3.4	0.4	100.0	83.9	358	76.7	300
Place of delivery												
Health facility	22.5	70.7	4.3	2.0	0.3	0.1	0.1	100.0	95.1	13,462	83.9	12,808
Public facility	15.9	76.2	5.8	1.4	0.3	0.2	0.1	100.0	93.6	9,012	84.4	8,434
Private facility	35.8	59.4	1.2	3.1	0.4	0.1	0.1	100.0	98.3	4,450	82.9	4,374
Elsewhere	0.4	6.1	1.8	3.1	33.5	36.7	18.4	100.0	9.6	20,730	61.7	1,986
Residence												
Urban	17.5	46.4	2.4	3.8	12.4	12.3	5.3	100.0	67.6	13,170	81.8	8,905
Rural	3.9	22.2	3.1	1.9	25.5	28.6	14.9	100.0	28.0	21,023	79.6	5,889
Zone												
North Central	10.4	39.1	4.3	1.5	2.2	37.8	4.7	100.0	51.0	4,619	82.8	2,357
North East	1.9	21.2	4.5	1.7	16.2	39.4	15.0	100.0	24.8	6,213	85.6	1,542
North West	1.9	15.3	1.9	1.1	36.2	23.5	20.1	100.0	18.2	12,558	77.0	2,290
South East	13.2	66.3	4.8	5.6	3.4	4.8	1.9	100.0	85.2	3,428	91.2	2,919
South South	12.7	46.8	1.0	5.3	29.5	3.4	1.3	100.0	64.8	2,968	70.9	1,923
South West	32.9	47.0	1.0	5.4	7.6	5.0	1.0	100.0	85.4	4,407	77.4	3,764
State												
North Central												
FCT-Abuja	17.8	53.2	0.7	0.6	2.3	22.6	2.8	100.0	71.6	225	72.8	161
Benue	5.2	60.6	5.3	1.8	1.9	24.3	1.0	100.0	67.6	949	91.0	641
Kogi	41.2	31.4	5.0	0.8	4.4	16.7	0.6	100.0	73.4	451	92.4	331
Kwara	13.3	44.3	0.4	4.5	4.7	27.8	4.9	100.0	62.1	533	87.7	331
Nasarawa	9.6	47.5	0.4	0.2	1.5	25.2	15.7	100.0	57.3	521	86.0	298
Niger	1.5	21.9	7.2	1.3	0.8	62.5	4.8	100.0	24.7	1,312	61.3	324
Plateau	10.4	31.8	4.2	0.8	2.1	46.4	4.4	100.0	42.9	628	73.7	270
North East												
Adamawa	0.5	39.2	1.0	0.7	2.7	54.7	1.1	100.0	40.5	786	92.2	318
Bauchi	2.5	18.1	6.3	0.9	25.9	24.2	22.1	100.0	21.6	1,469	79.1	317
Borno	2.0	23.5	4.0	0.4	22.4	42.0	5.6	100.0	25.9	1,219	94.1	316
Gombe	1.6	10.6	9.0	6.7	3.8	43.3	25.1	100.0	18.8	728	72.5	137
Taraba	3.8	25.0	8.5	1.6	6.8	46.9	7.4	100.0	30.4	758	84.6	230
Yobe	1.1	15.0	0.2	1.7	20.3	38.2	23.4	100.0	17.8	1,253	82.8	224
North West												
Jigawa	0.7	20.3	0.4	0.0	23.3	19.7	35.6	100.0	20.9	1,497	84.7	313
Kaduna	3.2	18.8	1.4	4.5	30.2	28.0	13.9	100.0	26.5	2,402	73.9	636
Kano	1.9	18.9	2.7	0.6	44.3	11.5	20.1	100.0	21.5	2,738	90.3	588
Katsina	3.4	15.2	0.5	0.3	54.3	5.8	20.6	100.0	18.9	2,428	71.0	460
Kebbi	0.1	3.0	6.3	0.3	5.5	81.3	3.5	100.0	3.4	1,228	76.1	42
Sokoto	0.3	8.7	3.9	0.1	49.6	12.8	24.6	100.0	9.2	978	65.1	90
Zamfara	0.6	11.8	0.1	0.1	30.5	31.3	25.6	100.0	12.5	1,287	50.0	161
South East												
Abia	10.2	84.6	0.1	1.0	2.2	1.2	0.7	100.0	95.8	426	96.0	408
Anambra	13.1	76.6	1.6	4.9	2.3	0.9	0.6	100.0	94.7	1,045	92.9	989
Ebonyi	11.4	29.0	17.9	11.7	9.3	15.4	5.3	100.0	52.1	814	91.5	424
Enugu	8.9	80.8	0.2	3.2	0.9	4.2	1.8	100.0	93.0	486	90.4	453
Imo	20.7	73.5	0.0	4.0	0.5	0.8	0.5	100.0	98.2	657	85.7	645

Continued...

Table 9.6—*Continued*

Background characteristic	Person providing assistance during delivery										Among deliveries by a skilled provider	
	Doctor	Nurse/ midwife	Auxiliary nurse/ midwife	Commu-nity health extension worker	Tradi-tional birth attendant	Relative/ other	No one	Total	Percent-age delivered by a skilled provider[1]	Number of births	Percent-age of mothers receiving an injection in thigh or buttock imme-diately after delivery	Number of births delivered by a skilled provider
South South												
Akwa Ibom	10.7	28.4	0.0	2.3	54.8	1.2	2.6	100.0	41.4	522	75.1	216
Bayelsa	2.6	22.5	0.0	1.9	71.8	1.2	0.0	100.0	27.0	217	89.8	58
Cross River	11.6	43.5	1.1	0.6	28.2	12.7	2.2	100.0	55.7	318	72.3	177
Delta	13.1	47.6	2.7	6.4	26.1	2.1	1.9	100.0	67.1	595	45.4	400
Edo	19.2	69.0	1.5	0.0	6.2	3.2	0.9	100.0	88.2	411	84.8	363
Rivers	13.3	53.7	0.3	11.3	18.1	2.9	0.5	100.0	78.3	906	75.1	709
South West												
Ekiti	16.1	62.7	0.2	8.4	2.2	8.1	2.4	100.0	87.1	329	88.1	286
Lagos	37.2	43.0	0.0	3.5	12.7	2.9	0.8	100.0	83.6	1,545	63.1	1,292
Ogun	34.1	38.4	4.4	7.4	8.6	6.6	0.5	100.0	79.9	586	66.7	469
Ondo	19.2	63.4	0.2	3.6	5.4	4.7	3.5	100.0	86.1	423	85.0	364
Osun	31.2	62.5	1.1	2.3	0.6	1.6	0.7	100.0	96.0	549	89.2	527
Oyo	38.2	37.6	1.0	8.8	5.8	8.6	0.0	100.0	84.6	976	91.4	826
Mother's education												
No education	1.6	11.8	2.7	1.1	28.7	34.3	19.9	100.0	14.4	15,858	75.7	2,288
Primary	6.8	35.4	3.6	3.6	22.3	20.6	7.7	100.0	45.8	5,103	80.7	2,340
Secondary	14.5	53.2	3.1	4.8	11.7	10.2	2.5	100.0	72.5	10,413	82.9	7,552
More than secondary	35.7	55.4	0.9	1.6	2.5	3.2	0.7	100.0	92.8	2,818	80.2	2,614
Wealth quintile												
Lowest	0.9	9.7	2.7	1.0	29.4	34.1	22.1	100.0	11.7	7,572	78.1	885
Second	2.4	17.4	3.8	2.2	28.9	31.0	14.4	100.0	22.0	7,782	80.0	1,711
Middle	6.4	35.6	3.4	3.6	18.8	22.9	9.3	100.0	45.6	7,043	81.4	3,212
Fourth	13.5	49.6	2.8	3.6	13.8	12.0	4.7	100.0	66.7	6,254	82.7	4,171
Highest	28.2	55.4	0.7	3.3	6.0	5.0	1.4	100.0	86.9	5,541	80.0	4,815
Total	9.1	31.5	2.8	2.6	20.4	22.3	11.2	100.0	43.3	34,193	80.9	14,794

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation.
[1] Skilled provider includes doctor, nurse, midwife, and auxiliary nurse/midwife.
[2] Includes only the most recent birth in the 5 years preceding the survey

Table 9.7 Caesarean section

Percentage of live births in the 5 years preceding the survey delivered by caesarean section, percentage delivered by caesarean section planned before the onset of labour pains, and percentage delivered by caesarean section decided on after the onset of labour pains, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage delivered by caesarean section	Timing of decision to conduct caesarean section		Number of births
		Before onset of labour pains	After onset of labour pains	
Mother's age at birth				
<20	1.0	0.3	0.7	4,677
20-34	2.8	1.2	1.6	24,392
35-49	3.7	1.9	1.8	5,124
Birth order				
1	4.7	1.5	3.2	6,694
2-3	3.4	1.8	1.5	11,545
4-5	1.8	0.9	1.0	7,855
6+	1.0	0.3	0.7	8,098
Antenatal care visits[1]				
None	0.3	0.1	0.3	5,336
1-3	1.3	0.7	0.6	3,761
4+	4.8	2.2	2.7	12,456
Don't know/missing	6.0	2.6	3.4	358
Place of delivery				
Health facility	6.9	3.0	3.9	13,462
Public facility	4.6	2.1	2.6	9,012
Private facility	11.5	4.9	6.6	4,450
Residence				
Urban	5.2	2.3	2.9	13,170
Rural	1.2	0.5	0.7	21,023
Zone				
North Central	2.7	1.2	1.5	4,619
North East	0.9	0.2	0.7	6,213
North West	0.7	0.3	0.4	12,558
South East	5.8	2.9	2.9	3,428
South South	5.1	2.1	3.0	2,968
South West	7.0	3.0	4.0	4,407
State				
North Central				
FCT-Abuja	8.2	3.2	5.0	225
Benue	2.9	1.1	1.8	949
Kogi	3.6	2.0	1.5	451
Kwara	0.8	0.1	0.7	533
Nasarawa	4.2	2.2	2.0	521
Niger	0.7	0.2	0.5	1,312
Plateau	4.2	2.1	2.2	628
North East				
Adamawa	0.8	0.4	0.4	786
Bauchi	1.1	0.2	0.9	1,469
Borno	0.6	0.0	0.6	1,219
Gombe	1.3	0.6	0.7	728
Taraba	2.2	0.6	1.6	758
Yobe	0.1	0.0	0.1	1,253
North West				
Jigawa	0.8	0.2	0.6	1,497
Kaduna	1.4	0.7	0.8	2,402
Kano	0.9	0.6	0.4	2,738
Katsina	0.5	0.1	0.3	2,428
Kebbi	0.0	0.0	0.0	1,228
Sokoto	0.2	0.0	0.2	978
Zamfara	0.1	0.1	0.1	1,287
South East				
Abia	3.0	1.6	1.5	426
Anambra	6.6	3.9	2.8	1,045
Ebonyi	3.7	1.0	2.7	814
Enugu	5.8	2.8	3.0	486
Imo	9.1	4.6	4.5	657
South South				
Akwa Ibom	4.5	2.6	1.9	522
Bayelsa	0.9	0.4	0.5	217
Cross River	3.4	1.5	1.8	318
Delta	4.3	2.6	1.7	595
Edo	5.8	3.5	2.3	411
Rivers	7.4	1.5	5.8	906

Continued...

Table 9.7—*Continued*

Background characteristic	Percentage delivered by caesarean section	Timing of decision to conduct caesarean section		Number of births
		Before onset of labour pains	After onset of labour pains	
South West				
Ekiti	4.0	2.3	1.7	329
Lagos	12.5	5.7	6.8	1,545
Ogun	4.9	2.8	2.1	586
Ondo	5.2	1.1	4.1	423
Osun	3.9	0.9	3.0	549
Oyo	3.2	1.2	2.0	976
Mother's education				
No education	0.5	0.1	0.3	15,858
Primary	1.3	0.4	0.9	5,103
Secondary	3.8	1.6	2.2	10,413
More than secondary	13.9	7.0	6.9	2,818
Wealth quintile				
Lowest	0.3	0.1	0.3	7,572
Second	0.7	0.2	0.5	7,782
Middle	1.6	0.7	0.9	7,043
Fourth	3.1	1.4	1.7	6,254
Highest	9.8	4.5	5.3	5,541
Total	2.7	1.2	1.5	34,193

Note: The question on caesarean section was asked only of women who delivered in a health facility. In this table, it is assumed that women who did not give birth in a health facility did not receive a caesarean section.
[1] Includes only the most recent birth in the 5 years preceding the survey

Table 9.8 Reasons for opting for caesarean section

Percentage of live births in the 5 years preceding the survey delivered by caesarean section, by reasons for opting for delivery by caesarean section, according to background characteristics, Nigeria DHS 2018

Background characteristic	Excess bleeding	Breech position	Medical condition of mother	Cord problem	Voluntary	Other	Number of births delivered by caesarean section
Mother's age at birth							
<20	15.9	26.2	54.2	0.0	0.0	3.6	47
20-34	3.8	21.9	58.5	4.0	4.3	7.6	691
35-49	7.4	23.8	52.4	6.7	4.9	4.8	192
Birth order							
1	4.0	16.3	64.1	2.5	1.8	11.3	314
2-3	4.0	22.1	56.9	5.3	6.2	5.5	389
4-5	6.5	29.4	50.3	4.9	6.4	2.5	142
6+	12.9	35.5	42.3	5.7	0.0	3.5	85
Antenatal care visits[1]							
None	*	*	*	*	*	*	18
1-3	(5.0)	(25.5)	(46.8)	(10.8)	(7.6)	(4.3)	49
4+	5.9	21.5	56.1	5.1	4.0	7.3	602
Place of delivery							
Health facility	5.2	22.5	57.0	4.4	4.2	6.8	929
Public facility	7.1	21.5	54.4	5.0	5.5	6.5	419
Private facility	3.6	23.3	59.1	3.8	3.1	7.1	510
Time when decision made							
Before onset of labour pains	6.0	23.1	55.7	1.9	9.1	4.1	404
After onset of labour pains	4.6	22.0	57.9	6.2	0.4	8.9	525
Residence							
Urban	2.9	20.5	60.3	4.2	5.1	7.1	687
Rural	11.8	28.1	47.5	4.9	1.6	6.0	242
Zone							
North Central	5.7	27.2	60.0	1.0	1.1	5.0	124
North East	13.6	23.9	43.7	14.0	0.0	4.7	58
North West	18.5	29.3	39.0	7.0	4.3	1.7	87
South East	2.7	21.8	55.4	5.7	2.8	11.6	200
South South	3.7	26.9	52.5	6.4	5.5	5.1	151
South West	1.9	16.7	66.6	1.3	6.4	7.2	309
Mother's education							
No education	24.0	38.1	34.7	3.1	0.0	0.0	76
Primary	10.5	23.1	55.1	5.1	2.4	3.9	68
Secondary	3.6	23.9	57.3	4.5	2.5	8.2	393
More than secondary	2.2	17.9	61.4	4.3	7.0	7.2	392
Wealth quintile							
Lowest	(21.6)	(44.4)	(30.7)	(0.0)	(0.0)	(3.3)	25
Second	11.8	31.4	45.1	3.5	3.1	5.0	53
Middle	11.1	28.3	45.5	5.4	2.0	7.7	115
Fourth	5.7	27.7	53.2	5.5	0.0	7.8	194
Highest	2.3	17.5	63.1	4.0	6.4	6.6	543
Total	5.2	22.5	57.0	4.4	4.2	6.8	929

Note: Total includes 22 cases with missing information on status of antenatal care visits. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes only the most recent birth in the 5 years preceding the survey

Table 9.9 Duration of stay in health facility after birth

Among women with a birth in the 5 years preceding the survey who delivered their most recent live birth in a health facility, percent distribution by duration of stay in the health facility following their most recent live birth, according to type of delivery, Nigeria DHS 2018

Type of delivery	<6 hours	6-11 hours	12-23 hours	1-2 days	3+ days	Missing	Total	Number of women
Vaginal birth	34.0	14.7	6.0	37.8	7.4	0.1	100.0	8,236
Caesarean section	1.4	0.6	0.0	4.3	93.5	0.2	100.0	691

Table 9.10 Referral to place of delivery

Percent distribution of live births in the 5 years preceding the survey that were delivered in a health facility by referral status to the facility, according to background characteristics, Nigeria DHS 2018

Background characteristic	Births delivered in a health facility				Total	Number of births
	Came from home	Referrals		Don't know/ missing		
		Referred from another facility	Came from other non-facility location			
Mother's age at birth						
<20	97.3	1.7	0.1	0.9	100.0	1,634
20-34	97.0	1.6	0.4	0.9	100.0	10,162
35-49	96.6	1.5	0.2	1.7	100.0	1,667
Birth order						
1	96.4	2.1	0.5	1.1	100.0	3,519
2-3	97.2	1.5	0.2	1.0	100.0	5,181
4-5	97.5	1.2	0.4	0.9	100.0	2,914
6+	96.9	1.7	0.3	1.0	100.0	1,849
Antenatal care visits[1]						
None	96.2	1.7	1.2	0.8	100.0	303
1-3	97.3	1.7	0.3	0.7	100.0	1,058
4+	96.7	1.9	0.4	1.0	100.0	7,388
Don't know/missing	96.9	1.9	0.2	1.1	100.0	266
Place of delivery						
Public facility	98.3	1.4	0.2	0.1	100.0	8,275
Private facility	94.7	1.8	0.6	3.0	100.0	4,336
Elsewhere	96.5	2.9	0.6	0.1	100.0	851
Residence						
Urban	97.0	1.7	0.3	0.9	100.0	8,042
Rural	97.0	1.5	0.4	1.2	100.0	5,420
Zone						
North Central	98.6	1.0	0.3	0.1	100.0	2,273
North East	96.7	1.9	0.0	1.4	100.0	1,577
North West	97.5	2.2	0.2	0.1	100.0	1,955
South East	95.6	1.2	0.3	2.9	100.0	2,804
South South	96.2	2.2	0.9	0.7	100.0	1,490
South West	97.3	1.7	0.4	0.6	100.0	3,364
State						
North Central						
FCT-Abuja	96.4	3.2	0.4	0.0	100.0	142
Benue	98.5	1.1	0.0	0.3	100.0	637
Kogi	100.0	0.0	0.0	0.0	100.0	327
Kwara	98.3	1.0	0.7	0.0	100.0	294
Nasarawa	99.5	0.1	0.4	0.0	100.0	260
Niger	98.5	0.8	0.7	0.0	100.0	339
Plateau	98.1	1.7	0.2	0.0	100.0	275
North East						
Adamawa	99.5	0.0	0.0	0.5	100.0	306
Bauchi	86.5	6.9	0.0	6.7	100.0	320
Borno	100.0	0.0	0.0	0.0	100.0	319
Gombe	98.0	2.0	0.0	0.0	100.0	202
Taraba	98.6	1.4	0.0	0.0	100.0	227
Yobe	100.0	0.0	0.0	0.0	100.0	203
North West						
Jigawa	97.2	2.4	0.4	0.0	100.0	301
Kaduna	97.1	2.5	0.2	0.3	100.0	422
Kano	98.5	1.5	0.0	0.0	100.0	525
Katsina	97.4	2.2	0.0	0.4	100.0	400
Kebbi	98.8	1.2	0.0	0.0	100.0	91
Sokoto	90.3	7.7	2.0	0.0	100.0	76
Zamfara	99.3	0.7	0.0	0.0	100.0	139
South East						
Abia	92.7	0.2	0.0	7.1	100.0	392
Anambra	98.2	1.1	0.0	0.7	100.0	945
Ebonyi	96.5	2.4	0.9	0.2	100.0	460
Enugu	98.8	0.7	0.5	0.0	100.0	387
Imo	91.0	1.1	0.5	7.4	100.0	620
South South						
Akwa Ibom	97.3	1.2	1.5	0.0	100.0	181
Bayelsa	97.9	2.1	0.0	0.0	100.0	50
Cross River	95.0	3.4	0.0	1.6	100.0	167
Delta	96.2	2.5	0.4	0.9	100.0	327
Edo	96.2	2.5	0.0	1.3	100.0	329
Rivers	96.0	1.7	2.3	0.0	100.0	436

Continued...

Table 9.10—*Continued*

Background characteristic	Births delivered in a health facility				Total	Number of births
	Came from home	Referrals		Don't know/ missing		
		Referred from another facility	Came from other non-facility location			
South West						
Ekiti	97.0	3.0	0.0	0.0	100.0	236
Lagos	96.1	1.5	0.9	1.5	100.0	1,170
Ogun	99.5	0.5	0.0	0.0	100.0	430
Ondo	97.2	2.2	0.6	0.0	100.0	341
Osun	98.4	1.6	0.0	0.0	100.0	503
Oyo	97.4	2.4	0.0	0.3	100.0	684
Mother's education						
No education	97.2	2.0	0.2	0.6	100.0	2,193
Primary	97.4	1.4	0.3	0.8	100.0	2,067
Secondary	96.9	1.5	0.4	1.2	100.0	6,731
More than secondary	96.9	1.9	0.3	1.0	100.0	2,471
Wealth quintile						
Lowest	97.7	1.7	0.1	0.5	100.0	879
Second	97.2	1.8	0.3	0.7	100.0	1,641
Middle	97.2	1.6	0.4	0.8	100.0	2,836
Fourth	97.0	1.7	0.2	1.1	100.0	3,701
Highest	96.7	1.5	0.4	1.4	100.0	4,405
Total	97.0	1.6	0.3	1.0	100.0	13,462

[1] Includes only the most recent birth in the 5 years preceding the survey

Table 9.11 Reasons for referral and time taken

Percent distribution of births in the 5 years preceding the survey that were referred to the health facility of delivery by reasons for the referral, time taken to make a decision and reach the health facility, and percentage accompanied by a health provider during the referral, by type of health facility, Nigeria DHS 2018

Background characteristic	Type of facility		
	Government	Private	Total
Reasons			
Problem during labour/emergency	66.3	(76.7)	68.3
Health professional not available	15.3	(6.5)	13.5
Facility too crowded/no bed available	6.1	(0.0)	4.9
Facility not open	6.7	(0.0)	5.4
Other	5.7	(16.9)	7.9
Total	100.0	100.0	100.0
Time taken to decide and reach health facility			
<30 minutes	16.9	(26.0)	18.7
30-60 minutes	20.4	(8.9)	18.1
>60 minutes	56.8	(60.9)	57.6
Don't know	5.9	(4.3)	5.6
Total	100.0	100.0	100.0
Percentage accompanied by a health provider	21.5	(39.2)	25.0
Number of births	166	41	207

Note: Figures in parentheses are based on 25-49 unweighted cases.

Table 9.12 Means of transportation to health facility

Percentage of live births in the 5 years preceding the survey that were delivered in a health facility by means of transportation to the health facility where the delivery took place, according to background characteristics, Nigeria DHS 2018

Background characteristic	Private car/truck	Taxi/ paid driver/ tricycle	Motorcycle/ scooter	Public transport/ bus	Bicycle	Boat/ canoe	Walking	Ambulance and other means[1]	Number of births
Age at birth									
<20	13.1	23.6	39.5	3.2	1.4	1.3	16.6	0.4	1,337
20-34	21.1	20.6	30.3	4.1	0.8	0.5	22.0	0.3	10,127
35-49	22.7	20.8	27.3	3.2	0.5	0.3	23.5	0.3	1,999
Birth order									
1	21.0	23.0	31.1	3.9	0.9	0.7	18.9	0.3	3,519
2-3	20.3	21.8	29.4	4.5	0.8	0.4	22.3	0.3	5,181
4-5	20.0	17.6	30.9	3.2	1.0	0.7	26.5	0.2	2,914
6+	21.1	20.0	34.1	2.9	0.6	0.3	20.0	0.5	1,849
Antenatal care visits[2]									
None	11.4	17.0	48.4	1.6	1.2	0.1	18.5	0.2	303
1-3	19.2	21.4	37.4	1.6	1.1	0.5	18.3	0.0	1,058
4+	20.5	21.6	29.4	4.5	0.9	0.6	21.8	0.3	7,388
Don't know/missing	12.9	15.3	15.2	2.2	2.1	0.5	51.1	0.0	266
Residence									
Urban	24.8	22.9	24.1	4.7	0.6	0.4	22.2	0.2	8,042
Rural	14.1	18.0	40.6	2.7	1.2	0.8	21.0	0.4	5,420
Zone									
North Central	13.1	14.2	53.4	2.7	0.1	1.1	15.4	0.1	2,273
North East	23.6	25.2	32.6	1.8	0.0	1.1	14.1	0.8	1,577
North West	42.5	31.6	19.9	1.7	1.2	0.0	2.6	0.3	1,955
South East	13.5	12.6	32.1	2.6	0.2	0.2	36.3	0.4	2,804
South South	16.2	25.3	31.2	2.3	0.1	1.1	23.6	0.1	1,490
South West	19.1	22.3	19.5	8.7	2.4	0.4	27.6	0.2	3,364
State									
North Central									
FCT-Abuja	24.1	11.9	28.6	9.0	0.0	0.0	25.8	0.6	142
Benue	5.8	5.9	73.7	0.8	0.2	3.4	10.0	0.0	637
Kogi	8.7	15.8	50.7	0.2	0.0	0.0	24.9	0.0	327
Kwara	20.8	18.5	35.6	8.8	0.2	0.0	16.6	0.4	294
Nasarawa	11.7	11.1	51.8	3.8	0.2	0.0	21.8	0.0	260
Niger	15.7	20.1	53.7	1.2	0.0	0.7	8.5	0.0	339
Plateau	19.3	23.9	42.6	0.8	0.0	0.0	12.1	0.0	275
North East									
Adamawa	17.1	19.9	30.0	3.7	0.1	1.4	27.4	0.0	306
Bauchi	19.0	21.9	44.6	2.9	0.0	0.7	2.1	2.2	320
Borno	39.1	41.6	14.8	0.8	0.0	0.0	3.5	0.5	319
Gombe	20.1	32.1	36.1	0.5	0.0	0.0	11.0	0.2	202
Taraba	14.4	9.3	56.1	0.0	0.0	0.0	20.5	0.0	227
Yobe	30.1	23.7	15.8	1.8	0.0	5.0	25.8	1.8	203
North West									
Jigawa	45.1	30.4	21.4	0.2	0.0	0.0	2.5	0.4	301
Kaduna	35.8	25.1	34.5	0.6	0.0	0.0	3.2	0.0	422
Kano	51.4	35.3	6.9	2.7	0.7	0.0	3.0	0.0	525
Katsina	36.9	25.6	30.0	3.5	0.0	0.0	2.8	1.3	400
Kebbi	29.0	30.3	17.2	0.0	21.0	0.0	2.5	0.0	91
Sokoto	49.5	40.2	7.4	2.1	0.0	0.0	0.7	0.0	76
Zamfara	45.3	53.3	1.4	0.0	0.0	0.0	0.0	0.0	139
South East									
Abia	10.3	29.5	20.8	0.7	0.2	0.0	32.0	0.1	392
Anambra	19.2	11.0	26.0	3.4	0.1	0.4	40.1	0.0	945
Ebonyi	5.1	5.3	42.6	3.9	0.5	0.0	41.8	1.4	460
Enugu	17.6	14.6	34.3	0.3	0.5	0.0	30.0	0.0	387
Imo	10.4	8.3	39.3	3.1	0.0	0.2	33.2	0.6	620
South South									
Akwa Ibom	27.7	14.1	51.6	1.2	0.0	0.0	5.3	0.0	181
Bayelsa	6.3	28.6	18.5	5.1	0.0	7.4	34.2	0.0	50
Cross River	6.9	26.0	34.7	10.1	0.0	1.1	19.6	0.0	167
Delta	15.0	17.6	37.1	1.7	0.5	1.8	25.9	0.0	327
Edo	15.0	16.0	39.6	0.2	0.0	0.0	28.1	0.0	329
Rivers	17.8	42.2	12.2	1.4	0.0	1.0	26.3	0.2	436
South West									
Ekiti	17.9	11.3	37.4	0.5	0.4	0.1	34.1	0.5	236
Lagos	24.8	20.7	10.8	10.0	0.2	0.3	33.7	0.1	1,170
Ogun	9.4	38.6	17.4	12.9	2.5	0.0	17.9	0.0	430
Ondo	13.9	9.6	24.3	0.4	11.8	2.0	38.2	0.3	341
Osun	10.7	12.2	51.4	0.6	0.7	0.0	24.2	0.1	503
Oyo	24.6	32.3	3.9	16.7	3.2	0.3	18.4	0.2	684

Continued...

Table 9.12—*Continued*

Background characteristic	Private car/truck	Taxi/ paid driver/ tricycle	Motorcycle/ scooter	Public transport/ bus	Bicycle	Boat/ canoe	Walking	Ambulance and other means[1]	Number of births
Education									
No education	18.2	25.0	38.2	3.5	1.3	0.5	12.6	0.4	2,193
Primary	12.1	19.1	34.9	5.8	1.1	0.5	25.5	0.3	2,067
Secondary	15.7	19.6	32.1	3.4	0.8	0.8	26.4	0.3	6,731
More than secondary	42.7	22.5	16.9	3.8	0.3	0.0	13.7	0.1	2,471
Wealth quintile									
Lowest	8.7	17.9	53.1	1.3	1.2	0.8	16.0	1.2	879
Second	8.9	16.7	46.3	3.0	1.5	0.7	21.6	0.4	1,641
Middle	12.5	18.0	39.5	3.1	0.9	0.9	24.2	0.2	2,836
Fourth	16.4	22.3	30.3	4.0	0.8	0.3	25.1	0.2	3,701
Highest	35.8	23.8	15.2	5.1	0.5	0.4	18.4	0.2	4,405
Total	20.5	20.9	30.7	3.9	0.8	0.6	21.7	0.3	13,462

[1] Other includes ambulance, animal-drawn cart, carried by people, and other.

Table 9.13 Thermal care for newborns

Among most recent live births in the 2 years preceding the survey, percentage with skin-to-skin contact immediately after birth, percentage who were wiped dry within a few minutes after birth, and percent distribution by timing of first bath, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage with skin-to-skin contact immediately after birth	Child wiped dry within a few minutes after birth	Timing of first bath				Total	Number of births
			Bathed less than 6 hours after birth	Bathed 6-23 hours after birth	Bathed 24 or more hours after birth	Don't know		
Mother's age at birth								
<20	10.3	69.7	72.7	9.5	9.0	8.8	100.0	2,604
20-34	12.7	78.7	62.6	14.8	14.5	8.2	100.0	8,906
35-49	10.3	76.1	65.3	13.2	11.7	9.7	100.0	1,426
Birth order								
1	12.8	81.1	57.8	15.4	16.9	9.9	100.0	2,470
2-3	13.6	80.0	61.6	15.1	15.0	8.3	100.0	4,396
4-5	9.9	76.3	67.1	14.2	11.0	7.7	100.0	2,977
6+	10.9	68.5	73.2	9.1	9.2	8.5	100.0	3,091
Place of delivery								
Health facility	18.2	91.9	46.3	24.4	21.7	7.6	100.0	5,260
Elsewhere	7.7	66.2	77.6	6.1	7.1	9.1	100.0	7,675
Residence								
Urban	14.0	85.9	51.3	20.9	19.3	8.4	100.0	4,979
Rural	10.7	70.8	73.4	8.9	9.1	8.6	100.0	7,956
Zone								
North Central	9.4	85.8	65.5	16.5	8.3	9.6	100.0	1,787
North East	15.7	72.1	72.5	8.9	8.4	10.2	100.0	2,350
North West	11.1	61.8	82.8	5.1	5.4	6.6	100.0	4,649
South East	6.6	90.9	25.9	38.6	31.0	4.5	100.0	1,304
South South	13.7	91.6	38.2	15.0	38.8	8.0	100.0	1,160
South West	14.8	92.8	52.7	19.5	14.0	13.8	100.0	1,685
State								
North Central								
FCT-Abuja	6.5	90.7	48.3	31.0	15.8	4.9	100.0	87
Benue	21.3	82.8	49.1	31.6	13.6	5.7	100.0	370
Kogi	9.3	92.1	72.3	15.1	8.3	4.3	100.0	167
Kwara	6.1	82.6	68.7	23.3	2.6	5.4	100.0	211
Nasarawa	13.7	92.9	81.7	4.0	7.5	6.8	100.0	189
Niger	4.3	91.9	71.9	3.9	3.7	20.4	100.0	535
Plateau	2.5	66.4	62.3	21.5	13.9	2.3	100.0	228
North East								
Adamawa	37.8	78.7	71.7	11.6	15.2	1.5	100.0	326
Bauchi	15.8	50.1	78.4	12.0	3.8	5.7	100.0	590
Borno	9.7	77.6	69.6	4.7	3.2	22.5	100.0	418
Gombe	19.9	61.0	63.8	7.1	27.1	2.1	100.0	277
Taraba	2.4	83.3	70.1	8.7	4.3	16.9	100.0	299
Yobe	11.1	90.6	74.8	7.9	5.7	11.5	100.0	441
North West								
Jigawa	37.2	73.5	79.2	11.5	6.9	2.5	100.0	552
Kaduna	4.3	90.1	74.9	3.6	4.7	16.8	100.0	885
Kano	7.9	40.7	77.1	7.7	12.2	3.0	100.0	1,001
Katsina	17.0	58.7	83.5	5.7	2.8	7.9	100.0	876
Kebbi	5.1	41.0	94.6	0.8	2.0	2.6	100.0	451
Sokoto	0.4	68.4	86.9	2.3	3.3	7.5	100.0	362
Zamfara	4.0	60.5	96.8	0.9	0.9	1.4	100.0	521
South East								
Abia	6.9	97.4	41.0	28.2	5.8	25.0	100.0	156
Anambra	9.1	93.3	9.1	37.5	52.4	1.0	100.0	430
Ebonyi	9.0	76.9	36.7	44.6	17.2	1.5	100.0	298
Enugu	2.0	98.0	53.3	15.5	27.5	3.8	100.0	183
Imo	2.2	94.6	11.7	58.1	28.7	1.5	100.0	237
South South								
Akwa Ibom	14.2	88.7	42.8	9.8	41.9	5.4	100.0	216
Bayelsa	64.3	98.5	37.0	10.7	46.6	5.7	100.0	87
Cross River	12.7	98.5	44.2	3.2	30.5	22.1	100.0	117
Delta	6.1	89.1	43.6	16.7	28.0	11.7	100.0	239
Edo	7.6	88.4	57.6	15.6	21.2	5.6	100.0	150
Rivers	8.9	92.5	21.7	21.9	52.6	3.9	100.0	350
South West								
Ekiti	9.6	97.6	48.5	19.0	28.5	3.9	100.0	128
Lagos	6.3	94.1	37.1	30.6	22.5	9.8	100.0	599
Ogun	1.8	87.5	75.6	9.0	6.9	8.4	100.0	220
Ondo	9.1	82.5	58.5	24.0	11.0	6.6	100.0	157
Osun	6.8	96.6	48.9	32.0	16.0	3.1	100.0	198
Oyo	43.8	94.4	65.0	0.0	0.3	34.8	100.0	383

Continued...

Table 9.13—*Continued*

Background characteristic	Percentage with skin-to-skin contact immediately after birth	Child wiped dry within a few minutes after birth	Timing of first bath				Total	Number of births
			Bathed less than 6 hours after birth	Bathed 6-23 hours after birth	Bathed 24 or more hours after birth	Don't know		
Mother's education								
No education	8.9	63.5	81.1	5.1	4.8	9.0	100.0	5,786
Primary	11.2	80.0	63.9	16.2	12.5	7.4	100.0	1,877
Secondary	14.5	89.0	50.1	19.8	22.0	8.2	100.0	4,186
More than secondary	19.9	92.9	37.4	29.9	23.6	9.1	100.0	1,086
Wealth quintile								
Lowest	8.7	58.9	81.5	5.7	5.0	7.8	100.0	2,775
Second	9.8	67.4	75.1	9.1	7.8	8.1	100.0	2,955
Middle	11.8	81.7	64.9	13.7	12.4	8.9	100.0	2,666
Fourth	14.8	88.9	52.9	19.0	19.5	8.7	100.0	2,416
Highest	16.2	92.4	42.6	23.5	24.4	9.5	100.0	2,123
Total	12.0	76.6	64.9	13.5	13.1	8.5	100.0	12,935

Table 9.14 Cord care

Among most recent live births in the 2 years preceding the survey, percentage with different substances applied to the stump of the umbilical cord, and percentage with nothing harmful applied to the umbilical cord, according to background characteristics, Nigeria DHS 2018

Background characteristic	Substances applied to the cord: Nothing	Chlorhexidine	Other antiseptic[1]	Other substance[2]	Percentage with nothing harmful applied to the cord[3]	Number of births
Mother's age at birth						
<20	48.5	7.5	17.9	13.3	72.2	2,604
20-34	35.4	11.9	35.3	11.3	78.7	8,906
35-49	37.3	11.0	35.3	11.6	79.8	1,426
Birth order						
1	29.3	12.6	39.3	11.9	77.3	2,470
2-3	32.8	11.4	37.8	11.1	77.8	4,396
4-5	39.4	11.0	31.0	12.5	77.9	2,977
6+	52.2	8.7	17.9	11.8	77.0	3,091
Place of delivery						
Health facility	15.1	19.1	56.3	10.2	84.0	5,260
Elsewhere	54.2	5.3	15.0	12.8	73.1	7,675
Residence						
Urban	23.4	15.5	51.0	9.2	84.0	4,979
Rural	47.6	8.0	19.7	13.3	73.5	7,956
Zone						
North Central	21.0	6.8	39.6	17.7	65.3	1,787
North East	53.4	14.2	6.1	11.8	72.8	2,350
North West	64.1	8.1	7.3	9.8	78.6	4,649
South East	9.9	11.3	60.7	20.2	77.5	1,304
South South	9.9	6.7	67.6	12.9	79.8	1,160
South West	5.6	21.2	79.9	3.4	92.5	1,685
State						
North Central						
FCT-Abuja	16.5	3.6	48.9	12.3	67.3	87
Benue	6.9	7.9	46.4	25.9	60.4	370
Kogi	14.3	15.5	59.7	5.7	74.5	167
Kwara	6.6	2.3	61.1	26.6	69.3	211
Nasarawa	17.0	6.5	50.4	8.9	73.3	189
Niger	42.7	7.1	15.0	12.2	64.0	535
Plateau	16.6	3.9	38.7	27.0	58.6	228
North East						
Adamawa	21.0	6.5	22.6	25.9	49.5	326
Bauchi	38.6	22.3	4.3	18.2	62.6	590
Borno	73.3	15.6	5.2	3.2	93.6	418
Gombe	68.6	18.3	2.4	4.3	89.2	277
Taraba	36.2	6.9	5.0	13.1	48.0	299
Yobe	80.5	9.9	0.0	4.7	90.4	441
North West						
Jigawa	30.9	7.0	10.1	24.0	47.5	552
Kaduna	41.7	12.3	11.2	14.1	64.8	885
Kano	69.7	9.2	6.0	7.8	84.8	1,001
Katsina	84.5	10.1	2.3	1.6	95.0	876
Kebbi	84.3	6.2	0.7	4.6	91.2	451
Sokoto	52.2	3.4	23.1	19.1	75.8	362
Zamfara	82.9	1.0	3.1	3.5	86.4	521
South East						
Abia	12.0	16.1	59.1	14.4	86.8	156
Anambra	4.3	1.2	83.2	5.8	88.4	430
Ebonyi	5.3	26.6	28.7	43.0	47.6	298
Enugu	29.3	3.7	55.6	8.1	87.6	183
Imo	9.5	12.8	64.9	30.7	81.2	237
South South						
Akwa Ibom	11.6	9.0	51.7	16.7	69.6	216
Bayelsa	1.5	14.3	74.5	13.4	76.4	87
Cross River	24.7	12.2	44.9	18.0	77.1	117
Delta	4.6	2.8	79.5	7.4	85.5	239
Edo	8.1	2.4	71.4	19.0	80.0	150
Rivers	10.5	6.0	73.4	9.7	84.0	350
South West						
Ekiti	2.9	28.6	73.9	3.0	93.8	128
Lagos	3.4	13.9	78.3	6.1	89.5	599
Ogun	2.5	38.7	86.0	0.6	95.5	220
Ondo	8.7	1.8	75.5	3.5	85.6	157
Osun	19.5	11.1	64.7	0.3	91.5	198
Oyo	3.5	33.1	90.5	2.5	98.6	383

Continued...

Table 9.14—*Continued*

Background characteristic	Substances applied to the cord: Nothing	Chlorhexidine	Other antiseptic[1]	Other substance[2]	Percentage with nothing harmful applied to the cord[3]	Number of births
Mother's education						
No education	61.2	6.0	8.4	11.8	74.5	5,786
Primary	29.4	12.0	36.6	13.8	74.1	1,877
Secondary	17.3	14.0	53.4	11.8	79.8	4,186
More than secondary	12.5	23.1	64.6	7.4	90.8	1,086
Wealth quintile						
Lowest	59.8	5.2	7.5	16.3	71.6	2,775
Second	51.2	7.2	14.1	13.6	71.0	2,955
Middle	36.1	11.2	31.4	11.8	75.5	2,666
Fourth	22.5	14.0	51.4	8.7	83.3	2,416
Highest	12.8	19.6	66.3	6.6	90.2	2,123
Total	38.3	10.9	31.8	11.7	77.5	12,935

Note: Mothers can report more than one substance applied to the stump of the umbilical cord.
[1] Includes alcohol, spirit, or gentian violet
[2] Includes olive oil, ash, animal dung, turmeric, toothpaste, or other substances
[3] Either nothing applied to the cord or nothing other than chlorhexidine or another antiseptic applied

Table 9.15 Use of chlorhexidine

Among most recent live births in the 2 years preceding the survey, percentage with chlorhexidine applied to the stump of the umbilical cord, and percentage with chlorhexidine applied to the stump of the umbilical cord within 24 hours after birth, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage with chlorhexidine applied to the cord	Percentage with chlorhexidine applied within 24 hours after birth	Number of births
Mother's age at birth			
<20	7.5	5.9	2,604
20-34	11.9	9.6	8,906
35-49	11.0	9.6	1,426
Birth order			
1	12.6	9.8	2,470
2-3	11.4	9.1	4,396
4-5	11.0	9.0	2,977
6+	8.7	7.7	3,091
Place of delivery			
Health facility	19.1	15.4	5,260
Elsewhere	5.3	4.4	7,675
Residence			
Urban	15.5	12.4	4,979
Rural	8.0	6.7	7,956
Zone			
North Central	6.8	5.3	1,787
North East	14.2	11.9	2,350
North West	8.1	6.9	4,649
South East	11.3	7.1	1,304
South South	6.7	3.6	1,160
South West	21.2	19.1	1,685
State			
North Central			
FCT-Abuja	3.6	2.7	87
Benue	7.9	4.0	370
Kogi	15.5	15.1	167
Kwara	2.3	1.2	211
Nasarawa	6.5	6.1	189
Niger	7.1	5.6	535
Plateau	3.9	3.1	228
North East			
Adamawa	6.5	5.9	326
Bauchi	22.3	20.7	590
Borno	15.6	13.9	418
Gombe	18.3	8.6	277
Taraba	6.9	5.0	299
Yobe	9.9	9.5	441
North West			
Jigawa	7.0	7.0	552
Kaduna	12.3	8.6	885
Kano	9.2	8.7	1,001
Katsina	10.1	8.9	876
Kebbi	6.2	6.2	451
Sokoto	3.4	2.5	362
Zamfara	1.0	0.4	521
South East			
Abia	16.1	11.5	156
Anambra	1.2	0.9	430
Ebonyi	26.6	15.6	298
Enugu	3.7	3.1	183
Imo	12.8	7.8	237
South South			
Akwa Ibom	9.0	5.8	216
Bayelsa	14.3	5.6	87
Cross River	12.2	8.4	117
Delta	2.8	1.5	239
Edo	2.4	0.9	150
Rivers	6.0	2.9	350
South West			
Ekiti	28.6	27.2	128
Lagos	13.9	10.7	599
Ogun	38.7	34.7	220
Ondo	1.8	1.6	157
Osun	11.1	11.1	198
Oyo	33.1	31.6	383

Continued...

Table 9.15—*Continued*

Background characteristic	Percentage with chlorhexidine applied to the cord	Percentage with chlorhexidine applied within 24 hours after birth	Number of births
Mother's education			
No education	6.0	5.2	5,786
Primary	12.0	9.9	1,877
Secondary	14.0	11.2	4,186
More than secondary	23.1	17.9	1,086
Wealth quintile			
Lowest	5.2	4.1	2,775
Second	7.2	6.4	2,955
Middle	11.2	9.2	2,666
Fourth	14.0	11.5	2,416
Highest	19.6	15.3	2,123
Total	10.9	8.9	12,935

Table 9.16 Timing of first postnatal check for the mother

Among women age 15-49 giving birth in the 2 years preceding the survey, percent distribution of the mother's first postnatal check for the most recent live birth by time after delivery, and percentage of women with a live birth during the 2 years preceding the survey who received a postnatal check in the first 2 days after giving birth, according to background characteristics, Nigeria DHS 2018

Background characteristic	Time after delivery of mother's first postnatal check[1]						No postnatal check[2]	Total	Percentage of women with a postnatal check during the first 2 days after birth[1]	Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing				
Age at birth										
<20	27.3	2.9	2.2	1.0	1.6	0.7	64.3	100.0	32.4	1,662
20-34	37.4	3.9	2.0	0.6	0.7	0.7	54.6	100.0	43.4	9,207
35-49	37.2	3.7	1.8	0.4	0.5	0.7	55.7	100.0	42.6	2,066
Birth order										
1	45.1	4.6	2.7	0.8	1.1	1.0	44.8	100.0	52.4	2,470
2-3	40.2	3.9	1.9	0.9	0.5	1.1	51.5	100.0	46.0	4,396
4-5	34.4	4.0	2.1	0.5	0.9	0.4	57.8	100.0	40.5	2,977
6+	24.6	2.7	1.5	0.4	0.7	0.2	69.8	100.0	28.8	3,091
Place of delivery										
Health facility	71.3	7.2	2.3	0.2	0.2	1.4	17.3	100.0	80.8	5,248
Elsewhere	12.0	1.4	1.8	0.9	1.1	0.3	82.5	100.0	15.2	7,687
Residence										
Urban	53.5	5.5	2.4	0.7	0.7	1.4	35.8	100.0	61.4	4,979
Rural	25.2	2.6	1.8	0.6	0.8	0.3	68.7	100.0	29.6	7,956
Zone										
North Central	38.1	4.3	2.0	0.6	0.2	0.2	54.5	100.0	44.5	1,787
North East	29.0	2.6	2.1	0.7	0.7	0.1	64.8	100.0	33.7	2,350
North West	17.7	1.7	1.6	0.7	1.4	0.0	76.8	100.0	21.1	4,649
South East	57.1	11.7	2.8	0.4	0.1	1.4	26.4	100.0	71.6	1,304
South South	41.7	7.7	3.2	0.4	0.6	2.3	44.1	100.0	52.6	1,160
South West	74.3	1.5	1.6	0.7	0.2	2.4	19.3	100.0	77.3	1,685
State										
North Central										
FCT-Abuja	46.4	10.1	4.4	1.7	1.0	3.8	32.7	100.0	60.9	87
Benue	42.5	7.7	1.2	0.7	0.0	0.0	47.9	100.0	51.4	370
Kogi	63.6	8.6	1.4	0.4	0.4	0.0	25.7	100.0	73.5	167
Kwara	53.4	2.5	2.4	1.4	1.1	0.0	39.2	100.0	58.3	211
Nasarawa	39.4	2.3	1.3	0.4	0.0	0.0	56.6	100.0	43.0	189
Niger	20.1	1.9	1.6	0.4	0.0	0.0	76.0	100.0	23.6	535
Plateau	36.3	2.4	4.2	0.0	0.0	0.3	56.8	100.0	42.9	228
North East										
Adamawa	50.2	0.6	0.5	0.0	0.0	0.0	48.6	100.0	51.4	326
Bauchi	33.7	4.2	4.0	0.4	1.1	0.0	56.6	100.0	42.0	590
Borno	25.4	4.1	1.7	0.5	0.8	0.0	67.6	100.0	31.2	418
Gombe	29.0	0.8	3.3	1.8	1.9	0.1	63.1	100.0	33.0	277
Taraba	20.5	4.6	0.0	0.0	0.0	0.3	74.6	100.0	25.1	299
Yobe	16.1	0.5	1.7	1.9	0.5	0.0	79.3	100.0	18.3	441
North West										
Jigawa	17.9	3.1	2.4	2.2	4.2	0.0	70.2	100.0	23.4	552
Kaduna	21.7	0.7	1.4	0.5	2.2	0.0	73.5	100.0	23.8	885
Kano	20.5	0.9	1.8	0.4	1.3	0.0	75.1	100.0	23.2	1,001
Katsina	12.3	3.5	0.7	0.2	0.4	0.2	82.7	100.0	16.5	876
Kebbi	16.7	0.4	0.6	0.2	0.7	0.0	81.5	100.0	17.6	451
Sokoto	25.4	4.5	1.6	0.2	0.5	0.0	67.8	100.0	31.5	362
Zamfara	10.1	0.0	3.3	1.5	0.2	0.0	84.9	100.0	13.4	521
South East										
Abia	49.8	4.7	2.6	0.0	0.0	1.1	41.7	100.0	57.1	156
Anambra	67.2	11.4	3.4	0.0	0.0	2.8	15.1	100.0	82.1	430
Ebonyi	31.2	14.4	4.6	1.6	0.3	0.3	47.6	100.0	50.2	298
Enugu	66.2	13.0	1.3	0.5	0.5	1.0	17.6	100.0	80.5	183
Imo	69.0	12.4	0.8	0.0	0.0	0.8	17.1	100.0	82.1	237
South South										
Akwa Ibom	55.5	1.7	4.1	0.5	1.0	0.0	37.3	100.0	61.3	216
Bayelsa	23.1	1.2	2.2	0.0	0.0	0.0	73.5	100.0	26.5	87
Cross River	30.2	6.0	6.6	0.0	1.3	0.0	55.8	100.0	42.9	117
Delta	30.4	27.1	2.1	1.1	0.0	2.3	37.0	100.0	59.6	239
Edo	65.0	3.6	3.6	0.4	0.0	6.5	20.9	100.0	72.2	150
Rivers	39.4	2.0	2.4	0.2	0.8	3.3	51.9	100.0	43.8	350

Continued...

Table 9.16—*Continued*

Background characteristic	Time after delivery of mother's first postnatal check[1]						No postnatal check[2]	Total	Percentage of women with a postnatal check during the first 2 days after birth[1]	Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing				
South West										
Ekiti	77.4	0.2	3.9	0.0	0.5	0.4	17.5	100.0	81.6	128
Lagos	68.3	2.8	1.6	1.1	0.3	6.4	19.5	100.0	72.8	599
Ogun	75.0	1.8	0.9	0.0	0.0	0.3	22.0	100.0	77.7	220
Ondo	74.0	0.0	1.0	1.2	0.6	0.9	22.4	100.0	75.0	157
Osun	78.2	1.8	2.4	0.0	0.0	0.0	17.6	100.0	82.4	198
Oyo	80.2	0.0	0.9	1.0	0.0	0.0	17.9	100.0	81.2	383
Education										
No education	16.4	1.7	1.4	0.5	0.9	0.1	79.0	100.0	19.4	5,786
Primary	38.5	3.6	2.3	0.8	1.2	0.5	53.1	100.0	44.3	1,877
Secondary	53.6	5.4	2.8	0.6	0.5	1.2	35.8	100.0	61.8	4,186
More than secondary	69.3	8.9	1.9	0.9	0.4	2.1	16.5	100.0	80.1	1,086
Wealth quintile										
Lowest	15.3	1.2	1.5	0.7	0.8	0.2	80.3	100.0	18.1	2,775
Second	20.8	2.4	1.4	0.3	0.9	0.3	74.0	100.0	24.6	2,955
Middle	35.8	3.9	2.2	0.7	1.2	0.3	55.8	100.0	41.9	2,666
Fourth	53.3	5.7	2.4	0.6	0.6	0.8	36.6	100.0	61.4	2,416
Highest	65.1	6.6	2.7	0.9	0.2	2.6	21.8	100.0	74.5	2,123
Total	36.1	3.8	2.0	0.6	0.8	0.7	56.0	100.0	41.8	12,935

[1] Includes women who received a check from a doctor, midwife, nurse, community health extension worker, or traditional birth attendant
[2] Includes women who received a check after 41 days

Table 9.17 Type of provider of first postnatal check for the mother

Among women age 15-49 giving birth in the 2 years preceding the survey, percent distribution by type of provider of the mother's first postnatal health check during the 2 days after the most recent live birth, according to background characteristics, Nigeria DHS 2018

Background characteristic	Type of health provider of mother's first postnatal check					No postnatal check during the first 2 days after birth	Total	Number of women
	Doctor/ nurse/ midwife	Auxiliary nurse/ midwife	Community health extension worker	Other health worker	Traditional birth attendant			
Age at birth								
<20	25.3	0.8	0.1	1.8	4.3	67.6	100.0	1,662
20-34	36.5	1.3	0.2	1.8	3.6	56.6	100.0	9,207
35-49	34.2	1.8	0.1	1.6	4.8	57.4	100.0	2,066
Birth order								
1	45.7	1.5	0.1	1.8	3.3	47.6	100.0	2,470
2-3	39.5	1.3	0.1	1.6	3.5	54.0	100.0	4,396
4-5	32.9	1.4	0.2	2.0	4.1	59.5	100.0	2,977
6+	21.0	1.2	0.3	1.7	4.7	71.2	100.0	3,091
Place of delivery								
Health facility	77.4	1.1	0.0	2.2	0.1	19.2	100.0	5,248
Elsewhere	5.6	1.5	0.3	1.5	6.4	84.8	100.0	7,687
Residence								
Urban	55.2	2.1	0.1	1.4	2.5	38.6	100.0	4,979
Rural	21.9	0.8	0.2	2.0	4.7	70.4	100.0	7,956
Zone								
North Central	40.9	0.4	0.3	1.8	1.1	55.5	100.0	1,787
North East	22.7	1.3	0.2	2.8	6.7	66.3	100.0	2,350
North West	15.6	0.4	0.2	1.9	3.0	78.9	100.0	4,649
South East	64.9	3.3	0.1	2.4	0.9	28.4	100.0	1,304
South South	40.4	2.2	0.0	0.6	9.3	47.4	100.0	1,160
South West	70.3	2.8	0.0	0.5	3.7	22.7	100.0	1,685
State								
North Central								
FCT-Abuja	59.5	0.2	0.0	0.2	1.0	39.1	100.0	87
Benue	49.3	0.0	0.0	0.6	1.6	48.6	100.0	370
Kogi	65.4	1.0	0.0	4.0	3.2	26.5	100.0	167
Kwara	55.2	1.6	0.0	0.6	1.0	41.7	100.0	211
Nasarawa	40.7	0.3	0.0	2.0	0.0	57.0	100.0	189
Niger	20.2	0.0	0.0	2.8	0.6	76.4	100.0	535
Plateau	37.7	0.8	2.1	1.3	1.0	57.1	100.0	228
North East								
Adamawa	47.4	0.7	0.5	0.7	2.0	48.6	100.0	326
Bauchi	20.8	0.1	0.6	2.7	17.7	58.0	100.0	590
Borno	25.0	0.1	0.0	2.6	3.4	68.8	100.0	418
Gombe	11.1	7.6	0.1	6.1	8.0	67.0	100.0	277
Taraba	18.4	0.5	0.0	6.2	0.0	74.9	100.0	299
Yobe	14.9	0.9	0.0	0.0	2.5	81.7	100.0	441
North West								
Jigawa	23.2	0.0	0.0	0.0	0.2	76.6	100.0	552
Kaduna	18.3	1.7	0.4	0.8	2.4	76.2	100.0	885
Kano	18.9	0.2	0.1	2.1	2.0	76.8	100.0	1,001
Katsina	16.2	0.0	0.0	0.2	0.0	83.5	100.0	876
Kebbi	3.5	0.0	0.6	6.7	6.8	82.4	100.0	451
Sokoto	9.1	0.0	0.7	3.7	18.0	68.5	100.0	362
Zamfara	10.5	0.0	0.0	2.5	0.5	86.6	100.0	521
South East								
Abia	57.1	0.0	0.0	0.0	0.0	42.9	100.0	156
Anambra	77.9	2.2	0.0	1.1	0.9	17.9	100.0	430
Ebonyi	30.8	8.8	0.2	8.8	1.6	49.8	100.0	298
Enugu	78.5	1.1	0.0	0.0	0.8	19.5	100.0	183
Imo	79.0	2.5	0.0	0.0	0.5	17.9	100.0	237
South South								
Akwa Ibom	28.8	1.8	0.0	0.0	30.7	38.7	100.0	216
Bayelsa	16.6	0.5	0.0	0.0	9.4	73.5	100.0	87
Cross River	37.4	0.6	0.0	0.6	4.3	57.1	100.0	117
Delta	51.8	0.7	0.0	1.8	5.2	40.4	100.0	239
Edo	64.9	1.2	0.0	1.2	4.9	27.8	100.0	150
Rivers	36.4	5.0	0.0	0.0	2.4	56.2	100.0	350
South West								
Ekiti	74.5	6.6	0.0	0.0	0.4	18.4	100.0	128
Lagos	64.9	0.5	0.0	0.0	7.4	27.2	100.0	599
Ogun	65.7	4.3	0.2	2.3	5.1	22.3	100.0	220
Ondo	71.8	2.2	0.0	0.0	1.0	25.0	100.0	157
Osun	79.8	0.0	0.0	0.9	1.7	17.6	100.0	198
Oyo	74.6	5.8	0.0	0.2	0.5	18.8	100.0	383

Continued...

Table 9.17—*Continued*

Background characteristic	Type of health provider of mother's first postnatal check					No postnatal check during the first 2 days after birth	Total	Number of women
	Doctor/ nurse/ midwife	Auxiliary nurse/ midwife	Community health extension worker	Other health worker	Traditional birth attendant			
Education								
No education	12.2	0.5	0.2	1.9	4.6	80.6	100.0	5,786
Primary	35.3	1.8	0.4	1.8	5.0	55.7	100.0	1,877
Secondary	54.3	2.4	0.1	1.8	3.3	38.2	100.0	4,186
More than secondary	78.2	0.6	0.0	0.8	0.5	19.9	100.0	1,086
Wealth quintile								
Lowest	9.6	0.7	0.2	1.9	5.7	81.9	100.0	2,775
Second	16.9	0.8	0.2	2.5	4.2	75.4	100.0	2,955
Middle	34.7	1.7	0.3	1.7	3.5	58.1	100.0	2,666
Fourth	54.0	2.2	0.1	1.9	3.3	38.6	100.0	2,416
Highest	70.5	1.3	0.0	0.5	2.1	25.5	100.0	2,123
Total	34.7	1.3	0.2	1.8	3.9	58.2	100.0	12,935

Table 9.18 Timing of first postnatal check for the newborn

Percent distribution of most recent live births in the 2 years preceding the survey by time after birth of first postnatal check, and percentage of births with a postnatal check during the first 2 days after birth, according to background characteristics, Nigeria DHS 2018

Background characteristic	Time after delivery of newborn's first postnatal check[1]						No postnatal check[2]	Total	Percentage of births with a postnatal check during the first 2 days after birth[1]	Number of births
	Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	Don't know				
Mother's age at birth										
<20	9.0	14.5	2.4	2.6	1.0	0.5	69.9	100.0	28.6	1,662
20-34	14.2	19.1	3.6	2.8	1.0	0.8	58.5	100.0	39.7	9,207
35-49	13.4	18.0	3.4	2.3	0.6	1.1	61.3	100.0	37.1	2,066
Birth order										
1	16.3	24.3	4.1	2.6	1.1	0.9	50.7	100.0	47.3	2,470
2-3	15.4	20.5	3.6	3.0	1.4	1.2	54.8	100.0	42.6	4,396
4-5	13.4	16.5	3.9	3.1	0.7	0.4	62.0	100.0	36.9	2,977
6+	8.2	12.1	2.2	2.1	0.5	0.5	74.4	100.0	24.6	3,091
Place of delivery										
Health facility	29.4	40.4	7.4	2.6	0.3	1.4	18.6	100.0	79.7	5,248
Elsewhere	2.5	3.2	0.7	2.8	1.4	0.3	88.9	100.0	9.3	7,687
Residence										
Urban	20.5	27.5	5.6	2.9	1.1	1.5	40.8	100.0	56.5	4,979
Rural	9.0	12.5	2.1	2.6	0.9	0.3	72.6	100.0	26.2	7,956
Zone										
North Central	14.4	21.5	4.0	2.4	0.8	0.2	56.7	100.0	42.2	1,787
North East	14.1	11.6	2.5	3.0	0.8	0.1	68.0	100.0	31.1	2,350
North West	5.8	7.5	1.0	2.6	0.8	0.0	82.3	100.0	16.9	4,649
South East	10.9	43.1	12.4	2.7	0.7	0.8	29.5	100.0	69.0	1,304
South South	9.9	25.7	5.9	3.1	1.7	2.0	51.8	100.0	44.6	1,160
South West	37.0	29.9	2.2	2.7	1.6	3.5	23.1	100.0	71.7	1,685
State										
North Central										
FCT-Abuja	21.4	24.5	11.6	3.4	0.0	2.7	36.5	100.0	60.8	87
Benue	9.1	31.3	7.3	2.7	0.2	0.0	49.3	100.0	50.4	370
Kogi	34.5	27.5	6.6	0.4	1.3	0.3	29.4	100.0	69.0	167
Kwara	30.9	18.8	2.4	2.5	1.4	0.0	44.0	100.0	54.6	211
Nasarawa	5.5	28.8	1.4	2.7	1.5	0.0	60.2	100.0	38.3	189
Niger	5.7	13.8	1.8	1.8	0.7	0.0	76.2	100.0	23.1	535
Plateau	17.8	14.4	2.5	4.3	0.6	0.5	60.0	100.0	38.9	228
North East										
Adamawa	35.8	11.8	0.9	0.6	0.2	0.0	50.7	100.0	49.1	326
Bauchi	11.3	14.9	3.6	8.3	2.1	0.2	59.7	100.0	38.1	590
Borno	11.8	14.4	3.8	2.1	0.2	0.0	67.7	100.0	32.1	418
Gombe	11.3	12.4	0.5	1.1	0.5	0.1	74.0	100.0	25.4	277
Taraba	12.5	7.4	5.0	0.8	0.0	0.3	74.0	100.0	25.6	299
Yobe	6.8	6.6	0.4	1.1	1.0	0.0	84.1	100.0	14.9	441
North West										
Jigawa	8.0	10.0	1.9	1.6	3.0	0.0	75.5	100.0	21.4	552
Kaduna	9.1	8.3	0.5	3.2	0.5	0.0	78.4	100.0	21.1	885
Kano	10.0	8.7	0.5	1.1	0.8	0.0	78.8	100.0	20.4	1,001
Katsina	1.7	7.9	2.2	0.7	0.2	0.1	87.1	100.0	12.6	876
Kebbi	2.8	2.2	0.3	0.5	0.2	0.0	93.9	100.0	5.9	451
Sokoto	2.7	10.3	1.6	13.0	0.0	0.0	72.5	100.0	27.5	362
Zamfara	1.3	3.2	0.3	3.3	0.9	0.0	91.1	100.0	8.0	521
South East										
Abia	2.4	43.4	4.7	3.3	0.0	1.1	45.1	100.0	53.8	156
Anambra	1.5	63.4	11.9	3.8	0.6	1.0	17.8	100.0	80.5	430
Ebonyi	5.4	23.7	14.1	2.8	2.0	0.3	51.7	100.0	45.9	298
Enugu	11.8	51.2	13.2	1.1	0.0	0.7	22.0	100.0	77.3	183
Imo	39.8	24.2	15.4	1.4	0.2	0.8	18.2	100.0	80.8	237
South South										
Akwa Ibom	10.6	30.5	3.6	3.4	2.1	0.8	48.9	100.0	48.2	216
Bayelsa	0.6	22.6	0.6	3.7	0.2	0.9	71.5	100.0	27.4	87
Cross River	12.6	16.1	1.5	9.1	1.5	1.3	57.9	100.0	39.3	117
Delta	1.9	27.8	21.2	1.7	0.0	1.9	45.5	100.0	52.6	239
Edo	20.6	42.8	3.1	3.6	0.4	4.3	25.3	100.0	70.0	150
Rivers	11.6	18.0	0.9	1.4	3.5	2.3	62.2	100.0	32.0	350

Continued...

Table 9.18—*Continued*

Background characteristic	Time after delivery of newborn's first postnatal check[1]						No postnatal check[2]	Total	Percentage of births with a postnatal check during the first 2 days after birth[1]	Number of births
	Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	Don't know				
South West										
Ekiti	11.3	46.7	4.8	9.3	4.6	0.4	22.8	100.0	72.2	128
Lagos	50.8	11.3	2.2	2.6	0.9	9.3	22.9	100.0	66.8	599
Ogun	37.2	31.2	1.1	1.2	0.0	0.3	28.9	100.0	70.7	220
Ondo	51.4	18.4	0.0	2.1	1.4	0.6	26.2	100.0	71.9	157
Osun	34.9	36.8	7.8	2.5	2.7	0.9	14.5	100.0	82.0	198
Oyo	18.9	53.6	0.0	2.0	2.1	0.0	23.3	100.0	74.6	383
Mother's education										
No education	5.1	7.6	1.4	2.3	0.7	0.2	82.7	100.0	16.4	5,786
Primary	15.2	18.1	2.5	2.7	1.1	0.7	59.9	100.0	38.4	1,877
Secondary	19.7	28.8	5.1	3.4	1.3	1.3	40.3	100.0	57.1	4,186
More than secondary	30.4	35.3	9.5	2.1	1.0	2.2	19.5	100.0	77.3	1,086
Wealth quintile										
Lowest	4.5	6.8	1.2	2.9	0.9	0.2	83.5	100.0	15.4	2,775
Second	7.3	10.8	1.4	2.2	0.7	0.1	77.5	100.0	21.6	2,955
Middle	12.7	18.3	3.8	2.6	0.9	0.2	61.5	100.0	37.5	2,666
Fourth	19.8	27.5	5.1	3.1	1.0	1.0	42.7	100.0	55.4	2,416
Highest	27.4	33.5	6.8	2.9	1.5	2.9	25.1	100.0	70.5	2,123
Total	13.4	18.3	3.4	2.7	1.0	0.8	60.4	100.0	37.9	12,935

[1] Includes newborns who received a check from a doctor, midwife, nurse, community health worker, or traditional birth attendant
[2] Includes newborns who received a check after the first week of life

Table 9.19 Type of provider of first postnatal check for the newborn

Percent distribution of most recent live births in the 2 years preceding the survey by type of provider of the newborn's first postnatal health check during the 2 days after the most recent live birth, according to background characteristics, Nigeria DHS 2018

Background characteristic	Type of health provider of newborn's first postnatal check					No postnatal check during the first 2 days after birth	Total	Number of births
	Doctor/nurse/ midwife	Auxiliary nurse/midwife	Community health extension worker	Other health worker	Traditional birth attendant			
Mother's age at birth								
<20	23.6	0.7	0.2	1.2	2.9	71.4	100.0	1,662
20-34	34.9	0.8	0.1	1.2	2.8	60.3	100.0	9,207
35-49	32.6	0.7	0.0	1.3	2.4	62.9	100.0	2,066
Birth order								
1	43.1	1.0	0.1	1.1	2.0	52.7	100.0	2,470
2-3	37.9	0.8	0.1	1.2	2.6	57.4	100.0	4,396
4-5	31.8	0.7	0.1	1.4	2.8	63.1	100.0	2,977
6+	19.3	0.6	0.1	1.2	3.4	75.4	100.0	3,091
Place of delivery								
Health facility	76.2	1.1	0.0	2.1	0.2	20.3	100.0	5,248
Elsewhere	3.7	0.5	0.1	0.6	4.4	90.7	100.0	7,687
Residence								
Urban	52.8	1.2	0.1	1.2	1.2	43.5	100.0	4,979
Rural	20.7	0.5	0.1	1.2	3.6	73.8	100.0	7,956
Zone								
North Central	39.6	0.3	0.0	1.4	0.9	57.8	100.0	1,787
North East	21.3	1.1	0.2	2.5	6.1	68.9	100.0	2,350
North West	13.6	0.2	0.1	0.9	2.2	83.1	100.0	4,649
South East	64.1	2.5	0.1	2.0	0.4	31.0	100.0	1,304
South South	38.2	0.5	0.1	0.3	5.7	55.4	100.0	1,160
South West	68.9	1.3	0.0	0.2	1.3	28.3	100.0	1,685
State								
North Central								
FCT-Abuja	59.3	0.0	0.0	0.0	1.5	39.2	100.0	87
Benue	48.5	0.3	0.0	0.0	1.7	49.6	100.0	370
Kogi	66.3	0.5	0.0	1.3	0.9	31.0	100.0	167
Kwara	52.8	1.0	0.0	0.3	0.5	45.4	100.0	211
Nasarawa	35.8	0.3	0.0	2.0	0.2	61.7	100.0	189
Niger	19.1	0.0	0.0	3.0	0.9	76.9	100.0	535
Plateau	37.1	0.3	0.4	1.0	0.2	61.1	100.0	228
North East								
Adamawa	46.3	0.4	0.5	0.3	1.5	50.9	100.0	326
Bauchi	18.0	0.6	0.2	1.7	17.6	61.9	100.0	590
Borno	25.5	0.0	0.1	2.9	3.6	67.9	100.0	418
Gombe	9.4	7.3	0.1	5.7	2.8	74.6	100.0	277
Taraba	18.9	0.5	0.0	6.2	0.0	74.4	100.0	299
Yobe	12.4	0.0	0.0	0.0	2.5	85.1	100.0	441
North West								
Jigawa	21.3	0.0	0.0	0.0	0.2	78.6	100.0	552
Kaduna	17.7	0.9	0.2	0.1	2.2	78.9	100.0	885
Kano	17.1	0.0	0.1	1.7	1.5	79.6	100.0	1,001
Katsina	12.3	0.0	0.0	0.2	0.0	87.4	100.0	876
Kebbi	2.5	0.0	0.0	3.1	0.4	94.1	100.0	451
Sokoto	8.9	0.0	0.7	1.8	16.2	72.5	100.0	362
Zamfara	6.9	0.0	0.0	0.3	0.8	92.0	100.0	521
South East								
Abia	53.8	0.0	0.0	0.0	0.0	46.2	100.0	156
Anambra	79.0	0.7	0.2	0.5	0.2	19.5	100.0	430
Ebonyi	29.4	7.5	0.0	8.1	0.9	54.1	100.0	298
Enugu	75.5	1.3	0.0	0.0	0.5	22.7	100.0	183
Imo	78.6	1.9	0.0	0.0	0.3	19.2	100.0	237
South South								
Akwa Ibom	26.1	1.3	0.0	0.0	20.8	51.8	100.0	216
Bayelsa	17.5	0.5	0.0	0.0	9.5	72.6	100.0	87
Cross River	35.0	0.0	0.5	0.0	3.8	60.7	100.0	117
Delta	51.7	0.9	0.0	0.0	0.0	47.4	100.0	239
Edo	66.3	0.0	0.0	1.2	2.5	30.0	100.0	150
Rivers	30.5	0.0	0.0	0.3	1.2	68.0	100.0	350
South West								
Ekiti	68.1	4.1	0.0	0.0	0.0	27.8	100.0	128
Lagos	63.7	0.7	0.0	0.0	2.5	33.2	100.0	599
Ogun	67.0	1.6	0.0	0.7	1.4	29.3	100.0	220
Ondo	69.3	1.6	0.0	0.0	1.0	28.1	100.0	157
Osun	80.7	0.0	0.0	0.9	0.4	18.0	100.0	198
Oyo	72.1	1.7	0.0	0.2	0.5	25.4	100.0	383

Continued...

Table 9.19—*Continued*

Background characteristic	Type of health provider of newborn's first postnatal check					No postnatal check during the first 2 days after birth	Total	Number of births
	Doctor/nurse/ midwife	Auxiliary nurse/midwife	Community health extension worker	Other health worker	Traditional birth attendant			
Mother's education								
No education	11.1	0.4	0.1	1.2	3.8	83.6	100.0	5,786
Primary	33.5	1.1	0.2	1.4	2.1	61.6	100.0	1,877
Secondary	52.2	1.3	0.1	1.3	2.2	42.9	100.0	4,186
More than secondary	76.1	0.2	0.0	0.7	0.2	22.7	100.0	1,086
Wealth quintile								
Lowest	9.0	0.5	0.1	1.1	4.8	84.6	100.0	2,775
Second	15.8	0.6	0.1	1.8	3.3	78.4	100.0	2,955
Middle	33.1	0.9	0.2	1.2	2.1	62.5	100.0	2,666
Fourth	50.9	1.2	0.1	1.3	2.0	44.6	100.0	2,416
Highest	68.5	0.6	0.0	0.5	0.9	29.5	100.0	2,123
Total	33.1	0.8	0.1	1.2	2.7	62.1	100.0	12,935

Table 9.20 Content of postnatal care for newborns

Among most recent live births in the 2 years preceding the survey, percentage for whom selected functions were performed during the first 2 days after birth and percentage with at least two signal functions performed during the first 2 days after birth, according to background characteristics, Nigeria DHS 2018

Background characteristic	Among most recent live births in the 2 years preceding the survey, percentage for whom the selected function was performed during the first 2 days after birth:						Percentage with at least two signal functions performed during the first 2 days after birth	Number of births
	Cord examined	Temperature measured	Counselling on danger signs	Counselling on breast-feeding	Observation of breast-feeding	Weighed[1]		
Mother's age at birth								
<20	13.2	12.0	11.8	14.2	11.5	12.3	16.0	1,662
20-34	22.1	21.4	19.8	21.9	18.5	27.4	25.6	9,207
35-49	22.7	22.5	20.6	21.0	18.0	26.5	26.2	2,066
Birth order								
1	28.4	26.9	26.8	30.8	26.1	33.7	34.2	2,470
2-3	25.4	25.0	22.9	25.4	21.3	31.3	29.3	4,396
4-5	19.3	19.0	17.2	17.7	15.2	23.3	22.0	2,977
6+	10.7	9.8	8.4	9.2	7.3	12.1	12.2	3,091
Place of delivery								
Health facility	39.5	41.0	37.1	40.5	34.6	55.9	47.9	5,248
Elsewhere	8.5	6.3	6.5	7.3	5.8	4.4	8.5	7,687
Residence								
Urban	34.7	35.2	32.5	35.3	30.6	44.7	41.7	4,979
Rural	12.5	11.1	10.4	11.7	9.3	13.2	13.7	7,956
Zone								
North Central	15.3	14.5	13.2	15.0	12.2	28.2	17.5	1,787
North East	10.2	9.6	8.2	10.2	6.3	10.0	12.2	2,350
North West	5.1	4.9	4.1	4.2	2.6	7.0	5.4	4,649
South East	51.8	53.8	39.9	42.4	40.9	58.5	58.2	1,304
South South	37.7	31.3	32.3	39.4	33.2	41.5	44.5	1,160
South West	51.3	51.0	55.0	57.8	50.7	57.4	61.8	1,685
State								
North Central								
FCT-Abuja	25.5	24.2	24.4	21.9	19.7	41.6	28.3	87
Benue	12.5	10.7	11.6	13.0	13.3	42.3	13.5	370
Kogi	13.3	14.4	6.5	7.6	4.8	46.1	16.4	167
Kwara	39.2	42.6	41.4	46.3	29.2	39.2	47.5	211
Nasarawa	15.4	16.5	14.0	16.3	16.6	26.6	18.9	189
Niger	8.1	6.0	5.3	7.4	6.7	13.6	9.1	535
Plateau	11.5	9.1	8.6	9.1	6.0	12.2	11.7	228
North East								
Adamawa	20.2	18.9	21.8	21.2	2.3	27.6	23.3	326
Bauchi	12.4	11.3	8.4	10.9	8.1	6.3	14.3	590
Borno	2.0	2.0	0.8	5.1	6.5	14.3	5.1	418
Gombe	15.7	15.6	13.6	13.0	9.7	5.1	16.5	277
Taraba	4.0	4.8	3.2	5.0	2.7	7.9	6.9	299
Yobe	8.6	7.0	4.7	7.6	7.1	2.5	8.8	441
North West								
Jigawa	9.1	8.9	7.4	6.0	5.4	3.9	9.6	552
Kaduna	8.8	8.1	6.6	7.6	3.4	11.4	9.2	885
Kano	4.1	3.8	3.7	3.1	2.2	9.7	4.6	1,001
Katsina	3.5	3.7	2.9	3.6	3.2	6.4	4.0	876
Kebbi	1.0	0.5	1.0	3.9	0.5	3.1	1.4	451
Sokoto	6.4	7.3	4.3	2.5	2.3	4.9	6.0	362
Zamfara	1.4	1.4	2.0	1.2	0.4	3.3	1.4	521
South East								
Abia	43.8	44.7	44.6	45.6	45.8	62.9	48.1	156
Anambra	73.7	80.2	50.5	50.4	51.3	78.4	79.7	430
Ebonyi	25.3	24.1	29.2	35.7	22.5	24.3	35.0	298
Enugu	38.9	42.8	40.5	39.6	39.6	57.2	41.5	183
Imo	60.4	57.7	30.6	36.4	43.1	63.5	68.0	237
South South								
Akwa Ibom	44.6	20.0	35.6	45.2	33.6	35.5	47.6	216
Bayelsa	22.7	27.3	28.1	30.0	29.5	23.9	30.4	87
Cross River	25.7	17.2	17.0	22.0	19.1	47.8	28.6	117
Delta	36.0	43.5	41.8	42.7	41.3	43.0	44.0	239
Edo	48.8	52.5	42.0	51.4	32.0	60.4	61.5	150
Rivers	37.5	26.8	25.9	36.5	33.6	38.5	44.5	350

Continued...

Table 9.20—*Continued*

Background characteristic	Among most recent live births in the 2 years preceding the survey, percentage for whom the selected function was performed during the first 2 days after birth:						Percentage with at least two signal functions performed during the first 2 days after birth	Number of births
	Cord examined	Temperature measured	Counselling on danger signs	Counselling on breast-feeding	Observation of breast-feeding	Weighed[1]		
South West								
Ekiti	52.3	52.2	53.5	64.7	57.3	43.7	64.5	128
Lagos	71.2	70.3	67.4	67.4	60.3	64.6	76.8	599
Ogun	47.3	46.9	49.1	49.1	49.8	66.5	52.1	220
Ondo	41.1	42.7	48.0	47.1	27.9	37.1	48.6	157
Osun	17.3	15.3	42.4	56.8	38.1	42.1	56.8	198
Oyo	43.9	44.6	49.1	50.2	49.6	61.5	51.0	383
Mother's education								
No education	5.4	5.1	4.6	4.9	3.7	4.7	5.8	5,786
Primary	21.6	20.5	18.4	20.1	16.6	21.5	24.3	1,877
Secondary	34.6	33.6	31.4	34.8	29.5	42.0	41.3	4,186
More than secondary	51.5	50.6	47.6	52.2	46.3	77.3	59.4	1,086
Wealth quintile								
Lowest	4.9	4.6	4.2	4.7	3.3	3.6	5.4	2,775
Second	8.9	8.1	7.4	8.5	6.1	8.5	10.2	2,955
Middle	18.2	16.8	16.0	17.8	13.8	19.7	21.0	2,666
Fourth	32.4	31.6	29.5	32.2	28.5	37.9	38.1	2,416
Highest	49.8	49.7	45.6	49.6	44.0	69.9	58.1	2,123
Total	21.1	20.4	18.9	20.8	17.5	25.3	24.5	12,935

[1] Captures newborns who were weighed "at birth." May exclude some newborns who were weighed during the 2 days after birth.

Table 9.21 Problems in accessing health care

Percentage of women age 15-49 who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, Nigeria DHS 2018

Background characteristic	Problems in accessing health care					
	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Not wanting to go alone	At least one problem accessing health care	Number of women
Age						
15-19	13.8	44.1	25.5	22.2	52.4	8,448
20-34	10.7	45.5	25.3	14.9	50.6	20,268
35-49	10.9	47.5	26.5	14.0	52.4	13,105
Number of living children						
0	11.5	41.5	21.8	18.5	48.6	12,271
1-2	11.3	45.4	26.2	15.6	50.4	10,731
3-4	10.8	46.6	26.9	14.5	51.6	9,363
5+	12.0	51.1	29.1	15.1	56.5	9,457
Marital status						
Never married	11.6	41.6	21.0	18.3	48.7	10,550
Married or living together	11.5	46.4	27.3	15.4	51.8	29,090
Divorced/separated/widowed	8.7	58.5	26.8	14.7	61.4	2,181
Employed last 12 months						
Not employed	12.9	44.9	25.1	18.4	51.1	13,214
Employed for cash	10.1	43.8	23.1	13.4	48.7	23,139
Employed not for cash	13.4	56.6	38.4	21.8	64.6	5,468
Residence						
Urban	8.3	37.2	16.8	10.9	42.1	19,163
Rural	14.0	53.1	33.2	20.5	59.5	22,658
Zone						
North Central	13.0	52.7	36.3	18.7	58.7	5,891
North East	11.8	60.1	34.0	24.7	68.6	6,636
North West	9.2	39.9	19.6	11.6	44.6	12,225
South East	6.1	51.3	25.7	14.1	55.9	4,963
South South	14.8	48.7	24.5	16.6	54.1	4,840
South West	14.7	31.5	20.7	14.6	37.0	7,266
State						
North Central						
FCT-Abuja	7.7	47.6	20.2	9.4	52.6	319
Benue	9.0	77.5	49.4	17.8	80.2	1,354
Kogi	9.8	64.7	40.4	14.0	72.6	654
Kwara	6.1	32.1	21.3	9.2	38.1	684
Nasarawa	4.9	10.3	6.5	7.3	13.8	648
Niger	32.3	62.5	48.3	34.9	69.2	1,357
Plateau	5.2	39.2	34.0	18.0	50.1	875
North East						
Adamawa	16.9	90.0	40.2	30.7	90.8	903
Bauchi	17.4	52.0	40.0	35.7	65.3	1,343
Borno	7.0	58.9	24.9	23.0	68.1	1,469
Gombe	9.6	61.8	41.2	12.7	69.0	717
Taraba	7.5	51.2	30.6	15.4	65.4	877
Yobe	12.1	54.2	32.0	23.9	59.4	1,327
North West						
Jigawa	3.0	67.6	25.4	14.8	74.4	1,382
Kaduna	7.1	52.3	13.0	4.3	54.7	2,493
Kano	4.8	34.2	17.7	10.5	37.1	2,692
Katsina	5.1	15.3	13.5	12.1	18.6	2,283
Kebbi	17.6	35.9	30.3	13.3	52.5	1,136
Sokoto	41.8	43.6	35.8	33.8	51.2	910
Zamfara	6.0	42.8	19.9	6.8	43.5	1,328
South East						
Abia	11.1	65.4	34.4	31.6	68.1	630
Anambra	2.6	37.6	11.9	5.8	41.6	1,477
Ebonyi	2.8	65.0	35.5	7.2	70.5	1,027
Enugu	5.6	51.6	25.7	21.5	52.3	880
Imo	12.2	48.2	30.6	15.8	57.6	948
South South						
Akwa Ibom	8.9	47.1	19.0	12.1	54.8	948
Bayelsa	35.5	44.5	35.8	30.0	46.2	298
Cross River	17.9	36.1	13.5	8.3	42.3	574
Delta	29.4	73.0	53.3	39.2	77.3	931
Edo	10.9	39.8	22.2	11.1	49.6	555
Rivers	5.9	43.6	13.3	8.1	47.1	1,534

Continued...

Table 9.21—*Continued*

Background characteristic	Problems in accessing health care					
	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Not wanting to go alone	At least one problem accessing health care	Number of women
South West						
Ekiti	8.6	22.9	20.0	13.2	30.4	475
Lagos	6.2	25.0	12.7	6.9	33.6	2,891
Ogun	13.7	33.0	10.2	6.7	36.5	927
Ondo	1.1	14.5	2.0	1.5	15.3	683
Osun	1.7	8.6	6.8	2.5	12.8	938
Oyo	51.7	71.9	64.6	52.1	74.8	1,352
Education						
No education	16.0	56.0	35.8	21.5	62.6	14,603
Primary	9.7	49.9	27.1	14.2	54.9	6,039
Secondary	9.7	41.1	19.8	14.1	46.5	16,583
More than secondary	5.1	25.0	13.4	8.4	30.1	4,596
Wealth quintile						
Lowest	16.8	61.5	45.8	26.5	69.8	7,222
Second	13.0	55.6	32.2	18.9	61.6	8,045
Middle	11.3	49.2	24.6	14.9	53.8	8,207
Fourth	9.6	39.8	18.3	12.8	44.8	8,990
Highest	7.6	28.1	12.7	9.8	33.1	9,357
Total	11.4	45.8	25.7	16.1	51.5	41,821

CHILD HEALTH 10

Key Findings

- ***Vaccinations:*** 31% of children age 12-23 months had received all basic vaccinations at the time of the survey, while 21% had received all age-appropriate vaccinations.
- ***Symptoms of ARI:*** Advice or treatment was sought for 75% of children under age 5 who had symptoms of ARI in the 2 weeks before the survey. For 29% of these children, advice or treatment was sought on the same or next day.
- ***Fever:*** Advice or treatment was sought for 73% of children under age 5 who had a fever in the 2 weeks before the survey. For 38% of these children, advice or treatment was sought the same or next day.
- ***Diarrhoea:*** Advice or treatment was sought for 65% of children under age 5 who had diarrhoea in the 2 weeks before the survey; 50% of children with diarrhoea received ORT, while 17% received no treatment.

Information on child health and survival can help policymakers and programme managers assess the efficacy of current strategies, formulate appropriate interventions to prevent deaths from childhood illnesses, and improve the health of children in Nigeria.

This chapter presents information on birth weight and vaccination status for young children. It also looks at the prevalence of, and treatment practices for, three common childhood illnesses: symptoms of acute respiratory infection (ARI), fever, and diarrhoea. Because appropriate sanitary practices can help prevent and reduce the severity of diarrhoeal disease, information is also provided on the disposal of children's faecal matter.

10.1 Birth Weight

Low birth weight

Percentage of births with a reported birth weight below 2.5 kilogrammes regardless of gestational age

Sample: Live births in the 5 years before the survey that have a reported birth weight, from either a written record or the mother's report

Low birth weight is closely associated with foetal and neonatal morbidity, inhibited growth and cognitive development, and chronic diseases later in life (Negrato et al. 2013). Birth weight is a good summary measure of multifaceted public health problems including long-term maternal malnutrition, ill health, and poor health care during pregnancy. In this survey, information on birth weight was collected through either a written record or the mother's report. The mother's assessment of her child's weight was necessary because information on birth weight was rarely available for home deliveries. Children are considered to have a low birth weight if they weigh less than 2.5 kilogrammes (kg) at birth. Although mothers' estimates

of their child's birth weight are subjective and findings must be interpreted with caution, these estimates are a useful proxy for a child's birth weight.

Information on birth weight was obtained for only 24% of births (**Table 10.1**). Of the children with known birth weights, 7% weighed less than 2.5 kg at birth (**Table 10.1**). Mothers also provided estimates of their baby's size at birth. Although the mother's estimate of size is subjective, it can be a useful proxy for the child's weight. According to mothers' reports, 3% of births were very small, 11% were smaller than average, and 85% were average or larger.

Trends: The percentage of mothers reporting information on birth weight has fluctuated over the years, decreasing from 18% in 2008 to 16% in 2013 before rising to 24% in 2018. The percentage of infants weighing less than 2.5 kg at birth was 8% in 2008 and 2013 while it is 7% in 2018.

Background characteristics:

- Babies born to mothers under age 20 are more likely to be of low birth weight (12%) than babies born to mothers age 20-34 or 35-49 (7% each).
- The percentage of births with a reported birth weight is highest in the South East (56%) and lowest in the North West (7%).
- Infants born to mothers with no education are more likely to be of low birth weight (16%) than infants born to mothers with a secondary education or more than a secondary education (6% each).
- Children born to mothers in the lowest wealth quintile are more likely to have a low birth weight (12%) than children born to mothers in the highest wealth quintile (6%).

10.2 Vaccination of Children

All basic vaccinations coverage

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report). To have received all basic vaccinations, a child must receive at least:

- One dose of BCG vaccine, which protects against tuberculosis
- Three doses of DPT-containing vaccine, which protects against diphtheria, pertussis (whooping cough), and tetanus
- Three doses of oral polio vaccine (excluding polio vaccine given at birth)
- One dose of measles vaccine

Sample: Living children age 12-23 months

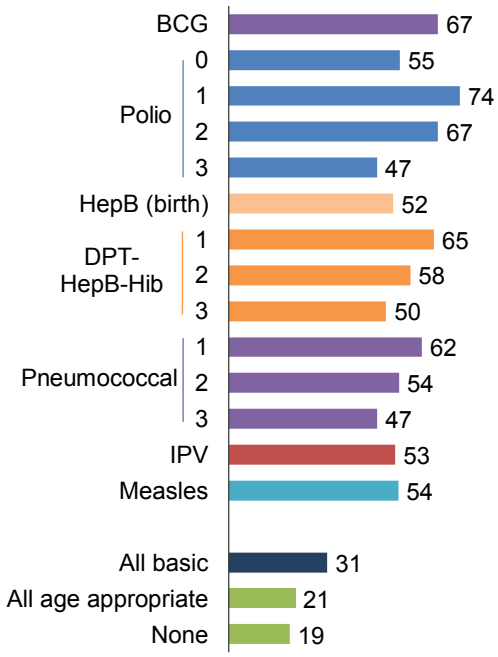
Immunisation coverage is one of the indicators used to monitor progress toward reductions in child morbidity and mortality, as it is one of the most cost-effective public health interventions. In the 5 years preceding the survey, Nigeria continued to intensify its focus on polio eradication and strengthening routine immunisation. Several supplemental vaccination campaigns were conducted to rapidly increase coverage of specific vaccines and pre-empt or respond to potential disease outbreaks. Campaigns such as the Cerebrospinal Meningitis, Measles, Yellow Fever and Maternal Neonatal Tetanus Elimination (MNTE) initiative, which targeted maternal and newborn survival, were implemented at different intervals in the years prior to the survey. Nigeria's DPT-containing vaccine also protects against hepatitis B (HepB) and *Haemophilus influenzae* type b (Hib); it is known as DPT-HepB-Hib, or the pentavalent vaccine. The inactivated polio vaccine (IPV), which serves as a booster for oral polio vaccine, was introduced in February 2015. The aim was to boost children's immunity against type 1 and type 3 wild poliovirus (WPV) and tackle the risk of circulating vaccine-derived poliovirus (cVDPV) (National Primary Health Care Development Agency 2016).

The 2018 NDHS collected information on vaccination coverage in two ways: from vaccination cards shown to the interviewer and from mothers' verbal reports. If the cards were available, the interviewer copied the vaccination dates directly into the questionnaire. When there was no vaccination card for the child or if a vaccine had not been recorded on the vaccination card as being given, the respondent was asked to recall the vaccines given to her child.

Table 10.2 shows that one-third (31%) of children age 12-23 months received all basic vaccinations at any time before the survey, while 28% received the basic vaccinations by the appropriate age of 12 months; 19% received no vaccinations at all.

Figure 10.1 **Childhood vaccinations**

Percentage of children age 12-23 months vaccinated at any time before the survey

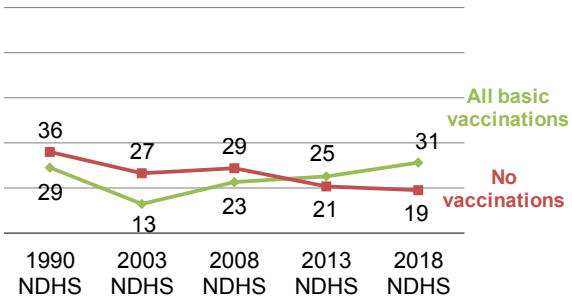


With respect to coverage of specific vaccines among children age 12-23 months (based on the vaccination card or the mother's report), 67% received the BCG vaccine and 65% received the first dose of DPT-HepB-Hib prior to the survey. Only 50% of children received the third dose of DPT-HepB-Hib, reflecting a dropout rate of 30%. Meanwhile, 54% received the measles vaccine, 55% received the recommended polio 0 dose at birth, 74% received the first dose of polio, and 67% received the second dose of polio. Just under half of children (47% each) received the third dose of the pneumococcal conjugate vaccine and the third dose of the polio vaccine (**Figure 10.1**).

Trends: Vaccination coverage in Nigeria has improved over the past 10 years. The percentage of children age 12-23 months who received all basic vaccinations increased from 23% in 2008 to 31% in 2018 (**Figure 10.2**). The percentage of children who received none of the basic vaccinations declined from 29% to 19% during the same period. While these trends show improvement, they still fall short of Sustainable Development Goal 3, for which the target is achieving more than 90% coverage of all basic vaccinations among children age 12-23 months.

Figure 10.2 **Trends in childhood vaccinations**

Percentage of children age 12-23 months who received all basic vaccinations at any time before the survey



Patterns by background characteristics

- Urban children age 12-23 months are almost twice as likely to receive all basic vaccinations as rural children (44% versus 23%) (**Table 10.3**).

- Children whose mothers have more than a secondary education are more likely than those whose mothers have no education to receive all basic vaccinations (62% and 15%, respectively) (**Figure 10.3**).

- Children from households in the highest wealth quintile are more likely to receive all basic vaccinations than those from households in the lowest wealth quintile (59% and 15%, respectively).

Figure 10.3 **Vaccination coverage by mother's education**

Percentage of children age 12-23 months who received all basic vaccines at any time before the survey

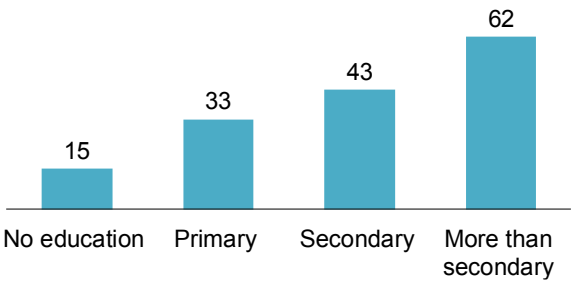
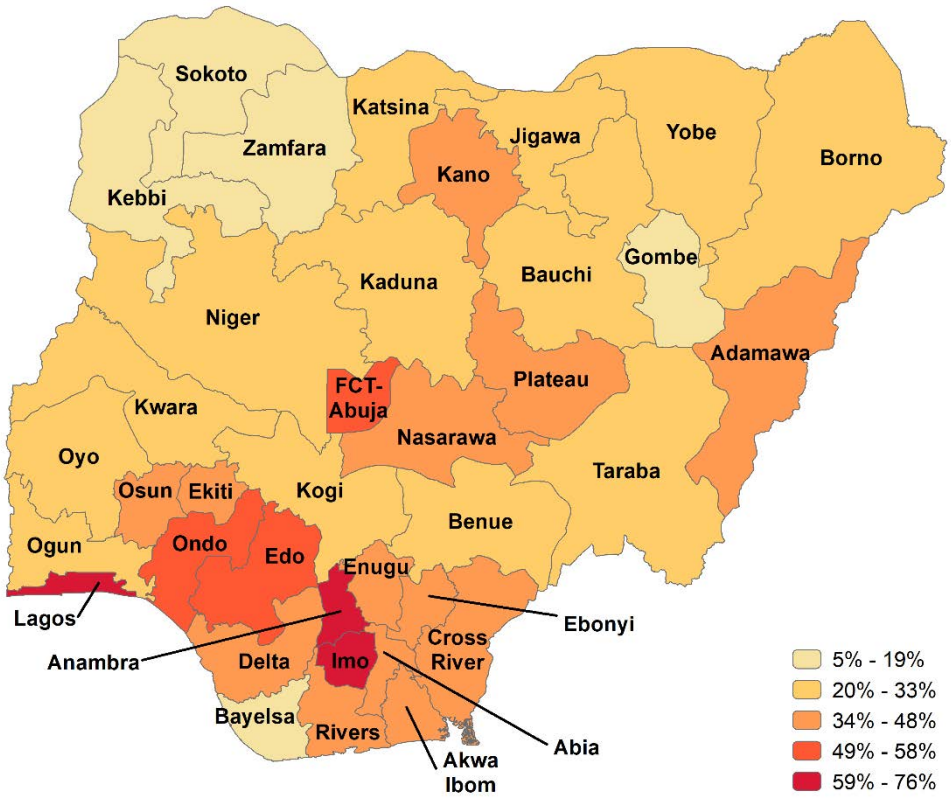


Figure 10.4 **Vaccination coverage by state**

Percentage of children age 12-23 months who received all basic vaccines at any time before the survey



- Vaccination coverage among children age 12-23 months is highest in Anambra (76%) and lowest in Sokoto (5%) (**Figure 10.4**).

Vaccination Card Ownership and Availability

Vaccination cards are critical tools in ensuring that children receive all recommended vaccinations according to schedule. **Table 10.4** shows that 68% of children age 12-23 months and 65% of children age 24-35 months were reported to have ever had vaccination cards. However, interviewers were able to see a vaccination card for only 40% of children age 12-23 months and 29% of children age 24-35 months.

Among children age 24-35 months, more vaccination cards were seen for those whose mothers have a secondary education or more than a secondary education (44% each) than for those whose mothers have no education (14%). In the same age group, more vaccination cards were seen for children from households in the highest wealth quintile (46%) than children from households in the lowest quintile (14%).

Among children age 12-23 months and 24-35 months, vaccination cards were most often seen in the South East (58% and 48%, respectively).

10.3 Symptoms of Acute Respiratory Infection

Treatment of symptoms of acute respiratory infection (ARI)

Children with symptoms of ARI for whom advice or treatment was sought. ARI symptoms consist of short, rapid breathing that is chest-related and/or difficult breathing that is chest-related.

Sample: Children under age 5 with symptoms of ARI in the 2 weeks before the survey

Acute respiratory infection (ARI) is among the leading causes of childhood morbidity and mortality in Nigeria and throughout the world. Pneumonia is the most serious outcome of ARI in young children.

Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by pneumonia. Nigeria is engaging in substantial efforts to reduce pneumonia morbidity and mortality. Integrated management of childhood illness (IMCI) and integrated community case management of childhood illness (ICCMCI) in hard-to-reach areas are among the initiatives that have been scaled up by the Nigerian government (since 1998 and 2013, respectively) to address common childhood illnesses.

The prevalence of ARI symptoms was estimated by asking mothers whether their children under age 5 had been ill with a cough accompanied by short or rapid breathing in the 2 weeks preceding the survey. The data gathered were based on perceptions of illness by mothers.

Table 10.5 shows that 3% of children under age 5 had ARI symptoms in the 2 weeks preceding the survey. Advice or treatment was sought for three quarters (75%) of children with ARI symptoms; however, advice or treatment was sought the same or next day for only 29% of children. Twenty-three percent of children with ARI symptoms were taken to a government health centre for advice or treatment, while 37% were taken to a private sector chemist/patent medicine store (PMS) (**Table 10.6**).

Patterns by background characteristics

- Children in the North East (8%) were more likely than children in the other zones (1%-2%) to have had ARI symptoms in the 2 weeks preceding the survey.
- Children whose mothers have a secondary education were more likely to be taken for advice or treatment the same day or the next day than those whose mothers have no education (42% versus 21%).
- One percent of children living in households in the highest wealth quintile had ARI symptoms in the 2 weeks preceding the survey, as compared with 4% of those living in households in the lowest wealth quintile. Only 20% of children from households in the lowest wealth quintile received advice or treatment on the same or next day, compared with 58% of those from households in the highest quintile.

10.4 Fever

Treatment of fever
Children with fever for whom advice or treatment was sought.
Sample: Children under age 5 with a fever in the 2 weeks before the survey

Fever is a major manifestation of malaria and other acute infections in children. Malaria contributes to high levels of malnutrition and mortality in young children. While fever can occur year round, malaria is more prevalent after the end of the rainy season. Nigeria has changed its policy from presumptive treatment of fever as malaria to confirming malaria with a rapid diagnostic test before treatment with artemisinin-based combination therapy (ACT).

Table 10.7 shows the percentage of children under age 5 with a fever during the 2 weeks preceding the survey and the percentage receiving various treatments, by selected background characteristics. Among children under age 5, 24% had a fever in the 2 weeks preceding the survey. Advice or treatment was sought the same or next day for 38% of these children, while 14% took antibiotic drugs.[1]

Patterns by background characteristics

- The prevalence of fever varied by age, from 15% among children less than age 6 months to 30% among children age 12-23 months. There was little variation in fever prevalence by sex of the child.
- Advice or treatment was more likely to be sought for children in urban areas (79%) than for children in rural areas (70%). Similarly, urban children were more likely than rural children to be taken for advice or treatment the same day or the next day (49% versus 34%).
- The prevalence of fever varied from 9% in the South West to 35% in the North East. The percentage of children for whom advice or treatment was sought was highest in the South South (82%) and lowest in the North Central (59%).
- Care-seeking for children with fever increases with increasing mother's education, from 69% among children of mothers with no education to 85% among children of mothers with more than a secondary education. Similarly, the likelihood of a child receiving an antibiotic increases with increasing mother's education and household wealth.

10.5 Diarrhoeal Disease

10.5.1 Prevalence of Diarrhoea and Treatment-seeking Behaviour

Diarrhoea remains a leading cause of childhood morbidity and mortality in developing countries, including Nigeria. Dehydration caused by diarrhoea is a major cause of illness and death among young children, even though the condition can be easily treated with oral rehydration therapy (ORT). Exposure to diarrhoea-causing pathogens is frequently related to consumption of contaminated water and to unhygienic practices in food preparation and disposal of excreta. The combination of high cause-specific mortality and the existence of an effective remedy makes diarrhoea and its treatment a priority concern for health services.

Table 10.8 shows that 13% of children under age 5 were reported to have had diarrhoea in the 2-week period before the survey. This represents an increase from 2008 and 2013 (10% in both years). Advice or treatment was sought for 65% of children who had diarrhoea in the 2 weeks before the survey.

[1] For details on rapid diagnostic testing for malaria, please see Chapter 12.

Patterns by background characteristics

- Children age 6-11 months and 12-23 months (20% each) were more likely than children age 48-59 months (7%) to have had diarrhoea in the 2 weeks preceding the survey.
- The prevalence of diarrhoea is also slightly higher among children in households with an unimproved source of drinking water (16%) than among those in households with an improved source of drinking water (12%).
- The prevalence of diarrhoea is slightly higher among children in households with unimproved sanitation (16%) than among those in households with improved sanitation (11%).
- The prevalence of diarrhoea is highest in Gombe (35%) and lowest in Ogun and Bayelsa (1% each).
- Children of mothers with no education were almost three times as likely as children of mothers with more than a secondary education to have had diarrhoea in the 2 weeks before the survey (16% versus 6%).

10.5.2 Feeding Practices

Appropriate feeding practices

Children with diarrhoea are given more liquids than usual and as much food or more than usual.

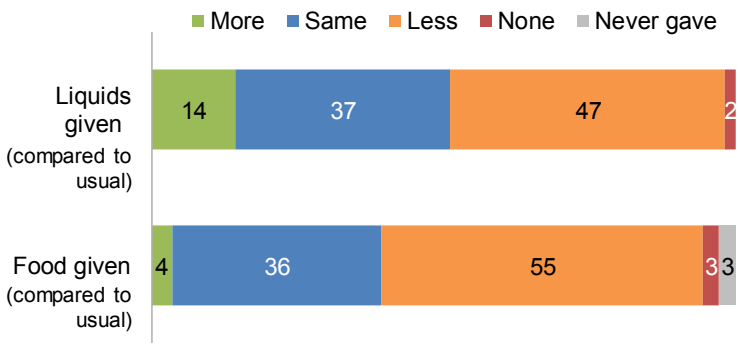
Sample: Children under age 5 with diarrhoea in the 2 weeks before the survey

To reduce dehydration and minimize the effects of diarrhoea on nutritional status, mothers are encouraged to continue normal feeding of children with diarrhoea and to increase the amount of fluids given.

Table 10.9 shows the percentage distribution of children under age 5 who had diarrhoea in the 2 weeks preceding the survey by feeding practices. As recommended, 14% of children were given more fluid than usual, 4% were given more food than usual, and 36% were given the same amount of food. However, 47% of children were given less fluid than usual, and 55% were given less food than usual (**Figure 10.5**).

Figure 10.5 **Feeding practices during diarrhoea**

Percentage of children under age 5 with diarrhea in the 2 weeks before the survey



10.5.3 Oral Rehydration Therapy and Other Treatments

Deaths from diarrhoea can easily be averted with early and proper treatment. Oral rehydration therapy (ORT) is the most common and simplest treatment for diarrhoea. Depending on illness severity, treatment may involve administration of antibiotics, oral rehydration therapy, and intravenous solutions. Zinc supplementation, which helps reduce the severity, frequency, and duration of diarrhoea episodes, was introduced in Nigeria in 2010 (Federal Ministry of Health 2010).

Oral rehydration therapy

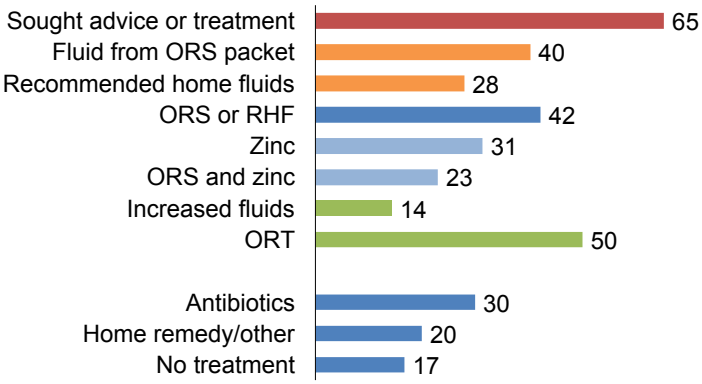
Children with diarrhoea are given increased fluids, a fluid made from a special packet of oral rehydration salts (ORS), or government-recommended homemade fluids (RHF).

Sample: Children under age 5 with diarrhoea in the 2 weeks before the survey

Table 10.10 shows that 50% of children under age 5 with diarrhoea in the 2 weeks before the survey received some form of ORT (ORS packets, recommended home fluids, or increased fluids). One in three children (31%) with diarrhoea were given zinc, and 23% received a combination of ORS and zinc. Antibiotics were given to 30% of children with diarrhoea. Seventeen percent of children with diarrhoea did not receive any treatment (**Figure 10.6**).

Figure 10.6 **Treatment of diarrhoea**

Percentage of children under age 5 with diarrhoea in the 2 weeks before the survey



One in three children under age 5 with diarrhoea who received ORS were taken to a private chemist/PMS or a private mobile clinic for advice or treatment (33% each). Eighteen percent were taken to a government health centre (**Table 10.11**).

Trends: The percentage of children under age 5 with diarrhoea for whom advice or treatment was sought increased from 42% in 2008 to 65% in 2018. The percentage of children who received no treatment decreased from 29% to 17% over the same period.

Patterns by background characteristics

- Children in urban areas are more likely to be treated with ORT than those in rural areas (57% versus 47%).
- Children whose mothers have more than a secondary education are more likely to receive continued feeding and ORT (50%) than those whose mothers have no education (33%).

10.5.4 Knowledge of ORS Packets

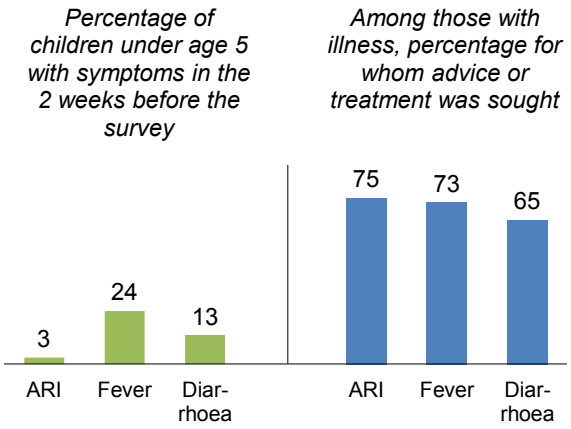
ORS is a simple and effective way to reduce dehydration caused by diarrhoea. **Table 10.12** presents information on the percentage of women who know about ORS packets. In Nigeria, 87% of women know about ORS packets for treatment of diarrhoea, an increase of 7 percentage points from the figure reported in 2013 (80%).

Knowledge of ORS packets is higher among urban women (91%) than among women in rural areas (84%). The percentage of women with knowledge of ORS packets is highest in the South East (91%) and lowest in the South South (73%).

10.6 Treatment of Childhood Illness

During the 2 weeks before the survey, 3% of children under age 5 had symptoms of ARI, while 24% had a fever and 13% had diarrhoea. Advice or treatment was sought for 75% of children with ARI, 73% of children with a fever, and 65% of children with diarrhoea (**Figure 10.7**).

Figure 10.7 **Prevalence and treatment of childhood illness**



10.7 Disposal of Children's Stools

Appropriate disposal of children's stools

The child's last stools were put or rinsed into a toilet or latrine or buried, or the child used a toilet or latrine.

Sample: Youngest children under age 2 living with their mother

Globally, nearly 90% of the diarrhoeal disease burden is estimated to be linked to poor water, sanitation, and hygiene provision. Proper disposal of children's faeces is important in preventing the spread of diseases. If faeces are left uncontained, diseases may spread by direct contact or animal contact (WHO/UNICEF 2013).

Table 10.13 presents the percent distribution of youngest children under age 2 living with their mother by the manner of disposal of the child's last faecal matter.

Fifty-seven percent of children's stools were disposed of safely; 2% of children used a toilet or latrine, 53% of children's stools were put or rinsed into the toilet or latrine, and 2% were buried. About a third of children's stools were thrown into the garbage, while 5% were left in the open and 8% were put or rinsed into a drain or ditch.

Patterns by background characteristics

- Sixty-four percent of children in households with improved toilet facilities have their stools disposed of appropriately, as compared with only 22% of children in households practicing open defecation.
- The percentage of children whose stools are disposed of safely is highest in the North West (76%) and lowest in the South West (33%).
- Children whose mothers have no education are more likely to have their stools disposed of safely than children whose mothers have a secondary education or more than a secondary education (64% versus 49%).
- Children from households in the middle and second wealth quintiles (62% and 61%, respectively) are more likely than those from households in the lowest and highest quintiles (52% and 50%, respectively) to have their stools disposed of safely.

List of Tables

For more information on low birth weight, vaccinations, childhood illness, and disposal of children's stools, see the following tables:

- **Table 10.1 Child's size and weight at birth**
- **Table 10.2 Vaccinations by source of information**
- **Table 10.3 Vaccinations by background characteristics**
- **Table 10.4 Possession and observation of vaccination cards, according to background characteristics**
- **Table 10.5 Prevalence and treatment of symptoms of ARI**
- **Table 10.6 Source of advice or treatment for children with symptoms of ARI**
- **Table 10.7 Prevalence and treatment of fever**
- **Table 10.8 Prevalence and treatment of diarrhoea**
- **Table 10.9 Feeding practices during diarrhoea**
- **Table 10.10 Oral rehydration therapy, zinc, and other treatments for diarrhoea**
- **Table 10.11 Source of advice or treatment for children with diarrhoea**
- **Table 10.12 Knowledge of ORS packets**
- **Table 10.13 Disposal of children's stools**

Table 10.1 Child's size and weight at birth

Percent distribution of live births in the 5 years preceding the survey by mother's estimate of baby's size at birth, percentage of live births in the 5 years preceding the survey that have a reported birth weight, and among live births in the 5 years preceding the survey with a reported birth weight, percentage less than 2.5 kg, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percent distribution of births by size of baby at birth					Percentage of births that have a reported birth weight[1]	Number of births	Among births with a reported birth weight[1]	
	Very small	Smaller than average	Average or larger	Don't know/ missing	Total			Percentage less than 2.5 kg	Number of births
Mother's age at birth									
<20	3.2	12.2	83.3	1.3	100.0	11.0	4,677	11.8	514
20-34	2.7	10.6	85.2	1.5	100.0	26.1	24,392	7.0	6,356
35-49	3.1	11.1	83.9	2.0	100.0	23.9	5,124	7.0	1,223
Birth order									
1	3.2	10.5	84.6	1.6	100.0	32.0	6,694	8.2	2,145
2-3	2.6	10.4	85.2	1.7	100.0	29.2	11,545	6.5	3,368
4-5	2.5	10.4	85.4	1.7	100.0	22.1	7,855	6.3	1,735
6+	3.1	12.3	83.4	1.2	100.0	10.4	8,098	10.1	845
Mother's smoking status									
Smokes cigarettes/tobacco	1.6	25.8	72.6	0.0	100.0	32.9	76	*	25
Does not smoke	2.8	10.9	84.7	1.6	100.0	23.6	34,117	7.3	8,068
Residence									
Urban	2.5	9.7	85.9	1.8	100.0	42.6	13,170	7.5	5,604
Rural	3.0	11.6	84.0	1.4	100.0	11.8	21,023	6.9	2,489
Zone									
North Central	3.9	7.1	86.8	2.3	100.0	26.1	4,619	7.0	1,204
North East	3.3	13.0	83.7	0.0	100.0	8.7	6,213	11.1	540
North West	2.5	13.6	83.4	0.4	100.0	6.6	12,558	16.9	828
South East	2.6	8.0	86.1	3.2	100.0	56.3	3,428	4.0	1,930
South South	3.6	7.8	86.5	2.1	100.0	40.3	2,968	5.0	1,197
South West	1.6	8.5	85.3	4.5	100.0	54.3	4,407	7.0	2,393
State									
North Central									
FCT-Abuja	17.9	8.6	71.6	1.9	100.0	42.2	225	8.3	95
Benue	6.1	2.2	88.7	3.0	100.0	37.9	949	5.4	360
Kogi	1.3	5.9	92.2	0.6	100.0	46.0	451	7.9	208
Kwara	1.4	9.8	87.8	0.9	100.0	35.6	533	6.2	189
Nasarawa	0.9	2.2	97.0	0.0	100.0	23.2	521	9.6	121
Niger	2.0	10.2	87.8	0.1	100.0	12.3	1,312	6.3	161
Plateau	6.2	9.9	73.9	10.1	100.0	11.2	628	10.3	70
North East									
Adamawa	2.1	17.5	80.2	0.2	100.0	21.6	786	3.4	170
Bauchi	1.5	9.8	88.7	0.1	100.0	6.2	1,469	12.1	92
Borno	2.9	19.7	77.4	0.0	100.0	13.0	1,219	23.4	159
Gombe	7.8	10.5	81.7	0.0	100.0	4.1	728	4.4	30
Taraba	2.2	14.4	83.4	0.0	100.0	8.6	758	3.5	65
Yobe	4.4	7.9	87.6	0.0	100.0	2.0	1,253	*	25
North West									
Jigawa	2.9	30.2	66.9	0.0	100.0	3.1	1,497	(8.5)	47
Kaduna	4.4	32.9	62.4	0.2	100.0	11.3	2,402	17.2	272
Kano	1.6	8.3	90.2	0.0	100.0	8.4	2,738	5.2	230
Katsina	0.8	4.4	94.8	0.0	100.0	6.9	2,428	37.5	167
Kebbi	0.0	4.7	95.3	0.0	100.0	3.2	1,228	(5.7)	39
Sokoto	10.4	3.3	82.3	4.1	100.0	3.7	978	34.1	37
Zamfara	0.1	3.5	95.9	0.5	100.0	2.8	1,287	*	36
South East									
Abia	3.2	10.7	77.7	8.3	100.0	58.8	426	1.5	251
Anambra	0.3	6.3	88.3	5.1	100.0	78.7	1,045	2.9	822
Ebonyi	4.7	6.6	87.0	1.7	100.0	22.3	814	10.8	181
Enugu	1.9	10.4	86.1	1.6	100.0	49.7	486	7.6	242
Imo	3.9	9.0	87.0	0.1	100.0	66.2	657	2.9	435
South South									
Akwa Ibom	1.1	5.7	89.6	3.6	100.0	34.2	522	5.9	178
Bayelsa	0.3	11.6	88.2	0.0	100.0	19.1	217	4.2	41
Cross River	8.2	8.6	80.0	3.3	100.0	45.1	318	5.4	143
Delta	1.2	6.5	87.8	4.6	100.0	40.9	595	7.7	243
Edo	4.9	9.4	85.2	0.5	100.0	57.2	411	6.6	235
Rivers	5.3	7.8	86.3	0.5	100.0	39.3	906	1.8	356
South West									
Ekiti	3.8	5.1	90.6	0.5	100.0	39.2	329	9.7	129
Lagos	1.2	12.6	81.3	4.9	100.0	64.5	1,545	6.4	996
Ogun	0.0	1.9	92.1	5.9	100.0	57.9	586	8.9	340
Ondo	5.6	7.0	85.4	2.0	100.0	29.1	423	6.4	123
Osun	1.5	11.9	85.9	0.6	100.0	41.2	549	6.0	226
Oyo	0.9	6.0	85.6	7.5	100.0	59.3	976	6.7	579

Continued...

Table 10.1—*Continued*

Background characteristic	Percent distribution of births by size of baby at birth					Percentage of births that have a reported birth weight[1]	Number of births	Among births with a reported birth weight[1]	
	Very small	Smaller than average	Average or larger	Don't know/ missing	Total			Percentage less than 2.5 kg	Number of births
Mother's education									
No education	3.0	12.9	83.3	0.8	100.0	4.1	15,858	15.5	653
Primary	3.1	10.4	83.9	2.6	100.0	18.6	5,103	9.1	951
Secondary	2.6	9.1	86.1	2.2	100.0	41.8	10,413	6.4	4,353
More than secondary	2.3	7.0	89.4	1.2	100.0	75.8	2,818	5.9	2,136
Wealth quintile									
Lowest	3.4	11.7	83.7	1.3	100.0	3.2	7,572	11.8	239
Second	2.8	13.0	82.8	1.4	100.0	7.3	7,782	8.4	564
Middle	3.0	11.7	83.9	1.3	100.0	18.5	7,043	8.6	1,306
Fourth	2.4	8.9	86.7	1.9	100.0	36.8	6,254	7.9	2,300
Highest	2.5	8.0	87.6	2.0	100.0	66.5	5,541	5.9	3,684
Total	2.8	10.9	84.7	1.6	100.0	23.7	34,193	7.3	8,093

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Based on either a written record or the mother's recall

Table 10.2 Vaccinations by source of information

Percentage of children age 12-23 months and children age 24-35 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage who received specific vaccines by the appropriate age, Nigeria DHS 2018

	Children age 12-23 months				Children age 24-35 months			
Vaccine	Vaccination card[1]	Mother's report	Either source	Vaccinated by appropriate age[2,3,4]	Vaccination card[1]	Mother's report	Either source	Vaccinated by appropriate age[2,3,4]
BCG	37.7	28.9	66.7	66.0	27.9	36.5	64.4	63.2
HepB (birth dose)[5]	29.8	22.6	52.4	52.2	21.5	28.5	49.9	48.8
Within 1 day of birth	4.0	na	na	na	3.0	na	na	na
After 1 day of birth	22.9	na	na	na	15.9	na	na	na
DPT-HepB-Hib								
1	37.9	27.4	65.3	64.5	27.5	34.3	61.8	60.4
2	35.5	22.4	57.8	56.6	26.3	28.0	54.2	52.3
3	32.2	17.8	50.1	48.3	24.4	23.2	47.5	45.4
Polio								
0 (birth dose)	32.8	21.7	54.5	54.3	24.7	26.6	51.3	50.3
1	38.4	35.2	73.6	72.7	27.9	43.3	71.2	69.5
2	35.7	31.0	66.7	65.4	26.3	38.9	65.3	62.9
3	32.2	15.0	47.2	45.6	23.7	19.9	43.6	41.6
IPV	29.1	23.7	52.9	51.0	21.7	30.7	52.3	49.1
Pneumococcal								
1	36.3	25.1	61.5	60.4	25.8	32.0	57.8	56.3
2	33.7	20.5	54.2	52.9	24.0	26.3	50.3	48.3
3	30.7	16.7	47.3	45.5	21.7	21.8	43.5	41.1
Measles								
1	28.7	25.3	54.0	48.5	22.6	35.1	57.7	49.2
2	na	na	na	na	5.9	9.7	15.6	14.8
All basic vaccinations[6]	25.6	5.7	31.3	28.3	19.8	7.9	27.7	24.3
All age-appropriate vaccinations[7]	18.5	2.5	21.0	19.1	3.8	0.9	4.7	4.0
No vaccinations	0.0	19.1	19.2	na	0.1	20.3	20.5	na
Number of children	2,459	3,684	6,143	6,143	1,715	4,120	5,835	5,835

na = Not applicable
BCG = Bacille Calmette-Guerin
DPT = Diphtheria-pertussis-tetanus
HepB = Hepatitis B
Hib = *Haemophilus influenzae* type b
IPV = Inactivated polio vaccine
[1] Vaccination card, booklet, or other home-based record
[2] Received by age 12 months
[3] For children whose vaccination information is based on the mother's report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination.
[4] Received by age 12 months for all vaccines except measles 2, which should be received by age 24 months
[5] For children whose vaccination information is based on the mother's report, children reported to have received hepatitis B (birth dose) received the vaccine within 24 hours after birth. For children whose vaccination information is based on the written record of vaccination, children are considered to have received hepatitis B (birth dose) if this vaccine is recorded on their card, regardless of when the dose was administered.
[6] BCG, three doses of DPT-HepB-Hib, three doses of oral polio vaccine (excluding polio vaccine given at birth), and one dose of measles
[7] For children age 12-23 months: BCG, hepatitis B (birth dose), three doses of DPT-HepB-Hib, four doses of oral polio vaccine, one dose of inactivated polio vaccine, three doses of pneumococcal vaccine, and one dose of measles. For children age 24-35 months, all of the just-mentioned vaccinations plus a second dose of measles.

Table 10.3 Vaccinations by background characteristics

Percentage of children age 12-23 months and children age 24-35 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), percentage with all basic vaccinations, and percentage with all age-appropriate vaccinations, by background characteristics, Nigeria DHS 2018

	Children age 12-23 months																		Children age 24-35 months:		
			DPT-HepB-Hib			Polio[2]					Pneumococcal										
Background characteristic	BCG	HepB (birth dose)[1]	1	2	3	0 (birth dose)	1	2	3	IPV	1	2	3	Measles 1	All basic vaccin-ations[3]	All age-appro-priate vaccin-ations[4]	No vaccin-ations	Number of children	Measles 2	All age-appro-priate vaccin-ations[5]	Number of children
Sex																					
Male	66.1	52.6	65.2	58.0	50.0	54.1	73.3	66.3	47.0	53.0	61.0	54.1	47.2	53.7	31.5	21.8	20.2	3,215	16.0	4.8	2,974
Female	67.3	52.2	65.5	57.6	50.2	55.0	74.0	67.1	47.5	52.8	61.9	54.4	47.5	54.4	31.1	20.2	18.0	2,928	15.1	4.6	2,861
Birth order																					
1	74.4	59.6	73.1	65.9	58.1	62.3	76.7	71.5	49.2	60.5	69.9	62.2	55.8	60.2	36.0	24.8	15.1	1,201	18.1	5.8	1,109
2-3	72.1	58.1	71.0	63.2	55.1	60.2	76.8	68.6	48.6	58.1	66.8	59.3	52.6	58.2	34.0	24.6	16.7	2,137	17.4	5.4	2,000
4-5	66.5	53.7	64.2	56.6	48.7	56.3	72.7	66.0	46.3	52.9	60.9	54.3	45.8	55.7	32.1	21.3	19.8	1,385	14.2	4.2	1,410
6+	52.2	36.7	51.3	44.2	37.1	37.6	67.3	60.6	44.5	38.6	46.8	39.9	33.8	40.9	22.6	12.2	25.8	1,421	12.1	3.2	1,316
Vaccination card[6]																					
Seen	94.3	74.5	94.6	88.6	80.6	81.9	95.9	89.2	80.5	72.8	90.7	84.3	76.6	71.8	63.9	46.2	0.1	2,459	19.9	12.8	1,715
Not seen/no card	48.2	37.7	45.8	37.3	29.7	36.2	58.7	51.7	25.0	39.6	41.9	34.2	27.8	42.2	9.5	4.2	31.9	3,684	13.7	1.3	4,120
Residence																					
Urban	83.3	72.4	81.2	74.3	67.9	74.4	81.1	75.9	55.8	70.4	77.6	71.4	65.4	69.1	44.4	33.4	11.0	2,428	20.7	7.8	2,398
Rural	55.8	39.4	55.0	47.1	38.4	41.5	68.7	60.7	41.7	41.4	50.9	43.0	35.5	44.2	22.7	12.9	24.5	3,715	12.0	2.4	3,437
Zone																					
North Central	74.4	59.6	70.4	62.8	54.4	57.4	80.6	71.3	47.0	54.5	67.6	59.9	51.1	54.2	31.0	20.0	14.1	864	15.9	3.7	788
North East	57.0	37.3	55.2	49.0	37.2	40.4	70.5	63.5	43.3	42.0	48.1	42.3	32.9	43.3	22.9	12.4	23.9	1,133	15.7	3.1	1,071
North West	45.0	32.6	44.5	34.9	29.1	35.4	60.0	53.6	40.0	32.2	41.1	32.2	27.4	39.1	19.9	11.3	30.8	2,036	9.3	3.3	2,013
South East	93.4	76.4	92.2	87.8	83.1	84.0	89.8	86.0	68.8	83.4	88.6	84.4	79.6	74.8	57.0	42.0	5.2	641	23.2	8.8	637
South South	83.9	66.1	85.0	78.2	69.6	67.5	83.7	78.3	53.1	74.4	83.1	76.4	68.3	71.1	41.8	29.3	10.5	596	18.3	4.1	514
South West	90.6	84.3	88.7	82.0	73.8	84.2	83.8	74.8	49.7	76.3	85.4	78.4	70.9	75.5	43.0	34.9	7.0	874	23.0	8.3	811
State																					
North Central																					
FCT-Abuja	87.7	83.0	85.5	83.0	73.5	77.0	84.5	80.3	57.0	75.4	85.6	83.4	73.1	73.9	49.6	40.1	9.1	41	19.1	9.2	40
Benue	82.0	67.7	76.8	71.4	58.7	64.1	80.7	72.1	40.0	63.3	68.0	63.1	52.6	64.1	27.4	18.6	12.7	194	21.7	1.0	180
Kogi	80.0	63.1	80.1	66.8	55.6	58.2	84.0	72.8	43.4	45.8	74.5	63.0	49.5	44.7	26.2	8.1	10.5	80	21.7	9.3	72
Kwara	63.5	54.5	60.8	55.9	54.5	61.5	62.6	60.4	35.2	55.2	62.0	58.2	55.3	50.5	29.3	26.0	33.2	105	22.8	2.8	85
Nasarawa	87.6	84.7	79.4	68.0	59.7	81.3	81.9	74.2	51.6	68.0	76.6	63.2	54.2	65.6	39.1	29.5	8.7	85	20.8	6.4	98
Niger	62.0	41.7	54.7	45.0	38.8	38.9	82.2	66.1	48.5	37.3	55.0	43.9	36.9	40.5	23.3	12.3	13.4	256	4.0	0.9	193
Plateau	81.9	61.2	86.3	82.0	71.8	58.1	88.9	86.2	63.3	67.4	83.7	80.3	69.1	63.5	47.8	28.8	8.6	104	12.8	5.3	119
North East																					
Adamawa	78.8	58.7	80.2	73.0	65.9	62.4	76.7	71.1	45.7	67.0	56.5	51.8	46.5	65.2	36.8	16.3	18.8	151	15.4	1.2	141
Bauchi	51.2	34.7	47.0	41.7	32.1	38.1	65.1	60.8	47.2	32.9	44.2	38.8	29.7	35.5	19.6	11.7	28.0	278	7.0	2.2	250
Borno	62.5	49.1	56.2	50.3	36.0	46.2	74.0	66.4	41.1	45.7	50.7	46.5	34.6	46.0	21.9	13.5	22.7	221	24.4	6.6	236
Gombe	42.5	22.3	37.3	30.2	25.8	33.2	59.7	52.4	39.2	19.2	34.8	27.9	23.8	28.8	18.2	6.1	34.4	128	10.5	1.1	119
Taraba	69.9	35.8	67.9	62.0	41.7	39.7	74.6	63.1	39.7	51.0	66.4	60.3	41.5	40.8	24.1	12.8	20.1	134	17.3	4.9	116
Yobe	44.7	23.7	49.9	43.5	29.0	26.9	73.4	65.2	43.4	40.4	41.1	33.2	25.9	45.5	20.6	12.9	19.9	221	18.4	1.5	210

Continued...

Table 10.3—*Continued*

Background characteristic	Children age 12-23 months																		Children age 24-35 months:		
			DPT-HepB-Hib			Polio[2]					Pneumococcal										
	BCG	HepB (birth dose)[1]	1	2	3	0 (birth dose)	1	2	3	IPV	1	2	3	Measles 1	All basic vaccin-ations[3]	All age-appro-priate vaccin-ations[4]	No vaccin-ations	Number of children	Measles 2	All age-appro-priate vaccin-ations[5]	Number of children
North West																					
Jigawa	53.2	40.7	58.9	44.3	35.7	45.1	70.7	62.6	48.5	36.5	49.5	36.3	31.0	55.7	23.8	16.2	20.3	246	14.7	2.5	233
Kaduna	51.8	44.9	53.5	37.0	31.9	45.2	44.7	40.2	32.3	39.9	50.8	36.9	31.7	42.4	21.8	13.8	40.2	362	13.1	5.4	376
Kano	61.2	42.0	59.8	51.0	45.9	47.2	85.5	78.6	66.8	45.7	57.6	48.4	43.4	56.1	34.3	19.4	8.8	431	13.0	3.6	459
Katsina	46.4	28.1	42.5	38.6	33.7	34.6	57.7	55.3	45.9	33.3	41.1	37.5	33.5	34.6	21.2	10.8	32.9	392	9.0	5.3	434
Kebbi	25.6	15.8	30.0	18.3	10.6	17.7	74.8	63.4	26.5	15.9	24.7	13.2	8.0	32.6	6.3	1.1	20.6	207	2.3	0.0	160
Sokoto	35.6	23.7	24.6	12.4	7.2	19.6	27.7	20.0	12.2	20.8	19.3	10.6	6.2	19.0	4.6	1.2	52.4	178	0.5	0.0	145
Zamfara	16.2	15.7	17.1	16.5	10.8	16.0	39.6	31.5	15.2	11.4	16.2	13.8	9.4	12.2	7.4	4.0	58.5	220	0.0	0.0	206
South East																					
Abia	95.7	93.5	93.3	88.3	80.4	87.3	89.3	79.6	49.1	81.6	93.3	87.3	78.3	78.9	39.0	28.9	4.3	69	40.8	0.7	78
Anambra	91.8	73.7	90.1	88.1	87.3	87.3	91.3	90.8	84.4	86.6	90.1	88.8	88.0	80.8	75.8	60.4	7.2	221	11.9	9.6	182
Ebonyi	95.9	61.4	95.5	92.1	82.4	74.7	96.0	91.1	66.4	79.4	94.0	89.6	81.5	64.3	44.8	26.3	1.7	148	27.2	11.8	154
Enugu	92.5	86.9	93.2	83.8	80.9	86.6	75.4	75.4	46.3	87.8	71.3	63.5	60.2	79.2	36.4	19.9	6.8	87	27.0	3.6	106
Imo	92.7	82.7	90.8	84.4	79.5	85.5	90.0	82.4	70.9	80.0	89.2	83.3	76.3	71.3	62.6	51.3	5.0	117	20.2	13.4	118
South South																					
Akwa Ibom	84.1	67.9	86.3	70.8	62.2	62.9	81.7	74.0	58.5	71.4	82.6	66.5	60.4	63.5	42.0	28.3	9.6	118	23.2	4.0	77
Bayelsa	65.5	59.3	71.5	63.9	54.5	59.2	70.9	56.7	25.7	69.3	68.7	59.4	49.0	71.3	18.0	12.4	20.1	50	28.7	3.2	38
Cross River	88.8	60.0	91.9	81.8	64.1	54.8	88.7	80.4	55.6	70.7	88.3	83.8	63.7	64.1	46.0	21.8	4.4	53	15.9	3.3	67
Delta	82.5	67.9	81.1	78.2	71.7	66.9	84.0	82.5	56.4	76.0	81.5	78.6	70.8	73.3	44.4	30.0	12.5	127	11.6	4.7	95
Edo	95.0	81.9	93.5	86.0	80.7	84.8	86.8	80.3	67.6	91.1	93.5	90.0	82.6	80.6	56.3	48.2	5.0	75	16.4	5.1	72
Rivers	83.8	60.6	85.1	83.0	74.5	69.9	85.8	83.0	47.8	70.5	82.8	78.2	72.8	72.8	39.2	28.5	11.0	172	19.3	4.0	164
South West																					
Ekiti	94.8	91.3	96.1	95.0	93.0	92.1	95.0	93.5	49.4	79.2	95.0	95.0	91.8	86.4	41.1	26.8	3.4	68	11.4	3.5	52
Lagos	97.3	92.0	97.3	94.1	90.8	95.1	95.0	91.7	67.3	87.0	97.0	93.8	90.0	89.5	62.4	56.2	1.7	329	22.8	10.6	283
Ogun	74.1	68.3	73.4	59.9	50.3	67.6	71.8	54.9	32.5	57.5	73.4	58.9	48.8	51.9	23.1	20.9	17.8	121	13.0	2.4	109
Ondo	83.7	74.4	82.1	80.1	77.0	76.8	85.5	83.4	53.5	79.4	80.9	75.5	70.4	73.5	50.5	39.7	12.4	75	18.6	11.1	77
Osun	94.3	84.0	88.9	88.1	83.5	70.4	82.2	77.8	38.4	82.8	85.0	83.0	77.9	76.6	33.8	17.2	5.7	102	28.1	0.0	116
Oyo	88.6	82.7	83.2	67.3	44.3	83.4	67.2	44.7	33.9	63.2	70.7	55.3	39.2	61.6	23.3	16.6	9.3	179	31.7	14.1	173
Mother's education																					
No education	41.0	26.5	39.9	32.0	24.7	27.9	59.3	51.7	35.7	27.9	35.7	28.3	22.2	32.8	14.8	7.0	33.6	2,645	8.2	1.3	2,561
Primary	74.7	56.7	72.7	63.9	55.4	59.6	76.6	69.4	49.1	57.1	68.7	60.5	51.6	57.2	32.7	20.1	15.1	877	15.6	4.8	894
Secondary	87.8	73.7	86.5	79.0	70.5	75.9	85.1	78.6	55.6	73.7	82.5	75.4	67.6	70.2	43.3	31.4	7.2	2,052	20.6	7.1	1,812
More than secondary	97.6	89.9	95.9	92.1	86.5	93.4	94.1	89.6	67.8	87.1	93.7	88.9	84.6	89.5	62.4	50.2	1.1	570	32.8	11.8	567
Wealth quintile																					
Lowest	40.2	24.8	40.2	33.1	24.7	26.9	61.8	54.3	36.0	28.3	35.6	28.5	22.2	31.9	14.5	7.4	32.4	1,349	8.7	1.4	1,222
Second	52.5	35.2	51.1	44.0	35.7	37.5	65.5	59.3	40.2	37.8	46.6	39.7	32.5	40.3	20.0	9.3	27.8	1,327	9.3	2.0	1,267
Middle	70.6	53.5	69.0	59.4	50.7	56.5	74.7	65.7	46.3	53.6	64.5	56.2	47.6	54.1	29.3	17.6	17.2	1,226	16.1	4.3	1,198
Fourth	84.1	71.5	80.9	73.1	66.5	72.4	80.0	73.7	51.4	68.7	78.4	70.6	63.3	66.9	40.2	28.7	10.6	1,172	20.5	7.1	1,114
Highest	94.0	86.5	93.4	87.9	81.1	88.6	90.4	85.2	66.7	84.3	90.5	84.5	79.6	84.7	58.9	48.3	3.3	1,070	25.4	9.6	1,033
Total	66.7	52.4	65.3	57.8	50.1	54.5	73.6	66.7	47.2	52.9	61.5	54.2	47.3	54.0	31.3	21.0	19.2	6,143	15.6	4.7	5,835

Note: Children are considered to have received the vaccine if it was either written on the child's vaccination card or reported by the mother. For children whose vaccination information is based on the mother's report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination.
BCG = Bacille Calmette-Guerin
DPT = Diphtheria-pertussis-tetanus
HepB = Hepatitis B
Hib = *Haemophilus influenzae* type b
IPV = Inactivated polio vaccine
[1] For children whose vaccination information is based on the mother's report, children reported to have received HepB (birth dose) received the vaccine within 24 hours after birth. For children whose vaccination information is based on the written record of vaccination, children are considered to have received hepatitis B (birth dose) if this vaccine is recorded on their card, regardless of when the dose was administered.
[2] Polio 0 is the polio vaccination given at birth.
[3] BCG, three doses of DPT-HepB-Hib, three doses of oral polio vaccine (excluding polio vaccine given at birth), and one dose of measles
[4] BCG, hepatitis B (birth dose), three doses of DPT-HepB-Hib, four doses of oral polio vaccine, one dose of inactivated polio vaccine, three doses of pneumococcal vaccine, and one dose of measles
[5] BCG, hepatitis B (birth dose), three doses of DPT-HepB-Hib, four doses of oral polio vaccine, one dose of inactivated polio vaccine, three doses of pneumococcal vaccine, and two doses of measles
[6] Vaccination card, booklet, or other home-based record

Table 10.4 Possession and observation of vaccination cards, according to background characteristics

Percentage of children age 12-23 months and children age 24-35 months who ever had a vaccination card, and percentage with a vaccination card seen, according to background characteristics, Nigeria DHS 2018

	Children age 12-23 months			Children age 24-35 months		
Background characteristic	Percentage who ever had a vaccination card[1]	Percentage with a vaccination card seen[1]	Number of children	Percentage who ever had a vaccination card[1]	Percentage with a vaccination card seen[1]	Number of children
Sex						
Male	67.7	39.7	3,215	64.3	29.9	2,974
Female	68.7	40.4	2,928	65.0	28.8	2,861
Birth order						
1	75.9	44.5	1,201	73.7	33.9	1,109
2-3	72.6	43.8	2,137	66.6	31.9	2,000
4-5	68.4	39.7	1,385	65.1	29.3	1,410
6+	54.8	30.9	1,421	53.6	21.8	1,316
Residence						
Urban	83.2	49.0	2,428	79.0	38.8	2,398
Rural	58.4	34.2	3,715	54.7	22.8	3,437
Zone						
North Central	74.1	44.2	864	71.4	35.2	788
North East	58.0	33.9	1,133	57.1	24.1	1,071
North West	50.7	28.5	2,036	46.1	15.7	2,013
South East	92.9	58.3	641	91.8	47.8	637
South South	83.0	52.1	596	82.5	44.1	514
South West	87.9	49.1	874	81.5	40.7	811
State						
North Central						
FCT-Abuja	81.1	54.5	41	88.3	46.6	40
Benue	77.7	42.1	194	82.2	37.7	180
Kogi	80.7	37.2	80	80.6	39.8	72
Kwara	61.8	37.8	105	67.4	31.4	85
Nasarawa	88.0	56.1	85	73.8	31.1	98
Niger	64.4	37.1	256	56.3	25.7	193
Plateau	84.6	63.3	104	69.3	46.6	119
North East						
Adamawa	81.3	47.9	151	71.6	23.0	141
Bauchi	55.0	37.5	278	52.9	29.1	250
Borno	57.3	25.7	221	52.4	19.8	236
Gombe	52.4	29.2	128	57.9	28.6	119
Taraba	69.1	44.3	134	74.3	35.1	116
Yobe	43.2	24.3	221	47.6	15.2	210
North West						
Jigawa	58.3	42.0	246	48.4	20.2	233
Kaduna	55.9	33.4	362	56.0	20.5	376
Kano	63.6	41.4	431	60.3	21.3	459
Katsina	46.2	26.3	392	36.2	15.3	434
Kebbi	60.5	20.0	207	55.3	9.2	160
Sokoto	39.3	11.1	178	32.0	5.1	145
Zamfara	16.7	6.2	220	17.8	3.2	206
South East						
Abia	93.3	48.5	69	97.4	31.4	78
Anambra	92.8	59.7	221	95.4	56.3	182
Ebonyi	96.4	61.8	148	94.4	55.0	154
Enugu	89.0	45.8	87	83.0	31.5	106
Imo	91.3	66.1	117	87.1	50.8	118
South South						
Akwa Ibom	84.8	61.0	118	82.4	36.3	77
Bayelsa	61.8	29.2	50	53.1	8.6	38
Cross River	90.3	53.0	53	91.3	39.6	67
Delta	83.7	45.0	127	88.4	45.8	95
Edo	86.3	64.1	75	78.4	52.8	72
Rivers	83.7	52.4	172	84.2	53.0	164
South West						
Ekiti	94.1	45.8	68	91.3	32.1	52
Lagos	98.3	64.6	329	87.6	52.7	283
Ogun	70.3	46.6	121	64.5	40.0	109
Ondo	85.4	40.5	75	86.8	43.3	77
Osun	85.3	25.3	102	82.7	18.9	116
Oyo	80.7	40.7	179	76.0	37.6	173

Continued...

Table 10.4—*Continued*

Background characteristic	Children age 12-23 months			Children age 24-35 months		
	Percentage who ever had a vaccination card[1]	Percentage with a vaccination card seen[1]	Number of children	Percentage who ever had a vaccination card[1]	Percentage with a vaccination card seen[1]	Number of children
Mother's education						
No education	44.7	24.4	2,645	42.2	14.4	2,561
Primary	75.1	44.8	877	68.3	34.0	894
Secondary	87.7	52.6	2,052	86.0	43.8	1,812
More than secondary	96.3	59.9	570	92.0	43.6	567
Wealth quintile						
Lowest	42.9	23.9	1,349	39.2	14.0	1,222
Second	57.0	29.0	1,327	52.2	20.0	1,267
Middle	71.7	45.1	1,226	67.4	30.1	1,198
Fourth	82.8	46.8	1,172	82.0	40.2	1,114
Highest	93.9	60.8	1,070	88.2	46.4	1,033
Total	68.2	40.0	6,143	64.7	29.4	5,835

[1] Vaccination card, booklet, or other home-based record

Table 10.5 Prevalence and treatment of symptoms of ARI

Among children under age 5, percentage who had symptoms of acute respiratory infection (ARI) in the 2 weeks preceding the survey, and among children with symptoms of ARI in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, according to background characteristics, Nigeria DHS 2018

	Among children under age 5:		Among children under age 5 with symptoms of ARI:		
Background characteristic	Percentage with symptoms of ARI[1]	Number of children	Percentage for whom advice or treatment was sought[2]	Percentage for whom treatment was sought same or next day	Number of children
Age in months					
<6	2.7	3,270	73.3	31.6	87
6-11	3.7	3,153	81.2	39.9	116
12-23	3.4	6,143	74.1	28.1	210
24-35	2.4	5,835	77.3	24.4	141
36-47	2.0	6,186	67.2	20.1	122
48-59	2.2	6,294	74.1	31.8	139
Sex					
Male	2.7	15,674	74.8	29.6	417
Female	2.6	15,208	74.2	28.2	397
Mother's smoking status					
Smokes cigarettes/tobacco	0.0	69	*	*	0
Does not smoke	2.6	30,813	74.5	29.0	814
Cooking fuel					
Electricity or gas	1.3	2,997	(91.3)	(66.2)	38
Kerosene	1.2	2,954	(96.0)	(46.3)	35
Coal/lignite	0.0	194	*	*	0
Charcoal	2.7	1,914	(90.8)	(52.6)	51
Wood/straw[3]	3.0	22,813	71.3	24.3	690
Animal dung	*	1	*	*	0
No food cooked in household	*	8	*	*	0
Residence					
Urban	2.0	12,215	82.3	42.1	239
Rural	3.1	18,666	71.3	23.5	575
Zone					
North Central	1.3	4,255	59.7	32.1	55
North East	8.2	5,598	73.0	27.5	461
North West	1.3	10,883	84.6	27.8	146
South East	1.6	3,205	57.0	27.6	52
South South	2.4	2,787	90.6	34.7	66
South West	0.8	4,153	(72.4)	(39.8)	34
Mother's education					
No education	3.1	13,867	71.2	21.0	436
Primary	3.3	4,618	70.9	26.2	152
Secondary	2.0	9,733	82.1	42.4	199
More than secondary	1.0	2,664	(93.6)	(73.3)	27
Wealth quintile					
Lowest	4.2	6,625	71.5	19.5	277
Second	3.0	6,816	69.4	24.8	208
Middle	2.3	6,364	74.0	33.2	145
Fourth	1.9	5,816	79.9	35.9	112
Highest	1.4	5,260	93.8	57.9	72
Total	2.6	30,881	74.5	29.0	814

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Symptoms of ARI include short, rapid breathing that is chest-related and/or difficult breathing that is chest-related.
[2] Includes advice or treatment from the following sources: public sector, private medical sector, shop, market, itinerant drug seller, or community-oriented resource person. Excludes advice or treatment from a traditional practitioner.
[3] Includes grass, shrubs, and crop residues

Table 10.6 Source of advice or treatment for children with symptoms of ARI

Percentage of children under age 5 with symptoms of ARI in the 2 weeks preceding the survey for whom advice or treatment was sought from specific sources, and among children under age 5 with symptoms of ARI in the 2 weeks preceding the survey for whom advice or treatment was sought, percentage for whom advice or treatment was sought from specific sources, Nigeria DHS 2018

	Percentage for whom advice or treatment was sought from each source:	
Source	Among children with symptoms of ARI[1]	Among children with symptoms of ARI for whom advice or treatment was sought[1]
Public sector	37.2	49.0
Government hospital	10.5	13.9
Government health centre	17.4	22.9
Government health post	6.6	8.7
Mobile clinic	0.7	0.9
Fieldworker/CHW	1.7	2.2
Other	0.2	0.3
Private sector	33.8	44.5
Private hospital/clinic	2.8	3.7
Pharmacy	2.5	3.3
Chemist/PMS	27.9	36.8
Private doctor	0.2	0.3
Mobile clinic	27.9	36.8
Fieldworker/CHW	0.5	0.7
Other private sector	4.6	6.0
Shop	2.3	3.0
Traditional practitioner	1.6	2.1
Market	0.3	0.4
Itinerant drug seller	0.1	0.2
Community-oriented resource person	0.2	0.3
Other	1.4	1.9
Number of children	814	618

CHW = Community health worker
PMS = Patent medicine store
[1] Symptoms of ARI include short, rapid breathing that is chest-related and/or difficult breathing that is chest-related.

Table 10.7 Prevalence and treatment of fever

Among children under age 5, percentage who had a fever in the 2 weeks preceding the survey, and among children with a fever in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought and percentage who received antibiotics as treatment, according to background characteristics, Nigeria DHS 2018

	Among children under age 5:		Among children under age 5 with fever:			
Background characteristic	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought[1]	Percentage for whom treatment was sought same or next day	Percentage who took antibiotic drugs	Number of children with fever
Age in months						
<6	15.2	3,270	70.7	38.6	15.1	497
6-11	29.0	3,153	70.7	35.3	16.9	914
12-23	29.7	6,143	73.5	39.1	15.0	1,826
24-35	26.4	5,835	75.5	37.7	15.3	1,541
36-47	22.9	6,186	72.2	39.5	11.4	1,418
48-59	20.2	6,294	71.8	37.8	12.5	1,270
Sex						
Male	23.6	15,674	73.4	38.6	14.6	3,702
Female	24.7	15,208	72.2	37.7	13.8	3,764
Residence						
Urban	18.6	12,215	78.8	48.9	18.4	2,269
Rural	27.8	18,666	70.2	33.5	12.4	5,197
Zone						
North Central	17.7	4,255	58.7	30.0	17.0	754
North East	35.0	5,598	72.6	31.0	14.7	1,959
North West	27.9	10,883	74.9	40.5	10.4	3,039
South East	20.1	3,205	70.8	46.3	13.3	643
South South	25.5	2,787	81.5	46.4	23.5	710
South West	8.7	4,153	72.6	43.6	21.2	360
State						
North Central						
FCT-Abuja	23.3	212	79.2	46.1	23.7	49
Benue	12.2	908	92.3	21.1	8.3	111
Kogi	11.5	396	51.9	36.2	10.8	46
Kwara	11.4	497	53.5	27.1	6.8	57
Nasarawa	10.3	471	48.4	20.2	13.3	48
Niger	28.0	1,207	50.6	32.3	19.4	338
Plateau	18.6	565	49.8	27.9	25.2	105
North East						
Adamawa	27.9	714	49.3	12.3	11.2	199
Bauchi	49.5	1,317	71.2	34.0	17.1	652
Borno	16.0	1,140	77.5	45.4	24.1	182
Gombe	37.0	629	84.4	45.3	10.3	232
Taraba	28.8	682	52.5	26.1	11.8	196
Yobe	44.5	1,118	84.3	24.7	12.5	497
North West						
Jigawa	33.8	1,277	83.2	40.5	17.7	432
Kaduna	25.8	2,039	64.4	37.5	10.6	527
Kano	26.4	2,416	84.0	59.0	4.5	638
Katsina	28.6	2,141	79.1	42.2	16.5	612
Kebbi	38.9	1,005	73.1	32.3	3.9	391
Sokoto	32.7	852	73.5	27.0	8.6	278
Zamfara	13.9	1,154	42.3	13.2	9.9	160
South East						
Abia	7.7	395	86.6	66.5	29.4	30
Anambra	13.7	999	97.4	69.7	14.2	137
Ebonyi	32.4	759	64.3	36.6	7.2	246
Enugu	14.0	455	81.6	60.1	1.7	64
Imo	27.9	598	51.3	32.4	23.1	167
South South						
Akwa Ibom	37.6	480	69.5	44.7	9.4	180
Bayelsa	10.0	210	71.8	50.0	0.0	21
Cross River	16.8	300	83.5	50.0	25.3	50
Delta	5.2	567	*	*	*	30
Edo	18.9	382	78.3	59.0	46.3	72
Rivers	42.0	848	89.9	45.7	28.5	356

Continued...

Table 10.7—*Continued*

Background characteristic	Among children under age 5:		Among children under age 5 with fever:			
	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought[1]	Percentage for whom treatment was sought same or next day	Percentage who took antibiotic drugs	Number of children with fever
South West						
Ekiti	17.9	296	61.8	27.9	13.4	53
Lagos	6.7	1,449	78.4	61.5	32.6	97
Ogun	4.9	574	*	*	*	28
Ondo	12.7	395	61.0	24.2	19.7	50
Osun	13.9	515	65.8	29.7	19.1	72
Oyo	6.5	925	(80.8)	(46.2)	(20.7)	60
Mother's education						
No education	28.7	13,867	68.8	31.2	10.6	3,982
Primary	24.6	4,618	74.8	40.1	14.2	1,137
Secondary	20.4	9,733	77.7	47.5	19.4	1,982
More than secondary	13.7	2,664	84.5	56.9	25.4	364
Wealth quintile						
Lowest	32.5	6,625	67.8	25.5	11.3	2,153
Second	28.3	6,816	70.4	35.8	10.3	1,930
Middle	23.7	6,364	72.4	41.5	15.0	1,510
Fourth	19.4	5,816	79.1	47.3	18.7	1,128
Highest	14.2	5,260	85.2	60.2	24.3	745
Total	24.2	30,881	72.8	38.2	14.2	7,466

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes advice or treatment from the following sources: public sector, private medical sector, shop, market, itinerant drug seller, or community-oriented resource person. Excludes advice or treatment from a traditional practitioner.

Table 10.8 Prevalence and treatment of diarrhoea

Percentage of children under age 5 who had diarrhoea in the 2 weeks preceding the survey, and among children with diarrhoea in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage with diarrhoea	Number of children	Among children under age 5 with diarrhoea: Percentage for whom advice or treatment was sought[1]	Among children under age 5 with diarrhoea: Number of children with diarrhoea
Age in months				
<6	9.6	3,270	51.6	315
6-11	20.1	3,153	64.5	632
12-23	20.2	6,143	66.4	1,242
24-35	13.8	5,835	67.7	807
36-47	8.7	6,186	64.6	537
48-59	6.6	6,294	65.7	416
Sex				
Male	12.7	15,674	64.9	1,995
Female	12.9	15,208	64.8	1,955
Source of drinking water[2]				
Improved	12.1	19,665	68.1	2,375
Unimproved	15.8	9,235	58.8	1,461
Other/missing	5.8	1,981	75.4	115
Type of toilet facility[3]				
Improved facility	11.3	15,868	69.3	1,794
Unimproved facility	16.0	7,889	65.5	1,266
Open defecation	12.5	7,124	55.1	891
Residence				
Urban	9.6	12,215	68.7	1,171
Rural	14.9	18,666	63.2	2,779
Zone				
North Central	11.4	4,255	53.1	486
North East	24.6	5,598	65.6	1,378
North West	13.8	10,883	69.1	1,505
South East	6.1	3,205	60.7	196
South South	6.1	2,787	68.3	170
South West	5.2	4,153	58.4	216
State				
North Central				
FCT-Abuja	8.2	212	84.9	17
Benue	11.2	908	82.9	101
Kogi	6.7	396	(38.9)	26
Kwara	8.3	497	(61.7)	41
Nasarawa	5.7	471	(86.3)	27
Niger	16.3	1,207	31.7	197
Plateau	13.3	565	49.6	75
North East				
Adamawa	10.7	714	51.3	76
Bauchi	34.1	1,317	67.2	449
Borno	8.9	1,140	77.7	101
Gombe	35.0	629	71.8	220
Taraba	23.1	682	32.8	158
Yobe	33.4	1,118	73.5	373
North West				
Jigawa	19.1	1,277	80.8	243
Kaduna	11.8	2,039	47.9	241
Kano	17.7	2,416	79.3	428
Katsina	13.7	2,141	64.8	294
Kebbi	9.6	1,005	62.0	97
Sokoto	18.5	852	74.6	158
Zamfara	3.9	1,154	(47.4)	45
South East				
Abia	3.0	395	*	12
Anambra	3.1	999	(91.8)	31
Ebonyi	10.5	759	54.6	80
Enugu	4.1	455	*	18
Imo	9.1	598	44.9	54

Continued...

Table 10.8—*Continued*

Background characteristic	Percentage with diarrhoea	Number of children	Among children under age 5 with diarrhoea: Percentage for whom advice or treatment was sought[1]	Among children under age 5 with diarrhoea: Number of children with diarrhoea
South South				
Akwa Ibom	8.1	480	(55.9)	39
Bayelsa	1.2	210	*	3
Cross River	4.5	300	*	13
Delta	3.8	567	*	22
Edo	4.4	382	*	17
Rivers	9.0	848	70.8	77
South West				
Ekiti	9.3	296	(39.5)	28
Lagos	4.0	1,449	(66.4)	57
Ogun	0.9	574	*	5
Ondo	6.9	395	(42.3)	27
Osun	9.0	515	(35.9)	46
Oyo	5.7	925	(83.6)	53
Mother's education				
No education	16.3	13,867	62.5	2,256
Primary	13.0	4,618	69.6	601
Secondary	9.5	9,733	66.8	925
More than secondary	6.3	2,664	68.6	168
Wealth quintile				
Lowest	18.6	6,625	61.0	1,234
Second	15.4	6,816	62.8	1,051
Middle	12.2	6,364	66.7	776
Fourth	9.7	5,816	65.2	564
Highest	6.2	5,260	81.3	325
Total	12.8	30,881	64.9	3,950

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes advice or treatment from the following sources: public sector, private medical sector, shop, market, itinerant drug seller, or community-oriented resource person. Excludes advice or treatment from a traditional practitioner.
[2] See Table 2.1.1 for definition of categories.
[3] See Table 2.3.1 for definition of categories.

Table 10.9 Feeding practices during diarrhoea

Percent distribution of children under age 5 who had diarrhoea in the 2 weeks preceding the survey by amount of liquids and food offered compared with normal practice, according to background characteristics, Nigeria DHS 2018

Background characteristic	Amount of liquids given							Amount of food given								Number of children with diarrhoea
	More	Same as usual	Somewhat less	Much less	None	Don't know/ missing	Total	More	Same as usual	Somewhat less	Much less	None	Never gave food	Don't know/ missing	Total	
Age in months																
<6	9.8	49.3	22.7	13.8	4.4	0.0	100.0	4.2	36.6	21.7	12.4	1.3	23.7	0.0	100.0	315
6-11	12.7	34.5	32.3	18.4	2.0	0.2	100.0	3.9	32.6	36.6	16.6	5.0	5.0	0.2	100.0	632
12-23	15.8	32.6	33.0	16.7	1.6	0.3	100.0	3.3	31.0	41.8	20.2	3.3	0.3	0.1	100.0	1,242
24-35	14.6	38.0	30.7	15.1	1.1	0.5	100.0	4.4	40.1	38.3	15.2	1.8	0.0	0.2	100.0	807
36-47	15.0	38.9	32.1	11.9	2.1	0.0	100.0	3.0	40.6	38.2	15.8	2.2	0.0	0.3	100.0	537
48-59	13.7	38.7	34.9	11.7	1.0	0.0	100.0	2.0	39.4	42.2	14.8	1.5	0.2	0.0	100.0	416
Sex																
Male	14.5	37.9	29.8	16.2	1.4	0.1	100.0	3.9	36.5	35.8	18.4	2.2	3.2	0.0	100.0	1,995
Female	14.0	35.7	33.6	14.2	2.1	0.4	100.0	3.2	35.0	40.7	15.1	3.3	2.4	0.3	100.0	1,955
Breastfeeding status																
Breastfeeding	11.6	35.4	32.7	17.8	2.3	0.2	100.0	2.8	31.7	38.4	17.7	3.4	6.0	0.1	100.0	1,785
Not breastfeeding	16.4	38.0	30.9	13.1	1.3	0.3	100.0	4.1	39.1	38.1	16.1	2.2	0.1	0.2	100.0	2,166
Residence																
Urban	11.9	41.2	30.2	14.6	1.7	0.4	100.0	2.6	41.7	35.5	16.1	1.9	2.0	0.3	100.0	1,171
Rural	15.2	35.0	32.3	15.5	1.8	0.2	100.0	3.9	33.2	39.4	17.1	3.1	3.2	0.1	100.0	2,779
Zone																
North Central	20.0	44.1	21.3	13.9	0.7	0.0	100.0	13.0	44.3	24.4	13.4	1.1	3.7	0.1	100.0	486
North East	19.3	31.4	30.4	16.8	2.2	0.0	100.0	2.5	30.4	38.4	21.2	4.1	3.3	0.0	100.0	1,378
North West	5.5	34.1	43.2	15.5	1.7	0.0	100.0	1.3	32.3	48.9	14.0	1.5	2.0	0.0	100.0	1,505
South East	22.3	51.6	16.4	8.4	0.7	0.6	100.0	3.6	52.1	25.4	17.0	1.0	0.3	0.6	100.0	196
South South	24.9	44.8	12.1	14.5	1.3	2.4	100.0	6.4	43.1	18.4	15.2	9.3	7.5	0.0	100.0	170
South West	14.6	54.8	12.6	13.3	3.0	1.8	100.0	2.0	54.1	20.7	16.6	3.0	1.8	1.9	100.0	216
Mother's education																
No education	12.0	35.2	35.2	15.7	1.8	0.1	100.0	2.7	34.2	40.5	17.4	2.6	2.6	0.0	100.0	2,256
Primary	17.7	37.1	28.7	14.5	1.7	0.4	100.0	4.0	34.1	38.1	16.0	3.9	3.4	0.5	100.0	601
Secondary	16.7	39.8	26.7	14.7	1.8	0.2	100.0	5.1	38.7	34.5	15.8	2.6	3.1	0.2	100.0	925
More than secondary	17.6	41.6	22.1	15.0	2.1	1.5	100.0	5.0	45.9	28.1	17.2	1.8	1.3	0.7	100.0	168
Wealth quintile																
Lowest	15.0	35.8	32.2	14.6	2.5	0.0	100.0	2.8	34.9	38.8	17.4	3.2	2.7	0.0	100.0	1,234
Second	13.4	33.8	35.7	15.7	1.1	0.2	100.0	3.8	30.2	43.3	16.9	2.6	3.2	0.0	100.0	1,051
Middle	12.7	38.0	32.8	14.5	1.3	0.6	100.0	3.4	39.3	37.4	15.1	2.3	2.1	0.3	100.0	776
Fourth	14.1	39.5	27.5	17.5	1.3	0.0	100.0	5.3	36.9	33.4	18.6	2.2	3.2	0.3	100.0	564
Highest	17.8	43.0	21.2	14.0	3.2	0.8	100.0	2.5	46.4	29.6	15.0	3.5	2.5	0.5	100.0	325
Total	14.2	36.8	31.7	15.2	1.8	0.2	100.0	3.5	35.8	38.2	16.8	2.8	2.8	0.1	100.0	3,950

Note: It is recommended that children be given more liquids to drink during diarrhoea and that food not be reduced.

Table 10.10 Oral rehydration therapy, zinc, and other treatments for diarrhoea

Among children under age 5 who had diarrhoea in the 2 weeks preceding the survey, percentage given fluid from an ORS packet, recommended homemade fluids (RHF), ORS or RHF, zinc, ORS and zinc, ORS or increased fluids, oral rehydration therapy (ORT), continued feeding and ORT, and other treatments, and percentage given no treatment, according to background characteristics, Nigeria DHS 2018

	Percentage of children with diarrhoea who were given:													
Background characteristic	Fluid from ORS packets	Recom-mended home fluids (RHF)	Either ORS or RHF	Zinc	ORS and zinc	ORS or increased fluids	ORT (ORS, RHF, or increased fluids)	Continued feeding and ORT[1]	Antibiotic drugs	Anti-motility drugs	Intravenous solution	Home remedy/ other	No treatment	Number of children with diarrhoea
Age in months														
<6	31.4	21.1	33.0	20.3	15.4	38.4	39.4	25.8	16.5	6.0	0.0	19.2	32.3	315
6-11	37.8	26.1	40.3	32.0	22.1	45.4	47.4	31.5	33.7	9.1	0.0	18.9	18.3	632
12-23	45.6	29.4	46.8	33.7	25.4	54.0	54.9	39.1	32.3	5.3	0.3	20.1	13.6	1,242
24-35	40.6	31.0	42.7	32.1	23.9	48.3	50.0	38.7	28.8	9.2	0.6	20.8	13.7	807
36-47	37.1	27.1	39.4	29.4	20.8	45.5	47.8	35.9	29.3	10.6	0.4	19.8	16.2	537
48-59	36.2	24.3	38.2	30.6	21.8	45.7	47.5	39.8	27.6	10.0	0.0	18.9	17.4	416
Sex														
Male	40.0	26.5	41.5	30.3	21.0	48.2	49.3	35.3	29.1	8.7	0.4	20.3	16.3	1,995
Female	40.1	28.8	42.3	32.0	24.6	48.2	50.1	37.5	30.3	7.3	0.2	19.3	16.9	1,955
Residence														
Urban	50.0	34.6	51.6	37.8	29.8	55.9	57.2	42.4	29.9	7.7	0.3	18.1	13.4	1,171
Rural	35.8	24.8	37.8	28.3	19.8	44.9	46.5	33.8	29.6	8.1	0.3	20.5	18.0	2,779
Zone														
North Central	38.3	28.4	40.8	22.9	17.8	50.7	51.7	41.9	31.0	2.6	0.0	27.2	14.0	486
North East	36.8	28.2	38.2	22.0	17.5	48.6	49.9	33.7	27.1	13.6	0.4	17.5	19.1	1,378
North West	41.2	24.2	43.4	41.9	28.8	43.8	45.8	35.2	33.9	6.8	0.4	16.1	15.9	1,505
South East	43.7	35.8	44.9	27.5	22.9	55.4	56.5	44.0	34.8	2.2	0.0	23.1	17.6	196
South South	43.3	31.2	44.6	32.7	21.9	55.1	55.7	37.8	27.2	1.1	0.0	28.8	11.9	170
South West	50.8	36.7	52.9	35.1	26.4	57.8	60.0	41.3	10.7	3.0	0.0	33.8	14.5	216
Mother's education														
No education	37.0	25.9	38.9	28.7	21.3	44.2	46.0	33.2	29.9	8.8	0.3	18.0	18.6	2,256
Primary	43.0	29.1	44.9	28.9	21.7	53.8	55.1	40.3	28.8	8.0	0.2	23.6	14.1	601
Secondary	42.4	29.5	44.3	35.8	24.3	51.4	52.6	39.1	28.3	6.4	0.3	23.3	13.9	925
More than secondary	57.8	36.5	58.6	45.6	37.3	64.2	64.8	49.8	36.9	5.4	0.0	11.3	13.7	168
Wealth quintile														
Lowest	33.4	23.3	35.2	25.9	19.1	42.8	44.5	31.9	26.6	9.1	0.4	20.2	22.3	1,234
Second	36.0	25.2	38.0	25.2	18.3	44.7	46.3	34.3	30.6	8.3	0.2	19.9	18.1	1,051
Middle	40.9	27.8	43.1	36.1	24.8	47.7	49.4	37.8	31.0	7.9	0.3	20.8	12.1	776
Fourth	47.6	32.7	48.7	38.7	28.0	55.3	55.9	39.2	30.2	7.4	0.3	18.0	13.4	564
Highest	63.1	43.6	65.3	45.2	37.5	68.7	70.4	51.8	34.2	3.8	0.3	18.8	6.2	325
Total	40.0	27.7	41.9	31.1	22.8	48.2	49.7	36.4	29.7	8.0	0.3	19.8	16.6	3,950

ORS = Oral rehydration salts
[1] Continued feeding includes children who were given more, the same as usual, or somewhat less food during the diarrhoea episode.

Table 10.11 Source of advice or treatment for children with diarrhoea

Percentage of children under age 5 with diarrhoea in the 2 weeks preceding the survey for whom advice or treatment was sought from specific sources; among children under age 5 with diarrhoea in the 2 weeks preceding the survey for whom advice or treatment was sought, percentage for whom advice or treatment was sought from specific sources; and among children with diarrhoea who received ORS, percentage for whom advice or treatment was sought from specific sources, Nigeria DHS 2018

	Percentage for whom advice or treatment was sought from each source:		
Source	Among children with diarrhoea	Among children with diarrhoea for whom advice or treatment was sought	Among children with diarrhoea who received ORS[1]
Public sector	24.1	35.7	40.1
Government hospital	6.4	9.5	12.5
Government health centre	10.9	16.2	18.0
Government health post	5.6	8.3	7.9
Mobile clinic	0.5	0.8	0.7
Fieldworker/CHW	0.6	0.9	1.1
Other	0.1	0.1	0.0
Private sector	36.6	54.1	42.7
Private hospital/clinic	2.0	3.0	3.4
Pharmacy	4.9	7.2	5.2
Chemist/PMS	29.1	43.1	33.0
Private doctor	0.1	0.2	0.3
Mobile clinic	29.1	43.1	33.0
Fieldworker/CHW	0.2	0.3	0.4
Other private sector	6.3	9.4	4.1
Shop	3.0	4.5	2.9
Traditional practitioner	2.8	4.1	0.7
Itinerant drug seller	0.2	0.3	0.1
Community-oriented resource person	0.3	0.4	0.3
Other	0.9	1.4	0.8
Number of children	3,950	2,669	1,582

CHW = Community health worker
PMS = Patent medicine store
ORS = Oral rehydration salts
[1] Fluids from ORS packet

Table 10.12 Knowledge of ORS packets

Percentage of women age 15-49 with a live birth in the 5 years preceding the survey who know about ORS packets for treatment of diarrhoea, by background characteristics, Nigeria DHS 2018

Background characteristic	Percentage of women who know about ORS packets	Number of women
Age		
15-19	80.3	1,210
20-24	85.8	4,211
25-34	87.7	10,458
35-49	87.3	6,033
Residence		
Urban	90.9	8,712
Rural	84.2	13,199
Zone		
North Central	83.2	3,031
North East	89.1	3,862
North West	89.3	7,644
South East	91.3	2,138
South South	72.9	2,019
South West	87.5	3,218
State		
North Central		
FCT-Abuja	77.4	148
Benue	82.9	637
Kogi	76.6	299
Kwara	87.9	360
Nasarawa	90.4	329
Niger	81.0	844
Plateau	85.1	415
North East		
Adamawa	98.2	518
Bauchi	93.2	919
Borno	90.2	732
Gombe	92.1	444
Taraba	64.2	495
Yobe	91.5	755
North West		
Jigawa	99.6	898
Kaduna	97.2	1,453
Kano	95.6	1,682
Katsina	75.2	1,440
Kebbi	86.9	716
Sokoto	61.1	608
Zamfara	98.4	848
South East		
Abia	73.0	259
Anambra	96.6	664
Ebonyi	90.9	493
Enugu	91.3	317
Imo	94.8	405
South South		
Akwa Ibom	36.8	360
Bayelsa	65.0	144
Cross River	92.2	231
Delta	68.7	408
Edo	71.7	270
Rivers	92.3	606
South West		
Ekiti	89.4	226
Lagos	83.9	1,142
Ogun	94.1	423
Ondo	77.5	312
Osun	89.7	409
Oyo	91.8	706
Education		
No education	85.5	9,738
Primary	84.7	3,293
Secondary	87.6	6,962
More than secondary	94.7	1,919

Continued...

Table 10.12—*Continued*

Background characteristic	Percentage of women who know about ORS packets	Number of women
Wealth quintile		
Lowest	83.6	4,716
Second	84.1	4,850
Middle	87.2	4,448
Fourth	88.6	4,103
Highest	92.0	3,794
Total	86.8	21,911

ORS = Oral rehydration salts

Table 10.13 Disposal of children's stools

Percent distribution of youngest children under age 2 living with their mother by the manner of disposal of the child's last faecal matter, and percentage of children whose stools are disposed of appropriately, according to background characteristics, Nigeria DHS 2018

Background characteristic	Manner of disposal of children's stools							Total	Percentage of children whose stools are disposed of appro-priately[1]	Number of children
	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other			
Age of child in months										
0-1	0.8	39.4	1.7	17.5	35.8	4.2	0.6	100.0	41.8	1,122
2-3	1.1	43.6	1.6	13.4	37.1	2.8	0.4	100.0	46.3	993
4-5	0.7	49.3	2.2	9.2	33.5	4.7	0.4	100.0	52.2	1,104
6-8	1.7	55.4	1.4	7.6	29.4	4.2	0.3	100.0	58.5	1,650
9-11	1.7	56.3	1.1	6.4	30.4	3.7	0.4	100.0	59.1	1,457
12-17	2.1	55.7	1.7	5.7	29.3	5.0	0.4	100.0	59.5	3,434
18-23	2.6	58.1	1.7	5.4	26.5	5.1	0.6	100.0	62.4	2,426
6-23	2.1	56.4	1.5	6.1	28.7	4.7	0.4	100.0	60.1	8,967
Type of toilet facility[2]										
Improved facility	2.4	60.2	1.1	7.3	27.1	1.7	0.3	100.0	63.7	6,261
Unimproved facility	1.4	71.1	0.7	8.1	16.6	1.6	0.5	100.0	73.2	3,137
Open defecation	0.8	17.0	3.9	9.6	53.8	14.1	0.7	100.0	21.7	2,788
Residence										
Urban	3.4	50.1	1.0	6.6	35.0	3.2	0.7	100.0	54.5	4,709
Rural	0.8	55.1	2.0	8.9	27.7	5.3	0.3	100.0	57.8	7,477
Zone										
North Central	1.7	32.6	4.6	9.9	43.1	7.9	0.1	100.0	38.9	1,695
North East	0.9	67.3	0.6	3.6	19.4	8.1	0.0	100.0	68.9	2,200
North West	1.2	74.6	0.4	8.8	14.2	0.8	0.0	100.0	76.2	4,346
South East	4.0	27.9	3.0	7.7	45.7	9.1	2.6	100.0	34.9	1,241
South South	3.4	33.2	3.6	13.8	39.4	5.6	0.9	100.0	40.3	1,107
South West	1.6	30.6	0.7	6.0	59.1	1.4	0.6	100.0	32.9	1,597
State										
North Central										
FCT-Abuja	0.2	38.6	2.5	7.0	51.7	0.0	0.0	100.0	41.3	83
Benue	0.4	37.9	15.8	5.2	39.7	1.0	0.0	100.0	54.1	356
Kogi	0.7	6.1	0.6	7.1	84.2	0.8	0.5	100.0	7.4	154
Kwara	0.0	27.3	6.1	17.2	33.1	16.4	0.0	100.0	33.4	201
Nasarawa	12.5	63.5	0.0	7.8	15.3	0.9	0.0	100.0	76.0	177
Niger	0.8	30.7	0.5	11.3	47.3	9.2	0.1	100.0	32.0	510
Plateau	0.0	24.1	2.2	12.6	38.6	22.6	0.0	100.0	26.2	214
North East										
Adamawa	2.0	64.3	0.0	1.0	31.4	1.3	0.0	100.0	66.3	302
Bauchi	1.4	77.0	0.0	1.2	20.3	0.0	0.0	100.0	78.5	551
Borno	0.0	93.7	0.0	0.0	2.8	3.5	0.0	100.0	93.7	395
Gombe	1.5	68.2	0.2	4.8	15.0	10.3	0.0	100.0	69.9	256
Taraba	0.0	64.7	1.9	2.1	13.1	18.0	0.2	100.0	66.6	280
Yobe	0.6	32.8	1.9	12.4	32.0	20.4	0.0	100.0	35.3	415
North West										
Jigawa	0.0	73.0	1.0	4.0	20.7	1.3	0.0	100.0	74.0	510
Kaduna	0.4	62.6	0.2	27.5	8.9	0.4	0.0	100.0	63.2	819
Kano	4.1	90.7	0.0	3.1	2.1	0.0	0.0	100.0	94.8	934
Katsina	0.0	86.1	0.7	3.5	6.8	2.9	0.0	100.0	86.8	835
Kebbi	0.7	48.9	0.0	9.2	41.2	0.0	0.0	100.0	49.6	413
Sokoto	0.6	52.4	1.5	4.1	40.7	0.7	0.0	100.0	54.5	344
Zamfara	1.3	83.2	0.0	5.5	10.1	0.0	0.0	100.0	84.5	491
South East										
Abia	0.6	51.2	0.9	8.1	38.0	1.3	0.0	100.0	52.7	146
Anambra	2.3	25.6	3.5	6.7	54.0	6.7	1.1	100.0	31.4	416
Ebonyi	3.8	21.2	0.2	10.2	38.3	16.7	9.6	100.0	25.3	292
Enugu	15.9	22.0	3.1	5.9	47.8	5.4	0.0	100.0	41.0	171
Imo	0.4	30.2	7.1	7.5	43.0	11.8	0.0	100.0	37.7	216

Continued...

Table 10.13—*Continued*

Background characteristic	Manner of disposal of children's stools							Total	Percentage of children whose stools are disposed of appro-priately[1]	Number of children
	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other			
South South										
Akwa Ibom	2.0	73.6	0.7	8.4	12.1	0.9	2.4	100.0	76.2	200
Bayelsa	1.9	45.1	0.4	19.6	33.1	0.0	0.0	100.0	47.3	86
Cross River	0.4	30.8	10.6	14.8	42.4	1.0	0.0	100.0	41.8	113
Delta	11.8	17.6	0.4	16.4	31.7	20.7	1.4	100.0	29.8	228
Edo	1.3	22.0	6.3	3.4	65.0	2.0	0.0	100.0	29.6	143
Rivers	1.0	22.3	4.9	17.9	50.4	2.6	0.8	100.0	28.2	337
South West										
Ekiti	0.0	28.5	3.0	9.2	43.6	15.7	0.0	100.0	31.5	124
Lagos	0.7	33.8	0.0	1.0	63.7	0.4	0.4	100.0	34.4	558
Ogun	0.0	52.0	0.0	12.0	36.1	0.0	0.0	100.0	52.0	216
Ondo	0.0	26.8	0.5	20.6	47.0	0.0	5.1	100.0	27.3	148
Osun	5.2	34.8	0.0	10.0	50.0	0.0	0.0	100.0	40.0	184
Oyo	3.5	13.2	1.6	1.2	80.2	0.3	0.0	100.0	18.3	367
Mother's education										
No education	0.6	61.8	1.2	8.3	23.3	4.8	0.1	100.0	63.6	5,427
Primary	1.4	53.4	1.7	8.7	27.9	5.9	0.9	100.0	56.6	1,752
Secondary	2.7	44.1	2.3	8.1	37.8	4.4	0.7	100.0	49.0	3,975
More than secondary	5.1	42.3	1.1	4.8	44.9	1.0	0.7	100.0	48.5	1,032
Wealth quintile										
Lowest	0.4	49.5	2.2	6.7	31.7	9.0	0.4	100.0	52.1	2,619
Second	0.4	58.5	1.7	8.3	25.1	5.3	0.6	100.0	60.7	2,744
Middle	1.6	58.2	2.1	11.8	22.5	3.4	0.4	100.0	61.9	2,508
Fourth	2.6	53.3	1.0	8.1	32.0	2.7	0.2	100.0	56.9	2,282
Highest	4.6	44.2	0.8	4.4	44.3	0.9	0.6	100.0	49.7	2,032
Total	1.8	53.1	1.6	8.0	30.5	4.5	0.5	100.0	56.5	12,186

[1] Children's stools are considered to be disposed of safely if the child used a toilet or latrine, if the faecal matter was put/rinsed into a toilet or latrine, or if it was buried.
[2] See Table 2.3.1 for definition of categories.

NUTRITION OF CHILDREN AND WOMEN 11

Key Findings

- ***Nutritional status of children:*** 37% of Nigerian children age 6-59 months are stunted (short for their age), 7% are wasted (thin for their height), 22% are underweight (thin for their age), and 2% are overweight (heavy for their height).
- ***Breastfeeding:*** Almost all (97%) children born in the 2 years before the survey were breastfed at some point; 29% of children under age 6 months are exclusively breastfed.
- ***Minimum acceptable diet:*** Only 11% of children age 6-23 months were fed a minimum acceptable diet in the 24 hours before the survey.
- ***Anaemia:*** 68% of children age 6-59 months and 58% of women age 15-49 are anaemic.
- ***Sickle cell:*** 20% of children age 6-59 months have sickle cell trait and 1% have sickle cell disease.
- ***Salt iodisation:*** Almost all (97%) households with tested salt have iodised salt.
- ***Nutritional status of women:*** 12% of women age 15-49 are thin (a body mass index [BMI] below 18.5), while 28% are overweight or obese.
- ***Minimum dietary diversity for women:*** 56% of women age 15-49 consumed food from five or more of 10 specified food groups in the day or night preceding the interview.

This chapter focuses on nutritional status and anaemia among children and adults. It also reports on infant and young child feeding practices, including breastfeeding and complementary feeding, as well as micronutrient supplementation and deworming for children and pregnant women and the presence of iodine in household cooking salt.

11.1 Nutritional Status of Children

The distribution of height and weight among children under age 5 was compared against the WHO Child Growth Standards reference population (WHO 2006). A well-nourished population will be similar to the reference population, while a poorly nourished population will differ from the reference population. Three indices—height-for-age, weight-for-height, and weight-for-age—can be expressed in standard deviation units (Z-scores) from the median of the reference population, with values greater than two standard deviations from the median of the WHO Child Growth Standards used to define malnutrition.

Stunting, or low height-for-age, is a sign of chronic undernutrition that reflects failure to receive adequate nutrition over a long period of time. The most direct causes of stunting are inadequate nutrition (not eating enough or eating foods that lack growth-promoting nutrients) and recurrent infections or chronic diseases that cause poor nutrient intake and absorption.

Wasting, or low weight-for-height, is a measure of acute undernutrition and represents the failure to receive adequate nutrition in the period immediately before the survey. Wasting may result from inadequate food intake or from a recent episode of illness or infection causing weight loss.

Overweight, or high weight-for-height, is a measure of overnutrition and results from an imbalance between energy consumed (too much) and energy expended (too little).

Underweight, or low weight-for-age, is a composite index of weight-for-height and height-for-age reflecting both acute (wasting) and chronic (stunting) undernutrition.

Stunting (assessed via height-for-age)

Height-for-age is a measure of linear growth retardation and cumulative growth deficits. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered short for their age (stunted), or chronically undernourished. Children whose Z-score is below minus three standard deviations (-3 SD) from the median are considered severely stunted.

Sample: Children under age 5

Wasting (assessed via weight-for-height)

The weight-for-height index measures body mass in relation to body height or length and describes acute nutritional status. Children whose weight-for-height Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered thin (wasted), or acutely undernourished. Children whose Z-score is below minus three standard deviations (-3 SD) from the median are considered severely wasted.

Sample: Children under age 5

Underweight (assessed via weight-for-age)

Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both acute and chronic undernutrition. Children whose weight-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are classified as underweight. Children whose Z-score is below minus three standard deviations (-3 SD) from the median are considered severely underweight.

Sample: Children under age 5

Overweight (assessed via weight-for-height)

Children whose weight-for-height Z-score is more than two standard deviations (+2 SD) above the median of the reference population are considered overweight.

Sample: Children under age 5

The means of the Z-scores for height-for-age, weight-for-height, and weight-for-age are also calculated as summary statistics representing the nutritional status of children in a population. These mean scores describe the nutritional status of the entire population of children without the use of a cut-off point. A mean Z-score of less than 0 (i.e., a negative mean value for stunting, wasting, or underweight) suggests a downward shift in the entire sample population's nutritional status relative to the reference population. The farther away mean Z-scores are from 0, the higher the prevalence of malnutrition.

11.1.1 Anthropometry Training and Data Collection

Laboratory scientists and nurses were trained to measure the height and weight of children and adults. Training on child height measurement included standardisation exercises (and re-standardisation exercises for those who did not pass the standardisation exercises); results of these exercises are provided in Appendix Table C.7.

Children younger than age 24 months were measured lying down (recumbent length); older children and adults were measured standing up (height). Weight measurements were taken using SECA scales with a digital display (model number SECA 878U). Height and length were measured with a Shorr Board® measuring board.

The survey identified a total of 12,806 children under age 5 who were eligible for height and weight measurements. Valid height-for-age measurements were obtained for 97% of eligible children (0.9% of the invalid data was the result of implausible values). Similarly, valid weight-for-height measurements were obtained for 97% of eligible children (0.6% of the invalid data was the result of implausible values), and valid weight-for-age measurements were obtained for 97% of eligible children (0.2% of the invalid data was the result of implausible values). Appendix Table C.3 and Appendix Table C.8 provide additional information on the completeness and quality of anthropometry data for children.

To assess precision of measurements, one child per cluster was randomly selected to be measured a second time. A difference of 1 centimetre or less between the two height measurements was defined as an acceptable level of precision. Children with a Z-score of less than -3 or more than 3 for height-for-age, weight-for-height, or weight-for-age were flagged and measured a second time. Re-measurement of flagged cases was performed to ensure accurate reporting of height and weight measurements.

Calculation of Z-scores was based on the first measurement among children randomly selected for re-measurement and on the second measurement among children flagged for subsequent re-measurement. The re-measurement completion rate was 99% for both randomly selected for re-measurement and those flagged for re-measurement. Appendix Table C.9 provides additional information on re-measurement data.

11.1.2 Levels of Child Malnutrition

Table 11.1 shows that 37% of children under age 5 are stunted (too short for their age) and 17% are severely stunted. Seven percent are wasted (too thin for their height), with 2% being severely wasted. Twenty-two percent of children are underweight (too thin for their age), and 7% are severely underweight. Only 2% of children are overweight.

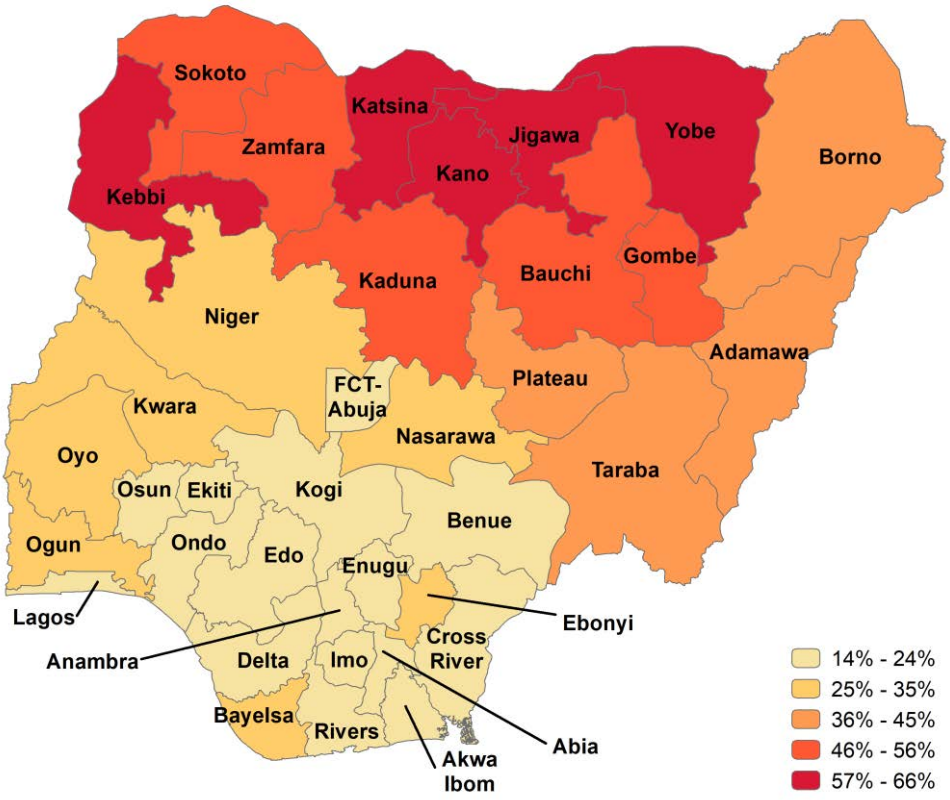
The development and implementation of the National Strategic Plan of Action for Nutrition (2014-2019) has been an important step forward. There has been effective coordination of stakeholders and increased government commitment to funding, as exemplified by the annual releases of 1.2 billion Naira in the last 2 years for the procurement of ready-to-use therapeutic food, the establishment of community-based management of acute malnutrition sites across the country, and other interventions.

Patterns by background characteristics

- The prevalence of stunting increases from 19% among children less than 6 months to a peak of 47% among children age 24-35 months. This represents the impact of undernutrition in the first 1,000 days of life. Wasting, on the other hand, is more prevalent (15%) among children age 9-11 months.

Figure 11.1 **Stunting in children by state**

Percentage of children under age 5 who are stunted



- There are wide variations by zone in the prevalence of stunting. The proportion of children who are stunted is highest in the North West (57%) and lowest in the South East (18%). By state, stunting is most prevalent in Kebbi (66%) and least prevalent in Anambra (14%) (**Figure 11.1**).

- The proportion of children who are wasted is approximately twice as high in the North East (10%) and North West (9%) as in the other zones (4%-6%).

- Children reported to be small or very small at birth are more likely to be stunted, wasted, or underweight than children reported to be average or larger at birth. For example, children reported to be very small at birth are nearly three times as likely to be wasted as children reported to be average or larger at birth (17% versus 6%).

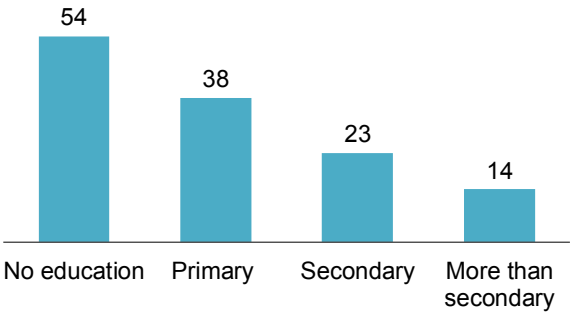
- Children whose mothers are thin (a body mass index [BMI] below 18.5) are more likely to be stunted, wasted, or underweight than children whose mothers have a normal BMI and children whose mothers are overweight or obese. The prevalence of stunting in children whose mothers are thin is twice that (49%) of children whose mothers are overweight or obese (23%).

- The prevalence of stunting, wasting, and underweight is almost twice as high among children in rural areas (45%, 8%, and 27%, respectively) as among those in urban areas (27%, 5%, and 15%, respectively).

- The proportions of children who are stunted, wasted, and underweight decline substantially with increasing mother's education and household wealth. For example, the prevalence of stunting is 54%, among children whose mothers have no education, as compared with 14% among those whose mothers have more than a secondary education (**Figure 11.2**).

Figure 11.2 **Stunting in children by mother's education**

Percentage of children under age 5 who are stunted



11.2 Infant and Young Child Feeding Practices

Appropriate infant and young child feeding (IYCF) practices include early initiation of breastfeeding (within the first hour of life), exclusive breastfeeding in the first 6 months of life, continued breastfeeding for 2 years or more, and introduction of safe, appropriate, and adequate complementary foods at age 6 months (WHO 2008).

11.2.1 Early Initiation of Breastfeeding

Initiation of breastfeeding within the first hour of life is important for both the mother and the child. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from diseases. Early initiation of breastfeeding also encourages bonding between the mother and her newborn, facilitating the production of regular breast milk.

Early initiation of breastfeeding
Initiation of breastfeeding within 1 hour of birth.
Sample: Last-born children who were born in the 2 years before the survey

In May 2014, the Federal Ministry of Health introduced the health sector component of the National Food and Nutrition Policy and the National Strategic Plan of Action for Nutrition (2014-2019). The goal of these initiatives is to improve the nutritional status of Nigerian people throughout their life cycle, with a particular focus on vulnerable groups such as women of reproductive age and children under age 5 (Federal Ministry of Health 2014a).

Table 11.2 shows that 97% of last-born children born in the 2 years before the survey were breastfed at some point. Two-fifths (42%) of children were breastfed within 1 hour of birth, and 82% were breastfed within 1 day of birth. Nearly half of children (49%) received a prelacteal feed.

Trends: The percentage of children who had ever been breastfed was 97% in both 2008 and 2018. The percentage of children who started breastfeeding within 1 hour of birth has increased by 9 percentage points since 2013, from 33% to 42%, while the percentage who started breastfeeding within 1 day has increased from 65% to 82% since 2008. The percentage of children receiving a prelacteal feed has decreased from 56% to 49% since 2008.

Patterns by background characteristics

- Early initiation of breastfeeding is more common among children whose deliveries were assisted by health personnel (50%) than among those whose deliveries were assisted by traditional birth attendants (33%), no one (36%), or others (37%).

- Infants in urban areas were more likely to start breastfeeding within 1 hour of birth (49%) and less likely to receive a prelacteal feed (43%) than those in rural areas (38% and 53%, respectively).

- Children born to mothers with more than a secondary education were more likely to start breastfeeding within an hour of birth (52%) than children born to mothers with no education (34%). Conversely, children born to mothers with no education (60%) were more likely than those born to mothers with a secondary education or higher (38%) to receive a prelacteal feed.

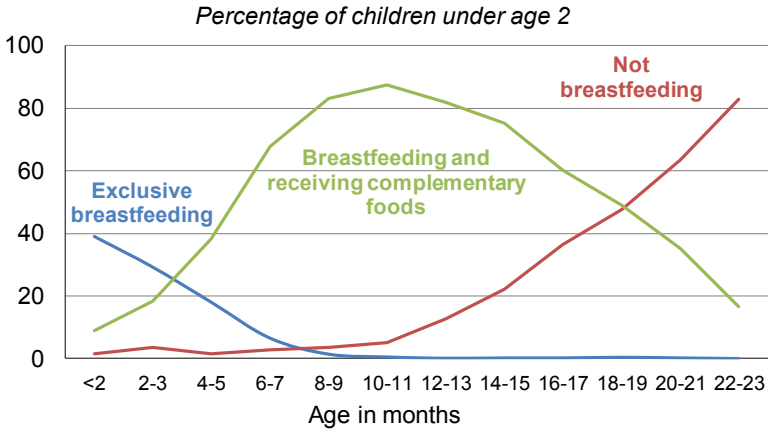
- Early initiation of breastfeeding increases with increasing wealth (from 31% among children in the lowest quintile to 54% among those in the highest quintile), while prelacteal feeding decreases with increasing wealth (from 56% among children in the lowest quintile to 38% among children in the highest quintile).

11.2.2 Exclusive Breastfeeding and Continued Breastfeeding

Breast milk contains all of the nutrients needed by children during their first 6 months of life. It is recommended that children be exclusively breastfed in the first 6 months of their life; that is, they should be given nothing but breast milk. Exclusive breastfeeding for 6 months prevents infections such as diarrhoea and respiratory illnesses and provides all of the nutrients an infant requires for optimal growth and development. Feeding complementary foods within the first 6 months will have the adverse effect of reducing breast milk output because the production and release of breast milk are modulated by the frequency and intensity of suckling. Breastfeeding should continue for the first 2 years of life.

Exclusive breastfeeding
Proportion of children age 0-5 months who are fed exclusively with breast milk.
Sample: Last-born children who were born in the 2 years before the survey

Figure 11.3 **Breastfeeding practices by age**



Breastfeeding status was ascertained for last-born children under age 2 who are currently living with their mother. Twenty-nine percent of children under age 6 months are exclusively breastfed. Exclusive breastfeeding declines with age, from 39% among children age 0-1 months to 29% among those age 2-3 months and 18% among those age 4-5 months. Thirty-nine percent of children age 0-5 months are breastfeeding and consuming plain water only; this practice tends to decrease the exclusive breastfeeding rate. The proportion of children who are breastfeeding and consuming complementary foods first increases with age (peaking at 86% among children age 9-11 months) and then falls among children age 12-23 months (as older children stop breastfeeding). Eighty-three percent of children are breastfeeding at 1 year, and 28% are breastfeeding at 2 years. The proportion of children who are not breastfeeding increases with age, from 2% among those age 0-1 months to 62% among those age 18-23 months (**Table 11.3**, **Table 11.4**, and **Figure 11.3**).

Trends: Exclusive breastfeeding among children age 0-5 months has increased since 2013, from 17% to 29%.

11.2.3 Median Duration of Breastfeeding

The median duration of any breastfeeding among children born in the 3 years before the survey is 18.5 months, while the median duration of predominant breastfeeding (either exclusively breastfed or breastfed

and receiving plain water and/or non-milk liquids) is 4.9 months (**Table 11.5**). The average duration of exclusive breastfeeding is 2.8 months.

Trends: The median duration of any breastfeeding increased slightly from 18.3 months in 2013 to 18.5 months in 2018, while the median duration of predominant breastfeeding increased from 4.4 months to 4.9 months. The mean duration of exclusive breastfeeding increased from 1.8 months to 2.8 months.

Patterns by background characteristics

- The median duration of any breastfeeding is 20.0 months among children in rural areas, as compared with 16.3 months among children in urban areas.
- The median duration of predominant breastfeeding is longest among children in the North East (6.2 months) and South West (5.5 months) and shortest in the South South (3.1 months).
- Breastfeeding patterns are similar according to mother's education and household wealth. The median duration of any breastfeeding is 21.4 months each among mothers with no education and those in the lowest wealth quintile, while the median durations are 14.6 and 14.5 months, respectively, among those with more than a secondary education and those in the highest wealth quintile.

11.2.4 Bottle Feeding

The nipple on a feeding bottle is susceptible to contamination and increases disease risk among children. Thus, bottle feeding is not recommended for children under age 2 (WHO 2005).

Bottle feeding
Proportion of children age 0-23 months who are fed from a bottle with a nipple.
Sample: Last-born children who were born in the 2 years before the survey

Twelve percent of children age 0-1 months are fed using a bottle with a nipple. The proportion of children using a bottle with a nipple peaks at age 4-5 months (19%). Overall, 12% of children age 0-23 months are fed from a bottle with a nipple (**Table 11.3** and **Table 11.4**).

11.2.5 Introduction of Complementary Foods

After the first 6 months, breast milk alone is no longer sufficient to meet the nutritional needs of an infant. After 6 months, appropriate complementary foods should be introduced while breastfeeding is continued until age 2 or older. The transition from exclusive breastfeeding to complementing breastfeeding with family foods is when children are most vulnerable to becoming undernourished, and during this time it is important that they receive solid, semisolid, or soft foods.

Appropriate complementary feeding should include feeding children a variety of foods to ensure that nutrient requirements are met. Fruits and vegetables rich in vitamin A should be consumed daily. Eating a range of fruits and vegetables, in addition to those rich in vitamin A, is also important. Studies have shown that plant-based complementary foods by themselves are insufficient to meet the needs for certain micronutrients. Therefore, it has been recommended that meat, poultry, fish, or eggs be part of the daily diet or eaten as often as possible (WHO 2003).

Table 11.6 indicates the types of foods and liquids consumed by children under age 2 during the day and night before the interview by their age and breastfeeding status. Generally, in each age group, consumption of all types of foods is higher among nonbreastfeeding children than among breastfeeding children.

The most common foods given to children age 6 to 23 months are foods made from grains (78% among breastfeeding children and 90% among nonbreastfeeding children). Children less often consume meat, fish,

and poultry (27% among breastfeeding children and 59% among nonbreastfeeding children). Thirty-seven percent of breastfeeding children are given fruits and vegetables rich in vitamin A, as compared with 57% of nonbreastfeeding children. Moreover, only 13% of breastfeeding children and 28% of nonbreastfeeding children are fed eggs. Consumption of infant formula is low among both breastfeeding (6%) and nonbreastfeeding (7%) children age 6-23 months.

11.2.6 Minimum Dietary Diversity, Minimum Meal Frequency, and Minimum Acceptable Diet

Infants and young children should be fed a minimum acceptable diet to ensure appropriate growth and development. Without adequate diversity and meal frequency, infants and young children are vulnerable to undernutrition, especially stunting and micronutrient deficiencies, and to increased morbidity and mortality. The WHO minimum acceptable diet recommendation is a combination of minimum dietary diversity and minimum meal frequency. The indicators are defined in the box below.

Minimum dietary diversity is a proxy for adequate micronutrient density of foods. Consumption of food from at least five groups means that the child has a high likelihood of consuming at least one animal source of food and at least one fruit or vegetable in addition to a staple food such as grains, roots, or tubers (WHO 2008). The five groups should come from a list of eight food groups: breast milk; grains, roots, and tubers; legumes and nuts; dairy products (milk, yogurt, and cheese); flesh foods (meat, fish, poultry, and liver/organ meat); eggs; vitamin A-rich fruits and vegetables; and other fruits and vegetables.

Minimum meal frequency is a proxy for meeting energy requirements. Breastfed children age 6-8 months are considered to be fed with a minimum meal frequency if they receive solid, semisolid, or soft foods at least twice a day. Breastfed children age 6-23 months are considered to be fed with a minimum meal frequency if they receive solid, semisolid, or soft foods at least three times a day. Nonbreastfed children age 6-23 months are considered to be fed with a minimum meal frequency if they receive solid, semisolid, or soft foods or milk feeds at least four times a day and if at least one of the feeds is a solid, semisolid, or soft food.

Minimum dietary diversity

Proportion of children age 6-23 months who received a minimum of five out of eight food groups during the previous day.

Minimum meal frequency

Proportion of children age 6-23 months who received solid, semisolid, or soft food (including milk feeds for nonbreastfed children) the minimum number of times or more during the previous day.

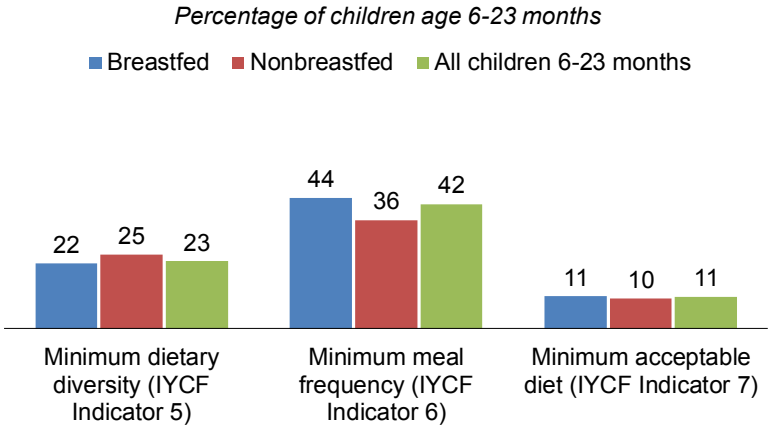
Minimum acceptable diet

Proportion of children age 6-23 months who receive a minimum acceptable diet. This indicator is a composite of children fed with a minimum dietary diversity and a minimum meal frequency.

Sample: Youngest children age 6-23 months living with their mother

Minimum dietary diversity, minimum meal frequency, and appropriate milk feeds together constitute a child's minimum acceptable diet. Eleven percent of children age 6-23 months living with their mother were fed a minimum acceptable diet in the 24 hours preceding the interview. Twenty-three percent of children had an adequately diverse diet in which they had been given foods from at least five food groups, and 42% had been fed the minimum number of times appropriate for their age (**Table 11.7** and **Figure 11.4**).

Figure 11.4 IYCF indicators on minimum acceptable diet



Patterns by background characteristics

- Similar proportions of nonbreastfed (10%) and breastfed (11%) children are fed a minimum acceptable diet.
- Children in urban areas (14%) are more likely to be fed according to the minimum acceptable dietary standards than those in rural areas (9%).
- The proportion of children receiving a minimum acceptable diet ranges from 5% in the North Central zone to 16% in the South East.
- The proportion of children receiving a minimum acceptable diet rises with increasing mother's education, from 7% among children whose mothers have no education to 23% among children whose mothers have more than a secondary education. Similarly, the proportion of children receiving a minimum acceptable diet increases with increasing household wealth, from 8% to 19%.

11.3 Anaemia Prevalence in Children

Anaemia in children

Anaemia status	Haemoglobin level in grams/decilitre*
Anaemic	<11.0
Mildly anaemic	10.0-10.9
Moderately anaemic	7.0-9.9
Severely anaemic	<7.0
Not anaemic	11.0 or higher
*Haemoglobin levels are adjusted for altitude in enumeration areas that are above 1,000 metres.	

Sample: Children age 6-59 months

Anaemia is a condition that is marked by low levels of haemoglobin in the blood. Iron deficiency is a common cause of anaemia and is estimated to be responsible for half of all anaemia cases in women and children globally. Other causes of anaemia include malaria, hookworm and other helminths, other nutritional deficiencies, chronic infections, and genetic conditions such as thalassemia. Anaemia is a serious concern for children because it can impair cognitive development and is associated with long-term

health and economic consequences (Balarajan et al. 2011). Severe anaemia leads to increased mortality. The HemoCue® Hb 201+ device was used to measure haemoglobin levels from a finger-stick blood sample, which was then used to determine anaemia levels in the population.

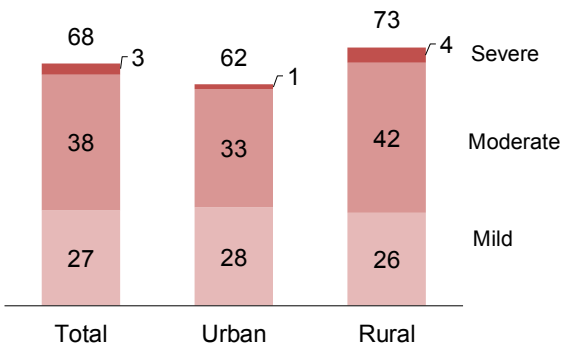
In the 2018 NDHS, haemoglobin testing was performed for children age 6-59 months using the methodology described in Chapter 1. The testing was successfully completed for 97% of eligible children. Sixty-eight percent of children had anaemia, with 27% having mild anaemia, 38% having moderate anaemia, and 3% having severe anaemia (**Table 11.8**).

Patterns by background characteristics

- The prevalence of anaemia is higher among younger (age 6-23 months) than older (age 24-59 months) children, with a peak prevalence of 81% among children age 12-17 months.

Figure 11.5 **Childhood anaemia by residence**

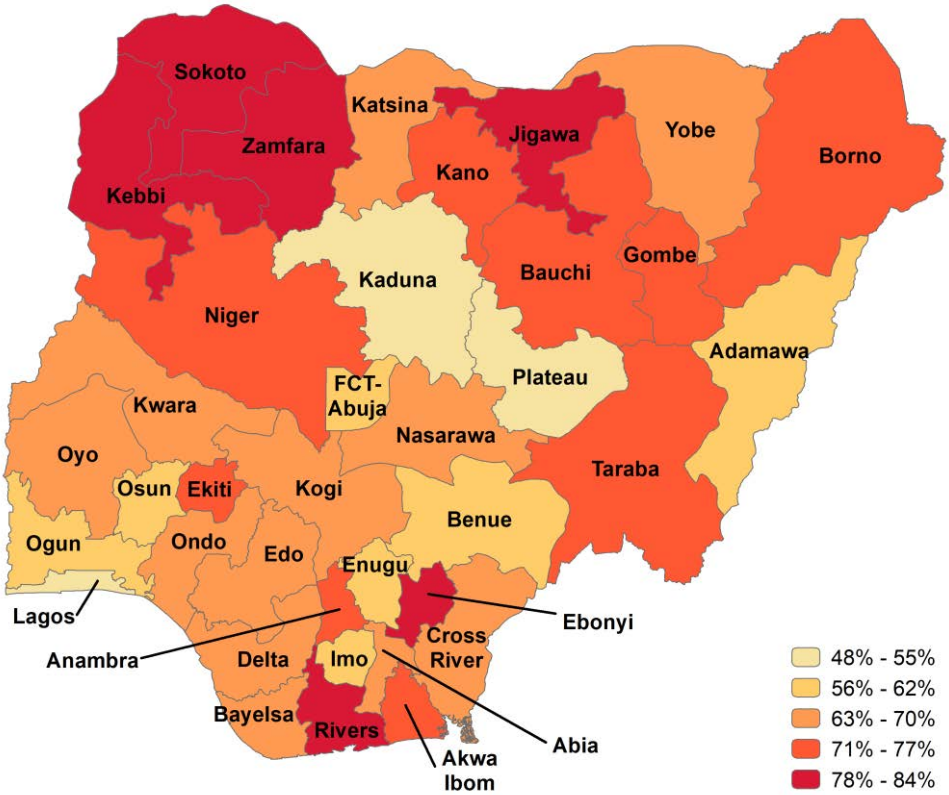
Percentage of children age 6-59 months



- Children in rural areas (73%) are more likely to be anaemic than those in urban areas (62%) (**Figure 11.5**).

Figure 11.6 **Anaemia in children by state**

Percentage of children age 6-59 months with any anaemia



- The prevalence of severe anaemia is highest in the North West and North East (4% each) and lowest in the South West (1%). By state, Zamfara has the highest prevalence (10%), while Lagos has the lowest (less than 1%). There are wide disparities in the prevalence of severe anaemia among states in the

North West. For example, the prevalence is 1% in Kaduna, 5% in Sokoto, and, as noted, 10% in Zamfara (**Figure 11.6**).

- The prevalence of anaemia generally decreases with increasing mother's education and household wealth.

11.4 Prevalence of Sickle Cell Trait and Disease in Children

The 2018 NDHS, for the first time in a DHS survey, collected information on sickle cell disease (SCD) and sickle cell trait (SCT). Various sources have pointed to sickle cell disease being a major public health issue in Nigeria. The prevalence of sickle cell trait ranges between 10% and 45% in various parts of sub-Saharan Africa (WHO AFRO 2013). The National Strategic Plan of Action on Prevention and Control of Non-Communicable Diseases under Nigeria's Federal Ministry of Health has estimated that approximately 24% of Nigerians have SCT (Federal Ministry of Health 2015a). Also, it is estimated that when the prevalence of SCT is above 20%, SCD can be as high as 2% (Federal Ministry of Health 2015a). According to this estimation, over 3.4 million Nigerians currently have SCD (Federal Ministry of Health 2015a). This disorder manifests early in life and has diverse clinical complications, including cardiovascular and renal diseases, thus fuelling major noncommunicable diseases (NCDs). In addition, SCD patients experience different degrees of stigmatisation and discrimination in society. Although a policy on universal newborn screening was introduced in 2011 in Nigeria, the policy needs to be updated to accommodate recent knowledge and trends in detection and treatment of the disease.

Blood collection for genotype testing was carried out in a subsample of 14,000 households selected for the men's survey. In total, 11,536 (unweighted) children were eligible for the test, of whom 97% were successfully tested. In the 25% of households where genotype testing was done, a confirmatory test was conducted. The test was done in the standard laboratory for high-performance liquid chromatography (HPLC) confirmatory testing at the International Foundation Against Infectious Disease in Nigeria (IFAIN) in Abuja. Test results obtained from SickleSCAN were compared with the HPLC diagnostics. The results of the comparison showed a diagnostic sensitivity of 85%, a specificity of 98%, a positive predictive value of 91%, and a negative predictive value of 96%. These diagnostic results indicate that the estimates obtained from the SickleSCAN are valid.

Table 11.9 shows that 20% of children age 6-59 months have SCT (HbAS) and 2% have the haemoglobin C trait (HbAC). The prevalence of SCD among children is 1% (HbSS and HbSC).

Patterns by background characteristics

- There are no substantial differences in the prevalence of SCD in relation to age, gender, or place of residence.
- The prevalence of SCD is highest in the South West (2%) and lowest in the South South (0.3%).
- Overall, the prevalence of SCT is similar across background characteristics. The prevalence is highest in the South West (21% for HbAS and 5% for HbAC).

11.5 Presence of Iodised Salt in Households

Iodine is a micronutrient that plays an important role in thyroid function. In line with food and drug regulations, household salt should be fortified with iodine. Sufficient iodine prevents goitre, brain damage, and other thyroid-related health problems.

The 2018 NDHS tested for the presence of iodine in household salt in the form of potassium iodate. Salt was tested for the presence or absence of iodine only; the iodine content of the salt was not measured. All households were asked if they had salt and, if so, if that salt could be tested. In total, 4% of households had no salt and 3% had salt that was not tested. Salt was tested in 94% of households, and among households

in which salt was tested 97% had iodised salt (**Table 11.10**). The proportion of households without salt was highest in the North Central zone (7%), and 9% of the households in that zone where salt was tested did not have iodised salt. Among households with tested salt, Zamfara had the lowest percentage with iodised salt (63%), followed by Niger (67%).

11.6 Micronutrient Intake and Supplementation among Children

Micronutrient deficiency is a major contributor to childhood morbidity and mortality. Micronutrients are available in foods and can also be provided through direct supplementation.

The information collected on food consumption among children age 6-23 months is useful in assessing the extent to which children are consuming food groups rich in two key micronutrients in their daily diet: iron and vitamin A. Iron plays an important role in numerous biological systems and iron deficiency is one of the primary causes of anaemia, which has serious health consequences for children. Vitamin A supports the immune system and plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency (VAD) can cause eye damage and is the leading cause of childhood blindness. VAD also increases the severity of infections such as measles and diarrhoeal disease and slows recovery from illness.

Table 11.11 presents information on consumption of foods rich in vitamin A and iron in the 24 hours preceding the survey among children age 6-23 months who are living with their mother. It also provides information on micronutrient supplementation and deworming among children age 6-59 months. Overall, 59% of children age 6-23 months consumed food rich in vitamin A in the 24 hours preceding the survey, and 41% consumed foods rich in iron. Seventeen percent of children age 6-59 months were given iron supplements in the past 7 days, 45% were given vitamin A supplements in the past 6 months, and 25% were given deworming medication in the past 6 months.

Trends: The percentage of children age 6-23 months who consumed foods rich in vitamin A increased from 52% in 2013 to 59% in 2018. Similarly, the percentage of children consuming foods rich in iron increased from 35% to 41% in the same period. Also, there were increases in the percentage of children age 6-59 months who received vitamin A supplements (from 41% to 45%) and deworming medication (from 20% to 25%).

Patterns by background characteristics

- Children in urban areas (56%) are more likely to receive a vitamin A supplement than those in rural areas (39%).
- The proportion of children given deworming medication is almost twice as high in urban areas (35%) as in rural areas (19%).
- Children in the northern zones (North Central, North East, and North West) consume fewer foods rich in vitamin A and iron than those in the southern zones (South East, South South, and South West).
- In general, the proportion of children consuming foods rich in vitamin A and iron and the proportion receiving vitamin A supplements, iron supplements, and deworming medication increase with increasing mother's education and household wealth.

11.7 Women's Nutritional Status

Chronic energy deficiency is caused by eating too little or having an unbalanced diet that lacks adequate nutrients. Women of reproductive age are especially vulnerable to chronic energy deficiency and malnutrition due to low dietary intakes, inequitable distribution of food within the household, improper food storage and preparation, dietary taboos, infectious diseases, and inadequate care practices. It is well known that chronic energy deficiency leads to low productivity among adults and is related to heightened

morbidity and mortality. In addition, chronic undernutrition among women is a major risk factor for adverse birth outcomes. Overnutrition has adverse health outcomes as well. Overweight and obesity are major risk factors for a number of chronic diseases, including diabetes, cardiovascular diseases, and cancer.

Body mass index (BMI)

BMI is calculated by dividing weight in kilograms by height in metres squared (kg/m^2).

Status	BMI
Too thin for height	Less than 18.5
Normal	Between 18.5 and 24.9
Overweight	Between 25.0 and 29.9
Obese	Greater than or equal to 30.0

Sample: Women age 15-49 who are not pregnant and who have not had a birth in the 2 months before the survey

Short stature

Proportion of women with height under 145 cm.

Sample: Women age 15-49

The 2018 NDHS collected anthropometric data on height and weight among women age 15-49. These data were used to calculate measures of nutritional status such as maternal height and body mass index (BMI). The results showed that 60% of women have a normal BMI, while 12% are thin and 28% are overweight or obese; the mean BMI among women is 23.3. One percent of women are of short stature (**Table 11.12**).

Trends: The proportion of women age 15-49 who are thin has remained stable over the past 10 years at 12%. On the other hand, the proportion of women who are overweight or obese has increased during that period, from 22% in 2008 to 28% in 2018.

Patterns by background characteristics

- In general, the prevalence of short stature decreases with increasing education and wealth, while the prevalence of overweight or obesity rises with increasing education and wealth. For example, 49% of women with a secondary education or higher are overweight or obese, as compared with 16% of those with no education. Similarly, 46% of women in the highest wealth quintile are overweight or obese, compared with only 9% of women in the lowest quintile.

- The proportion of women who are of normal weight declines with age, from 67% among those age 15-19 to 52% among those age 40-49. More younger women (age 15-19) (25%) than older women (age 40-49) (6%) are thin.

- The percentage of women who are overweight or obese is higher in urban than rural areas (36% versus 21%), whereas the percentage of women who are thin is higher in rural areas (14% versus 10%).

- Women in the southern zones (South East, South South, and South West) are more likely to be overweight or obese than women in the northern zones (North Central, North East, and North West). Forty percent, 43%, and 38% of women in the South East, South South, and South West zones, respectively, are overweight or obese, as compared with 26%, 15%, and 16% of women in the North Central, North East, and North West zones.

11.8 Anaemia Prevalence in Women

Haemoglobin levels below which women are considered anaemic

Respondents	Haemoglobin level in grams/decilitre*
Non-pregnant women age 15-49	Less than 12.0
Pregnant women age 15-49	Less than 11.0
*Haemoglobin levels are adjusted for cigarette smoking and for altitude in enumeration areas that are above 1,000 meters.	

The procedure used to measure anaemia among women age 15-49 was similar to that used for children age 6-59 months except that capillary blood was collected exclusively from a finger prick. The methodology employed for haemoglobin testing is described in detail in Chapter 1.

Anaemia is a major concern among women, leading to increased maternal mortality and poor birth outcomes as well as reductions in work productivity. Over half (58%) of women age 15-49 have some degree of anaemia. Twenty-eight percent each are mildly anaemic and moderately anaemic, and 2% are severely anaemic (**Table 11.13**).

Patterns by background characteristics

- Anaemia prevalence is higher in rural areas (62%) than in urban areas (54%).
- The prevalence of anaemia decreases with increasing education (from 64% among women with no education to 47% among women with more than a secondary education) and increasing wealth (from 66% among women in the lowest wealth quintile to 50% among women in the highest quintile).

11.9 Micronutrient Supplementation and Deworming during Pregnancy

During pregnancy, women are at a higher risk of anaemia due to an increase in blood volume. Severe anaemia can place both the mother and the baby in danger through increased risk of blood loss during labour and can raise the risk of preterm delivery, low birth weight, and perinatal mortality. To prevent anaemia, pregnant women are advised to take iron folate supplements, eat iron-rich foods, and prevent intestinal worms.

The 2018 NDHS asked women age 15-49 who gave birth in the 5 years before the survey whether they took iron supplements and/or deworming medication during their most recent pregnancy. Thirty-one percent of women with a child born in the last 5 years did not take any iron tablets during their most recent pregnancy. Also, only 31% percent of women took iron tablets for 90 days or more during their most recent pregnancy, and only 17% of women took deworming medication (**Table 11.14**).

Trends: Both micronutrient supplementation and deworming during pregnancy have improved substantially over the past decade. The percentage of women taking iron supplementation for 90 days or more increased from 15% in 2008 to 21% in 2013 and 31% in 2018. The percentage of women who did not take any iron supplementation decreased from 44% in 2008 to 36% in 2013 and 31% in 2018. Finally, the percentage of women taking deworming medication during pregnancy increased from 10% in 2008 to 14% in 2013 and 17% in 2018.

Patterns by background characteristics

- Women in urban areas were more likely than those in rural areas to have taken iron supplements for at least 90 days (39% versus 25%) and to have taken deworming tablets (19% versus 16%).

- The proportion of women taking iron tablets for 90 days or more increases with increasing education, from 19% among those with no education to 50% among those with more than a secondary education.

- The proportion of women taking both iron tablets for 90 days or more and deworming medication during pregnancy increases with increasing household wealth. Seventeen percent of women in the lowest wealth quintile and 43% in the highest quintile took iron supplements for at least 90 days, while 12% of women in the lowest quintile and 21% in the highest quintile took deworming medication.

11.10 Minimum Dietary Diversity for Women

Minimum dietary diversity for women (MDD-W) is an indicator of diet diversity validated for women age 15-49. The indicator is based on 10 food groups. Women who consumed at least five of the 10 possible food groups in the 24 hours preceding the survey were classified as having minimally adequate dietary diversity. Deficiencies in micronutrients such as iron, iodine, vitamin A, folate, and zinc can have devastating consequences for the human body. Women, particularly those of childbearing age, are especially vulnerable due to their greater needs for essential vitamins and minerals.

The 2018 NDHS collected information on women's food consumption. **Table 11.15** indicates that 56% of women age 15-49 consumed food from five or more of the 10 total food groups in the day or night preceding the interview. On average, the 41,821 women interviewed consumed 4.9 food groups. Nineteen percent of women consumed savoury and fried snacks, 16% consumed sugary foods, and 22% consumed sugar-sweetened beverages.

Patterns by background characteristics

- There are minimal variations in women's food consumption patterns by age with the exception of sugary foods. Consumption of sugary foods decreases with age, from 23% among women age 15-19 to 12% among women age 40-49.

- Sixty-one percent of women in urban areas and 51% of women in rural areas consumed five or more food groups in the day or night preceding the interview. Women in urban areas are substantially more likely than those in rural areas to consume meat, fish, and poultry (84% versus 59%); eggs (22% versus 11%); sugary foods (19% versus 13%); and sugar-sweetened (32% versus 13%).

- The proportion of women who consumed five or more food groups is lower in the northern zones (North Central, North East, and North West) than in the southern zones (South East, South South, and South West). The lowest proportion is in the North Central zone (47%) and the highest is in the South West (65%).

- The proportion of women who consumed five or more food groups generally increases with increasing education and wealth. For example, 48% of women with no education consumed five or more food groups, as compared with 70% of women with more than a secondary education.

List of Tables

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- **Table 11.2** **Initial breastfeeding**
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- **Table 11.4** **Infant and young child feeding (IYCF) indicators on breastfeeding status**
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- **Table 11.8** **Prevalence of anaemia in children**
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- **Table 11.10** **Presence of iodised salt in household**
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- **Table 11.15** **Foods and liquids consumed by women in the day or night preceding the interview**

Table 11.1 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, according to background characteristics, Nigeria DHS 2018

	Height-for-age[1]				Weight-for-height					Weight-for-age				
Background characteristic	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Age in months														
<6	6.4	18.7	-0.8	1,224	2.4	7.0	5.3	-0.1	1,224	7.0	16.8	2.8	-0.7	1,239
6-8	7.4	21.2	-0.9	694	2.5	12.4	2.2	-0.6	696	8.1	18.3	0.8	-1.1	702
9-11	8.3	25.7	-1.1	600	4.0	14.7	3.0	-0.7	605	9.2	20.8	1.6	-1.1	605
12-17	14.4	35.9	-1.5	1,454	4.3	13.7	2.0	-0.8	1,460	11.1	26.5	0.6	-1.3	1,471
18-23	18.1	42.1	-1.8	1,149	2.0	8.1	1.2	-0.4	1,153	7.9	23.6	0.3	-1.2	1,156
24-35	24.9	47.2	-1.9	2,429	1.6	5.3	1.7	-0.2	2,441	8.1	25.1	0.1	-1.2	2,444
36-47	22.0	42.7	-1.7	2,507	0.6	3.1	1.8	-0.1	2,534	7.4	21.6	0.2	-1.1	2,533
48-59	15.9	35.0	-1.5	2,532	0.5	3.9	1.3	-0.2	2,536	3.7	18.9	0.2	-1.1	2,544
Sex														
Male	18.4	39.4	-1.6	6,420	2.2	8.0	2.3	-0.3	6,462	8.1	23.1	0.6	-1.1	6,483
Female	15.8	34.2	-1.4	6,169	1.4	5.6	1.8	-0.3	6,186	6.6	20.4	0.5	-1.1	6,212
Birth interval in months[3]														
First birth[4]	13.6	30.1	-1.3	2,232	1.5	6.4	2.4	-0.3	2,243	5.5	17.1	0.7	-1.9	2,247
<24	20.8	42.6	-1.7	2,098	1.6	6.4	2.0	-0.3	2,112	9.0	24.5	0.3	-1.2	2,116
24-47	18.2	38.6	-1.6	5,535	2.2	7.9	1.8	-0.3	5,555	8.3	23.8	0.7	-1.2	5,583
48+	12.0	30.9	-1.3	1,732	1.4	5.1	2.3	-0.3	1,740	4.0	17.7	0.7	-1.0	1,746
Size at birth[3]														
Very small	22.9	47.4	-1.8	285	4.5	16.7	1.6	-0.7	287	16.5	34.5	0.2	-1.6	288
Small	21.2	43.7	-1.8	1,142	3.3	10.8	1.0	-0.6	1,143	12.0	31.2	1.1	-1.5	1,151
Average or larger	16.3	35.3	-1.5	10,018	1.6	6.2	2.2	-0.3	10,067	6.5	20.2	0.6	-1.0	10,101
Missing	14.0	39.5	-1.6	152	4.7	8.9	1.3	-0.4	151	7.1	26.4	0.0	-1.3	152
Mother's interview status														
Interviewed	16.9	36.5	-1.5	11,598	1.8	6.9	2.0	-0.3	11,649	7.3	21.7	0.6	-1.1	11,693
Not interviewed but in household	23.1	44.3	-1.8	176	0.6	2.7	3.6	-0.2	180	6.6	23.3	0.3	-1.2	180
Not interviewed and not in the household[5]	19.6	39.4	-1.5	816	1.2	5.9	1.9	-0.3	820	8.8	22.4	0.5	-1.1	822
Mother's nutritional status[6]														
Thin (BMI <18.5)	25.0	49.4	-2.0	936	3.4	14.7	1.5	-0.8	937	15.4	39.4	0.2	-1.7	947
Normal (BMI 18.5-24.9)	17.5	38.7	-1.6	5,688	1.9	7.4	1.7	-0.3	5,716	7.5	22.7	0.4	-1.2	5,732
Overweight/obese (BMI ≥25)	9.5	23.3	-1.0	2,762	1.1	4.3	2.8	-0.1	2,770	3.0	11.6	1.9	-0.7	2,778
Residence														
Urban	10.0	26.8	-1.2	5,567	1.3	5.3	2.0	-0.3	5,579	3.9	15.1	0.7	-0.8	5,589
Rural	22.8	44.8	-1.8	7,023	2.1	8.0	2.1	-0.3	7,069	10.1	27.0	0.5	-1.3	7,106

Continued...

Table 11.1—*Continued*

Background characteristic	Height-for-age[1]				Weight-for-height					Weight-for-age				
	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Zone														
North Central	10.5	28.7	-1.2	1,792	1.9	5.6	2.1	-0.2	1,797	4.0	14.8	0.4	-0.8	1,798
North East	26.3	49.1	-1.9	1,966	2.7	9.7	2.9	-0.4	1,985	10.9	29.9	0.8	-1.4	1,994
North West	30.7	56.8	-2.2	3,570	2.4	9.0	2.0	-0.4	3,608	13.8	34.7	0.3	-1.6	3,630
South East	5.7	18.4	-0.8	1,668	0.8	4.5	2.5	-0.1	1,670	2.1	10.4	1.1	-0.6	1,672
South South	4.8	19.7	-1.0	1,300	0.6	4.3	1.8	-0.2	1,299	1.8	10.0	0.9	-0.7	1,303
South West	8.6	24.7	-1.2	2,294	1.3	4.9	1.2	-0.3	2,290	3.7	14.8	0.4	-0.9	2,297
State														
North Central														
FCT-Abuja	9.4	21.2	-0.9	87	0.5	3.0	0.9	-0.2	88	3.5	12.1	1.5	-0.6	87
Benue	6.7	20.8	-0.8	415	4.2	8.0	2.6	-0.3	417	3.3	12.6	0.8	-0.6	420
Kogi	7.8	20.0	-1.0	159	1.1	3.9	1.9	-0.2	160	1.9	10.2	0.0	-0.8	159
Kwara	12.8	32.9	-1.4	202	0.9	7.3	2.3	-0.3	202	3.4	18.6	0.5	-1.0	202
Nasarawa	11.9	31.4	-1.4	195	1.3	5.6	0.3	-0.3	195	7.7	20.5	0.0	-1.1	195
Niger	11.0	28.2	-1.3	478	1.7	4.7	1.7	-0.2	478	4.3	14.4	0.2	-0.9	478
Plateau	15.2	44.7	-1.6	256	1.2	2.4	4.0	0.2	257	3.4	15.3	0.4	-0.8	257
North East														
Adamawa	15.1	39.7	-1.6	279	1.6	4.2	1.7	-0.2	278	4.8	19.1	0.0	-1.1	279
Bauchi	29.4	54.7	-2.1	447	1.9	8.5	1.1	-0.4	449	10.1	31.9	0.6	-1.5	450
Borno	24.6	45.1	-1.7	402	5.7	16.0	4.0	-0.6	406	11.0	28.2	1.3	-1.4	408
Gombe	26.9	51.2	-2.0	221	3.5	7.8	4.2	-0.3	228	12.0	30.4	0.4	-1.4	228
Taraba	19.4	41.9	-1.7	243	0.8	5.3	4.2	-0.1	245	5.6	21.9	0.5	-1.1	244
Yobe	37.0	57.2	-2.2	373	1.9	12.4	3.0	-0.7	380	19.1	41.9	1.5	-1.7	384
North West														
Jigawa	36.0	64.0	-2.5	415	2.9	9.6	1.4	-0.5	419	18.9	42.3	0.2	-1.9	422
Kaduna	22.1	48.1	-1.9	688	1.1	4.8	1.9	-0.1	692	7.6	22.1	0.5	-1.2	694
Kano	29.7	56.9	-2.2	754	1.5	6.4	1.6	-0.3	764	9.2	30.8	0.0	-1.5	764
Katsina	35.9	60.5	-2.4	748	1.7	10.5	3.9	-0.3	770	16.7	39.3	0.4	-1.7	772
Kebbi	37.6	66.1	-2.5	323	4.3	12.3	0.7	-0.6	320	19.7	46.4	0.2	-1.9	322
Sokoto	34.6	54.8	-2.1	263	6.5	17.9	1.9	-0.7	260	20.0	42.8	0.6	-1.8	265
Zamfara	23.9	50.8	-1.9	378	3.0	9.1	0.8	-0.5	382	13.7	32.5	0.8	-1.5	391
South East														
Abia	6.4	22.2	-1.1	187	2.2	9.0	2.0	-0.3	188	3.7	14.6	2.3	-0.8	188
Anambra	3.6	14.0	-0.6	540	0.4	2.3	3.4	0.0	543	1.5	6.5	1.9	-0.3	543
Ebonyi	9.6	25.2	-1.2	392	0.8	4.5	1.1	-0.3	391	2.5	15.8	0.4	-0.9	392
Enugu	4.5	14.8	-0.6	220	1.4	2.2	2.5	-0.0	220	1.9	6.1	0.7	-0.3	220
Imo	4.9	17.6	-0.7	330	0.3	6.9	3.1	-0.3	329	1.6	10.9	0.0	-0.6	330
South South														
Akwa Ibom	4.4	19.6	-1.0	236	0.5	4.2	2.1	-0.4	236	1.2	8.9	0.3	-0.9	236
Bayelsa	6.1	24.9	-1.0	105	0.3	1.3	2.5	-0.2	106	2.4	13.4	3.2	-0.7	106
Cross River	5.6	22.9	-1.1	121	0.7	5.0	1.3	-0.3	121	4.2	11.8	0.0	-0.9	121
Delta	7.5	23.7	-1.1	236	0.7	2.0	3.0	-0.1	233	2.2	13.0	1.4	-0.7	236
Edo	4.5	16.0	-1.0	151	1.7	3.3	1.3	-0.2	150	2.9	10.7	1.0	-0.7	151
Rivers	3.1	16.8	-0.8	451	0.2	6.4	1.2	-0.2	452	0.7	7.4	0.6	-0.6	452

Continued...

Table 11.1—*Continued*

Background characteristic	Height-for-age[1]				Weight-for-height					Weight-for-age				
	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
South West														
Ekiti	6.8	22.1	-1.1	166	1.4	3.3	4.3	-0.1	166	1.4	11.1	0.3	-0.7	166
Lagos	5.8	17.2	-0.8	684	2.1	6.4	1.2	-0.3	682	3.8	13.3	0.4	-0.7	684
Ogun	7.5	26.6	-1.3	357	1.3	5.7	0.0	-0.5	357	2.9	16.3	0.0	-1.1	357
Ondo	6.7	20.4	-1.0	177	0.0	3.3	0.5	-0.3	176	2.1	11.9	0.2	-0.8	177
Osun	7.5	23.7	-1.2	314	0.8	4.5	0.9	-0.4	315	4.8	14.4	0.6	-0.9	315
Oyo	14.2	34.5	-1.6	596	0.9	3.9	1.5	-0.2	595	4.4	18.0	0.7	-1.0	597
Mother's education[7]														
No education	29.1	54.0	-2.1	4,564	2.9	9.5	1.9	-0.4	4,610	13.1	34.1	0.6	-1.5	4,637
Primary	16.5	37.9	-1.6	1,895	1.3	5.5	2.0	-0.2	1,905	5.3	18.9	0.5	-1.1	1,908
Secondary	7.6	23.4	-1.1	4,155	1.1	5.2	2.2	-0.2	4,155	3.0	12.7	0.6	-0.8	4,168
More than secondary	3.8	13.8	-0.7	1,160	0.8	4.8	2.3	-0.2	1,159	2.3	9.4	0.9	-0.5	1,160
Wealth quintile														
Lowest	30.1	55.4	-2.1	2,308	2.8	10.5	1.9	-0.4	2,328	14.7	36.9	0.5	-1.6	2,351
Second	26.6	49.4	-2.0	2,474	2.3	7.7	2.4	-0.3	2,494	10.5	29.3	0.4	-1.4	2,502
Middle	15.5	37.8	-1.6	2,645	1.5	6.7	1.7	-0.3	2,662	6.3	20.2	0.7	-1.1	2,667
Fourth	10.3	26.9	-1.2	2,662	1.8	5.3	2.2	-0.2	2,663	3.8	14.3	0.3	-0.9	2,670
Highest	4.8	16.8	-0.8	2,502	0.5	4.2	2.1	-0.2	2,502	2.2	9.7	1.1	-0.6	2,505
Total	17.1	36.8	-1.5	12,590	1.8	6.8	2.1	-0.3	12,649	7.4	21.8	0.6	-1.1	12,695

Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards.
[1] Recumbent length is measured for children under age 2; standing height is measured for all other children.
[2] Includes children who are below -3 standard deviations (SD) from the WHO Child Growth Standards population median
[3] Excludes children whose mothers were not interviewed
[4] First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.
[5] Includes children whose mothers are deceased
[6] Excludes children whose mothers were not weighed and measured, children whose mothers were not interviewed, and children whose mothers are pregnant or gave birth within the preceding 2 months. Mother's nutritional status in terms of BMI (body mass index) is presented in Table 11.12.
[7] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table 11.2 Initial breastfeeding

Among last-born children who were born in the 2 years preceding the survey, percentage who were ever breastfed and percentages who started breastfeeding within 1 hour and within 1 day of birth, and among last-born children born in the 2 years preceding the survey who were ever breastfed, percentage who received a prelacteal feed, according to background characteristics, Nigeria DHS 2018

	Among last-born children born in the past 2 years:				Among last-born children born in the past 2 years who were ever breastfed:	
Background characteristic	Percentage ever breastfed	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Number of last-born children	Percentage who received a prelacteal feed[2]	Number of last-born children ever breastfed
Sex						
Male	97.1	42.3	82.1	6,654	49.1	6,457
Female	97.2	42.0	82.5	6,281	48.4	6,105
Assistance at delivery						
Health personnel[3]	96.9	49.5	84.4	6,196	40.2	6,005
Traditional birth attendant	97.1	32.9	77.2	2,522	53.0	2,450
Other	97.1	37.4	85.5	2,861	62.9	2,778
No one	98.1	35.5	75.5	1,355	50.2	1,329
Place of delivery						
Health facility	96.9	50.1	84.2	5,248	39.1	5,085
At home	97.3	36.1	80.8	7,465	56.1	7,263
Other	96.6	58.0	87.5	222	30.0	215
Residence						
Urban	97.2	49.4	83.7	4,979	42.6	4,838
Rural	97.1	37.6	81.4	7,956	52.7	7,724
Zone						
North Central	96.8	60.3	90.5	1,787	47.2	1,731
North East	97.7	27.4	80.1	2,350	55.5	2,296
North West	97.0	32.4	79.2	4,649	57.1	4,511
South East	97.1	39.4	78.8	1,304	49.2	1,266
South South	96.8	55.4	81.0	1,160	43.5	1,123
South West	97.1	63.3	88.6	1,685	21.3	1,636
State						
North Central						
FCT-Abuja	98.1	58.6	84.4	87	32.6	86
Benue	96.8	61.5	95.1	370	23.3	358
Kogi	97.9	78.3	93.6	167	60.7	164
Kwara	97.7	60.5	96.4	211	22.3	206
Nasarawa	97.4	23.8	87.7	189	24.7	184
Niger	95.0	71.1	86.0	535	73.0	508
Plateau	98.8	50.4	90.4	228	64.2	225
North East						
Adamawa	97.3	19.5	95.8	326	55.9	317
Bauchi	98.1	14.7	61.1	590	74.6	579
Borno	98.8	50.1	88.2	418	70.7	413
Gombe	97.2	18.0	77.9	277	67.2	269
Taraba	97.2	10.4	87.6	299	44.6	291
Yobe	96.9	46.1	82.6	441	15.0	427
North West						
Jigawa	97.7	10.1	76.2	552	71.8	539
Kaduna	96.5	35.9	73.0	885	74.3	854
Kano	96.9	38.9	72.3	1,001	63.0	969
Katsina	97.6	36.8	86.0	876	23.0	855
Kebbi	97.5	25.1	91.5	451	81.0	439
Sokoto	94.6	11.9	70.3	362	64.3	343
Zamfara	98.1	51.0	90.4	521	33.0	511
South East						
Abia	96.3	49.9	89.6	156	68.4	150
Anambra	98.3	37.5	75.8	430	48.8	422
Ebonyi	98.3	37.3	87.8	298	25.1	293
Enugu	97.3	41.3	78.2	183	55.7	178
Imo	93.9	37.0	66.4	237	63.4	222
South South						
Akwa Ibom	96.7	55.3	82.6	216	25.8	209
Bayelsa	97.9	94.9	96.9	87	50.2	86
Cross River	97.9	64.0	86.9	117	30.8	115
Delta	94.9	44.5	84.7	239	36.3	227
Edo	97.1	60.0	69.6	150	52.1	146
Rivers	97.4	48.0	76.6	350	58.1	340

Continued...

Table 11.2—*Continued*

Background characteristic	Among last-born children born in the past 2 years:				Among last-born children born in the past 2 years who were ever breastfed:	
	Percentage ever breastfed	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Number of last-born children	Percentage who received a prelacteal feed[2]	Number of last-born children ever breastfed
South West						
Ekiti	98.7	55.8	85.3	128	23.1	127
Lagos	96.6	58.6	83.2	599	23.9	579
Ogun	97.6	83.9	95.7	220	8.9	215
Ondo	93.9	45.1	87.3	157	18.2	147
Osun	97.2	60.3	86.3	198	18.4	192
Oyo	98.2	70.6	95.9	383	26.7	376
Mother's education						
No education	96.9	34.2	79.3	5,786	59.7	5,609
Primary	97.7	44.4	85.3	1,877	43.4	1,834
Secondary	97.2	49.6	85.4	4,186	39.0	4,071
More than secondary	96.5	51.5	80.6	1,086	37.7	1,048
Wealth quintile						
Lowest	97.5	30.5	77.1	2,775	55.6	2,704
Second	96.8	36.6	82.1	2,955	55.5	2,861
Middle	96.9	43.7	83.8	2,666	50.2	2,584
Fourth	97.7	50.4	86.3	2,416	41.0	2,359
Highest	96.8	53.7	82.8	2,123	37.6	2,054
Total	97.1	42.1	82.3	12,935	48.8	12,562

Note: Table is based on last-born children born in the 2 years preceding the survey regardless of whether the children are living or dead at the time of the interview.
[1] Includes children who started breastfeeding within 1 hour of birth
[2] Children given something other than breast milk during the first 3 days of life
[3] Doctor, nurse/midwife, or auxiliary midwife

Table 11.3 Breastfeeding status by age

Percent distribution of youngest children under age 2 who are living with their mother by breastfeeding status and percentage currently breastfeeding, and percentage of all children under age 2 using a bottle with a nipple, according to age in months, Nigeria DHS 2018

		Breastfeeding status									
Age in months	Not breast-feeding	Exclusively breastfed	Breast-feeding and consuming plain water only	Breast-feeding and consuming non-milk liquids[1]	Breast-feeding and consuming other milk	Breast-feeding and consuming comple-mentary foods	Total	Percentage currently breast-feeding	Number of youngest children under age 2 living with their mother	Percentage using a bottle with a nipple	Number of all children under age 2
0-1	1.5	38.9	44.3	3.5	3.0	8.9	100.0	98.5	1,122	11.6	1,141
2-3	3.5	29.1	41.1	4.7	3.3	18.3	100.0	96.5	993	14.7	1,006
4-5	1.4	17.9	32.6	5.1	4.9	38.1	100.0	98.6	1,104	18.6	1,123
6-8	3.0	4.8	13.8	4.8	1.7	72.0	100.0	97.0	1,650	16.9	1,672
9-11	4.4	0.9	4.8	2.2	1.1	86.4	100.0	95.6	1,457	17.8	1,482
12-17	23.3	0.2	2.6	0.8	0.3	72.8	100.0	76.7	3,434	10.4	3,525
18-23	61.9	0.2	1.2	0.5	0.1	36.1	100.0	38.1	2,426	5.6	2,618
0-3	2.4	34.3	42.8	4.0	3.1	13.3	100.0	97.6	2,115	13.1	2,147
0-5	2.1	28.7	39.3	4.4	3.8	21.8	100.0	97.9	3,219	15.0	3,270
6-9	3.1	4.1	12.1	4.2	1.5	75.0	100.0	96.9	2,167	17.3	2,197
12-15	17.1	0.1	2.9	0.8	0.4	78.8	100.0	82.9	2,319	10.7	2,381
12-23	39.3	0.2	2.0	0.7	0.2	57.6	100.0	60.7	5,860	8.3	6,143
20-23	72.2	0.1	0.6	0.2	0.1	26.9	100.0	27.8	1,411	4.5	1,568

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children who are classified as breastfeeding and consuming plain water only consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids, other milk, and complementary foods (solids and semisolids) are hierarchical and mutually exclusive, and their percentages add to 100%. Thus, children who receive breast milk and non-milk liquids and who do not receive other milk and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

[1] Non-milk liquids include juice, juice drinks, clear broth, or other liquids.

Table 11.4 Infant and young child feeding (IYCF) indicators on breastfeeding status

Percentage of children fed according to various IYCF practices, Nigeria DHS 2018

Indicator	Percentage	Number
Exclusive breastfeeding under 6 months	28.7	3,219
Exclusive breastfeeding at 4-5 months	17.9	1,104
Continued breastfeeding at 1 year	82.9	2,319
Introduction of solid, semisolid, or soft foods (6-8 months)	74.4	1,650
Continued breastfeeding at 2 years	27.8	1,411
Age-appropriate breastfeeding (0-23 months)[1]	55.4	12,186
Predominant breastfeeding (0-5 months)[2]	72.4	3,219
Mixed breast milk and non-breast milk feeding (0-5 months)[3]	7.7	3,219
Bottle feeding (0-23 months)	12.3	12,566

[1] For children age 0-5 months: exclusively breastfed; for children age 6-23 months: receive breastmilk and complementary foods

[2] Either exclusively breastfed or received breast milk and plain water and/or non-milk liquids only

[3] Received breast milk and fresh, tinned, or powdered animal milk or commercial infant formula

Table 11.5 Median duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the 3 years preceding the survey, according to background characteristics, Nigeria DHS 2018

Background characteristic	Median duration (months) of breastfeeding among children born in the past 3 years[1]		
	Any breastfeeding	Exclusive breast-feeding	Predominant breastfeeding[2]
Sex			
Male	18.3	a	4.8
Female	18.8	a	5.0
Residence			
Urban	16.3	a	4.7
Rural	20.0	a	5.0
Zone			
North Central	18.7	a	5.1
North East	20.8	a	6.2
North West	21.0	a	4.9
South East	14.0	a	3.8
South South	14.6	a	3.1
South West	16.1	3.5	5.5
Mother's education			
No education	21.4	a	5.2
Primary	18.5	a	5.0
Secondary	15.9	1.1	4.5
More than secondary	14.6	1.9	4.6
Wealth quintile			
Lowest	21.4	a	5.3
Second	20.6	a	5.4
Middle	18.1	a	4.6
Fourth	16.7	a	4.6
Highest	14.5	1.9	4.6
Total	18.5	a	4.9
Mean for all children	18.5	2.8	6.3

Note: Median and mean durations are based on breastfeeding status of the child at the time of the survey (current status). Includes living and deceased children.
a = Omitted because less than 50% of the children in this group were exclusively or predominantly breastfeeding
[1] For last-born children under age 24 months who live with their mother and are breastfeeding, information to determine exclusive and predominant breastfeeding comes from a 24-hour dietary recall. Tabulations assume that last-born children age 24 months or older who live with their mother and are breastfeeding are neither exclusively nor predominantly breastfed. It is assumed that last-born children not currently living with their mother and all non-last-born children are not currently breastfeeding.
[2] Either exclusively breastfed or received breast milk and plain water and/or non-milk liquids only

Table 11.6 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under age 2 who are living with their mother by type of foods consumed in the day or night preceding the interview, according to breastfeeding status and age, Nigeria DHS 2018

	Liquids			Solid or semisolid foods										
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Fortified baby foods	Food made from grains[3]	Fruits and vegetables rich in vitamin A[4]	Other fruits and vege-tables	Food made from roots and tubers	Food made from legumes and nuts	Meat, fish, poultry	Eggs	Cheese, yogurt, other milk products	Any solid or semisolid food	Number of children under age 2
BREASTFEEDING CHILDREN														
0-1	2.8	1.0	6.7	0.3	3.3	1.3	0.3	0.6	0.9	0.4	0.1	4.5	9.0	1,105
2-3	5.9	3.4	11.7	1.3	9.8	1.9	0.6	0.8	2.3	1.2	1.4	5.7	19.0	959
4-5	8.8	5.2	25.2	2.9	23.4	5.2	1.8	3.1	4.9	4.9	3.4	6.4	38.6	1,088
6-8	10.1	12.0	45.6	5.3	59.0	18.6	7.5	10.6	20.5	16.0	9.7	11.7	74.2	1,600
9-11	9.3	14.2	50.7	4.8	79.5	35.3	14.9	23.7	33.2	29.0	16.2	15.8	90.5	1,392
12-17	3.9	11.9	55.1	3.0	86.8	45.4	16.0	22.8	40.7	32.4	13.7	18.2	94.9	2,633
18-23	2.4	8.6	56.7	2.4	85.6	46.5	14.5	21.6	38.4	29.3	9.9	17.4	94.8	925
6-23	6.4	11.9	52.1	3.9	78.3	36.9	13.5	19.8	33.8	27.2	12.7	16.0	88.9	6,550
Total	6.2	9.1	39.9	3.1	56.8	25.8	9.4	13.9	23.7	19.1	9.1	12.6	67.2	9,702
NONBREASTFEEDING CHILDREN														
0-1	*	*	*	*	*	*	*	*	*	*	*	*	*	16
2-3	(5.4)	(6.6)	(11.4)	(4.1)	(13.4)	(8.0)	(2.2)	(3.2)	(3.6)	(5.3)	(2.2)	(6.1)	(18.0)	35
4-5	*	*	*	*	*	*	*	*	*	*	*	*	*	15
6-8	4.4	11.2	56.6	5.2	58.6	31.9	11.4	21.5	23.5	28.1	23.8	14.9	81.8	50
9-11	16.2	23.5	43.2	8.0	82.9	41.7	14.4	22.1	27.4	51.8	19.9	12.8	97.8	65
12-17	9.8	25.5	57.9	9.0	89.5	55.6	25.1	51.3	36.7	61.2	30.4	15.1	98.6	801
18-23	5.1	21.9	59.1	4.7	92.2	59.2	26.1	49.3	43.5	59.1	26.7	17.3	99.3	1,502
6-23	6.9	22.9	58.2	6.2	90.4	57.0	25.2	48.7	40.4	59.0	27.7	16.4	98.7	2,417
Total	7.0	22.5	57.2	6.2	88.5	55.8	24.6	47.5	39.6	57.6	27.1	16.1	96.7	2,483

Note: Breastfeeding status and food consumed refer to a "24-hour" period (yesterday and last night). Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Other milk includes fresh, tinned, and powdered cow or other animal milk

[2] Does not include plain water. Includes juice, juice drinks, clear broth, or other non-milk liquids.

[3] Includes fortified baby food

[4] Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mangoes, papayas, and other locally grown fruits and vegetables that are rich in vitamin A

Table 11.7 Minimum acceptable diet

Percentage of youngest children age 6-23 months living with their mother who are fed a minimum acceptable diet based on breastfeeding status, number of food groups, and times they are fed during the day or night preceding the survey, according to background characteristics, Nigeria DHS 2018

	Among breastfed children age 6-23 months, percentage fed:				Among nonbreastfed children age 6-23 months, percentage fed:					Among all children age 6-23 months, percentage fed:				
Background characteristic	Minimum dietary diversity[1]	Minimum meal frequency[2]	Minimum acceptable diet[3]	Number of breastfed children age 6-23 months	Minimum milk feeding frequency[4]	Minimum dietary diversity[1]	Minimum meal frequency[5]	Minimum acceptable diet[6]	Number of non-breastfed children age 6-23 months	Breast milk, milk, or milk products[7]	Minimum dietary diversity[1]	Minimum meal frequency[8]	Minimum acceptable diet[9]	Number of all children age 6-23 months
Age in months														
6-11	17.1	46.5	9.4	2,992	25.2	18.8	37.5	10.5	114	97.2	17.2	46.2	9.5	3,107
6-8	11.8	54.3	8.4	1,600	15.8	17.2	28.0	9.3	50	97.5	12.0	53.5	8.4	1,650
9-11	23.2	37.5	10.6	1,392	32.3	20.1	44.9	11.5	65	97.0	23.1	37.9	10.7	1,457
12-17	27.0	40.1	11.9	2,633	22.7	24.9	37.6	9.6	801	82.0	26.5	39.5	11.3	3,434
18-23	22.3	46.1	11.8	925	17.7	25.3	35.6	10.5	1,502	49.1	24.2	39.6	11.0	2,426
Sex														
Male	22.5	42.6	10.6	3,315	18.1	22.9	35.3	7.4	1,313	76.8	22.6	40.5	9.7	4,628
Female	21.1	45.1	10.9	3,234	21.6	27.2	37.6	13.5	1,105	80.0	22.7	43.2	11.6	4,339
Residence														
Urban	28.3	42.2	14.3	2,194	25.0	30.2	40.3	13.5	1,293	72.2	29.0	41.5	14.0	3,487
Rural	18.6	44.7	9.0	4,356	13.6	18.8	31.9	6.5	1,125	82.3	18.6	42.1	8.5	5,480
Zone														
North Central	13.3	43.4	5.2	927	10.8	13.7	25.6	4.9	351	75.5	13.4	38.5	5.1	1,278
North East	15.2	46.6	9.7	1,359	12.8	16.2	41.8	5.2	270	85.5	15.4	45.8	9.0	1,629
North West	21.6	43.8	10.7	2,661	10.5	17.8	29.6	5.4	465	86.7	21.1	41.7	9.9	3,126
South East	31.7	52.6	18.0	452	28.4	28.8	51.0	14.6	430	65.1	30.3	51.8	16.4	882
South South	31.3	53.9	17.5	453	26.5	29.3	37.2	12.5	399	65.6	30.3	46.1	15.2	852
South West	34.2	27.4	11.3	697	25.3	37.0	34.0	15.5	502	68.7	35.4	30.1	13.0	1,199
State														
North Central														
FCT-Abuja	12.7	36.0	4.5	43	20.7	10.1	22.6	5.0	20	74.8	11.9	31.8	4.7	64
Benue	19.1	35.7	3.6	169	13.2	21.5	27.2	7.8	102	67.3	20.0	32.5	5.2	271
Kogi	17.9	30.5	9.8	81	(2.3)	(7.2)	(11.1)	(2.3)	31	72.9	14.9	25.1	7.7	112
Kwara	11.3	30.8	5.3	122	(10.5)	(14.2)	(6.1)	(0.0)	37	79.0	12.0	25.0	4.0	159
Nasarawa	38.1	40.3	14.3	90	23.3	35.6	30.0	14.0	43	75.3	37.3	37.0	14.2	133
Niger	6.7	54.9	3.7	305	6.4	2.1	35.6	2.1	73	81.8	5.8	51.2	3.4	378
Plateau	2.1	51.7	1.5	118	2.1	0.0	29.2	0.0	44	73.3	1.5	45.6	1.1	163
North East														
Adamawa	14.7	68.2	9.2	184	(15.2)	(24.8)	(61.6)	(8.3)	41	84.4	16.6	67.0	9.0	225
Bauchi	21.3	68.4	17.2	341	13.6	22.8	81.4	8.3	67	85.8	21.5	70.5	15.7	409
Borno	5.8	28.0	4.2	259	(10.2)	(1.7)	(25.1)	(0.6)	56	84.1	5.1	27.5	3.6	315
Gombe	11.9	34.5	6.8	147	9.4	4.4	20.8	2.5	33	83.5	10.6	32.0	6.0	180
Taraba	16.2	45.1	9.1	159	9.4	20.0	21.2	9.4	42	81.3	17.0	40.2	9.2	201
Yobe	18.2	29.5	7.8	269	(21.0)	(23.5)	(9.4)	(0.0)	31	91.7	18.8	27.4	6.9	300

Continued...

Table 11.7—*Continued*

Background characteristic	Among breastfed children age 6-23 months, percentage fed:				Among nonbreastfed children age 6-23 months, percentage fed:					Among all children age 6-23 months, percentage fed:				
	Minimum dietary diversity[1]	Minimum meal frequency[2]	Minimum acceptable diet[3]	Number of breastfed children age 6-23 months	Minimum milk feeding frequency[4]	Minimum dietary diversity[1]	Minimum meal frequency[5]	Minimum acceptable diet[6]	Number of non-breastfed children age 6-23 months	Breast milk, milk, or milk products[7]	Minimum dietary diversity[1]	Minimum meal frequency[8]	Minimum acceptable diet[9]	Number of all children age 6-23 months
North West														
Jigawa	17.5	43.2	8.1	344	(10.6)	(19.3)	(26.4)	(4.0)	38	91.2	17.7	41.5	7.7	381
Kaduna	18.1	53.7	17.1	443	2.8	5.1	39.3	0.6	105	81.4	15.6	51.0	13.9	548
Kano	19.3	38.6	10.1	571	10.8	25.2	23.2	9.1	120	84.6	20.4	35.9	9.9	691
Katsina	15.8	43.5	10.8	500	11.2	10.0	32.6	6.7	91	86.4	14.9	41.9	10.2	591
Kebbi	38.1	26.3	4.6	269	24.2	39.3	14.8	4.6	47	88.7	38.3	24.6	4.6	316
Sokoto	30.8	25.2	6.5	212	(17.4)	(28.5)	(16.9)	(11.4)	33	88.8	30.5	24.0	7.2	246
Zamfara	24.3	67.2	13.3	321	(5.2)	(9.6)	(53.0)	(0.0)	32	91.5	23.0	65.9	12.1	352
South East														
Abia	30.2	49.8	15.0	49	51.8	46.5	51.0	31.0	56	74.4	38.8	50.4	23.5	105
Anambra	18.5	37.5	7.9	138	12.1	10.1	37.2	5.0	152	53.9	14.1	37.3	6.4	290
Ebonyi	53.5	64.4	34.7	144	13.3	41.2	43.8	10.1	69	72.0	49.5	57.7	26.8	213
Enugu	30.3	42.3	8.8	60	49.4	56.9	69.2	36.6	60	74.7	43.6	55.8	22.7	120
Imo	13.3	71.3	13.3	61	38.7	21.5	67.3	9.8	93	63.0	18.2	68.9	11.2	154
South South														
Akwa Ibom	36.9	13.5	6.8	81	16.7	36.2	16.3	8.9	68	61.9	36.6	14.8	7.8	149
Bayelsa	40.7	41.4	20.8	31	33.8	35.0	40.7	21.5	37	63.7	37.6	41.0	21.2	68
Cross River	35.3	40.7	6.5	52	(23.0)	(24.4)	(30.9)	(17.6)	33	70.0	31.1	36.9	10.8	85
Delta	35.1	65.2	23.4	92	25.0	22.6	34.7	6.1	94	62.1	28.8	49.8	14.7	187
Edo	7.7	53.8	3.7	61	19.4	14.2	18.8	1.8	42	67.5	10.3	39.6	3.0	103
Rivers	32.2	78.1	29.7	136	34.2	35.2	57.3	18.7	125	68.5	33.7	68.1	24.4	260
South West														
Ekiti	33.1	36.1	18.5	51	6.7	39.4	20.9	6.7	41	58.6	35.9	29.4	13.3	91
Lagos	41.0	48.2	23.8	212	45.1	46.9	54.5	27.5	220	72.0	44.0	51.4	25.7	432
Ogun	17.9	19.7	7.1	106	5.9	8.6	26.0	0.0	67	63.7	14.3	22.1	4.4	173
Ondo	15.7	34.9	5.0	70	(4.4)	(31.4)	(25.6)	(2.7)	37	66.5	21.2	31.6	4.2	107
Osun	36.4	9.6	5.4	91	(7.7)	(36.8)	(4.3)	(2.6)	46	69.0	36.5	7.9	4.4	137
Oyo	42.8	9.8	1.8	168	17.4	35.2	14.4	13.3	91	71.0	40.1	11.4	5.8	259
Mother's education														
No education	16.4	42.7	8.0	3,401	7.7	12.7	27.8	3.1	552	87.1	15.8	40.6	7.3	3,953
Primary	22.3	46.1	11.7	928	8.3	13.0	25.6	4.1	349	74.9	19.7	40.5	9.6	1,277
Secondary	28.5	44.0	13.7	1,837	21.5	27.3	38.5	10.0	1,146	69.8	28.0	41.9	12.3	2,983
More than secondary	37.4	48.0	19.0	384	43.0	46.8	52.6	27.1	369	72.0	42.0	50.3	23.0	753
Wealth quintile														
Lowest	16.9	44.5	8.1	1,689	10.8	12.3	30.7	3.7	263	88.0	16.3	42.6	7.5	1,951
Second	17.0	45.0	9.0	1,618	6.4	12.7	25.8	3.3	345	83.5	16.3	41.6	8.0	1,963
Middle	19.7	42.3	8.8	1,346	10.6	19.6	32.2	6.2	512	75.4	19.7	39.5	8.1	1,858
Fourth	29.6	42.5	14.2	1,092	22.5	23.6	35.6	9.8	588	72.9	27.5	40.1	12.6	1,680
Highest	34.7	45.0	18.5	804	33.8	40.3	47.2	19.2	709	69.0	37.3	46.0	18.8	1,513
Total	21.8	43.9	10.8	6,550	19.7	24.9	36.4	10.2	2,417	78.4	22.6	41.8	10.6	8,967

Note: Figures in parentheses are based on 25-49 unweighted cases.

[1] Children received foods from five or more of the following food groups: a. breast milk; b. infant formula, milk other than breast milk, cheese or yogurt or other milk products; c. foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; d. vitamin A-rich fruits and vegetables and red palm oil; e. other fruits and vegetables; f. eggs; g. meat, poultry, fish, and shellfish (and organ meats); h. legumes and nuts.

[2] For breastfed children, minimum meal frequency is receiving solid, semisolid, or soft food at least twice a day for infants age 6-8 months and at least three times a day for children age 9-23 months.

[3] Breastfed children age 6-23 months are considered to be fed a minimum acceptable diet if they are fed the minimum dietary diversity as described in footnote 1 and the minimum meal frequency as defined in footnote 2.

[4] Includes two or more feedings of commercial infant formula; fresh, tinned, and powdered animal milk; and yogurt
[5] For nonbreastfed children age 6-23 months, minimum meal frequency is receiving solid, semisolid, or soft food or milk feeds at least four times a day. At least one of the feeds must be a solid, semisolid, or soft feed.
[6] Nonbreastfed children age 6-23 months are considered to be fed a minimum acceptable diet if they receive other milk or milk products at least twice a day, receive the minimum meal frequency as defined in footnote 5, and receive solid, semisolid, or soft foods from at least four food groups not including the milk or milk products food group.
[7] Breastfeeding, or not breastfeeding and receiving two or more feedings of commercial infant formula; fresh, tinned, and powdered animal milk; and yogurt
[8] Children are fed the minimum recommended number of times per day according to their age and breastfeeding status as described in footnotes 2 and 5.
[9] Children age 6-23 months are considered to be fed a minimum acceptable diet if they receive breast milk, receive other milk or milk products as described in footnote 7, are fed the minimum dietary diversity as described in footnote 1, and are fed the minimum meal frequency as described in footnotes 2 and 5.

Table 11.8 Prevalence of anaemia in children

Percentage of children age 6-59 months classified as having anaemia, according to background characteristics, Nigeria DHS 2018

Background characteristic	Anaemia status by haemoglobin level				
	Any anaemia (<11.0 g/dl)	Mild anaemia (10.0-10.9 g/dl)	Moderate anaemia (7.0-9.9 g/dl)	Severe anaemia (<7.0 g/dl)	Number of children age 6-59 months
Age in months					
6-8	77.2	28.2	45.2	3.8	687
9-11	79.3	27.4	48.9	3.0	599
12-17	81.4	27.7	49.3	4.4	1,460
18-23	74.1	30.4	39.7	4.0	1,150
24-35	67.4	27.0	37.4	3.0	2,439
36-47	62.5	25.6	34.3	2.6	2,528
48-59	57.9	24.9	30.9	2.1	2,528
Sex					
Male	69.5	26.3	39.9	3.2	5,820
Female	66.2	27.2	36.2	2.9	5,572
Mother's interview status					
Interviewed	68.1	27.0	38.1	3.0	10,395
Not interviewed but in household	70.6	22.2	44.9	3.6	174
Not interviewed and not in the household[1]	64.2	24.3	36.6	3.3	823
Residence					
Urban	62.0	27.5	33.1	1.4	5,014
Rural	72.5	26.1	42.0	4.3	6,377
Zone					
North Central	65.9	28.3	35.3	2.3	1,620
North East	70.4	27.4	39.2	3.8	1,807
North West	69.9	23.9	41.6	4.4	3,216
South East	69.9	27.2	40.3	2.5	1,496
South South	73.2	31.5	39.0	2.7	1,192
South West	59.6	26.3	31.8	1.4	2,060
State					
North Central					
FCT-Abuja	58.8	23.9	32.7	2.3	80
Benue	62.0	34.3	26.7	1.0	377
Kogi	63.6	25.8	35.8	1.9	143
Kwara	69.4	33.1	34.7	1.6	189
Nasarawa	67.9	28.1	36.6	3.2	172
Niger	75.0	26.1	46.7	2.2	421
Plateau	55.3	22.3	28.6	4.3	238
North East					
Adamawa	56.0	19.9	33.0	3.1	252
Bauchi	75.7	29.1	40.6	6.0	400
Borno	71.2	29.4	38.8	3.0	385
Gombe	77.3	26.5	45.5	5.4	205
Taraba	70.9	29.4	38.4	3.1	219
Yobe	69.1	27.7	39.3	2.2	346
North West					
Jigawa	81.9	26.6	53.4	1.9	382
Kaduna	48.4	20.7	26.6	1.1	614
Kano	72.9	22.8	45.1	5.0	682
Katsina	64.8	27.3	32.6	4.9	687
Kebbi	80.8	24.9	50.8	5.1	285
Sokoto	79.6	21.0	53.4	5.2	227
Zamfara	83.6	22.9	50.8	9.9	339
South East					
Abia	67.1	34.9	30.0	2.2	173
Anambra	75.2	26.3	46.2	2.7	473
Ebonyi	79.3	23.4	53.1	2.8	356
Enugu	58.9	26.4	29.8	2.7	205
Imo	59.2	29.2	28.3	1.7	289
South South					
Akwa Ibom	74.7	29.4	39.5	5.8	216
Bayelsa	67.4	30.0	33.8	3.7	98
Cross River	69.8	30.2	38.0	1.6	105
Delta	69.8	28.7	38.0	3.1	222
Edo	65.9	28.0	36.6	1.3	139
Rivers	78.9	35.9	41.5	1.5	412

Continued…

Table 11.8—*Continued*

Background characteristic	Anaemia status by haemoglobin level				
	Any anaemia (<11.0 g/dl)	Mild anaemia (10.0-10.9 g/dl)	Moderate anaemia (7.0-9.9 g/dl)	Severe anaemia (<7.0 g/dl)	Number of children age 6-59 months
South West					
Ekiti	71.9	28.7	42.1	1.2	145
Lagos	51.8	29.2	22.2	0.4	613
Ogun	59.5	22.8	34.4	2.2	330
Ondo	64.2	22.9	38.9	2.4	159
Osun	57.6	25.1	31.0	1.5	286
Oyo	65.0	26.3	36.8	1.9	528
Mother's education[2]					
No education	75.1	25.6	44.6	4.8	4,134
Primary	71.1	27.2	41.5	2.3	1,704
Secondary	64.1	27.9	34.1	2.1	3,726
More than secondary	50.0	28.4	21.3	0.3	1,004
Wealth quintile					
Lowest	80.1	25.5	48.6	6.0	2,120
Second	75.0	25.6	45.2	4.2	2,235
Middle	66.5	25.8	38.4	2.3	2,412
Fourth	65.3	27.0	35.9	2.3	2,388
Highest	53.3	29.8	23.0	0.6	2,235
Total	67.9	26.7	38.1	3.0	11,391

Note: Table is based on children who stayed in the household on the night before the interview and who were tested for anaemia. Prevalence of anaemia, based on haemoglobin levels, is adjusted for altitude using formulas in CDC 1998. Haemoglobin is in grams per decilitre (g/dl).
[1] Includes children whose mothers are deceased
[2] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table 11.9 Prevalence of sickle cell anaemia in children

Percentage of children age 6-59 months classified as having sickle cell anaemia, according to background characteristics, Nigeria DHS 2018

Background characteristic	Genotype status							
	Normal (HbAA)	Sickle cell trait (HbAS)	Haemoglobin C trait (HbAC)	Haemoglobin C disease (HbSC)	Sickle cell anaemia (HbSS)	Other	Sickle cell disease (SCD)[1]	Number of children age 6-59 months
Age in months								
6-8	76.9	20.2	1.5	0.2	1.0	0.0	1.2	687
9-11	76.3	19.4	2.2	0.5	1.3	0.0	1.8	599
12-17	76.9	19.8	1.9	0.3	0.6	0.3	0.8	1,460
18-23	75.2	20.9	2.4	0.2	1.1	0.0	1.4	1,150
24-35	77.8	19.1	1.6	0.4	0.9	0.0	1.3	2,439
36-47	77.7	19.0	1.3	0.8	1.0	0.1	1.8	2,528
48-59	76.9	20.2	1.5	0.4	0.7	0.3	1.1	2,528
Sex								
Male	77.1	19.6	2.0	0.3	0.8	0.1	1.1	5,820
Female	77.0	19.8	1.3	0.6	0.9	0.1	1.6	5,572
Mother's interview status								
Interviewed	76.9	19.8	1.7	0.4	0.9	0.1	1.2	10,395
Not interviewed but in household	71.3	24.5	0.6	1.9	1.0	0.0	2.9	174
Not interviewed and not in the household[2]	80.0	16.7	0.9	0.8	1.1	0.2	1.9	823
Residence								
Urban	75.7	20.2	2.3	0.7	0.8	0.2	1.5	5,014
Rural	78.1	19.3	1.1	0.2	1.0	0.1	1.2	6,377
Zone								
North Central	78.9	17.8	1.8	0.4	0.9	0.0	1.3	1,620
North East	77.9	20.4	0.3	0.3	0.9	0.0	1.2	1,807
North West	77.5	19.9	1.2	0.2	1.0	0.1	1.2	3,216
South East	79.5	19.1	0.0	0.1	1.0	0.0	1.1	1,496
South South	80.2	19.0	0.2	0.0	0.3	0.0	0.3	1,192
South West	70.8	20.9	5.2	1.6	0.8	0.6	2.4	2,060
State								
North Central								
FCT-Abuja	79.8	19.4	0.0	0.0	0.0	0.0	0.0	80
Benue	80.9	17.9	0.0	0.0	1.1	0.0	1.1	377
Kogi	77.0	20.3	0.0	0.6	1.8	0.0	2.4	143
Kwara	72.8	17.5	6.7	1.3	0.7	0.4	2.0	189
Nasarawa	79.0	18.4	0.4	0.4	1.4	0.0	1.8	172
Niger	77.8	17.7	3.2	0.5	0.6	0.0	1.0	421
Plateau	83.1	15.3	0.7	0.0	1.0	0.0	1.0	238
North East								
Adamawa	83.3	15.9	0.0	0.0	0.8	0.0	0.8	252
Bauchi	85.2	13.0	0.3	0.0	0.8	0.0	0.8	400
Borno	75.3	23.1	0.6	0.0	1.0	0.0	1.0	385
Gombe	81.1	17.9	0.3	0.0	0.7	0.0	0.7	205
Taraba	74.8	22.2	0.4	0.5	1.7	0.0	2.2	219
Yobe	68.4	29.8	0.2	1.1	0.6	0.0	1.6	346
North West								
Jigawa	72.4	25.1	0.6	0.0	1.6	0.0	1.6	382
Kaduna	78.0	21.4	0.5	0.0	0.0	0.0	0.0	614
Kano	72.5	24.8	0.0	0.0	2.4	0.0	2.4	682
Katsina	82.7	15.2	1.0	0.5	0.6	0.0	1.1	687
Kebbi	75.7	17.2	5.3	0.7	0.6	0.0	1.2	285
Sokoto	80.6	14.2	3.4	0.0	1.0	0.8	1.0	227
Zamfara	80.6	17.4	1.4	0.0	0.5	0.0	0.5	339
South East								
Abia	84.5	13.4	0.0	0.0	2.0	0.0	2.0	173
Anambra	78.4	20.0	0.0	0.0	0.9	0.0	0.9	473
Ebonyi	78.8	20.1	0.0	0.1	0.7	0.0	0.9	356
Enugu	76.8	22.0	0.0	0.7	0.5	0.0	1.2	205
Imo	81.0	17.5	0.0	0.0	1.4	0.0	1.4	289
South South								
Akwa Ibom	79.5	19.2	0.0	0.0	1.3	0.0	1.3	216
Bayelsa	80.8	17.5	0.0	0.0	1.1	0.0	1.1	98
Cross River	83.4	16.6	0.0	0.0	0.0	0.0	0.0	105
Delta	77.8	19.9	1.3	0.0	0.0	0.0	0.0	222
Edo	78.4	21.6	0.0	0.0	0.0	0.0	0.0	139
Rivers	81.4	18.6	0.0	0.0	0.0	0.0	0.0	412

Continued...

Table 11.9—*Continued*

Background characteristic	Genotype status							
	Normal (HbAA)	Sickle cell trait (HbAS)	Haemoglobin C trait (HbAC)	Haemoglobin C disease (HbSC)	Sickle cell anaemia (HbSS)	Other	Sickle cell disease (SCD)[1]	Number of children age 6-59 months
South West								
Ekiti	73.4	23.3	1.1	0.8	1.0	0.0	1.8	145
Lagos	69.1	23.1	4.0	2.6	0.1	1.1	2.7	613
Ogun	72.4	20.7	4.2	1.0	0.7	1.0	1.7	330
Ondo	83.7	13.8	0.6	0.4	1.4	0.0	1.8	159
Osun	68.0	20.4	9.0	1.3	1.3	0.0	2.6	286
Oyo	68.7	20.3	7.8	1.6	1.2	0.4	2.8	528
Mother's education[3]								
No education	77.2	20.3	1.3	0.1	0.8	0.0	1.0	4,134
Primary	77.6	19.8	1.6	0.5	0.5	0.0	1.0	1,704
Secondary	76.1	19.4	2.2	0.7	1.0	0.3	1.8	3,726
More than secondary	77.0	20.5	1.3	0.3	0.8	0.0	1.1	1,004
Wealth quintile								
Lowest	76.6	20.8	1.4	0.1	0.8	0.1	0.9	2,120
Second	77.8	19.5	0.7	0.6	1.1	0.0	1.7	2,235
Middle	78.4	18.8	1.5	0.2	0.8	0.0	1.0	2,412
Fourth	76.1	19.9	2.1	0.9	0.9	0.0	1.8	2,388
Highest	76.4	19.4	2.4	0.3	0.8	0.5	1.1	2,235
Total	77.1	19.7	1.6	0.4	0.9	0.1	1.3	11,391

Note: Table is based on children who stayed in the household on the night before the interview and who underwent genotype testing.
[1] Includes HbSS and HbSC
[2] Includes children whose mothers are deceased
[3] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table 11.10 Presence of iodised salt in household

Among all households, percentage with salt tested for iodine content, percentage with salt in the household but the salt was not tested, and percentage with no salt in the household, and among households with salt tested, percentage with iodised salt, according to background characteristics, Nigeria DHS 2018

	Among all households, percentage				Among households with tested salt:	
Background characteristic	With salt tested	With salt, but salt not tested[1]	With no salt in the household	Number of households	Percentage with iodised salt	Number of households
Residence						
Urban	94.1	2.8	3.1	18,940	98.4	17,823
Rural	92.9	2.7	4.4	21,487	95.9	19,957
Zone						
North Central	91.4	1.9	6.6	5,669	91.5	5,184
North East	93.6	2.1	4.3	5,655	99.1	5,295
North West	91.6	4.1	4.3	9,809	96.2	8,989
South East	98.8	0.6	0.6	4,703	99.8	4,645
South South	93.0	2.8	4.3	5,667	98.8	5,268
South West	94.2	3.4	2.3	8,587	97.5	8,093
State						
North Central						
FCT-Abuja	82.8	7.5	9.7	287	99.8	238
Benue	90.8	0.0	9.2	1,230	98.4	1,116
Kogi	94.2	0.1	5.7	707	100.0	666
Kwara	93.3	0.2	6.4	771	98.8	719
Nasarawa	83.4	9.1	7.5	591	99.1	493
Niger	93.6	2.5	3.9	1,229	67.3	1,150
Plateau	93.7	0.0	6.3	883	96.2	827
North East						
Adamawa	94.2	0.0	5.8	908	99.9	856
Bauchi	86.4	10.3	3.3	1,146	98.9	991
Borno	97.2	0.0	2.8	1,271	97.7	1,235
Gombe	98.7	0.0	1.3	550	99.7	542
Taraba	91.6	0.0	8.4	720	99.3	659
Yobe	94.7	0.0	5.3	1,100	99.9	1,042
North West						
Jigawa	95.3	0.0	4.7	1,134	99.9	1,081
Kaduna	94.4	0.0	5.6	1,950	99.9	1,840
Kano	83.0	10.6	6.3	2,153	99.5	1,788
Katsina	94.8	0.1	5.1	1,820	99.7	1,726
Kebbi	98.6	0.0	1.4	910	99.1	898
Sokoto	98.4	0.7	0.9	843	100.0	829
Zamfara	83.2	15.9	0.9	1,030	63.2	857
South East						
Abia	99.9	0.0	0.1	664	99.7	663
Anambra	99.8	0.0	0.2	1,391	100.0	1,388
Ebonyi	97.5	1.9	0.6	852	99.4	831
Enugu	98.5	0.2	1.3	870	99.8	858
Imo	97.6	1.2	1.2	974	99.9	951
South South						
Akwa Ibom	78.7	13.1	8.2	1,048	99.5	825
Bayelsa	98.0	0.1	1.9	404	98.3	396
Cross River	86.4	0.2	13.4	739	99.3	639
Delta	99.2	0.0	0.8	1,271	96.7	1,262
Edo	95.9	1.7	2.4	710	98.9	681
Rivers	98.0	0.4	1.6	1,556	100.0	1,525
South West						
Ekiti	99.2	0.0	0.8	629	99.5	624
Lagos	88.1	9.2	2.7	2,971	96.5	2,616
Ogun	94.7	1.7	3.6	1,251	99.0	1,185
Ondo	93.9	0.0	6.1	844	99.5	793
Osun	98.3	0.0	1.7	1,219	92.2	1,198
Oyo	99.5	0.2	0.3	1,801	100.0	1,792
Wealth quintile						
Lowest	93.6	1.6	4.8	6,912	93.9	6,470
Second	93.0	2.2	4.8	7,499	95.2	6,973
Middle	92.6	2.6	4.8	8,273	97.9	7,661
Fourth	94.0	2.8	3.2	8,676	98.6	8,156
Highest	94.0	4.2	1.9	9,068	98.8	8,521
Total	93.5	2.8	3.8	40,427	97.1	37,780

[1] Includes households in which salt could not be tested for technical or logistical reasons, including availability of test kits

Table 11.11 Micronutrient intake among children

Among youngest children age 6-23 months who are living with their mother, percentages who consumed vitamin A-rich and iron-rich foods in the 24 hours preceding the survey; among all children age 6-59 months, percentages who were given vitamin A supplements in the 6 months preceding the survey, iron supplements in the 7 days preceding the survey, and deworming medication in the 6 months preceding the survey; and among all children age 6-59 months who live in households in which salt was tested for iodine, percentage who live in households with iodised salt, according to background characteristics, Nigeria DHS 2018

	Among youngest children age 6-23 months living with their mother:			Among all children age 6-59 months:				Among children age 6-59 months living in households tested for iodised salt:	
Background characteristic	Percentage who consumed foods rich in vitamin A in last 24 hours[1]	Percentage who consumed foods rich in iron in last 24 hours[2]	Number of children	Percentage given iron supplements in past 7 days[3]	Percentage given vitamin A supplements in past 6 months[4]	Percentage given deworming medication in past 6 months[3,5]	Number of children	Percentage living in households with iodised salt[6]	Number of children
Age in months									
6-8	30.9	21.2	1,650	12.9	34.0	9.4	1,672	96.7	1,584
9-11	51.9	36.0	1,457	15.7	50.8	19.0	1,482	97.7	1,409
12-17	65.3	44.7	3,434	16.9	48.2	22.0	3,525	96.0	3,355
18-23	73.0	53.3	2,426	20.8	50.6	28.8	2,618	96.8	2,521
24-35	na	na	na	18.3	45.6	28.6	5,835	96.6	5,577
36-47	na	na	na	16.3	44.5	26.3	6,186	96.7	5,890
48-59	na	na	na	16.7	43.9	27.4	6,294	96.6	5,999
Sex									
Male	60.2	41.9	4,628	17.2	45.4	25.6	14,022	96.5	13,390
Female	57.5	40.7	4,339	17.0	45.2	25.0	13,589	96.8	12,947
Breastfeeding status									
Breastfeeding	51.3	32.3	6,550	13.9	41.1	14.3	6,975	96.1	6,656
Not breastfeeding	79.5	65.8	2,417	18.1	46.7	29.0	20,636	96.8	19,681
Mother's age									
15-19	47.6	26.3	591	9.5	30.4	13.6	989	94.5	940
20-29	58.6	40.3	4,515	16.5	43.3	22.9	13,015	96.3	12,402
30-39	61.1	45.6	3,245	18.3	48.9	29.3	10,950	97.1	10,463
40-49	60.1	40.7	615	17.5	46.5	25.0	2,658	97.2	2,531
Residence									
Urban	66.5	57.4	3,487	22.6	55.5	34.9	10,971	98.2	10,486
Rural	54.1	31.0	5,480	13.4	38.6	19.0	16,641	95.6	15,851
Zone									
North Central	52.4	40.5	1,278	20.0	52.9	25.8	3,827	89.2	3,617
North East	50.5	24.3	1,629	8.7	30.5	10.1	5,019	98.9	4,807
North West	49.8	23.7	3,126	9.3	29.8	8.7	9,647	96.6	9,105
South East	76.1	68.2	882	35.2	76.4	56.3	2,841	99.8	2,816
South South	73.7	67.1	852	19.3	63.4	63.9	2,526	99.2	2,413
South West	77.7	72.8	1,199	30.0	61.6	38.3	3,750	97.0	3,578
State									
North Central									
FCT-Abuja	41.2	36.6	64	20.0	53.0	31.1	192	99.8	165
Benue	68.8	51.6	271	36.4	61.9	40.1	822	98.0	770
Kogi	60.0	51.0	112	19.1	63.2	19.4	352	100.0	347
Kwara	49.9	43.3	159	23.2	59.3	23.0	454	98.4	439
Nasarawa	73.5	64.7	133	50.6	58.0	40.5	425	99.0	365
Niger	39.9	33.5	378	3.2	36.3	12.9	1,071	67.1	1,051
Plateau	38.3	10.3	163	1.6	56.4	22.8	511	96.0	480
North East									
Adamawa	71.6	35.8	225	10.2	51.6	11.8	636	100.0	636
Bauchi	57.6	25.2	409	5.5	20.5	10.2	1,172	98.5	997
Borno	23.0	8.1	315	7.1	12.4	1.2	1,058	97.2	1,056
Gombe	36.4	19.2	180	4.6	10.0	4.6	553	99.6	552
Taraba	69.3	46.3	201	2.7	20.8	11.0	601	99.3	573
Yobe	49.6	20.0	300	19.2	65.2	21.0	1,000	99.9	993
North West									
Jigawa	54.6	13.8	381	25.9	71.8	27.4	1,148	99.8	1,135
Kaduna	31.7	15.6	548	8.4	27.5	9.4	1,766	100.0	1,712
Kano	56.3	21.6	691	3.6	13.0	3.6	2,167	99.8	1,895
Katsina	34.2	17.5	591	3.1	9.5	8.3	1,893	99.6	1,885
Kebbi	67.2	50.5	316	6.3	45.2	3.4	906	99.3	901
Sokoto	72.3	46.9	246	21.4	44.8	7.2	753	99.9	751
Zamfara	54.9	21.5	352	9.4	35.1	3.3	1,014	65.2	827
South East									
Abia	70.8	58.3	105	73.5	84.4	84.8	352	99.7	352
Anambra	76.3	71.7	290	32.6	92.5	58.5	873	100.0	871
Ebonyi	89.8	81.4	213	25.7	43.7	38.6	679	99.7	664
Enugu	65.5	61.6	120	49.2	73.4	27.1	403	99.6	402
Imo	68.9	55.4	154	15.5	88.6	78.6	535	99.8	528

Continued...

Table 11.11—*Continued*

Background characteristic	Among youngest children age 6-23 months living with their mother:			Among all children age 6-59 months:				Among children age 6-59 months living in households tested for iodised salt:	
	Percentage who consumed foods rich in vitamin A in last 24 hours[1]	Percentage who consumed foods rich in iron in last 24 hours[2]	Number of children	Percentage given iron supplements in past 7 days[3]	Percentage given vitamin A supple-ments in past 6 months[4]	Percentage given dewor-ming medica-tion in past 6 months[3,5]	Number of children	Percentage living in households with iodised salt[6]	Number of children
South South									
Akwa Ibom	79.0	62.7	149	18.5	47.4	40.1	428	100.0	353
Bayelsa	74.1	65.5	68	31.8	42.7	61.6	192	98.3	191
Cross River	77.6	68.1	85	25.5	85.1	63.4	270	99.9	255
Delta	76.4	76.0	187	26.6	61.2	58.1	524	97.5	524
Edo	58.7	56.7	103	11.6	69.0	56.9	341	99.3	332
Rivers	73.2	67.4	260	12.7	69.0	85.0	771	100.0	758
South West									
Ekiti	68.9	61.6	91	39.1	69.3	30.8	264	98.8	263
Lagos	87.5	84.5	432	24.4	78.9	60.6	1,321	95.4	1,176
Ogun	55.8	41.1	173	11.4	44.5	25.5	530	100.0	522
Ondo	65.7	63.1	107	34.7	62.2	44.9	354	99.6	344
Osun	79.0	75.6	137	56.8	66.5	39.1	465	89.5	465
Oyo	83.2	81.1	259	30.9	39.1	9.4	815	100.0	807
Mother's education									
No education	47.8	21.4	3,953	9.3	29.4	8.9	12,371	94.5	11,851
Primary	61.3	45.8	1,277	16.3	45.8	26.7	4,138	98.2	3,909
Secondary	68.2	58.0	2,983	24.2	60.8	41.1	8,718	98.5	8,325
More than secondary	76.1	71.7	753	32.6	70.8	50.1	2,384	98.4	2,251
Wealth quintile									
Lowest	51.3	19.5	1,951	10.7	33.5	10.3	5,951	93.4	5,727
Second	51.1	28.3	1,963	10.0	31.5	12.8	6,027	95.3	5,777
Middle	55.5	40.8	1,858	15.6	42.3	23.7	5,694	98.3	5,414
Fourth	65.9	56.6	1,680	23.8	57.5	36.6	5,208	98.5	4,940
Highest	75.1	69.9	1,513	28.4	68.0	49.4	4,732	98.5	4,478
Total	58.9	41.3	8,967	17.1	45.3	25.3	27,612	96.6	26,336

na = Not applicable
[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mangoes, papayas, and other locally grown fruits and vegetables that are rich in vitamin A
[2] Includes meat (and organ meat), fish, poultry, and eggs
[3] Based on mother's recall
[4] Based on both mother's recall and the vaccination card (where available)
[5] Deworming for intestinal parasites is commonly done for helminths and for schistosomiasis.
[6] Excludes children in households in which salt was not tested

Table 11.12 Nutritional status of women

Among women age 15-49, percentage with height under 145 cm, mean body mass index (BMI), and percentage with specific BMI levels, according to background characteristics, Nigeria DHS 2018

	Height		Body mass index[1]								
Background characteristic	Percent-age below 145 cm	Number of women	Mean body mass index (BMI)	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17 (moder-ately and severely thin)	≥25.0 (total over-weight or obese)	25.0-29.9 (over-weight)	≥30.0 (obese)	Number of women
Age											
15-19	3.1	2,719	20.6	67.0	24.8	15.8	9.0	8.2	7.1	1.1	2,513
20-29	1.2	4,996	22.7	66.4	11.3	8.2	3.1	22.3	16.5	5.9	3,973
30-39	0.9	4,433	24.5	53.2	8.3	6.2	2.1	38.5	24.3	14.2	3,773
40-49	1.1	2,578	25.2	51.7	6.3	4.4	1.9	42.0	23.1	18.9	2,468
Residence											
Urban	0.8	6,844	24.3	54.1	9.6	6.3	3.3	36.4	21.9	14.5	6,051
Rural	2.0	7,882	22.4	64.9	14.4	10.2	4.2	20.7	14.9	5.8	6,677
Zone											
North Central	2.3	2,104	23.3	65.0	9.2	6.8	2.4	25.8	17.1	8.7	1,823
North East	1.5	2,232	21.4	61.6	23.3	15.3	8.1	15.1	10.3	4.7	1,878
North West	2.0	3,954	21.8	66.7	16.9	11.2	5.7	16.4	12.0	4.3	3,238
South East	0.7	1,841	24.9	55.5	5.0	3.5	1.5	39.5	23.4	16.1	1,630
South South	1.0	1,821	24.9	51.4	5.7	4.2	1.6	42.9	27.9	15.0	1,655
South West	0.6	2,774	24.6	53.7	8.5	6.5	2.0	37.8	23.1	14.7	2,503
State											
North Central											
FCT-Abuja	0.6	116	25.0	53.2	9.4	6.8	2.6	37.5	20.3	17.1	105
Benue	5.4	494	23.0	71.4	6.3	5.5	0.9	22.3	16.0	6.3	431
Kogi	0.0	224	23.2	63.1	10.2	7.1	3.0	26.7	18.2	8.5	189
Kwara	2.4	256	23.1	62.9	11.1	8.2	2.9	26.0	18.6	7.4	226
Nasarawa	1.2	236	23.5	59.3	11.9	9.2	2.7	28.8	17.2	11.6	209
Niger	1.1	474	22.9	66.2	11.1	6.7	4.4	22.7	14.3	8.4	412
Plateau	2.3	303	23.6	65.4	6.0	5.5	0.4	28.7	19.6	9.0	252
North East											
Adamawa	0.6	292	22.2	60.8	18.8	11.0	7.8	20.4	14.6	5.8	247
Bauchi	1.8	442	21.1	61.9	23.9	16.8	7.1	14.2	9.7	4.5	350
Borno	1.8	516	21.3	64.0	23.1	17.9	5.2	12.8	8.0	4.8	445
Gombe	2.3	242	21.7	61.7	21.4	13.4	8.0	16.9	11.3	5.6	208
Taraba	0.3	294	23.2	67.1	9.2	6.6	2.6	23.7	16.1	7.6	254
Yobe	1.9	445	20.1	55.1	36.8	20.5	16.4	8.1	6.4	1.7	374
North West											
Jigawa	3.5	450	20.4	61.9	30.4	18.4	12.0	7.7	4.9	2.8	366
Kaduna	1.5	849	23.0	64.0	10.9	8.1	2.8	25.1	17.0	8.1	694
Kano	2.6	798	21.7	65.7	17.7	10.3	7.4	16.6	12.3	4.3	637
Katsina	2.9	789	22.1	69.5	12.7	8.2	4.5	17.8	15.0	2.8	660
Kebbi	0.4	391	21.6	70.5	15.8	11.3	4.5	13.7	10.1	3.6	324
Sokoto	2.0	249	20.7	71.7	21.1	15.2	6.0	7.2	5.5	1.7	202
Zamfara	0.2	427	21.4	67.6	19.8	15.1	4.7	12.7	9.2	3.4	355
South East											
Abia	1.4	237	24.6	60.5	4.7	3.0	1.7	34.9	25.4	9.5	217
Anambra	0.2	527	26.3	42.8	4.2	2.1	2.1	53.1	28.2	24.8	451
Ebonyi	1.6	352	22.5	70.1	9.2	7.3	1.8	20.7	16.5	4.2	304
Enugu	0.8	326	24.6	59.8	3.8	2.6	1.2	36.5	22.5	14.0	302
Imo	0.1	399	25.8	52.5	3.6	2.9	0.7	43.9	23.0	20.9	355
South South											
Akwa Ibom	1.9	346	24.8	52.0	6.0	4.8	1.2	42.0	27.2	14.8	314
Bayelsa	0.9	116	24.2	57.2	6.5	4.6	1.9	36.2	24.4	11.8	102
Cross River	1.1	227	24.0	59.9	5.3	3.4	1.8	34.8	25.7	9.2	212
Delta	1.0	312	25.2	47.4	8.0	4.3	3.7	44.6	26.4	18.2	277
Edo	1.1	182	24.8	55.1	6.3	5.6	0.7	38.6	24.2	14.5	159
Rivers	0.5	639	25.4	47.9	4.4	3.6	0.8	47.7	31.4	16.3	592
South West											
Ekiti	0.7	198	23.8	61.1	7.2	6.4	0.8	31.7	22.1	9.6	176
Lagos	0.1	1,006	25.9	44.1	6.5	5.8	0.8	49.4	28.5	20.8	903
Ogun	0.9	367	24.3	55.6	8.6	6.9	1.7	35.7	22.1	13.6	333
Ondo	1.9	252	23.9	64.2	7.7	5.8	1.9	28.0	15.4	12.6	225
Osun	0.0	359	23.3	62.5	9.5	8.1	1.4	28.0	18.4	9.6	335
Oyo	1.0	592	23.8	56.2	11.8	7.0	4.9	32.0	21.2	10.8	531
Education											
No education	1.9	4,873	21.7	66.7	17.3	12.1	5.3	15.9	11.6	4.4	3,997
Primary	1.9	2,237	23.7	59.0	9.6	6.5	3.1	31.5	20.6	10.8	1,965
Secondary	1.2	6,078	23.6	58.5	11.0	7.4	3.6	30.6	19.9	10.7	5,382
More than secondary	0.2	1,537	26.0	45.5	5.1	3.9	1.1	49.4	27.5	21.9	1,383

Continued...

Table 11.12—*Continued*

Background characteristic	Height		Body mass index[1]								
	Percentage below 145 cm	Number of women	Mean body mass index (BMI)	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17 (moderately and severely thin)	≥25.0 (total overweight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	Number of women
Wealth quintile											
Lowest	2.4	2,371	20.8	69.9	21.5	14.8	6.7	8.6	7.1	1.5	1,975
Second	2.5	2,777	22.0	69.2	13.9	9.5	4.5	16.9	12.7	4.2	2,316
Middle	1.5	2,994	22.8	64.5	12.3	8.5	3.7	23.3	16.5	6.8	2,553
Fourth	0.9	3,233	24.2	54.7	9.4	6.6	2.8	35.9	23.3	12.5	2,847
Highest	0.2	3,351	25.6	46.6	7.0	4.8	2.2	46.4	26.3	20.0	3,037
Total	1.4	14,726	23.3	59.7	12.1	8.4	3.8	28.2	18.2	9.9	12,728

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in metres (kg/m^2).
[1] Excludes pregnant women and women with a birth in the preceding 2 months

Table 11.13 Prevalence of anaemia in women

Percentage of women age 15-49 with anaemia, according to background characteristics, Nigeria DHS 2018

Background characteristic	Anaemia status by haemoglobin level: Any (Non-pregnant <12.0 g/dl; Pregnant <11.0 g/dl)	Mild (11.0-11.9 g/dl; 10.0-10.9 g/dl)	Moderate (8.0-10.9 g/dl; 7.0-9.9 g/dl)	Severe (<8.0 g/dl; <7.0 g/dl)	Number of women
Age					
15-19	60.5	30.5	28.6	1.3	2,711
20-29	56.0	26.2	28.5	1.3	4,941
30-39	58.4	27.5	28.8	2.1	4,402
40-49	57.5	28.4	27.4	1.6	2,563
Number of children ever born					
0	56.8	29.1	26.6	1.2	3,636
1	57.7	27.6	28.4	1.6	1,749
2-3	55.8	26.2	28.2	1.4	3,417
4-5	57.3	26.9	28.6	1.9	2,725
6+	61.8	29.1	30.7	2.0	3,090
Maternity status					
Pregnant	61.1	25.8	33.0	2.3	1,542
Breastfeeding	59.7	27.6	30.0	2.1	3,749
Neither	56.5	28.2	27.0	1.3	9,327
Using IUD					
Yes	60.4	39.5	19.1	1.8	85
No	57.8	27.7	28.5	1.6	14,533
Cigarette use[1]					
Smokes cigarettes	(51.2)	(35.6)	(12.5)	(3.1)	25
Does not smoke cigarettes	57.8	27.8	28.4	1.6	14,592
Residence					
Urban	53.6	27.6	24.8	1.2	6,786
Rural	61.5	28.0	31.5	1.9	7,831
Zone					
North Central	55.2	26.5	27.5	1.2	2,093
North East	58.3	27.1	29.5	1.6	2,222
North West	58.8	27.1	29.4	2.3	3,906
South East	66.0	29.9	34.3	1.8	1,823
South South	60.1	25.7	32.4	2.0	1,813
South West	51.1	30.3	20.3	0.5	2,759
State					
North Central					
FCT-Abuja	50.3	27.1	22.7	0.5	112
Benue	48.8	25.8	22.7	0.3	496
Kogi	58.2	30.6	27.0	0.6	224
Kwara	54.9	26.6	26.5	1.8	256
Nasarawa	65.1	24.6	36.9	3.6	236
Niger	64.2	26.5	37.4	0.2	468
Plateau	43.7	25.8	15.6	2.3	301
North East					
Adamawa	35.9	18.6	16.4	0.9	291
Bauchi	68.6	30.7	35.0	2.9	443
Borno	53.9	27.2	24.8	1.9	516
Gombe	63.6	32.1	29.9	1.6	240
Taraba	54.0	26.0	27.1	0.9	294
Yobe	67.8	27.3	39.7	0.8	438
North West					
Jigawa	65.4	27.3	34.0	4.2	447
Kaduna	44.0	22.7	19.9	1.4	850
Kano	46.6	23.8	19.3	3.5	775
Katsina	71.2	36.8	33.4	0.9	780
Kebbi	60.4	29.0	30.2	1.2	380
Sokoto	73.7	24.0	48.8	1.0	247
Zamfara	71.3	24.5	42.9	3.9	428
South East					
Abia	58.5	26.2	29.7	2.5	235
Anambra	70.2	34.3	35.0	0.9	517
Ebonyi	71.7	23.1	45.3	3.2	350
Enugu	60.2	31.7	27.4	1.1	324
Imo	64.6	30.9	32.0	1.7	396

Continued...

Table 11.13—*Continued*

Background characteristic	Non-pregnant / Pregnant	Anaemia status by haemoglobin level: Any	Mild	Moderate	Severe	Number of women
		<12.0 g/dl / <11.0 g/dl	11.0-11.9 g/dl / 10.0-10.9 g/dl	8.0-10.9 g/dl / 7.0-9.9 g/dl	<8.0 g/dl / <7.0 g/dl	
South South						
Akwa Ibom		57.7	27.8	27.2	2.8	339
Bayelsa		58.4	22.7	34.3	1.4	117
Cross River		46.1	25.0	20.6	0.5	227
Delta		64.1	28.3	32.8	3.0	312
Edo		55.2	26.1	28.5	0.6	181
Rivers		66.1	24.0	40.0	2.1	638
South West						
Ekiti		50.5	26.3	23.2	1.1	198
Lagos		49.5	32.6	16.8	0.2	1,002
Ogun		49.0	28.1	19.6	1.3	363
Ondo		55.2	32.3	22.3	0.5	253
Osun		57.2	30.3	26.1	0.7	358
Oyo		49.7	28.0	21.2	0.4	585
Education						
No education		63.9	28.1	33.5	2.4	4,823
Primary		58.6	28.3	28.6	1.7	2,228
Secondary		55.3	27.7	26.5	1.2	6,053
More than secondary		47.2	26.8	19.8	0.7	1,513
Wealth quintile						
Lowest		65.5	27.8	35.5	2.2	2,354
Second		61.8	27.9	32.1	1.8	2,752
Middle		59.1	29.1	28.4	1.6	2,979
Fourth		55.4	26.7	27.3	1.4	3,223
Highest		50.1	27.7	21.3	1.1	3,310
Total		57.8	27.8	28.4	1.6	14,617

Note: Prevalence is adjusted for altitude and for smoking status if known using formulas in CDC 1998. Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes manufactured cigarettes and hand-rolled cigarettes

Table 11.14 Micronutrient intake among mothers

Among women age 15-49 with a child born in the 5 years preceding the survey, percent distribution by number of days they took iron tablets or syrup during the pregnancy of the last child and percentage who took deworming medication during the pregnancy of the last child, and among women age 15-49 with a child born in the 5 years preceding the survey who live in households that were tested for iodised salt, percentage who live in households with iodised salt, according to background characteristics, Nigeria DHS 2018

Background characteristic	Number of days women took iron tablets or syrup during pregnancy of last birth						Percentage of women who took deworming medication during pregnancy of last birth	Number of women	Among women with a child born in the past 5 years who live in households in which salt was tested:	
	None	<60	60-89	90+	Don't know/ missing	Total			Percentage living in households with iodised salt[1]	Number of women
Age										
15-19	37.6	23.6	7.9	25.5	5.5	100.0	12.7	1,210	95.3	1,160
20-29	30.2	25.7	8.4	30.1	5.6	100.0	17.3	9,892	96.1	9,418
30-39	30.1	23.7	8.3	32.2	5.6	100.0	17.2	8,391	96.9	8,006
40-49	33.7	22.3	8.6	28.9	6.5	100.0	14.6	2,419	97.3	2,312
Residence										
Urban	20.2	23.8	8.0	38.9	9.1	100.0	18.6	8,712	98.1	8,326
Rural	38.0	24.9	8.6	25.0	3.5	100.0	15.5	13,199	95.5	12,571
Zone										
North Central	33.2	27.3	7.2	26.3	6.0	100.0	15.5	3,031	88.9	2,874
North East	31.2	25.2	11.5	31.4	0.6	100.0	21.6	3,862	99.1	3,699
North West	38.6	24.8	8.8	24.6	3.2	100.0	11.8	7,644	96.3	7,209
South East	7.2	26.6	7.2	46.1	13.0	100.0	19.5	2,138	99.7	2,120
South South	33.2	16.7	6.2	33.2	10.6	100.0	19.4	2,019	99.2	1,931
South West	24.5	23.5	6.8	35.5	9.6	100.0	20.3	3,218	97.2	3,063
State										
North Central										
FCT-Abuja	31.1	29.8	0.8	1.5	36.7	100.0	15.0	148	99.8	128
Benue	34.3	29.9	9.4	26.0	0.4	100.0	31.0	637	98.2	597
Kogi	37.0	21.8	1.9	26.3	13.0	100.0	18.6	299	100.0	294
Kwara	26.3	6.6	2.3	51.6	13.1	100.0	10.7	360	98.3	348
Nasarawa	22.9	36.3	8.6	31.8	0.5	100.0	22.0	329	99.0	285
Niger	39.7	39.4	8.1	8.9	3.9	100.0	2.1	844	66.3	828
Plateau	30.3	12.8	11.1	44.8	1.0	100.0	15.7	415	95.0	394
North East										
Adamawa	17.2	19.8	11.9	50.8	0.4	100.0	41.4	518	100.0	518
Bauchi	31.4	35.7	9.9	22.8	0.2	100.0	16.7	919	98.7	789
Borno	41.5	16.1	8.2	33.9	0.3	100.0	9.5	732	97.6	728
Gombe	27.8	36.9	13.8	21.2	0.3	100.0	12.5	444	99.5	443
Taraba	43.9	24.0	15.0	17.0	0.1	100.0	14.1	495	99.4	474
Yobe	24.5	19.0	13.0	41.7	1.9	100.0	35.7	755	99.8	746
North West										
Jigawa	21.7	41.0	12.2	25.0	0.1	100.0	20.1	898	99.9	889
Kaduna	32.7	11.8	8.5	46.7	0.3	100.0	10.5	1,453	100.0	1,401
Kano	20.4	38.7	17.7	22.5	0.6	100.0	10.8	1,682	99.8	1,481
Katsina	47.9	8.6	6.8	21.4	15.4	100.0	12.0	1,440	99.6	1,434
Kebbi	47.2	30.4	3.0	19.3	0.1	100.0	18.3	716	99.2	710
Sokoto	63.0	33.9	1.4	1.1	0.5	100.0	5.7	608	100.0	605
Zamfara	62.6	18.3	1.6	17.3	0.1	100.0	6.3	848	63.5	689
South East										
Abia	12.5	67.1	2.9	7.1	10.4	100.0	32.9	259	99.8	259
Anambra	4.4	3.7	3.6	52.2	36.1	100.0	14.7	664	100.0	662
Ebonyi	10.7	46.3	7.3	34.0	1.8	100.0	20.6	493	99.3	482
Enugu	2.4	37.1	19.9	40.6	0.0	100.0	20.2	317	99.8	314
Imo	7.6	6.0	6.0	79.9	0.5	100.0	16.9	405	99.7	402
South South										
Akwa Ibom	23.4	42.2	9.6	21.6	3.1	100.0	32.4	360	100.0	298
Bayelsa	45.5	14.3	0.8	4.0	35.4	100.0	21.5	144	98.2	144
Cross River	41.8	26.8	4.9	25.9	0.6	100.0	32.6	231	99.9	219
Delta	28.1	11.8	10.9	27.5	21.8	100.0	9.0	408	97.3	408
Edo	52.3	7.2	5.1	19.5	15.9	100.0	12.8	270	99.4	265
Rivers	27.9	5.9	3.4	59.7	3.2	100.0	16.0	606	100.0	598
South West										
Ekiti	9.5	27.1	9.6	53.8	0.0	100.0	11.7	226	99.3	224
Lagos	46.5	5.7	2.3	25.8	19.7	100.0	18.1	1,142	95.6	1,011
Ogun	10.7	5.5	17.5	64.4	1.8	100.0	31.3	423	100.0	416
Ondo	13.4	9.5	4.1	55.3	17.7	100.0	5.2	312	99.6	303
Osun	4.8	23.2	7.2	64.6	0.3	100.0	27.1	409	90.4	409
Oyo	18.3	68.5	7.9	2.6	2.8	100.0	22.5	706	100.0	701

Continued...

Table 11.14—*Continued*

Background characteristic	Number of days women took iron tablets or syrup during pregnancy of last birth						Percentage of women who took deworming medication during pregnancy of last birth	Number of women	Among women with a child born in the past 5 years who live in households in which salt was tested:	
	None	<60	60-89	90+	Don't know/ missing	Total			Percentage living in households with iodised salt[1]	Number of women
Education										
No education	45.5	24.6	8.6	19.0	2.3	100.0	11.2	9,738	94.2	9,318
Primary	24.9	26.4	9.4	31.5	7.8	100.0	19.5	3,293	98.2	3,114
Secondary	18.4	24.2	8.2	40.9	8.4	100.0	21.7	6,962	98.4	6,652
More than secondary	12.9	21.3	6.4	50.2	9.2	100.0	21.7	1,919	98.1	1,813
Wealth quintile										
Lowest	49.1	23.5	9.0	16.9	1.6	100.0	11.7	4,716	93.3	4,546
Second	40.0	25.9	8.8	21.8	3.6	100.0	13.5	4,850	95.1	4,626
Middle	24.4	26.0	9.2	34.7	5.6	100.0	18.8	4,448	98.0	4,244
Fourth	18.1	25.7	8.5	40.7	7.0	100.0	20.5	4,103	98.3	3,886
Highest	18.4	20.6	6.1	42.8	12.1	100.0	20.6	3,794	98.6	3,595
Total	30.9	24.5	8.4	30.5	5.7	100.0	16.7	21,911	96.5	20,897

[1] Excludes women in households where salt was not tested

Table 11.15 Foods and liquids consumed by women in the day or night preceding the interview

Percentage of women age 15-49 by type of foods consumed in the day or night preceding the interview, according to background characteristics, Nigeria DHS 2018

Background characteristic	Foods made of grains, white tubers and roots, or other starchy foods	Food made from legumes	Food made from nuts and seeds	Milk, cheese, yogurt, other milk products	Meat, fish, poultry	Eggs	Dark green leafy vege-tables	Fruits and vege-tables rich in vitamin A[1]	Other vege-tables	Other fruits	Insects and other small protein foods	Red palm oil	Oil and fat	Savoury and fried snacks	Sugary foods[2]	Sugar-sweet-ened bever-ages	Any condi-ments and season-ings	Any other bever-ages and foods[3]	Consum ed ≥5 food groups[4]	Mean number of food groups	Number of women
Age																					
15-19	98.1	48.1	31.2	22.6	68.2	17.4	69.0	32.6	64.1	35.9	6.8	75.3	52.7	22.8	22.5	22.0	96.2	47.5	54.8	4.9	8,448
20-29	98.2	48.8	29.6	20.5	69.3	16.6	71.2	32.6	63.2	35.6	6.7	76.2	51.0	19.0	15.5	21.8	96.8	47.0	54.4	4.9	14,090
30-39	98.3	47.5	30.9	19.1	71.7	15.6	74.5	31.5	63.3	35.2	8.3	78.2	50.7	17.8	12.8	22.1	96.5	45.6	55.8	4.9	11,641
40-49	98.5	49.6	33.3	19.3	73.5	15.0	76.9	34.0	63.3	36.7	8.1	78.6	48.4	17.8	11.5	20.9	96.7	46.5	58.4	5.0	7,642
Residence																					
Urban	98.0	45.1	29.8	22.0	84.2	22.4	73.9	33.9	63.8	40.0	7.6	82.1	57.0	19.2	18.9	31.8	97.3	45.2	61.0	5.1	19,163
Rural	98.4	51.3	31.9	18.8	58.9	10.9	71.7	31.4	63.1	32.1	7.3	72.7	45.5	19.3	12.5	13.2	96.0	47.8	51.1	4.7	22,658
Zone																					
North Central	98.6	37.0	32.4	13.6	70.3	13.6	61.0	27.8	65.2	26.1	4.0	84.6	32.6	15.6	11.8	15.7	93.3	46.4	46.7	4.5	5,891
North East	97.7	59.6	32.6	17.7	53.8	8.9	70.7	34.5	67.5	27.1	1.6	58.2	55.8	14.2	9.7	12.4	97.2	63.6	52.4	4.7	6,636
North West	99.3	65.0	27.5	29.5	46.6	11.3	70.1	34.4	59.5	36.0	2.9	67.5	62.0	25.9	13.3	13.1	96.0	52.7	52.7	4.8	12,225
South East	97.4	37.1	38.9	18.2	94.4	17.3	84.1	29.1	63.9	47.9	10.8	90.3	53.2	18.2	21.5	36.2	98.5	36.2	59.6	5.3	4,963
South South	96.8	28.5	35.2	14.3	96.5	22.7	80.9	24.9	62.2	43.5	32.1	90.5	34.1	15.1	19.0	27.7	98.1	31.7	60.3	5.1	4,840
South West	98.1	40.8	25.8	18.0	92.4	28.0	75.3	38.9	65.4	37.4	4.5	86.2	51.5	19.2	20.9	35.9	97.4	37.9	64.9	5.2	7,266
State																					
North Central																					
FCT-Abuja	96.8	24.0	21.4	17.3	83.3	9.3	40.6	17.8	71.1	25.6	1.0	89.7	37.4	5.9	11.5	23.9	98.7	40.3	35.2	4.1	319
Benue	98.8	51.9	65.7	7.8	81.3	17.4	64.1	26.0	94.0	44.1	5.4	98.3	33.0	12.7	18.9	16.0	99.8	42.4	74.5	5.5	1,354
Kogi	98.1	39.3	23.7	7.0	89.5	10.7	68.4	20.7	47.9	32.2	1.7	89.7	25.3	18.8	11.9	8.9	99.4	27.7	40.3	4.4	654
Kwara	98.6	38.4	15.9	22.5	79.4	14.1	77.1	38.7	59.3	24.8	1.3	91.8	57.5	30.8	13.3	23.2	97.2	61.2	52.4	4.7	684
Nasarawa	98.9	54.3	35.9	39.7	83.8	31.8	49.5	63.3	60.7	36.5	19.5	78.9	50.0	34.4	22.6	29.7	58.8	33.4	72.4	5.5	648
Niger	99.4	24.0	14.5	10.3	60.1	9.5	61.4	14.7	49.7	11.1	0.7	72.5	22.1	8.5	4.2	8.8	97.4	32.8	27.2	3.5	1,357
Plateau	98.0	23.4	29.4	4.9	33.1	3.6	53.1	25.2	63.6	10.4	0.2	75.1	19.7	6.6	3.8	12.0	92.7	88.2	19.7	3.4	875
North East																					
Adamawa	89.1	27.6	24.3	14.2	67.7	6.2	94.3	17.2	52.0	35.5	1.0	64.5	54.3	19.1	3.0	18.0	97.8	50.8	41.9	4.3	903
Bauchi	98.2	73.6	40.5	17.8	36.9	6.5	72.1	36.6	77.4	29.5	0.5	77.5	48.6	17.6	13.9	9.3	97.3	44.9	57.3	4.9	1,343
Borno	99.6	61.3	15.9	14.5	54.1	11.1	67.4	36.6	47.9	14.3	0.2	21.7	59.5	6.9	7.7	8.7	95.0	57.0	38.4	4.2	1,469
Gombe	99.6	70.9	50.2	30.8	42.9	6.3	83.0	32.1	76.4	29.3	2.0	77.2	47.9	8.9	5.9	10.3	99.3	83.9	64.7	5.2	717
Taraba	99.1	25.6	36.2	13.6	75.5	9.7	69.8	17.7	67.3	33.7	5.0	73.5	43.2	21.9	11.4	11.9	97.2	96.2	47.5	4.5	877
Yobe	98.9	81.8	37.0	19.3	52.6	11.6	50.9	54.3	85.2	27.7	2.0	54.5	72.7	13.0	13.1	17.2	98.0	66.2	66.7	5.2	1,327
North West																					
Jigawa	99.7	74.2	14.6	28.5	44.2	4.4	88.4	12.8	58.6	40.8	0.8	35.0	87.5	27.6	12.9	10.1	98.6	78.8	45.9	4.7	1,382
Kaduna	98.5	44.5	28.5	20.7	48.3	5.6	56.2	23.6	57.5	31.9	1.7	82.3	36.6	11.5	9.6	10.0	98.9	44.7	39.0	4.2	2,493
Kano	99.6	77.6	39.2	26.5	39.3	10.6	77.7	55.1	67.1	30.4	2.0	73.2	71.0	34.3	11.7	24.8	93.5	50.0	64.9	5.2	2,692
Katsina	99.5	75.7	37.7	26.9	39.4	4.7	48.2	36.7	68.0	36.7	2.6	75.0	62.8	36.5	15.3	6.3	97.7	83.3	52.5	4.7	2,283
Kebbi	99.9	77.9	5.5	36.0	81.0	44.6	89.0	29.0	46.3	46.1	3.7	66.8	53.2	6.7	12.1	12.1	99.7	12.2	72.7	5.6	1,136
Sokoto	98.9	45.2	20.3	56.8	53.9	13.0	76.0	37.7	52.1	60.0	9.6	34.6	63.1	47.9	23.1	13.2	94.8	42.7	59.2	5.1	910
Zamfara	99.3	52.7	22.0	33.4	38.8	12.3	79.4	33.8	50.7	24.0	4.7	72.1	70.6	17.5	14.2	10.9	87.6	35.3	39.1	4.5	1,328

Continued...

Table 11.15—*Continued*

Background characteristic	Foods made of grains, white tubers and roots, or other starchy foods	Food made from legumes	Food made from nuts and seeds	Milk, cheese, yogurt, other milk products	Meat, fish, poultry	Eggs	Dark green leafy vegetables	Fruits and vegetables rich in vitamin A[1]	Other vegetables	Other fruits	Insects and other small protein foods	Red palm oil	Oil and fat	Savoury and fried snacks	Sugary foods[2]	Sugar-sweetened beverages	Any condiments and seasonings	Any other beverages and foods[3]	Consumed ≥5 food groups[4]	Mean number of food groups	Number of women
South East																					
Abia	99.4	61.2	36.8	19.2	92.1	24.0	94.8	54.6	79.6	73.3	9.2	82.1	63.7	28.7	39.2	54.4	98.1	20.8	87.6	6.3	630
Anambra	97.6	22.7	13.2	4.7	94.4	3.4	73.2	9.4	52.4	39.3	0.4	90.2	57.4	2.7	3.9	34.1	99.3	2.1	31.9	4.1	1,477
Ebonyi	98.5	36.1	69.8	7.5	94.5	18.4	91.1	37.9	64.9	41.6	7.1	95.7	36.5	13.7	18.4	21.0	99.3	57.4	72.5	5.6	1,027
Enugu	94.9	53.3	62.0	41.6	94.6	41.4	89.3	43.6	77.5	61.4	39.7	94.3	54.2	46.1	43.2	49.9	96.9	72.5	70.1	6.6	880
Imo	96.9	29.5	25.3	28.5	95.5	10.8	81.6	19.9	57.5	38.6	5.2	86.3	56.5	14.0	20.3	31.0	98.4	43.0	60.4	4.8	948
South South																					
Akwa Ibom	94.3	29.2	30.7	17.9	94.8	20.8	86.5	28.5	53.8	46.7	49.7	92.2	17.1	14.0	23.6	22.7	97.9	36.1	53.0	5.0	948
Bayelsa	97.6	42.9	30.4	9.8	98.3	38.4	93.9	43.5	36.5	46.9	26.4	83.1	43.9	22.1	20.0	24.8	98.6	41.8	67.2	5.4	298
Cross River	97.4	33.0	34.9	19.1	96.4	32.8	83.9	37.2	38.9	51.1	13.1	77.2	41.7	29.3	33.5	27.4	95.0	33.1	58.2	5.2	574
Delta	99.0	30.7	42.5	14.3	97.1	24.4	67.2	25.7	70.8	32.3	7.1	96.0	49.7	4.2	8.9	21.2	99.5	16.4	62.4	5.0	931
Edo	94.0	31.3	29.7	7.2	94.0	9.6	65.7	16.3	55.2	34.7	0.4	87.8	38.3	9.1	17.4	27.8	97.7	26.1	48.5	4.4	555
Rivers	97.7	21.1	36.5	13.8	97.8	20.6	87.7	17.2	78.4	47.9	56.0	93.5	28.9	17.9	17.4	35.3	98.7	37.9	67.2	5.2	1,534
South West																					
Ekiti	98.4	63.0	56.0	16.4	90.5	26.4	80.1	46.1	62.8	56.8	8.7	96.5	39.1	32.3	30.3	33.2	98.0	57.5	71.1	6.0	475
Lagos	98.7	31.9	26.7	24.8	94.6	37.7	74.2	40.2	70.7	33.5	3.4	89.5	67.9	18.8	20.5	55.7	98.3	59.2	71.6	5.3	2,891
Ogun	96.2	27.9	16.3	17.5	80.7	15.0	72.4	11.0	87.2	24.0	1.7	78.9	25.3	11.5	30.7	21.9	97.4	16.2	44.9	4.5	927
Ondo	98.2	39.9	32.3	5.4	94.6	11.6	60.8	61.9	88.5	49.0	1.2	98.2	23.3	9.7	9.7	19.2	99.4	33.6	75.5	5.4	683
Osun	98.9	51.3	29.4	22.6	95.9	21.4	84.4	52.0	88.6	63.5	12.9	82.6	67.2	41.4	36.4	40.8	96.1	35.6	82.6	6.1	938
Oyo	97.7	54.0	13.9	7.5	92.9	29.8	78.8	32.0	12.4	24.2	3.0	76.7	42.2	10.2	6.4	9.1	95.0	4.4	44.3	4.4	1,352
Education																					
No education	98.9	58.8	28.7	22.0	47.1	8.7	70.8	33.2	60.0	27.1	3.0	65.0	52.1	19.2	8.0	8.8	95.7	49.8	48.3	4.6	14,603
Primary	97.8	45.5	34.3	15.3	73.4	12.1	72.3	30.1	62.2	33.7	8.0	82.8	42.0	17.4	12.9	17.3	96.9	46.9	52.1	4.8	6,039
Secondary	97.9	42.1	31.8	18.8	84.5	19.7	73.9	31.6	65.3	40.2	10.5	84.0	50.1	19.6	20.6	29.2	97.1	43.8	59.3	5.1	16,583
More than secondary	98.1	42.6	30.7	26.8	90.6	32.5	75.4	37.2	69.5	49.3	9.9	82.5	60.9	20.6	23.9	42.1	97.0	46.2	70.3	5.5	4,596
Wealth quintile																					
Lowest	99.0	59.9	32.7	23.2	41.1	7.4	74.6	33.2	62.3	27.0	3.6	61.8	52.6	20.3	9.1	7.2	95.7	54.2	48.9	4.6	7,222
Second	98.4	51.8	32.1	16.7	54.4	8.9	70.6	31.5	60.2	29.9	5.2	73.3	44.3	18.4	9.8	9.7	96.0	49.3	48.0	4.5	8,045
Middle	98.1	47.3	33.4	16.9	72.8	12.6	70.4	30.9	62.7	35.7	7.7	80.1	45.0	18.3	14.3	16.7	96.8	45.3	53.4	4.8	8,207
Fourth	97.9	45.7	29.4	20.0	84.3	18.9	71.9	33.2	62.3	38.4	9.5	83.2	51.4	19.6	18.6	27.8	96.9	43.8	58.2	5.0	8,990
Highest	98.0	40.4	27.9	24.3	91.7	29.7	76.0	33.7	68.9	44.9	10.1	83.5	59.5	19.5	23.2	42.0	97.3	42.4	66.8	5.4	9,357
Total	98.2	48.5	31.0	20.3	70.5	16.2	72.7	32.6	63.4	35.7	7.4	77.0	50.8	19.3	15.5	21.8	96.6	46.6	55.6	4.9	41,821

[1] Includes squash that is orange inside, pumpkin, carrot, red sweet pepper (tatase), sweet potato that is orange inside (orange flesh sweet potatoes), ripe pawpaw (gwanda/ibeppe/okwuru oru/bobo), ripe mangoes, ripe passion fruit, dorowa (locust bean fruit), red palm fruit, hog plum (tsadan gida, iyeye, ngulungu), ripe cantaloupe, musk melon, monkey cola (ndiya), and bush mango fruit
[2] Includes chocolates, candies, cakes, sweet biscuits, sweet pastries, and ice cream
[3] Includes coffee or tea if unsweetened, alcohol, clear broth, soup broth, olives, pickled cucumbers, herbal beverages/infusions (zobo), kunun aya, kunun dawa, water, kolanut, and bitter kola
[4] Women who consume foods from 5 or more of the following 10 food groups are considered to have a diet adequate in micronutrients: a) grains, white tubers and roots, or other starchy foods; b) legumes; c) nuts and seeds; d) milk, cheese, yogurt, other milk products; e) meat, fish, poultry; f) eggs; g) dark green leafy vegetables; h) fruits and vegetables rich in vitamin A; i) other vegetables; j) other fruits.

MALARIA 12

Key Findings

- ***Ownership of insecticide-treated nets:*** 61% of households own at least one insecticide-treated net (ITN).
- ***Use of ITNs:*** 65% of the de facto population in households with at least one ITN slept under an ITN the night before the survey.
- ***Intermittent preventive treatment (IPTp) during pregnancy:*** 17% of women age 15-49 with a live birth in the 2 years preceding the survey reported taking three or more doses of SP/Fansidar during their last pregnancy.
- ***Prevalence of severe anaemia:*** 8% of children age 6-59 months have with a haemoglobin level below 8 g/dl.
- ***Malaria prevalence in children:*** There has been a decrease in the prevalence of malaria among children since 2010, from 42% to 23%.
- ***Perceptions regarding malaria products:*** A high percentage (about 82% to 96%) of men and women believe in the effectiveness of malaria medicine.

Malaria, a preventable, treatable, and curable disease, is endemic in Nigeria and remains the foremost public health problem in the country, taking its greatest toll on children under age 5 and pregnant women. Africa still bears over 80% of the global malaria burden, of which Nigeria accounts for about 25% globally. It is estimated that approximately 57 million cases of malaria and nearly 100,000 malaria-related deaths occur each year (WHO 2018). The disease overburdens the already weakened health system and exerts a severe social and economic burden on the nation, retarding the gross domestic product (GDP) by 40% annually and costing approximately 480 billion naira in out-of-pocket treatments, prevention expenditures, and loss of man hours (Federal Ministry of Health 2014b). Nigeria's climatic conditions make it suitable for a perennial malaria transmission.

The National Malaria Policy, launched in February 2015, expresses the desire and commitment of the Government of Nigeria at all levels to ensure the elimination of malaria. The policy was conceived within the context of a malaria-free Nigeria and addresses core issues related to malaria prevention, diagnosis, and treatment; communication and social mobilisation; and regulations regarding antimalarial commodities. Its goal is to provide equitable, comprehensive, cost-effective, efficient, and quality malaria elimination services while ensuring transparency, accountability, client satisfaction, and community ownership and partnership (Federal Ministry of Health 2015b).

This chapter presents data that are useful in assessing how well malaria control strategies are being implemented, including the availability and use of mosquito nets, the prophylactic and therapeutic use of antimalarial drugs, diagnostic testing of children with fever, prevalence of anaemia and malaria among children under age 5, and beliefs among women and men regarding the effectiveness of malaria products and the consequences of the disease.

12.1 Ownership of Insecticide-treated Nets

Ownership of insecticide-treated nets

Households that have at least one insecticide-treated net (ITN). An ITN is defined as a factory-treated net that does not require any further treatment.

Sample: Households

Full household ITN coverage

Percentage of households with at least one ITN for every two people.

Sample: Households

Overall, 62% of households have at least one mosquito net, while 61% have at least one ITN. This implies that almost all mosquito nets owned by households in Nigeria are ITNs. The average number of ITNs per household is 1.3 (**Table 12.1**).

Thirty percent of households have at least one ITN for every two persons who stayed in the household the night preceding the survey. In other words, 30% of households own enough ITNs to cover all household members (**Table 12.1** and **Figure 12.1**). To offer maximum protection, ITN distribution needs to expand to reach the 39% of households that do not currently own any ITNs and to provide enough ITNs for the 31% of households that own at least one ITN but have an insufficient supply for the number of household members (**Figure 12.1**).

Trends: After increasing from 8% in the 2008 NDHS to 69% in the 2015 NMIS, ownership of ITNs dropped to 61% in 2018 (**Figure 12.2**).

Figure 12.1 **Household ownership of ITNs**

Percent distribution of households

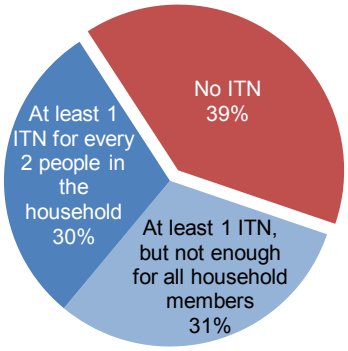
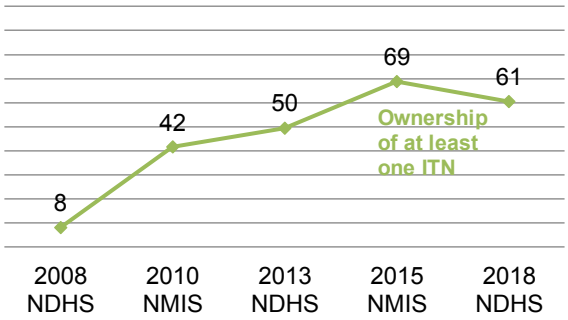


Figure 12.2 **Trends in household ownership of ITNs**

Percentage of households owning at least one insecticide-treated net (ITN)



Note: The definition of an ITN in surveys conducted prior to 2015 included nets that had been soaked with insecticides within the past 12 months.

Patterns by background characteristics

- Household ownership of ITNs in Nigeria is higher in rural (68%) than urban (53%) areas (**Table 12.1**).
- Household ownership of ITNs decreases with increasing wealth, from 73% in the lowest wealth quintile to 48% in the highest quintile (**Figure 12.3**).
- Household ownership of ITNs is highest in the North West (87%) and lowest in the South West (44%).
- Household ownership of an ITN is lowest in Lagos (29%) and highest in Jigawa and Kebbi (98% each). Almost all states in the North West have achieved the national target of 80% household ownership of ITNs (**Figure 12.4**).

Figure 12.3 **ITN ownership by household wealth**

Percentage of households with at least one insecticide-treated net (ITN)

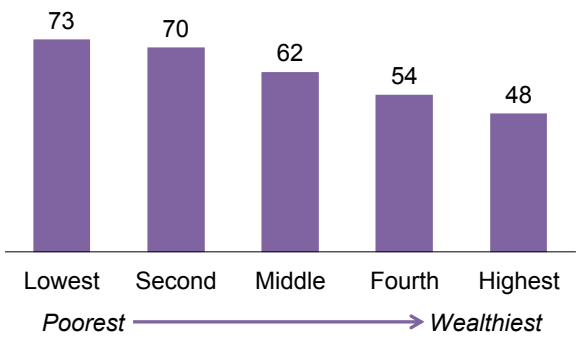
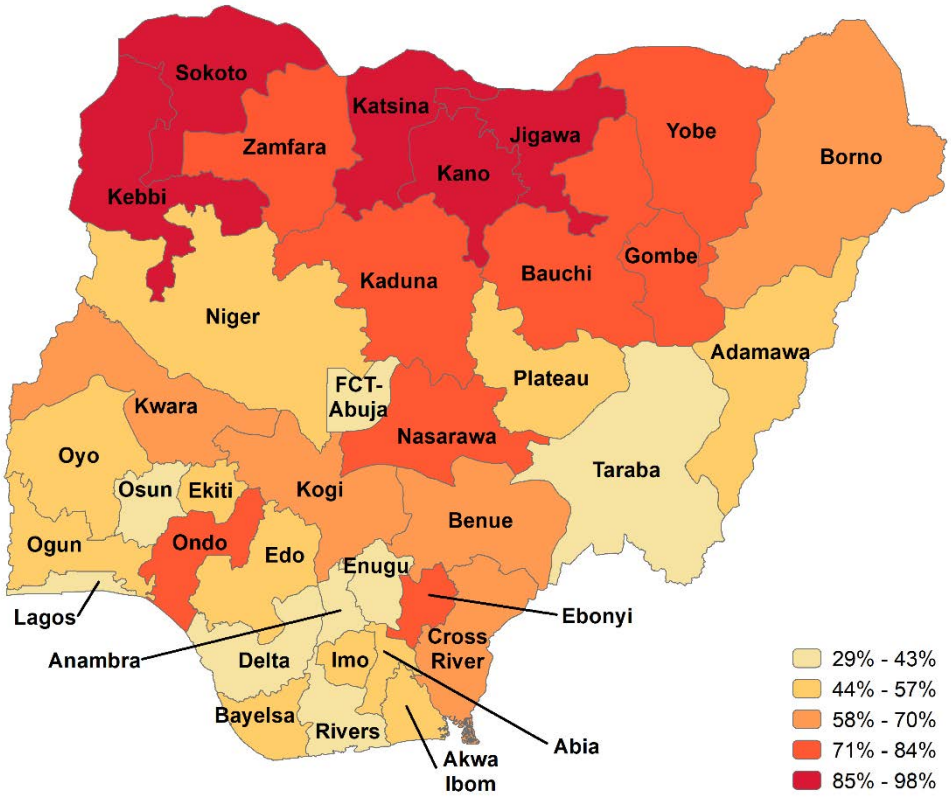


Figure 12.4 **ITN ownership by state**

Percentage of households with at least one insecticide-treated net (ITN)



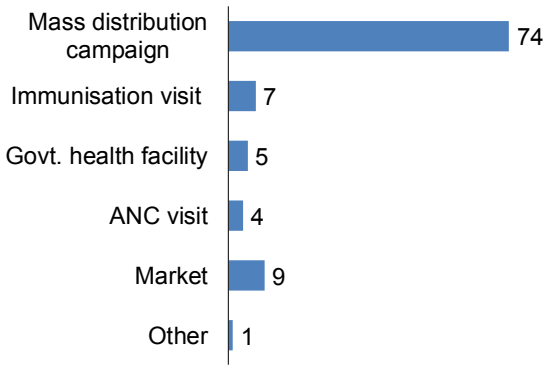
- The percentage of households owning at least one ITN for every two persons who stayed in the household the night preceding the survey is highest in Jigawa (68%) and lowest in Lagos (9%) (**Table 12.1**).

Source of Nets

About three quarters (74%) of ITNs in Nigerian households were obtained through mass distribution campaigns, while 7% were obtained during immunisation visits, 5% were obtained from government health facilities, and 4% were obtained during antenatal care visits (**Table 12.2** and **Figure 12.5**).

***Figure 12.5* Source of ITNs**

Percent distribution of insecticide-treated nets (ITNs) in interviewed households



Patterns by background characteristics

- Seventy-four percent of nets in rural areas and 69% in urban areas were obtained through mass distribution campaigns (**Table 12.2**).
- The percentage of households obtaining nets through mass campaigns was highest in Kebbi and Imo (97% each) and lowest in Enugu (22%).
- Eighty-five percent of mosquito nets obtained from a shop/market were classified as other nets (any nets that are not ITNs). The percentage of households obtaining nets in a shop/market was highest in Yobe (60%) and lowest in Ekiti and Osun (less than 1% each) (**Table 12.2**).

12.2 Household Access to and Use of ITNs

Access to an ITN

Percentage of the population that could sleep under an ITN if each ITN in the household were used by up to two people.

Sample: De facto household population

Use of ITNs

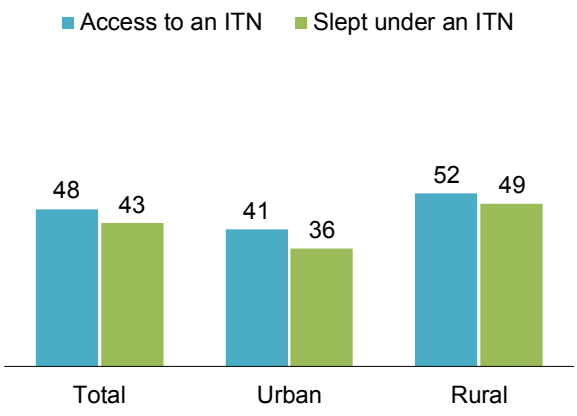
Percentage of the population that slept under an ITN the night before the survey.

Sample: De facto household population

Access to an ITN is measured by the proportion of the population that could sleep under an ITN if each ITN in the household were used by up to two people. Comparing ITN access and ITN use indicators can help programs identify if there is a behavioural gap in which available ITNs are not being used. If the difference between these indicators is substantial, the ITN program may need to focus on behaviour change and identify the main barriers to ITN use. This analysis helps ITN programs determine whether they need to achieve higher ITN coverage, promote ITN use, or both.

***Figure 12.6* Access to and use of ITNs by residence**

Percentage of the household population with access to an insecticide-treated net (ITN) and percentage that slept under an ITN the night before the survey



Nationally, 48% of de facto household members in Nigeria who stayed in the household the night before the survey could sleep inside an ITN if each ITN were used by up to two people (**Table 12.3**). The results showed that 43% of the population slept

under an ITN the night before the survey (**Table 12.5** and **Figure 12.6**). Comparing these two indicators, it is evident that there is only a small difference between ITN access and ITN use at the population level. Overall, 81% of ITNs were used the night before the survey (**Table 12.6**).

Patterns by background characteristics

- Access to ITNs is higher in rural areas (52%) than in urban areas (41%) (**Table 12.4**).
- The percentage of household residents with access to an ITN ranges from 38% among those in the highest wealth quintile to 55% among those in the lowest quintile.
- ITN access among the de facto population ranges from a high of 65% in the North West to a low of 35% in the South West.
- Rural residents (49%) are more likely than urban residents (36%) to have slept under an ITN the night before the survey (**Table 12.5**).
- The difference between ITN access and ITN use is slightly higher among urban residents (5 percentage points) than rural residents (3 percentage points) (**Figure 12.6**).
- The percentage of the household population that slept under an ITN the night before the survey is highest in Jigawa (87%) and lowest in Lagos (13%) (**Table 12.5**).
- Use of ITNs decreases with increasing household wealth (**Table 12.5**). Use of existing ITNs is more common in households in the lowest wealth quintile (90%) than in households in the highest quintile (68%) (**Table 12.6**).

12.3 Use of ITNs by Children and Pregnant Women

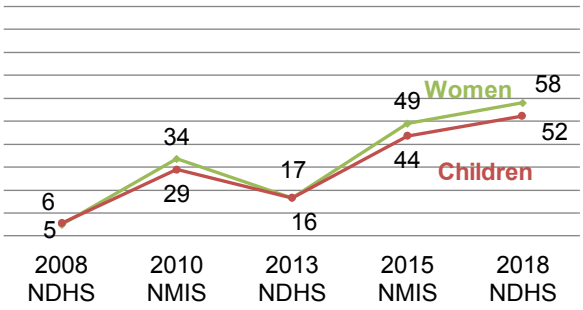
Use of ITNs by Children

Over half (52%) of children less than age 5 slept under an ITN the night before the survey. The percentage of children who slept under an ITN decreases with increasing age, from 57% among those less than age 12 months to 48% among those age 48-59 months (**Table 12.7**). Fifty-eight percent of pregnant women slept under an ITN the night before the survey (**Table 12.8**).

Trends: Use of ITNs among children under age 5 has increased over the past 10 years, from 5% in 2008 to 52% in 2018. Similarly, use of ITNs by pregnant women has increased from 6% to 58% (**Figure 12.7**).

Figure 12.7 **Trends in use of ITNs by pregnant women and children**

Percentage who slept under an insecticide-treated net (ITN)



Note: The definition of an ITN in surveys conducted prior to 2015 included nets that had been soaked with insecticides within the past 12 months.

Patterns by background characteristics

- A higher percentage of children in rural (57%) than urban (45%) areas slept under an ITN the night before the survey (**Table 12.7**). A similar pattern was observed among pregnant women (65% and 45%, respectively) (**Table 12.8**).
- The proportions of children under age 5 and pregnant women who slept under an ITN the night before the survey are highest in the North West (73% and 79%, respectively) and lowest in the South South (34% and 29%, respectively).

- Children under age 5 and pregnant women from households in the lowest wealth quintile (60% and 68%, respectively) were more likely to sleep under an ITN the night before the survey than those from the highest wealth quintile (40% and 38%, respectively) (**Table 12.8**).

12.4 Reasons for Not Using the Net the Night Preceding the Interview

Table 12.9 presents reasons given by respondents for not sleeping under a mosquito net the night before the survey. This information is important to the National Malaria Elimination Programme (NMEP) for identifying barriers to net usage. Overall, 19% of mosquito nets were not used the night before the survey.

The main reasons given for not using a mosquito net the night before the survey were that the net was not needed (29%), there were no mosquitos (15%), and it was too hot (14%).

Seven percent of respondents reported not using a net because they thought that the chemicals used in ITNs are unsafe. By zone, this reason was most often reported by respondents in the North West (27%) (**Table 12.9**).

The percentage of respondents reporting that mosquito nets were not used because they were not needed ranged from 3% each in Adamawa and Plateau to 70% in Sokoto (**Table 12.9**).

12.5 Malaria in Pregnancy

Intermittent preventive treatment (IPTp) during pregnancy

Percentage of women who took at least three doses of SP/Fansidar during their last pregnancy.

Sample: Women age 15-49 with a live birth in the 2 years before the survey

Malaria infection during pregnancy is a major public health problem in Nigeria, with substantial risks for the mother, her foetus, and the neonate. Intermittent preventive treatment of malaria in pregnancy (IPTp) is a full therapeutic course of antimalarial medicine given to pregnant women at routine antenatal care visits to prevent malaria. IPTp helps prevent maternal malaria episodes, maternal and foetal anaemia, placental parasitaemia, low birth weight, and neonatal mortality.

The World Health Organization (WHO) recommends a three-pronged approach for reducing the negative health effects associated with malaria in pregnancy: prompt diagnosis and treatment of confirmed infections, use of long-lasting insecticidal nets (LLINs), and IPTp (WHO 2004).

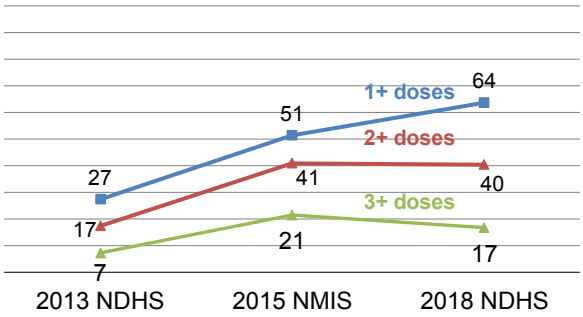
Sulfadoxine-pyrimethamine (SP), sold under the brand name Fansidar, is the recommended medicine for IPTp in Nigeria. For more than 10 years, the Federal Ministry of Health has been implementing IPTp, defined as provision of at least two doses of SP/Fansidar to protect the mother and her child from malaria during routine antenatal care visits in the second and third trimesters of pregnancy (IPTp2+). In 2014, the National Malaria Elimination Programme adopted the 2012 WHO recommendation to administer one dose of SP/Fansidar at each antenatal care (ANC) visit after the first trimester, with at least 1 month between doses (Federal Ministry of Health 2014c). The household survey indicator used to measure coverage of this intervention is the percentage of women with a live birth in the 2 years preceding the survey who received three or more doses of SP/Fansidar to prevent malaria during their most recent pregnancy (IPTp3+).

Sixty-four percent (64%) of women with a live birth in the 2 years preceding the survey reported having taken one or more doses of SP/Fansidar; 40% reported taking two or more doses, and 17% reported taking three or more doses (**Table 12.10**).

Trends: The percentage of pregnant women who reported taking one or more doses of SP/Fansidar has increased since 2013, from 27% to 64%. There have also been increases in the percentage of women taking two or more doses (from 17% to 40%) and three or more doses (from 7% to 17%) (**Figure 12.8**).

Figure 12.8 **Trends in IPTp use by pregnant women**

Percentage of women with a live birth in the 2 years before the survey who received at least 1, 2, or 3 doses of SP/Fansidar



Patterns by background characteristics

- The proportion of women with a live birth in the 2 years preceding the survey who received three or more doses of SP/Fansidar is higher in urban areas (21%) than in rural areas (14%) (**Table 12.10**).
- Thirty-eight percent of women in the South East received three or more doses of SP/Fansidar, as compared with 11% of women in the North West.
- The percentage of women receiving SP/Fansidar (one or more, two or more, or three or more doses) generally increases with increasing education and wealth (**Table 12.10**).

12.6 Case Management of Malaria in Children

Care seeking for children under age 5 with a fever

Percentage of children under age 5 with a fever in the 2 weeks before the survey for whom advice or treatment was sought from a health provider, a health facility, or a pharmacy.

Sample: Children under 5 with a fever in the 2 weeks before the survey

Diagnosis of malaria in children under age 5 with a fever

Percentage of children under age 5 with a fever in the 2 weeks before the survey who had blood taken from a finger or heel for testing. Fever or history of fever is an entry point for parasitological testing for malaria.

Sample: Children under age 5 with a fever in the 2 weeks before the survey

Artemisinin-based combination therapy (ACT) for children under age 5 with a fever

Among children under age 5 with a fever in the 2 weeks before the survey who took any antimalarial drugs, the percentage who received artemisinin-based combination therapy (ACT).

Sample: Children under age 5 with a fever in the 2 weeks before the survey

Almost a quarter (24%) of children under age 5 had a fever in the 2 weeks preceding the survey (**Table 12.11**). Advice or treatment was sought for 73% of these children, and 14% had blood taken from a finger or heel for testing.

Patterns by background characteristics

- The prevalence of fever among children under age 5 is higher (28%) in rural areas than in urban areas (19%) (**Table 12.11**).
- The percentage of children with a fever in the 2 weeks preceding the survey ranges from a high of 35% in the North East to a low of 9% in the South West.

- The proportion of children with a fever in the past 2 weeks is highest among those whose mothers have no education (29%) and lowest among those whose mothers have more than a secondary education (14%) (**Table 12.11**).

- Children of mothers with more than a secondary education (24%) are more likely than children of mothers with no education (11%) to have had blood taken from their finger or heel for testing.

Source of Advice or Treatment for Children with Fever

Among children with a fever for whom advice or treatment was sought, 58% received advice or treatment from a private sector source, while 37% received advice or treatment from a public sector source (**Table 12.12**). Chemists/patent medicine stores (47%) and pharmacies (7%) were the most prominent private sector sources of care, while government health centres (18%) and government hospitals (10%) were the primary sources in the public sector.

Type of Antimalarial Drugs Used

Among children who were given antimalarial medicines, more than one in two (52%) were given artemisinin-based combination therapy (ACT) (**Table 12.13**); 17% received chloroquine, 8% received artesunate injections, 7% were given SP/Fansidar, and 6% received quinine injections. The percentage of children receiving ACT for fever has increased since 2013 (from 18% to 52%).

Patterns by background characteristics

- Use of ACT for treatment of fever was most common in the South East (77%) and least common in the North East (42%).

- The percentage of children receiving ACT is highest among those whose mothers have more than a secondary education (61%) and lowest among those whose mothers have no education (49%).

- Similarly, the percentage of children receiving ACT is highest among those from households in the highest wealth quintile (61%) and lowest among those from households in the lowest quintile (47%).

12.7 Prevalence of Low Haemoglobin in Children

Prevalence of low haemoglobin in children

Percentage of children age 6-59 months who had a haemoglobin measurement of less than 8 grams per decilitre (g/dl) of blood. The cut-off of 8 g/dl is often used to classify malaria-related anaemia.

Sample: Children age 6-59 months

Anaemia, defined as a reduced level of haemoglobin in the blood, decreases the amount of oxygen reaching the tissues and organs of the body and reduces their capacity to function. Anaemia is associated with impaired motor and cognitive development in children. The main causes of anaemia in children are malaria and inadequate intake of iron, folate, vitamin B12, and other nutrients. Other causes of anaemia include intestinal worms, haemoglobinopathy, and sickle cell disease. Although anaemia is not specific to malaria, trends in anaemia prevalence can reflect malaria morbidity, and they respond to changes in the coverage of malaria interventions (Korenromp et al. 2004).

Children age 6-59 months in one-third of the households selected for the man's survey were tested for anaemia using the battery-operated portable HemoCue analyser to measure the prevalence of low haemoglobin. Of the total children eligible, 97% were successfully tested for anaemia (**Table 12.14**). Results of the tests were given to the mothers or caregivers of the children. Mothers of children whose

results indicated anaemia were counselled and referred to nearby health centres. The percentage of severe anaemia (<8.0 g/dl) among children age 6-59 months was 8% (**Table 12.15**).

Patterns by background characteristics

- The prevalence of severe anaemia (haemoglobin <8.0 g/dl) is highest among children age 6-8 months (10%) and lowest among children age 48-59 months (5%) (**Table 12.15**).
- The percentage of children with severe anaemia is highest among those whose mothers have no education (11%) and lowest among those whose mothers have more than a secondary education (1%).
- By wealth quintile, severe anaemia ranges from a high of 14% among children in the lowest quintile to a low of 2% among children in the highest quintile.

12.8 Prevalence of Malaria in Children

Malaria prevalence in children

Percentage of children age 6-59 months classified as infected with malaria according to microscopy results.

Sample: Children age 6-59 months

Children age 6-59 months in one-third of the households selected for the man's survey were tested for malaria via rapid diagnostic tests (RDTs) (see **Figure 1.1** in Chapter 1). Three-fourths (75%) of the samples from these households were tested through microscopy. Of the total eligible children, 97% were successfully tested for malaria via RDTs and 96% were tested through microscopy (**Table 12.14**).

In the field, laboratory scientists used the SD Bioline Ag P.f. (HRP-II)™ RDT to determine whether children had malaria; blood was obtained from finger- or heel-prick samples. Children with positive RDT results were offered antimalarial treatment according to the Nigeria malaria treatment protocol. In addition, thick smears from each child's blood were made in the field, dried in a dust-free environment, stored in slide boxes, and transported within 7 days to one of 19 (two states per cluster) laboratories for staining; they were then transported to the ANDI Centre of Excellence for Malaria Diagnosis (Department of Medical Microbiology and Parasitology, Lagos University Teaching Hospital, Idi-Araba, Lagos State) for confirmatory microscopy diagnosis. Twenty percent of primarily read slides were taken to the University of Calabar Teaching Hospital for quality control assessment. There was 98% agreement on the results between the primary laboratory and external quality control.

Table 12.16 presents the results of malaria testing among children age 6-59 months according to RDT and microscopy. About a quarter (23%) of children were reported to have tested positive for malaria by microscopy, while 36% tested positive by RDT (**Table 12.16**). The 2018 NDHS was conducted between mid-August and December 2018, at the peak of malaria season. Normally, a spike in malaria cases in Nigeria occurs after the end of the rainy season during these months. The 2010 NMIS (October to December 2010) and the 2015 NMIS (October to November 2015) were conducted during a similar period when malaria transmission was at its peak (National Population Commission, National Malaria Elimination Programme, and ICF 2016).

Figure 12.9 **Trends in malaria prevalence among children**

Percentage of children age 6-59 months who tested positive for malaria by microscopy

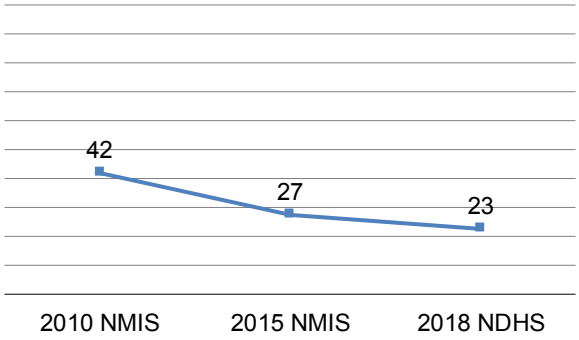
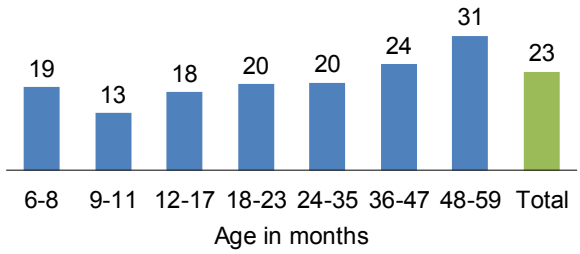


Figure 12.10 **Prevalence of malaria in children by age**

Percentage of children age 6-59 months who tested positive for malaria by microscopy



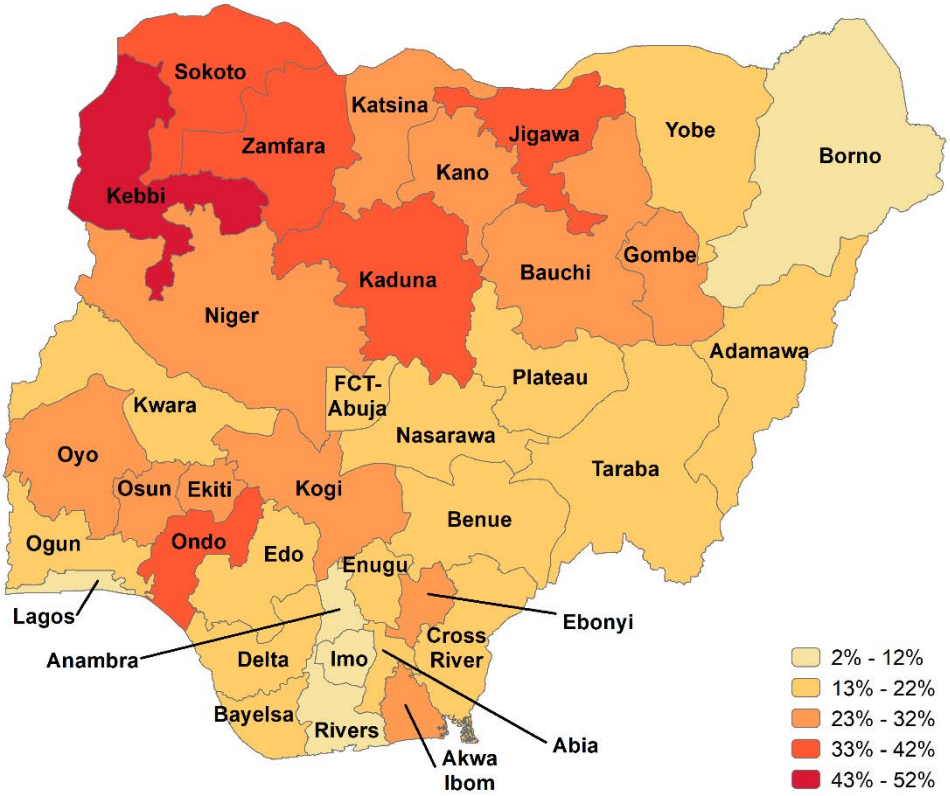
Trends: The prevalence of malaria (according to microscopy) among children age 6-59 months declined from 42% in 2010 to 23% in 2018, with an average decline of 2.3% per annum (**Figure 12.9**).

Patterns by background characteristics

- The percentage of children with malaria (according to microscopy) ranges from 13% among those age 9-11 months to 31% among those age 48-59 months (**Figure 12.10**).

Figure 12.11 **Prevalence of malaria in children by state**

Percentage of children age 6-59 months who tested positive for malaria by microscopy



- Malaria prevalence among children decreases with increasing mother's education and household wealth (**Table 12.16)**.
- The prevalence of malaria among children is highest in Kebbi (52%) and lowest in Lagos (2%) (**Figure 12.11**).

Malaria Prevalence and Fever among Children

The practice of treating most fever cases as malaria without laboratory confirmation has been documented in various studies in Nigeria (National Population Commission, National Malaria Elimination Programme, and ICF 2012). Therefore, improving and scaling up laboratory diagnosis capacity to ensure confirmation of malaria cases before treatment is one of the strategic thrusts of the National Malaria Elimination Programme (Federal Ministry of Health 2014b). Nigeria updated its National Guidelines for Diagnosis and Treatment for Malaria in line with the World Health Organization recommendation that all suspected malaria cases be confirmed by either RDT or microscopy (Federal Ministry of Health 2011). Therefore, it is critical to have information on the proportion of children reported as having a fever who are actually diagnosed with malaria.

Table 12.17 shows the proportion of positive RDT and microscopy test results among children age 6-59 months reported to have had a fever within the 2 weeks before the survey, by background characteristics. Forty-eight percent of children with a fever in the last 2 weeks had positive RDT results, while 29% had positive microscopy results.

12.9 Beliefs about the Effectiveness of Malaria Behaviours and Products and about Malaria Consequences

Beliefs about the effectiveness of recommended malaria behaviours and products

Percentage of women age 15-49 with a live birth in the 5 years preceding the survey who agree with specified statements regarding malaria behaviours and products.

Sample: Women age 15-49

Beliefs about the effectiveness of recommended malaria behaviours and products

Percentage of men age 15-49 who are married or cohabiting and have at least one child under age 5 who agree with specified statements regarding malaria behaviours and products.

Sample: Men age 15-49

Beliefs about the consequences of malaria

Percentage of women age 15-49 with a live birth in the 5 years preceding the survey who agree with specified statements regarding malaria consequences.

Sample: Women age 15-49

Beliefs about the consequences of malaria

Percentage of men age 15-49 who are married or cohabiting and have at least one child under age 5 who agree with specified statements regarding malaria consequences.

Sample: Men age 15-49

Measuring attitudes and behaviours regarding malaria and malaria commodities and services at the population level can inform advocacy, communication, and social mobilisation strategies. It can also

improve data-driven programming of the malaria national response through robust data referencing and guide the Government of Nigeria and development partners in designing effective social and behaviour change communication (SBCC) strategies for specific contexts. Respondents were asked about their perceptions of the effectiveness of malaria intervention strategies (IPTp, RDT, and ACT) and the consequences of the disease. The results will stand as a baseline for subsequent survey findings.

Beliefs about the Effectiveness of Recommended Malaria Behaviours and Products

Ninety-six percent of women and 89% of men age 15-49 agree that medicine given to pregnant women to prevent malaria works well to keep the mother and the baby healthy (**Table 12.18.1** and **Table 12.18.2**). Eighty-three percent of women and 75% of men agree that taking a malaria test is the only way to know if someone really has malaria or not. Similarly, 42% of women and 54% of men agree that even if a malaria test shows that a fever is not caused by malaria, they will still seek out treatment for malaria because they do not trust the test result. Ninety percent of women and 82% of men agree that when the entire course of malaria medicine is taken, the disease will be fully cured (**Table 12.18.1** and **Table 12.18.2**).

Beliefs about the Consequences of Malaria

Two-thirds (66%) of women and three-fourths (75%) of men agree that every case of malaria can potentially lead to death (**Table 12.19.1** and **Table 12.19.2**). Forty-six percent of both women and men agree that malaria can be easily treated. Approximately 7 in 10 women and men agree that they know people who have become dangerously sick with malaria. About one-third of women and men agree that only weak children can die of malaria (**Table 12.19.1** and **Table 12.19.2**).

LIST OF TABLES

For more information on malaria, see the following tables:

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- **Table 12.2 Source of mosquito nets**
- **Table 12.3 Access to an insecticide-treated net (ITN)**
- **Table 12.4 Access to an ITN by background characteristics**
- **Table 12.5 Use of mosquito nets by persons in the household**
- **Table 12.6 Use of existing ITNs**
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- **Table 12.8 Use of mosquito nets by pregnant women**
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- **Table 12.10 Use of intermittent preventive treatment (IPTp) by women during pregnancy**
- **Table 12.11 Prevalence, diagnosis, and prompt treatment of children with fever**
- **Table 12.12 Source of advice or treatment for children with fever**
- **Table 12.13 Type of antimalarial drugs used**
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- **Table 12.18.1 Beliefs about the effectiveness of the recommended malaria behaviours and products: Women**
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- **Table 12.19.1 Beliefs about the consequences of malaria: Women**
- **Table 12.19.2 Beliefs about the consequences of malaria: Men**

Table 12.1 Household possession of mosquito nets

Percentage of households with at least one mosquito net (treated or untreated) and one insecticide-treated net (ITN), average number of nets and ITNs per household, and percentage of households with at least one net and ITN per two persons who stayed in the household last night, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage of households with at least one mosquito net		Average number of nets per household		Number of households	Percentage of households with at least one net for every two persons who stayed in the household last night		Number of households with at least one person who stayed in the household last night
	Any mosquito net	Insecticide-treated mosquito net (ITN)[1]	Any mosquito net	Insecticide-treated mosquito net (ITN)[1]		Any mosquito net	Insecticide-treated mosquito net (ITN)[1]	
Residence								
Urban	54.1	52.8	1.1	1.1	18,940	26.4	25.6	18,916
Rural	68.3	67.5	1.5	1.5	21,487	34.1	33.5	21,452
Zone								
North Central	59.0	58.3	1.1	1.1	5,697	28.9	28.4	5,692
North East	68.6	67.3	1.5	1.5	5,694	29.7	28.7	5,692
North West	88.2	87.3	2.2	2.2	9,841	43.6	42.8	9,829
South East	48.2	47.9	1.0	1.0	4,752	24.9	24.8	4,736
South South	46.6	45.8	0.8	0.8	5,729	25.0	24.3	5,711
South West	46.0	44.4	0.8	0.7	8,714	23.9	23.0	8,707
State								
North Central								
FCT-Abuja	40.0	39.5	0.6	0.6	287	14.1	14.1	287
Benue	65.2	64.1	1.2	1.2	1,230	29.5	28.5	1,229
Kogi	68.9	68.5	1.3	1.3	707	44.3	44.0	706
Kwara	66.0	65.5	1.4	1.4	771	37.7	37.5	771
Nasarawa	77.5	76.6	1.8	1.8	591	45.6	45.2	591
Niger	47.2	46.9	0.8	0.8	1,229	16.6	16.4	1,229
Plateau	46.4	45.5	0.8	0.8	883	18.6	18.0	880
North East								
Adamawa	49.3	47.7	1.3	1.3	908	34.7	32.7	908
Bauchi	85.1	84.3	1.9	1.9	1,146	31.5	31.0	1,146
Borno	70.4	68.3	1.3	1.3	1,271	32.2	30.8	1,271
Gombe	75.3	74.2	1.8	1.8	550	28.9	28.5	550
Taraba	40.2	40.1	0.7	0.7	720	13.1	13.1	717
Yobe	80.5	79.2	1.9	1.8	1,100	32.3	31.0	1,100
North West								
Jigawa	98.7	98.0	3.1	3.1	1,134	68.9	68.2	1,133
Kaduna	80.4	79.3	1.6	1.5	1,950	29.3	28.4	1,950
Kano	86.9	85.2	2.3	2.2	2,153	42.5	40.6	2,150
Katsina	92.0	91.8	2.7	2.7	1,820	51.6	51.6	1,820
Kebbi	98.1	98.1	2.6	2.6	910	51.9	51.9	910
Sokoto	88.2	86.6	1.9	1.9	843	40.9	39.6	836
Zamfara	78.3	77.9	1.6	1.6	1,030	25.4	25.4	1,030
South East								
Abia	45.5	45.4	0.8	0.8	664	22.9	22.9	661
Anambra	33.0	32.8	0.6	0.6	1,391	13.5	13.5	1,390
Ebonyi	75.7	75.7	1.7	1.7	852	38.5	38.4	850
Enugu	39.3	38.3	0.6	0.6	870	18.2	17.6	870
Imo	55.7	55.4	1.4	1.4	974	37.0	36.9	965
South South								
Akwa Ibom	56.2	55.8	1.2	1.2	1,048	33.2	32.9	1,045
Bayelsa	47.2	47.2	0.8	0.8	404	26.7	26.7	404
Cross River	57.8	57.5	0.8	0.8	739	32.4	32.3	729
Delta	41.5	38.5	0.6	0.6	1,271	20.3	17.6	1,271
Edo	57.0	57.0	1.2	1.2	710	37.2	37.2	710
Rivers	33.9	33.9	0.5	0.5	1,556	13.8	13.7	1,552
South West								
Ekiti	45.3	45.3	0.7	0.7	629	23.1	23.1	628
Lagos	33.4	29.3	0.5	0.4	2,971	11.0	9.2	2,970
Ogun	49.5	47.9	0.9	0.9	1,251	30.7	29.6	1,248
Ondo	80.0	79.8	1.6	1.6	844	54.9	54.7	843
Osun	42.1	42.1	0.6	0.6	1,219	16.9	16.9	1,217
Oyo	51.5	51.4	0.8	0.8	1,801	30.7	30.6	1,801
Wealth quintile								
Lowest	73.9	73.2	1.7	1.7	6,912	34.9	34.3	6,905
Second	71.1	70.4	1.6	1.5	7,499	35.3	34.8	7,489
Middle	62.8	62.1	1.3	1.3	8,273	31.9	31.2	8,253
Fourth	55.0	54.2	1.1	1.1	8,676	27.4	26.9	8,671
Highest	49.7	47.8	1.0	0.9	9,068	24.8	23.7	9,050
Total	61.6	60.6	1.3	1.3	40,427	30.5	29.8	40,369

[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In the 2008 NDHS, 2010 NMIS, 2013 NDHS, and 2015 NMIS, this was known as a long-lasting insecticidal net (LLIN).

Table 12.2 Source of mosquito nets

Percent distribution of mosquito nets by source of net, according to background characteristics, Nigeria DHS 2018

Background characteristic	Mass distri-bution campaign	ANC visit	Immu-nisation visit	Govern-ment health facility	Private health facility	Phar-macy	Shop/ market	Com-munity health worker	Religious insti-tution	School	Other	Don't know/ missing	Total	Number of mosquito nets
Type of net														
ITN[1]	73.5	3.8	7.1	5.0	0.1	0.2	9.4	0.2	0.0	0.1	0.6	0.0	100.0	52,354
Other[2]	0.0	0.0	0.0	0.0	0.0	1.7	85.1	1.3	0.7	0.5	9.8	0.8	100.0	912
Residence														
Urban	69.3	4.2	7.3	4.0	0.1	0.4	12.9	0.3	0.1	0.2	1.2	0.1	100.0	20,487
Rural	74.1	3.5	6.8	5.5	0.1	0.1	9.3	0.1	0.0	0.0	0.5	0.0	100.0	32,779
Zone														
North Central	62.9	2.8	13.3	10.1	0.1	0.3	9.3	0.2	0.0	0.0	1.0	0.0	100.0	6,441
North East	59.0	3.2	9.9	1.4	0.0	0.0	25.0	0.2	0.0	0.5	0.7	0.0	100.0	8,644
North West	77.2	4.4	2.9	4.4	0.0	0.1	10.2	0.2	0.0	0.0	0.5	0.0	100.0	22,084
South East	74.0	4.3	18.3	0.3	0.2	0.0	1.6	0.2	0.0	0.0	0.7	0.2	100.0	4,797
South South	77.5	4.4	6.4	3.4	0.4	0.1	6.2	0.0	0.1	0.1	1.3	0.0	100.0	4,687
South West	77.1	2.4	2.8	10.4	0.1	1.1	4.4	0.0	0.2	0.1	1.2	0.2	100.0	6,612
State														
North Central														
FCT-Abuja	28.3	6.1	17.0	0.2	0.2	0.4	43.1	0.0	1.4	0.0	3.4	0.0	100.0	176
Benue	44.2	3.0	47.8	0.9	0.4	0.0	3.5	0.0	0.0	0.0	0.3	0.0	100.0	1,445
Kogi	94.5	1.8	0.3	0.1	0.0	0.0	2.8	0.0	0.0	0.0	0.5	0.0	100.0	948
Kwara	82.0	1.7	9.4	0.0	0.0	0.1	6.3	0.0	0.0	0.0	0.6	0.1	100.0	1,052
Nasarawa	36.4	1.6	0.4	58.6	0.0	0.0	2.6	0.0	0.0	0.0	0.4	0.0	100.0	1,060
Niger	57.2	5.5	2.0	1.3	0.0	0.3	29.7	1.3	0.0	0.1	2.6	0.0	100.0	1,029
Plateau	86.3	2.4	1.6	0.2	0.0	1.6	6.5	0.0	0.0	0.0	1.3	0.0	100.0	732
North East														
Adamawa	92.9	1.3	0.2	0.0	0.0	0.0	4.8	0.1	0.0	0.1	0.7	0.0	100.0	1,191
Bauchi	86.2	4.1	2.5	0.4	0.0	0.0	6.3	0.1	0.0	0.0	0.5	0.0	100.0	2,206
Borno	22.6	0.7	43.7	6.8	0.2	0.0	21.9	1.0	0.1	2.4	0.6	0.0	100.0	1,674
Gombe	85.7	2.1	0.1	0.0	0.0	0.0	11.3	0.0	0.0	0.0	0.8	0.0	100.0	983
Taraba	41.5	8.1	2.9	0.1	0.0	0.0	46.7	0.0	0.0	0.0	0.5	0.1	100.0	524
Yobe	31.8	4.8	2.2	0.0	0.0	0.0	60.2	0.0	0.0	0.0	0.9	0.0	100.0	2,066
North West														
Jigawa	70.1	1.9	9.9	10.7	0.0	0.2	6.6	0.5	0.0	0.0	0.1	0.0	100.0	3,564
Kaduna	72.2	4.0	1.7	15.0	0.0	0.0	6.1	0.3	0.0	0.0	0.7	0.0	100.0	3,052
Kano	61.3	7.3	2.4	1.3	0.0	0.2	26.3	0.0	0.0	0.0	1.2	0.0	100.0	4,848
Katsina	84.7	7.9	2.2	0.4	0.0	0.0	4.5	0.0	0.0	0.0	0.2	0.0	100.0	4,981
Kebbi	96.7	0.2	0.1	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.3	0.0	100.0	2,355
Sokoto	91.6	0.6	0.0	3.5	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	100.0	1,613
Zamfara	84.1	1.9	0.2	0.3	0.0	0.0	12.4	0.9	0.0	0.0	0.2	0.0	100.0	1,672
South East														
Abia	40.1	0.2	58.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.1	0.0	100.0	540
Anambra	75.0	5.4	15.6	0.0	0.0	0.0	2.1	0.5	0.0	0.0	1.4	0.0	100.0	847
Ebonyi	84.0	6.3	7.1	0.4	0.6	0.0	1.1	0.4	0.0	0.0	0.1	0.0	100.0	1,465
Enugu	22.0	8.5	57.7	1.8	0.2	0.0	5.2	0.2	0.0	0.0	2.7	1.8	100.0	565
Imo	97.4	1.5	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.4	0.1	100.0	1,381
South South														
Akwa Ibom	90.0	1.2	6.0	1.0	0.2	0.0	0.5	0.0	0.0	0.4	0.8	0.0	100.0	1,216
Bayelsa	87.8	3.7	5.9	0.3	0.0	0.2	1.4	0.0	0.0	0.0	0.7	0.0	100.0	322
Cross River	71.0	4.3	2.8	17.5	2.7	0.0	0.6	0.3	0.0	0.0	0.9	0.0	100.0	619
Delta	43.7	6.7	21.4	0.0	0.0	0.2	25.4	0.0	0.0	0.0	2.7	0.0	100.0	823
Edo	95.0	1.0	0.6	0.5	0.0	0.3	0.8	0.0	0.0	0.0	1.8	0.0	100.0	871
Rivers	75.3	10.7	1.2	4.2	0.1	0.0	7.3	0.0	0.7	0.0	0.4	0.0	100.0	834
South West														
Ekiti	92.3	1.8	5.4	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.1	0.0	100.0	431
Lagos	62.1	7.2	6.7	0.8	0.0	3.2	17.8	0.0	0.4	0.2	1.0	0.7	100.0	1,483
Ogun	90.7	0.7	0.1	1.9	0.0	2.5	0.7	0.1	0.1	0.1	3.0	0.0	100.0	1,096
Ondo	48.9	1.7	0.2	47.3	0.1	0.0	0.8	0.0	0.2	0.1	0.7	0.2	100.0	1,386
Osun	96.1	0.1	3.4	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	100.0	731
Oyo	94.6	0.8	2.2	0.0	0.2	0.0	0.6	0.1	0.0	0.0	1.5	0.0	100.0	1,486
Wealth quintile														
Lowest	75.3	2.8	4.6	3.0	0.0	0.0	13.7	0.2	0.0	0.0	0.4	0.0	100.0	11,853
Second	74.9	3.8	6.6	5.4	0.0	0.1	8.5	0.1	0.0	0.0	0.4	0.1	100.0	11,628
Middle	71.0	4.5	8.4	6.6	0.1	0.1	8.3	0.1	0.0	0.1	0.7	0.0	100.0	11,020
Fourth	71.3	3.8	8.0	5.7	0.2	0.2	9.5	0.2	0.1	0.3	0.7	0.0	100.0	9,869
Highest	67.3	4.2	7.7	3.9	0.2	0.9	13.6	0.3	0.1	0.0	1.7	0.2	100.0	8,897
Total	72.3	3.8	7.0	4.9	0.1	0.2	10.7	0.2	0.0	0.1	0.7	0.0	100.0	53,266

ANC = Antenatal care

[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In the 2008 NDHS, 2010 NMIS, 2013 NDHS, and 2015 NMIS, this was known as a long-lasting insecticidal net (LLIN).

[2] Any net that is not an ITN

Table 12.3 Access to an insecticide-treated net (ITN)

Percent distribution of the de facto household population by number of ITNs the household owns, according to number of persons who stayed in the household the night before the survey, Nigeria DHS 2018

	Number of persons who stayed in the household the night before the survey								
Number of ITNs[1]	1	2	3	4	5	6	7	8+	Total
0	57.8	46.3	40.6	36.6	36.9	33.2	31.8	26.3	33.8
1	36.2	33.0	31.2	25.3	18.7	15.2	12.1	7.0	17.0
2	4.6	17.6	20.8	27.1	27.6	27.4	24.2	15.8	21.4
3	0.9	2.0	5.8	7.8	11.2	14.9	18.2	16.7	12.5
4	0.3	0.7	1.1	2.6	4.1	6.5	9.1	15.8	8.0
5	0.1	0.1	0.3	0.3	1.1	1.4	2.6	7.1	3.0
6	0.0	0.1	0.1	0.2	0.3	0.9	0.9	5.0	2.0
7	0.1	0.2	0.1	0.1	0.2	0.5	1.0	6.2	2.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	5,996	9,496	17,094	23,681	26,098	24,291	19,318	62,002	187,974
Percentage of the de facto population with access to an ITN[2]	42.2	53.7	49.0	50.8	46.4	47.5	46.5	46.0	47.5

[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In the 2008 NDHS, 2010 NMIS, 2013 NDHS, and 2015 NMIS, this was known as a long-lasting insecticidal net (LLIN).
[2] Percentage of the de facto household population who could sleep under an ITN if each ITN in the household were used by up to two people

Table 12.4 Access to an ITN by background characteristics

Percentage of the de facto population with access to an ITN in the household, by background characteristics, Nigeria DHS 2018

Background characteristic	Percentage with access to an ITN[1,2]	Number of persons
Residence		
Urban	41.3	81,687
Rural	52.2	106,288
Zone		
North Central	41.9	25,648
North East	46.4	32,436
North West	64.9	58,409
South East	37.3	20,484
South South	35.7	20,579
South West	34.6	30,418
State		
North Central		
FCT-Abuja	24.4	1,296
Benue	48.4	5,263
Kogi	55.5	2,596
Kwara	49.6	3,271
Nasarawa	59.1	2,865
Niger	29.0	6,415
Plateau	31.8	3,943
North East		
Adamawa	45.2	4,101
Bauchi	55.5	7,189
Borno	42.2	6,783
Gombe	48.3	3,610
Taraba	24.7	3,898
Yobe	53.2	6,856
North West		
Jigawa	86.1	6,780
Kaduna	51.0	10,663
Kano	63.3	13,328
Katsina	71.3	11,444
Kebbi	77.6	5,232
Sokoto	61.0	4,581
Zamfara	49.7	6,381
South East		
Abia	32.2	2,676
Anambra	25.0	5,858
Ebonyi	58.3	4,268
Enugu	26.9	3,460
Imo	45.1	4,222
South South		
Akwa Ibom	48.0	3,891
Bayelsa	32.4	1,507
Cross River	43.7	2,335
Delta	29.2	4,294
Edo	47.7	2,713
Rivers	24.4	5,840
South West		
Ekiti	31.4	2,106
Lagos	20.9	11,162
Ogun	44.2	3,980
Ondo	68.5	2,978
Osun	32.7	4,020
Oyo	39.0	6,173
Wealth quintile		
Lowest	54.5	37,440
Second	52.7	37,552
Middle	48.9	37,661
Fourth	43.3	37,718
Highest	37.9	37,603
Total	47.5	187,974

[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In the 2008 NDHS, 2010 NMIS, 2013 NDHS, and 2015 NMIS, this was known as a long-lasting insecticidal net (LLIN).
[2] Percentage of the de facto household population who could sleep under an ITN if each ITN in the household were used by up to two people

Table 12.5 Use of mosquito nets by persons in the household

Percentage of the de facto household population who slept the night before the survey under a mosquito net (treated or untreated) and under an insecticide-treated net (ITN), and among the de facto household population in households with at least one ITN, percentage who slept under an ITN the night before the survey, according to background characteristics, Nigeria DHS 2018

	Household population			Household population in households with at least one ITN[1]	
Background characteristic	Percentage who slept under any mosquito net last night	Percentage who slept under an ITN[1] last night	Number of persons	Percentage who slept under an ITN[1] last night	Number of persons
Age					
<5	52.9	52.2	32,657	74.3	22,954
5-14	40.2	39.6	53,784	57.6	37,000
15-34	42.6	41.9	53,698	65.0	34,654
35-49	43.7	42.9	26,663	68.4	16,731
50+	43.2	42.4	21,149	68.8	13,019
Sex					
Male	41.3	40.7	92,670	61.9	60,881
Female	46.5	45.8	95,304	68.7	63,491
Residence					
Urban	36.5	35.6	81,686	61.0	47,689
Rural	49.7	49.1	106,288	68.1	76,684
Zone					
North Central	39.4	39.0	25,648	65.7	15,210
North East	44.1	43.2	32,436	63.8	21,977
North West	64.5	63.8	58,409	71.6	52,001
South East	29.6	29.5	20,484	57.6	10,489
South South	27.9	27.2	20,579	54.7	10,224
South West	28.4	27.6	30,418	57.9	14,471
State					
North Central					
FCT-Abuja	24.1	23.8	1,296	57.6	535
Benue	52.9	52.0	5,263	77.8	3,520
Kogi	48.3	48.2	2,596	66.3	1,886
Kwara	30.7	30.4	3,271	45.6	2,177
Nasarawa	51.4	51.2	2,865	67.5	2,174
Niger	29.2	29.0	6,415	61.6	3,021
Plateau	35.8	35.0	3,943	72.7	1,898
North East					
Adamawa	43.5	42.6	4,101	80.6	2,167
Bauchi	49.2	48.7	7,189	57.0	6,138
Borno	42.8	41.9	6,782	68.1	4,172
Gombe	41.6	40.9	3,610	54.2	2,724
Taraba	20.3	20.2	3,898	50.9	1,547
Yobe	55.3	53.7	6,856	70.4	5,229
North West					
Jigawa	87.8	87.1	6,780	88.6	6,664
Kaduna	54.8	54.3	10,663	65.7	8,816
Kano	66.9	65.1	13,328	74.5	11,648
Katsina	64.8	64.7	11,444	69.8	10,609
Kebbi	81.6	81.6	5,232	82.9	5,150
Sokoto	54.2	52.6	4,581	60.2	3,997
Zamfara	43.9	43.8	6,381	54.6	5,116
South East					
Abia	22.8	22.7	2,676	47.4	1,282
Anambra	18.4	18.2	5,858	50.8	2,101
Ebonyi	61.7	61.6	4,268	80.8	3,252
Enugu	20.4	19.9	3,460	48.0	1,437
Imo	24.8	24.8	4,222	43.3	2,417
South South					
Akwa Ibom	25.9	25.9	3,891	41.8	2,407
Bayelsa	29.2	29.2	1,507	61.9	711
Cross River	39.7	39.6	2,335	65.9	1,402
Delta	31.7	28.5	4,294	63.7	1,919
Edo	27.7	27.7	2,713	46.5	1,618
Rivers	21.5	21.3	5,840	57.6	2,166
South West					
Ekiti	22.2	22.2	2,106	48.3	966
Lagos	15.0	12.8	11,162	38.8	3,681
Ogun	36.3	35.9	3,980	65.3	2,192
Ondo	53.2	53.1	2,978	63.6	2,488
Osun	26.8	26.8	4,020	54.9	1,961
Oyo	39.0	38.9	6,173	75.4	3,184

Continued…

Table 12.5—*Continued*

Background characteristic	Household population			Household population in households with at least one ITN[1]	
	Percentage who slept under any mosquito net last night	Percentage who slept under an ITN[1] last night	Number of persons	Percentage who slept under an ITN[1] last night	Number of persons
Wealth quintile					
Lowest	54.1	53.3	37,440	70.3	28,394
Second	52.1	51.5	37,552	69.4	27,840
Middle	45.8	45.3	37,660	66.8	25,512
Fourth	37.0	36.5	37,718	59.9	22,993
Highest	30.8	29.7	37,603	57.0	19,634
Total	43.9	43.2	187,974	65.4	124,373

Note: Total includes 23 persons with missing information on age.
[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In the 2008 NDHS, 2010 NMIS, 2013 NDHS, and 2015 NMIS, this was known as a long-lasting insecticidal net (LLIN).

Table 12.6 Use of existing ITNs

Percentage of insecticide-treated nets (ITNs) that were used by anyone the night before the survey, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage of existing ITNs[1] used last night	Number of ITNs[1]
Residence		
Urban	75.3	19,971
Rural	83.9	32,383
Zone		
North Central	80.3	6,363
North East	86.8	8,435
North West	90.1	21,811
South East	63.8	4,772
South South	60.5	4,598
South West	67.0	6,375
State		
North Central		
FCT-Abuja	88.8	173
Benue	96.8	1,417
Kogi	73.1	944
Kwara	56.6	1,043
Nasarawa	77.0	1,053
Niger	83.4	1,018
Plateau	89.9	714
North East		
Adamawa	82.0	1,159
Bauchi	84.9	2,186
Borno	85.8	1,608
Gombe	93.0	971
Taraba	74.3	523
Yobe	92.7	1,987
North West		
Jigawa	93.6	3,534
Kaduna	89.6	3,010
Kano	95.5	4,705
Katsina	75.8	4,975
Kebbi	95.5	2,355
Sokoto	96.4	1,567
Zamfara	98.1	1,665
South East		
Abia	57.0	539
Anambra	61.9	842
Ebonyi	85.7	1,461
Enugu	72.0	552
Imo	41.3	1,378
South South		
Akwa Ibom	46.2	1,209
Bayelsa	67.5	322
Cross River	78.6	617
Delta	75.0	746
Edo	45.8	871
Rivers	67.8	832
South West		
Ekiti	59.3	431
Lagos	50.9	1,282
Ogun	67.3	1,068
Ondo	60.1	1,383
Osun	71.6	731
Oyo	87.4	1,480
Wealth quintile		
Lowest	90.3	11,689
Second	86.5	11,497
Middle	80.5	10,894
Fourth	72.9	9,730
Highest	68.2	8,544
Total	80.6	52,354

[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In the 2008 NDHS, 2010 NMIS, 2013 NDHS, and 2015 NMIS, this was known as a long-lasting insecticidal net (LLIN).

Table 12.7 Use of mosquito nets by children

Percentage of children under age 5 who, the night before the survey, slept under a mosquito net (treated or untreated) and under an insecticide-treated net (ITN), and among children under age 5 in households with at least one ITN, percentage who slept under an ITN the night before the survey, according to background characteristics, Nigeria DHS 2018

	Children under age 5 in all households			Children under age 5 in households with at least one ITN[1]	
Background characteristic	Percentage who slept under any mosquito net last night	Percentage who slept under an ITN[1] last night	Number of children	Percentage who slept under an ITN[1] last night	Number of children
Age in months					
<12	57.9	57.1	6,457	79.1	4,659
12-23	54.8	54.2	6,362	76.9	4,484
24-35	52.9	52.3	6,199	75.1	4,314
36-47	50.8	50.3	6,697	71.7	4,691
48-59	48.5	47.6	6,942	68.8	4,805
Sex					
Male	52.9	52.1	16,635	74.3	11,658
Female	52.9	52.3	16,022	74.2	11,297
Residence					
Urban	45.7	44.8	12,901	71.3	8,105
Rural	57.6	57.0	19,756	75.9	14,849
Zone					
North Central	47.9	47.4	4,461	76.0	2,785
North East	48.0	47.4	6,004	69.4	4,100
North West	73.5	72.7	11,416	80.4	10,324
South East	36.7	36.5	3,419	66.2	1,887
South South	34.5	33.5	2,962	62.9	1,577
South West	36.0	35.1	4,395	67.6	2,281
State					
North Central					
FCT-Abuja	36.0	35.4	226	68.4	117
Benue	66.1	65.0	942	92.8	660
Kogi	53.5	53.2	388	69.6	297
Kwara	34.5	34.1	535	51.0	358
Nasarawa	57.6	57.4	501	71.1	404
Niger	37.6	37.3	1,234	74.9	615
Plateau	45.4	45.0	635	85.7	333
North East					
Adamawa	47.2	46.8	771	90.0	401
Bauchi	53.5	52.7	1,400	60.8	1,215
Borno	49.8	49.2	1,160	77.5	736
Gombe	38.1	37.1	685	50.7	501
Taraba	24.5	24.2	754	59.8	305
Yobe	60.6	59.9	1,234	78.4	943
North West					
Jigawa	89.7	89.1	1,361	90.5	1,339
Kaduna	67.6	67.1	2,117	78.7	1,804
Kano	76.3	74.5	2,537	82.7	2,284
Katsina	72.6	72.5	2,231	77.6	2,083
Kebbi	93.5	93.5	1,044	94.8	1,030
Sokoto	57.8	56.0	896	63.5	790
Zamfara	56.0	55.7	1,230	68.9	994
South East					
Abia	23.9	23.9	431	48.1	215
Anambra	25.7	25.4	1,026	59.7	436
Ebonyi	67.9	67.9	827	89.4	629
Enugu	27.5	26.7	466	56.9	219
Imo	29.7	29.7	669	51.2	388
South South					
Akwa Ibom	36.5	36.5	515	52.5	358
Bayelsa	32.8	32.7	227	69.3	107
Cross River	43.4	43.4	307	71.9	185
Delta	40.8	36.5	596	73.6	295
Edo	31.4	31.4	416	53.6	244
Rivers	28.1	27.7	901	64.1	389
South West					
Ekiti	26.4	26.4	307	53.6	151
Lagos	24.0	21.3	1,499	56.1	568
Ogun	49.3	49.3	608	78.4	383
Ondo	59.0	58.9	401	69.3	341
Osun	32.4	32.4	572	63.0	294
Oyo	41.9	41.7	1,007	77.3	544

Continued…

Table 12.7—*Continued*

Background characteristic	Children under age 5 in all households			Children under age 5 in households with at least one ITN[1]	
	Percentage who slept under any mosquito net last night	Percentage who slept under an ITN[1] last night	Number of children	Percentage who slept under an ITN[1] last night	Number of children
Wealth quintile					
Lowest	60.6	59.9	7,067	78.0	5,427
Second	59.7	59.1	7,211	76.9	5,536
Middle	54.1	53.7	6,720	75.2	4,798
Fourth	45.5	45.0	6,092	69.9	3,923
Highest	41.0	39.6	5,567	67.4	3,270
Total	52.9	52.2	32,657	74.3	22,954

Note: Table is based on children who stayed in the household the night before the interview.
[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In the 2008 NDHS, 2010 NMIS, 2013 NDHS, and 2015 NMIS, this was known as a long-lasting insecticidal net (LLIN).

Table 12.8 Use of mosquito nets by pregnant women

Percentage of pregnant women age 15-49 who, the night before the survey, slept under a mosquito net (treated or untreated) and under an insecticide-treated net (ITN), and among pregnant women age 15-49 in households with at least one ITN, percentage who slept under an ITN the night before the survey, according to background characteristics, Nigeria DHS 2018

	Among pregnant women age 15-49 in all households			Among pregnant women age 15-49 in households with at least one ITN[1]	
Background characteristic	Percentage who slept under any mosquito net last night	Percentage who slept under an ITN[1] last night	Number of pregnant women	Percentage who slept under an ITN[1] last night	Number of pregnant women
Residence					
Urban	46.1	44.9	1,538	72.8	948
Rural	66.0	65.3	2,771	85.6	2,114
Zone					
North Central	49.4	48.9	635	78.8	394
North East	59.0	57.7	811	81.5	575
North West	79.9	78.9	1,690	89.0	1,499
South East	38.5	38.5	391	72.3	208
South South	29.4	29.2	320	61.2	153
South West	32.6	31.3	462	61.7	234
State					
North Central					
FCT-Abuja	34.7	34.7	20	(76.8)	9
Benue	67.2	67.2	137	87.7	105
Kogi	51.8	50.5	72	72.5	50
Kwara	40.2	37.7	70	63.3	42
Nasarawa	59.6	59.6	54	71.7	45
Niger	40.8	40.8	171	75.9	92
Plateau	42.5	42.5	111	91.5	51
North East					
Adamawa	41.3	37.8	91	(89.4)	38
Bauchi	71.9	71.0	213	80.1	189
Borno	55.8	55.1	179	82.8	119
Gombe	63.4	62.0	82	80.6	63
Taraba	30.4	30.4	95	68.3	42
Yobe	71.0	68.8	151	84.7	123
North West					
Jigawa	96.3	95.7	214	97.3	211
Kaduna	62.8	62.4	287	74.1	241
Kano	80.7	78.7	415	92.7	352
Katsina	77.2	76.6	287	83.9	262
Kebbi	96.2	96.2	168	97.5	166
Sokoto	80.5	78.0	133	84.3	123
Zamfara	74.2	74.2	186	96.1	143
South East					
Abia	25.2	25.2	38	(51.4)	18
Anambra	28.0	28.0	123	(79.8)	43
Ebonyi	72.9	72.9	92	91.6	73
Enugu	36.0	36.0	59	(69.8)	30
Imo	23.2	23.2	80	43.2	43
South South					
Akwa Ibom	25.9	25.9	57	(42.2)	35
Bayelsa	29.7	29.7	25	(64.6)	11
Cross River	(34.3)	(34.3)	24	*	10
Delta	38.2	37.6	84	(72.5)	43
Edo	(24.6)	(24.6)	44	(46.8)	23
Rivers	24.0	24.0	86	(69.5)	30
South West					
Ekiti	(25.3)	(25.3)	31	*	15
Lagos	18.6	15.4	169	(45.9)	57
Ogun	57.0	55.7	59	(84.9)	39
Ondo	51.2	51.2	53	68.6	40
Osun	(37.1)	(37.1)	52	(61.1)	31
Oyo	31.6	31.6	97	(58.9)	52
Education					
No education	70.8	69.9	2,089	87.9	1,661
Primary	57.3	56.8	550	78.9	395
Secondary	44.3	44.0	1,340	72.3	816
More than secondary	45.1	42.4	330	73.7	190
Wealth quintile					
Lowest	68.5	67.8	1,017	88.4	780
Second	70.9	70.2	1,049	88.1	835
Middle	59.4	59.1	886	81.9	639
Fourth	43.8	43.0	721	68.3	454
Highest	39.8	38.0	637	68.4	354
Total	58.9	58.0	4,309	81.7	3,062

Note: Table is based on women who stayed in the household the night before the interview. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In the 2008 NDHS, 2010 NMIS, 2013 NDHS, and 2015 NMIS, this was known as a long-lasting insecticidal net (LLIN).

Table 12.9 Reasons for not using the specific net the night preceding the interview

Percent distribution of mosquito nets that were not used the previous night, by the main reason for not using the net, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage of nets not slept inside last night	Total number of mosquito nets	Reason no one slept inside the net																Number of mosquito nets not used last night
			No mosquitoes	No malaria	Too hot	Difficult to hang	Don't like smell	Feel closed in or constrained	Net too old/torn	Net too dirty	Net not available last night (washing)	Feel ITN chemicals are unsafe	ITN provokes cough	Users did not sleep here last night	Net not needed last night	No space to hang	Other	Don't know	
Residence																			
Urban	24.7	20,487	18.2	0.9	17.1	3.6	2.5	2.3	5.0	1.1	0.9	3.1	0.2	5.1	27.1	4.1	8.0	0.4	5,060
Rural	16.1	32,779	11.7	0.9	10.5	2.4	1.8	1.1	5.1	1.3	1.6	11.0	0.3	6.1	30.2	3.6	12.3	0.2	5,268
Zone																			
North Central	19.5	6,441	21.0	0.0	12.7	4.9	2.7	0.7	8.6	2.1	1.5	0.6	0.0	9.7	24.8	1.0	9.3	0.3	1,256
North East	13.4	8,644	24.8	0.5	3.8	1.4	2.9	0.1	10.4	2.3	2.4	4.4	1.0	4.7	24.3	0.1	16.8	0.0	1,160
North West	9.8	22,084	4.5	0.2	2.9	0.9	0.1	2.2	3.9	1.0	2.0	26.9	0.0	6.3	37.4	1.7	10.1	0.0	2,167
South East	36.1	4,797	8.9	0.6	20.8	5.8	1.5	2.5	3.1	0.3	0.5	2.9	0.3	5.3	30.1	2.3	14.9	0.1	1,731
South South	39.0	4,687	14.2	2.0	20.6	2.4	2.5	1.7	3.9	1.0	0.5	1.1	0.2	5.9	18.6	12.5	12.0	1.0	1,826
South West	33.1	6,612	21.7	1.6	19.1	3.0	3.6	2.1	3.9	1.4	1.0	1.2	0.3	3.1	31.8	3.8	2.2	0.2	2,188
State																			
North Central																			
FCT-Abuja	11.4	176	37.9	2.5	30.9	9.4	0.0	0.0	3.1	3.4	0.0	0.0	0.0	0.0	10.3	0.0	2.4	0.0	20
Benue	3.2	1,445	(13.9)	(0.0)	(26.0)	(7.4)	(0.0)	(2.9)	(7.5)	(0.0)	(2.4)	(0.0)	(0.0)	(4.2)	(17.6)	(1.4)	(16.6)	(0.0)	46
Kogi	26.4	948	12.5	0.0	16.6	4.2	1.8	0.5	2.1	2.8	3.4	1.0	0.0	27.3	9.5	4.1	14.3	0.0	250
Kwara	43.1	1,052	46.2	0.0	10.8	8.8	5.3	0.0	2.4	2.0	0.0	1.0	0.0	1.2	18.3	0.0	3.4	0.6	453
Nasarawa	23.0	1,060	2.6	0.0	19.7	0.0	0.2	1.5	5.4	1.2	3.8	0.2	0.0	9.8	53.9	0.7	1.1	0.0	243
Niger	16.5	1,029	1.7	0.0	1.8	0.7	2.7	0.6	40.4	4.0	0.0	0.0	0.0	6.2	35.9	0.0	5.9	0.0	170
Plateau	10.1	732	0.0	0.0	0.0	6.3	1.5	1.7	8.2	0.0	0.0	0.0	0.8	16.0	3.1	0.0	61.3	1.2	74
North East																			
Adamawa	18.3	1,191	1.5	0.0	2.6	0.0	0.6	0.0	9.9	0.2	0.0	0.0	0.0	0.0	2.5	0.0	82.7	0.0	218
Bauchi	14.9	2,206	37.7	0.0	5.3	0.7	3.4	0.0	2.8	2.4	6.5	13.2	2.8	4.7	18.6	0.3	1.6	0.0	329
Borno	15.1	1,674	47.1	1.6	4.7	4.1	6.3	0.0	14.9	3.9	0.6	0.2	0.7	0.5	15.6	0.0	0.0	0.0	253
Gombe	6.8	983	1.8	0.7	0.9	4.3	2.9	0.0	3.3	0.0	4.5	8.8	0.7	26.7	33.3	0.0	11.3	0.7	67
Taraba	25.6	524	30.0	1.4	5.4	0.5	2.2	0.6	4.5	0.3	1.3	1.2	0.0	5.6	45.3	0.0	1.8	0.0	134
Yobe	7.7	2,066	0.0	0.0	0.5	0.0	0.0	0.0	28.1	4.8	0.0	0.0	0.0	8.0	58.7	0.0	0.0	0.0	158
North West																			
Jigawa	6.4	3,564	1.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	3.2	4.0	0.0	86.4	0.0	226
Kaduna	10.6	3,052	10.6	0.6	7.9	2.0	0.6	11.0	11.8	0.3	7.2	3.8	0.0	11.5	24.3	6.1	2.3	0.0	325
Kano	4.4	4,848	10.5	0.0	9.6	4.2	0.0	2.0	7.2	2.0	3.4	0.0	0.0	12.3	42.9	2.5	3.3	0.0	214
Katsina	24.2	4,981	2.5	0.0	0.4	0.2	0.0	0.3	2.1	1.1	0.2	47.3	0.0	0.5	45.0	0.2	0.3	0.0	1,204
Kebbi	4.4	2,355	0.0	0.0	0.5	0.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0	47.2	41.3	8.1	1.4	0.0	104
Sokoto	3.6	1,613	0.0	0.0	1.2	0.0	2.2	0.0	1.4	0.0	0.0	0.0	0.0	16.8	70.3	1.2	6.9	0.0	58
Zamfara	2.1	1,672	(20.2)	(5.1)	(22.8)	(0.0)	(0.0)	(8.6)	(12.7)	(4.5)	(5.5)	(2.5)	(0.0)	(0.0)	(18.1)	(0.0)	(0.0)	(0.0)	35
South East																			
Abia	43.0	540	24.1	0.0	4.0	6.2	0.6	4.2	2.2	0.9	0.2	2.6	0.0	1.3	49.9	1.6	2.2	0.0	232
Anambra	37.9	847	9.2	2.6	42.1	0.6	4.8	0.0	4.8	0.0	0.0	0.0	0.6	8.0	26.5	0.6	0.0	0.0	321
Ebonyi	14.4	1,465	11.0	1.1	3.1	0.0	1.3	4.8	1.9	0.5	1.7	0.0	0.0	14.9	49.4	6.6	3.6	0.0	212
Enugu	27.9	565	10.8	0.0	15.0	9.8	1.0	3.4	14.7	0.9	0.0	1.6	0.0	2.4	36.5	0.4	3.0	0.4	158
Imo	58.6	1,381	3.4	0.0	22.9	8.5	0.6	2.3	0.8	0.0	0.6	5.2	0.4	3.3	19.6	2.4	29.8	0.2	809

Continued…

Table 12.9—*Continued*

Background characteristic	Percentage of nets not slept inside last night	Total number of mosquito nets	Reason no one slept inside the net																Number of mosquito nets not used last night
			No mosquitoes	No malaria	Too hot	Difficult to hang	Don't like smell	Feel closed in or constrained	Net too old/torn	Net too dirty	Net not available last night (washing)	Feel ITN chemicals are unsafe	ITN provokes cough	Users did not sleep here last night	Net not needed last night	No space to hang	Other	Don't know	
South South																			
Akwa Ibom	54.1	1,216	13.4	4.7	22.6	1.4	4.9	1.4	2.3	1.2	0.2	0.9	0.3	0.1	9.8	12.6	23.6	0.8	658
Bayelsa	32.4	322	18.8	2.6	7.2	0.0	0.3	0.0	9.6	0.7	0.0	3.7	1.1	0.3	54.1	1.7	0.0	0.0	105
Cross River	21.4	619	7.7	0.0	40.6	4.3	0.9	0.8	7.1	1.8	1.6	3.1	0.0	8.3	22.7	1.0	0.3	0.0	132
Delta	23.2	823	0.8	0.0	4.0	0.0	0.0	0.5	2.2	0.0	0.0	0.5	0.5	39.5	42.6	0.3	6.6	2.5	191
Edo	54.2	871	17.9	0.8	24.1	6.0	0.0	0.9	1.6	0.6	0.6	0.9	0.0	2.5	14.2	21.5	8.2	0.2	473
Rivers	32.1	834	20.5	0.0	16.5	0.0	4.3	5.9	9.6	1.3	1.2	0.0	0.0	3.1	15.0	14.8	4.7	2.9	268
South West																			
Ekiti	40.7	431	42.2	1.6	16.1	4.6	1.2	2.7	2.0	2.2	1.7	0.2	0.3	2.0	23.1	0.0	0.0	0.0	175
Lagos	47.3	1,483	26.0	0.9	32.2	4.0	6.2	0.9	6.7	1.8	0.5	0.9	0.2	4.3	5.5	6.2	3.3	0.5	702
Ogun	33.9	1,096	2.2	0.5	15.2	3.2	4.6	7.0	0.3	0.9	0.0	0.0	0.3	0.0	64.2	0.7	0.9	0.0	372
Ondo	39.2	1,386	10.4	0.0	11.8	2.4	0.6	1.2	4.9	0.8	0.6	2.4	0.0	0.0	60.5	3.5	0.7	0.1	543
Osun	28.4	731	44.0	2.0	9.9	1.3	3.9	0.0	2.1	3.1	5.7	2.5	1.6	2.1	20.7	1.2	0.0	0.0	208
Oyo	12.7	1,486	33.6	9.9	11.5	1.1	2.2	1.1	1.9	0.9	0.0	0.7	0.7	15.2	3.6	8.1	9.6	0.0	188
Education																			
No education	10.3	21,600	9.4	0.3	6.1	1.1	0.8	0.8	7.9	1.6	1.9	15.4	0.3	6.4	34.7	1.5	11.8	0.1	2,216
Primary	20.1	7,183	13.5	1.2	10.8	4.0	2.2	1.3	4.0	1.7	2.0	8.7	0.6	6.1	29.2	5.9	8.6	0.1	1,443
Secondary	26.0	19,443	14.9	1.3	17.5	3.5	2.5	1.9	4.9	0.9	1.0	4.6	0.1	5.1	26.5	4.4	10.6	0.4	5,057
More than secondary	31.9	4,771	23.9	0.3	15.4	3.0	2.9	2.9	2.5	1.4	0.6	2.5	0.4	5.7	27.3	3.5	7.6	0.2	1,520
Wealth quintile																			
Lowest	9.6	11,853	9.0	1.0	4.8	0.9	0.4	0.5	6.7	0.8	1.8	21.3	0.9	5.8	27.8	2.0	16.6	0.0	1,136
Second	13.4	11,628	10.5	0.3	6.2	2.2	2.3	0.8	6.8	1.2	2.4	12.7	0.0	6.6	33.7	4.0	10.0	0.1	1,562
Middle	19.4	11,020	14.4	0.5	13.4	3.9	1.6	1.5	4.6	1.6	1.2	5.9	0.2	6.3	28.9	4.8	10.9	0.3	2,136
Fourth	26.9	9,869	14.5	0.8	17.0	3.9	2.1	1.6	5.2	1.4	1.2	4.2	0.3	5.3	28.4	3.5	10.1	0.5	2,653
Highest	31.9	8,897	20.4	1.5	18.6	2.6	3.2	2.9	3.8	1.0	0.6	2.1	0.2	4.7	26.4	4.2	7.5	0.2	2,841
Total	19.4	53,266	14.9	0.9	13.7	3.0	2.1	1.7	5.1	1.2	1.3	7.1	0.3	5.6	28.7	3.9	10.2	0.3	10,328

Note: Figures in parentheses are based on 25-49 unweighted cases.

Table 12.10 Use of intermittent preventive treatment (IPTp) by women during pregnancy

Percentage of women age 15-49 with a live birth in the 2 years preceding the survey who, during the pregnancy that resulted in the last live birth, received one or more doses of SP/Fansidar, received two or more doses of SP/Fansidar, and received three or more doses of SP/Fansidar, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage who received one or more doses of SP/Fansidar	Percentage who received two or more doses of SP/Fansidar	Percentage who received three or more doses of SP/Fansidar	Number of women with a live birth in the 2 years preceding the survey
Residence				
Urban	72.6	47.3	20.7	4,979
Rural	58.0	36.1	14.0	7,956
Zone				
North Central	56.4	35.0	14.8	1,787
North East	65.0	40.7	14.0	2,350
North West	58.4	34.1	10.8	4,649
South East	78.9	62.5	37.8	1,304
South South	73.9	50.0	23.7	1,160
South West	64.6	39.3	16.6	1,685
State				
North Central				
FCT-Abuja	75.4	42.7	27.0	87
Benue	66.7	47.5	17.6	370
Kogi	77.7	47.5	29.8	167
Kwara	57.0	33.5	14.6	211
Nasarawa	64.3	53.2	14.9	189
Niger	44.2	19.5	4.9	535
Plateau	38.6	25.3	17.6	228
North East				
Adamawa	72.8	37.6	4.4	326
Bauchi	59.5	40.1	14.6	590
Borno	67.2	41.2	9.1	418
Gombe	65.0	40.0	14.8	277
Taraba	55.0	26.8	7.4	299
Yobe	71.0	53.1	29.0	441
North West				
Jigawa	66.9	52.5	22.9	552
Kaduna	59.1	33.1	9.2	885
Kano	74.5	34.0	7.2	1,001
Katsina	45.0	27.3	6.3	876
Kebbi	62.2	33.9	5.4	451
Sokoto	44.1	37.1	22.5	362
Zamfara	46.9	26.3	11.9	521
South East				
Abia	90.6	85.3	73.7	156
Anambra	81.6	65.9	43.4	430
Ebonyi	67.6	47.0	24.2	298
Enugu	70.3	53.9	23.9	183
Imo	87.0	67.5	32.0	237
South South				
Akwa Ibom	83.4	44.5	16.5	216
Bayelsa	44.2	14.2	7.2	87
Cross River	83.2	75.1	32.6	117
Delta	64.9	40.1	15.1	239
Edo	80.7	67.1	47.1	150
Rivers	75.4	53.4	25.2	350
South West				
Ekiti	71.4	48.2	24.0	128
Lagos	69.0	44.7	20.0	599
Ogun	84.5	37.1	21.2	220
Ondo	67.8	52.2	26.7	157
Osun	58.3	42.5	11.7	198
Oyo	46.1	22.0	4.4	383
Education				
No education	51.1	30.1	10.3	5,786
Primary	67.5	44.0	18.1	1,877
Secondary	74.3	49.0	22.4	4,186
More than secondary	81.8	55.7	24.7	1,086
Wealth quintile				
Lowest	47.9	29.4	12.1	2,775
Second	54.1	32.7	10.9	2,955
Middle	68.0	41.9	15.9	2,666
Fourth	73.3	49.7	22.8	2,416
Highest	80.7	53.0	24.1	2,123
Total	63.6	40.4	16.6	12,935

Table 12.11 Prevalence, diagnosis, and prompt treatment of children with fever

Percentage of children under age 5 with a fever in the 2 weeks preceding the survey, and among children under age 5 with fever, percentage for whom advice or treatment was sought, percentage for whom advice or treatment was sought the same or next day, and percentage who had blood taken from a finger or heel for testing, according to background characteristics, Nigeria DHS 2018

	Children under age 5		Children under age 5 with fever			
Background characteristic	Percentage with a fever in the 2 weeks preceding the survey	Number of children	Percentage for whom advice or treatment was sought[1]	Percentage for whom advice or treatment was sought the same or next day	Percentage who had blood taken from a finger or heel for testing	Number of children
Age in months						
<12	22.0	6,423	70.7	36.1	9.9	1,411
12-23	29.7	6,143	73.5	38.8	15.5	1,826
24-35	26.4	5,835	75.5	37.6	14.5	1,541
36-47	22.9	6,186	72.2	39.1	14.6	1,418
48-59	20.2	6,294	71.8	37.5	13.7	1,270
Sex						
Male	23.6	15,674	73.4	38.3	13.9	3,702
Female	24.7	15,208	72.2	37.5	13.7	3,764
Residence						
Urban	18.6	12,215	78.8	48.7	16.2	2,269
Rural	27.8	18,666	70.2	33.2	12.7	5,197
Zone						
North Central	17.7	4,255	58.7	30.0	14.1	754
North East	35.0	5,598	72.6	31.0	13.1	1,959
North West	27.9	10,883	74.9	40.5	13.0	3,039
South East	20.1	3,205	70.8	46.3	14.1	643
South South	25.5	2,787	81.5	46.4	12.4	710
South West	8.7	4,153	72.6	43.6	25.5	360
State						
North Central						
FCT-Abuja	23.3	212	79.2	46.1	14.3	49
Benue	12.2	908	92.3	20.6	12.4	111
Kogi	11.5	396	51.9	36.2	23.7	46
Kwara	11.4	497	53.5	26.2	10.4	57
Nasarawa	10.3	471	48.4	20.2	38.0	48
Niger	28.0	1,207	50.6	32.3	8.6	338
Plateau	18.6	565	49.8	27.9	20.7	105
North East						
Adamawa	27.9	714	49.3	12.3	6.5	199
Bauchi	49.5	1,317	71.2	33.9	16.8	652
Borno	16.0	1,140	77.5	45.2	11.4	182
Gombe	37.0	629	84.4	45.3	8.3	232
Taraba	28.8	682	52.5	26.1	5.5	196
Yobe	44.5	1,118	84.3	24.4	16.7	497
North West						
Jigawa	33.8	1,277	83.2	39.9	17.0	432
Kaduna	25.8	2,039	64.4	37.0	5.9	527
Kano	26.4	2,416	84.0	58.0	16.4	638
Katsina	28.6	2,141	79.1	42.0	14.7	612
Kebbi	38.9	1,005	73.1	32.3	20.8	391
Sokoto	32.7	852	73.5	27.0	2.8	278
Zamfara	13.9	1,154	42.3	13.2	4.0	160
South East						
Abia	7.7	395	86.6	66.5	15.8	30
Anambra	13.7	999	97.4	69.7	7.4	137
Ebonyi	32.4	759	64.3	36.6	17.9	246
Enugu	14.0	455	81.6	59.3	10.3	64
Imo	27.9	598	51.3	32.4	15.0	167
South South						
Akwa Ibom	37.6	480	69.5	44.2	18.0	180
Bayelsa	10.0	210	71.8	50.0	3.0	21
Cross River	16.8	300	83.5	50.0	19.3	50
Delta	5.2	567	*	*	*	30
Edo	18.9	382	78.3	58.0	16.5	72
Rivers	42.0	848	89.9	45.7	8.7	356
South West						
Ekiti	17.9	296	61.8	27.9	28.7	53
Lagos	6.7	1,449	78.4	59.2	31.5	97
Ogun	4.9	574	*	*	*	28
Ondo	12.7	395	61.0	24.2	32.1	50
Osun	13.9	515	65.8	29.7	25.1	72
Oyo	6.5	925	(80.8)	(46.2)	(16.1)	60

Continued…

Table 12.11—*Continued*

Background characteristic	Children under age 5		Children under age 5 with fever			
	Percentage with a fever in the 2 weeks preceding the survey	Number of children	Percentage for whom advice or treatment was sought[1]	Percentage for whom advice or treatment was sought the same or next day	Percentage who had blood taken from a finger or heel for testing	Number of children
Mother's education						
No education	28.7	13,867	68.8	30.9	11.2	3,982
Primary	24.6	4,618	74.8	39.9	15.6	1,137
Secondary	20.4	9,733	77.7	47.3	15.8	1,982
More than secondary	13.7	2,664	84.5	56.9	24.4	364
Wealth quintile						
Lowest	32.5	6,625	67.8	25.2	10.6	2,153
Second	28.3	6,816	70.4	35.3	12.4	1,930
Middle	23.7	6,364	72.4	41.5	14.6	1,510
Fourth	19.4	5,816	79.1	47.2	18.1	1,128
Highest	14.2	5,260	85.2	59.9	18.4	745
Total	24.2	30,881	72.8	37.9	13.8	7,466

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes advice or treatment from the following sources: public sector, private medical sector, shop, market, itinerant drug seller, or community-oriented resource person. Excludes advice or treatment from a traditional practitioner.

Table 12.12 Source of advice or treatment for children with fever

Percentage of children under age 5 with a fever in the 2 weeks preceding the survey for whom advice or treatment was sought from specific sources, and among children under age 5 with a fever in the 2 weeks preceding the survey for whom advice or treatment was sought, percentage for whom advice or treatment was sought from specific sources, Nigeria DHS 2018

	Percentage for whom advice or treatment was sought from each source:	
Source	Among children with fever	Among children with fever for whom advice or treatment was sought
Public sector	27.5	37.2
Government hospital	7.2	9.8
Government health centre	13.4	18.1
Government health post	5.4	7.4
Mobile clinic	0.7	1.0
Fieldworker/CHW	0.7	1.0
Other	0.0	0.1
Private sector	42.5	57.7
Private hospital/clinic	2.9	4.0
Pharmacy	4.9	6.7
Chemist/PMS	34.3	46.5
Private doctor	0.2	0.3
Mobile clinic	0.1	0.1
Fieldworker/CHW	0.2	0.2
Other private medical sector	0.1	0.1
Other private sector	3.4	4.6
Shop	2.0	2.7
Traditional practitioner	1.0	1.4
Market	0.1	0.1
Itinerant drug seller	0.2	0.2
Community-oriented resource person	0.2	0.3
Other	0.7	0.9
Number of children	7,466	5,507

CHW = Community health worker
PMS = Patent medicine store

Table 12.13 Type of antimalarial drugs used

Among children under age 5 with a fever in the 2 weeks preceding the survey who took any antimalarial medication, percentage who took specific antimalarial drugs, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage of children who took:									Number of children with fever who took any antimalarial drug
	Any ACT	SP/ Fansidar	Chloro-quine	Amodia-quine	Quinine pills	Quinine injection	Artesunate rectal	Artesunate injection	Other anti-malarial	
Age in months										
<6	51.2	7.2	19.9	7.6	2.0	2.8	4.4	0.3	5.6	92
6-11	43.9	6.1	26.0	9.7	1.8	2.3	2.5	7.1	4.6	344
12-23	53.8	7.9	17.8	5.2	3.3	5.1	3.6	4.9	2.1	788
24-35	54.0	6.6	16.0	5.2	2.4	6.3	4.6	8.0	1.2	711
36-47	52.9	6.7	14.7	6.4	2.0	8.3	3.8	8.3	2.8	684
48-59	51.3	8.9	14.6	5.3	2.0	8.8	2.7	10.6	1.1	625
Sex										
Male	52.1	7.3	16.4	6.1	2.3	6.5	3.9	7.1	2.8	1,658
Female	51.9	7.4	17.7	5.9	2.4	6.3	3.3	7.9	1.6	1,587
Residence										
Urban	57.8	5.0	13.4	6.4	1.7	4.6	5.0	6.9	3.6	1,148
Rural	48.9	8.6	19.1	5.8	2.7	7.4	2.8	7.8	1.5	2,096
Zone										
North Central	58.1	14.5	7.8	2.3	2.7	4.0	5.8	4.3	3.7	276
North East	41.8	8.8	22.2	7.2	1.2	4.4	2.7	12.7	3.4	660
North West	49.1	6.7	21.2	6.6	1.2	10.3	3.0	6.7	0.8	1,423
South East	77.4	2.3	6.8	0.6	3.4	1.5	2.1	5.0	3.5	382
South South	52.4	7.3	11.3	7.1	7.9	2.0	7.3	3.3	3.7	329
South West	48.7	6.6	12.0	12.9	3.3	5.3	4.5	13.0	1.8	175
Mother's education										
No education	48.7	8.0	19.9	6.2	1.2	8.3	3.2	8.0	1.2	1,533
Primary	50.3	8.0	18.3	5.2	2.4	6.6	1.4	8.9	3.3	510
Secondary	56.1	6.1	13.3	6.6	4.5	4.1	4.6	5.9	3.1	997
More than secondary	61.4	7.0	10.7	3.7	0.3	2.4	7.2	8.1	3.2	205
Wealth quintile										
Lowest	46.6	7.3	20.9	5.9	2.1	8.5	3.3	9.4	1.2	774
Second	51.5	7.9	20.2	4.9	2.1	7.2	2.7	6.4	0.9	788
Middle	52.5	7.9	16.7	6.5	2.3	6.2	3.1	6.0	2.7	691
Fourth	53.1	6.3	14.0	7.2	3.3	4.9	4.1	8.4	4.1	576
Highest	61.0	6.9	8.8	5.9	2.2	3.3	6.0	7.4	3.3	415
Total	52.0	7.4	17.1	6.0	2.4	6.4	3.6	7.5	2.2	3,244

ACT = Artemisinin-based combination therapy

Table 12.14 Coverage of testing for anaemia and malaria in children

Percentage of eligible children age 6-59 months who were tested for anaemia and for malaria, according to background characteristics (unweighted), Nigeria DHS 2018

Background characteristic	Percentage tested for: Anaemia	Malaria with RDT	Number of children	Percentage tested for: Malaria by microscopy	Number of children
Age in months					
6-8	95.1	95.1	695	94.2	499
9-11	97.3	97.1	595	96.1	435
12-17	97.6	97.2	1,443	97.1	1,058
18-23	97.4	96.8	1,144	96.1	838
24-35	97.1	96.8	2,481	96.4	1,822
36-47	97.4	97.2	2,556	96.8	1,884
48-59	97.0	96.8	2,622	96.0	1,904
Sex					
Male	97.2	97.0	5,825	96.4	4,283
Female	97.1	96.7	5,711	96.2	4,157
Mother's interview status					
Interviewed	97.5	97.2	10,443	96.6	7,647
Not interviewed but in household	86.3	86.3	212	89.2	148
Not interviewed and not in the household[1]	95.8	95.5	881	94.7	645
Residence					
Urban	96.9	96.6	4,510	95.9	3,565
Rural	97.3	97.0	7,026	96.6	4,875
Zone					
North Central	98.5	98.4	2,005	97.3	1,456
North East	96.4	95.9	2,109	95.5	1,503
North West	96.5	96.3	2,706	95.6	1,963
South East	98.0	97.7	1,704	97.8	1,291
South South	95.9	95.8	1,300	94.8	947
South West	97.4	97.1	1,712	96.7	1,280
State					
North Central					
FCT-Abuja	96.4	96.8	278	96.1	207
Benue	99.7	99.4	341	96.3	245
Kogi	97.0	97.0	200	94.0	149
Kwara	100.0	100.0	244	100.0	181
Nasarawa	96.4	96.0	276	95.7	208
Niger	99.2	99.2	374	98.5	260
Plateau	100.0	99.7	292	100.0	206
North East					
Adamawa	97.9	97.2	289	97.3	221
Bauchi	99.0	98.7	397	97.2	251
Borno	97.6	97.1	340	96.4	247
Gombe	96.9	96.6	385	96.7	270
Taraba	96.0	94.5	329	95.4	241
Yobe	91.3	91.3	369	90.8	273
North West					
Jigawa	99.2	98.4	386	99.3	289
Kaduna	97.4	97.4	386	96.2	291
Kano	96.6	96.6	528	97.0	370
Katsina	98.4	98.4	446	97.8	312
Kebbi	95.2	94.9	335	91.2	239
Sokoto	87.2	86.9	298	86.5	215
Zamfara	99.4	98.8	327	97.6	247
South East					
Abia	98.9	98.1	268	99.5	183
Anambra	98.3	98.3	402	99.0	311
Ebonyi	99.1	99.1	448	98.6	355
Enugu	95.3	95.3	255	94.9	197
Imo	97.6	96.4	331	95.9	245
South South					
Akwa Ibom	97.1	97.1	240	95.3	169
Bayelsa	98.1	97.7	265	95.6	204
Cross River	92.1	92.1	152	90.7	107
Delta	92.8	92.8	195	92.4	144
Edo	92.4	92.4	158	93.7	111
Rivers	99.0	99.0	290	98.1	212
South West					
Ekiti	100.0	100.0	254	98.9	188
Lagos	94.1	94.4	340	94.0	268
Ogun	97.2	96.5	288	97.1	208
Ondo	100.0	99.5	210	100.0	156
Osun	95.8	95.4	263	94.7	188
Oyo	98.6	97.8	357	97.1	272

Continued…

Table 12.14—*Continued*

Background characteristic	Percentage tested for:			Percentage tested for:	
	Anaemia	Malaria with RDT	Number of children	Malaria by microscopy	Number of children
Mother's education[2]					
No education	96.8	96.4	4,104	95.8	2,926
Primary	98.1	97.9	1,805	97.7	1,313
Secondary	97.7	97.5	3,793	96.9	2,806
More than secondary	95.9	95.4	953	94.7	750
Wealth quintile					
Lowest	96.5	96.2	2,325	95.8	1,651
Second	97.8	97.6	2,297	97.0	1,645
Middle	97.7	97.4	2,560	96.7	1,863
Fourth	97.5	97.2	2,411	96.8	1,787
Highest	95.9	95.7	1,943	94.8	1,494
Total	97.1	96.9	11,536	96.3	8,440

RDT = Rapid diagnostic test (SD Bioline Ag P.f.)
[1] Includes children whose mothers are deceased
[2] For women who are not interviewed, information on education is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table 12.15 Haemoglobin <8.0 g/dl in children

Percentage of children age 6-59 months with haemoglobin lower than 8.0 g/dl, according to background characteristics, Nigeria DHS 2018

Background characteristic	Haemoglobin <8.0 g/dl	Number of children
Age in months		
6-8	10.1	687
9-11	6.6	599
12-17	9.7	1,460
18-23	9.0	1,150
24-35	9.1	2,439
36-47	6.4	2,528
48-59	4.9	2,528
Sex		
Male	7.9	5,820
Female	7.2	5,572
Mother's interview status		
Interviewed	7.5	10,395
Not interviewed but in household	10.5	174
Not interviewed and not in the household[1]	8.0	823
Residence		
Urban	4.4	5,014
Rural	10.1	6,377
Zone		
North Central	5.7	1,620
North East	8.6	1,807
North West	10.8	3,216
South East	5.7	1,496
South South	6.7	1,192
South West	4.8	2,060
State		
North Central		
FCT-Abuja	5.1	80
Benue	1.3	377
Kogi	6.6	143
Kwara	7.1	189
Nasarawa	11.2	172
Niger	5.6	421
Plateau	7.3	238
North East		
Adamawa	6.7	252
Bauchi	13.4	400
Borno	6.6	385
Gombe	12.0	205
Taraba	10.1	219
Yobe	4.0	346
North West		
Jigawa	2.8	382
Kaduna	3.4	614
Kano	12.6	682
Katsina	12.1	687
Kebbi	13.1	285
Sokoto	12.5	227
Zamfara	24.0	339
South East		
Abia	2.8	173
Anambra	5.4	473
Ebonyi	9.5	356
Enugu	6.0	205
Imo	3.1	289
South South		
Akwa Ibom	13.5	216
Bayelsa	8.4	98
Cross River	4.5	105
Delta	7.0	222
Edo	2.0	139
Rivers	4.8	412
South West		
Ekiti	3.3	145
Lagos	1.4	613
Ogun	4.6	330
Ondo	10.4	159
Osun	5.8	286
Oyo	6.9	528

Continued…

Table 12.15—*Continued*

Background characteristic	Haemoglobin <8.0 g/dl	Number of children
Mother's education[2]		
No education	11.3	4,134
Primary	7.5	1,704
Secondary	5.1	3,726
More than secondary	1.1	1,004
Wealth quintile		
Lowest	13.9	2,120
Second	10.7	2,235
Middle	6.4	2,412
Fourth	5.4	2,388
Highest	2.0	2,235
Total	7.6	11,391

Note: Table is based on children who stayed in the household the night before the interview. Prevalence of anaemia is based on haemoglobin levels and is adjusted for altitude using CDC formulas (CDC 1998). Haemoglobin is measured in grams per decilitre (g/dl).

[1] Includes children whose mothers are deceased

[2] For women who are not interviewed, information on education is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table 12.16 Prevalence of malaria in children

Percentage of children age 6-59 months classified in two tests as having malaria, according to background characteristics, Nigeria DHS 2018

Background characteristic	Malaria prevalence according to RDT		Malaria prevalence according to microscopy	
	RDT positive	Number of children	Microscopy positive	Number of children
Age in months				
6-8	27.5	687	19.1	482
9-11	21.8	598	13.1	448
12-17	30.1	1,450	17.9	1,064
18-23	31.9	1,142	19.7	857
24-35	36.6	2,429	20.1	1,775
36-47	40.5	2,525	24.3	1,856
48-59	42.7	2,519	30.8	1,817
Sex				
Male	36.6	5,804	23.4	4,279
Female	35.7	5,547	21.8	4,019
Mother's interview status				
Interviewed	35.6	10,357	22.2	7,572
Not interviewed but in household	42.3	174	29.2	125
Not interviewed and not in the household[1]	43.0	820	26.8	602
Residence				
Urban	22.3	5,004	12.9	3,936
Rural	47.2	6,347	31.4	4,362
Zone				
North Central	37.0	1,618	21.2	1,162
North East	35.6	1,791	19.9	1,265
North West	49.5	3,209	33.8	2,313
South East	26.1	1,490	15.7	1,151
South South	25.4	1,191	15.6	861
South West	28.9	2,051	18.4	1,546
State				
North Central				
FCT-Abuja	31.3	80	20.1	59
Benue	26.0	376	12.7	265
Kogi	46.0	143	25.4	105
Kwara	43.7	189	20.2	147
Nasarawa	32.1	172	13.6	132
Niger	43.8	421	31.6	289
Plateau	37.2	237	21.4	165
North East				
Adamawa	38.9	244	21.1	188
Bauchi	48.6	399	30.6	241
Borno	16.2	382	10.0	287
Gombe	52.0	205	30.3	143
Taraba	35.2	216	20.8	159
Yobe	30.3	346	13.3	247
North West				
Jigawa	49.4	379	35.7	291
Kaduna	34.3	614	33.0	454
Kano	43.0	682	32.4	488
Katsina	55.4	687	25.5	475
Kebbi	76.8	284	52.2	189
Sokoto	54.7	227	36.4	163
Zamfara	51.8	337	35.7	254
South East				
Abia	20.7	172	13.5	123
Anambra	15.2	473	8.8	370
Ebonyi	49.3	356	30.5	283
Enugu	30.2	205	17.4	162
Imo	15.6	285	7.8	213
South South				
Akwa Ibom	33.2	216	23.2	149
Bayelsa	30.1	97	12.5	74
Cross River	26.4	105	19.5	71
Delta	24.9	222	17.0	170
Edo	19.1	139	14.7	96
Rivers	22.3	412	11.2	301
South West				
Ekiti	46.3	145	32.3	108
Lagos	3.4	614	1.8	485
Ogun	32.2	327	21.6	236
Ondo	41.6	158	33.5	117
Osun	54.9	285	27.7	201
Oyo	33.9	522	23.8	399

Continued…

Table 12.16—*Continued*

Background characteristic	Malaria prevalence according to RDT		Malaria prevalence according to microscopy	
	RDT positive	Number of children	Microscopy positive	Number of children
Mother's education[2]				
No education	50.8	4,120	34.3	2,903
Primary	40.3	1,701	24.6	1,244
Secondary	23.8	3,715	13.4	2,776
More than secondary	9.6	995	5.8	774
Wealth quintile				
Lowest	57.1	2,115	38.4	1,479
Second	50.3	2,230	33.6	1,572
Middle	38.6	2,398	24.2	1,750
Fourth	25.9	2,377	14.7	1,765
Highest	10.7	2,231	5.7	1,731
Total	36.2	11,351	22.6	8,298

RDT = Rapid diagnostic test (SD Bioline Ag P.f.)
[1] Includes children whose mothers are deceased
[2] For women who are not interviewed, information on education is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table 12.17 Malaria prevalence among children with a fever in the last 2 weeks

Percentage of eligible children age 6-59 months with a fever in the preceding 2 weeks who tested positive for malaria according to RDT and microscopy, by background characteristics, Nigeria DHS 2018

Background characteristic	Malaria prevalence according to RDT		Malaria prevalence according to microscopy	
	RDT positive	Number of children with a fever in the last 2 weeks	Microscopy positive	Number of children with a fever in the last 2 weeks
Age in months				
6-8	36.6	186	22.0	134
9-11	28.6	194	19.8	142
12-17	44.4	452	27.4	345
18-23	44.4	289	24.6	220
24-35	51.3	584	27.3	425
36-47	51.1	570	29.8	397
48-59	57.2	499	41.5	363
Sex				
Male	48.5	1,371	30.1	1,014
Female	47.4	1,404	28.3	1,012
Residence				
Urban	30.8	960	15.1	765
Rural	57.0	1,815	37.7	1,261
Zone				
North Central	52.6	300	31.7	227
North East	43.7	618	23.5	433
North West	58.9	1,003	40.0	731
South East	39.6	324	20.6	255
South South	30.8	331	17.0	233
South West	40.5	199	22.3	146
State				
North Central				
FCT-Abuja	33.4	25	21.8	17
Benue	(50.9)	42	(18.1)	29
Kogi	(67.6)	24	(51.7)	18
Kwara	(45.8)	21	(23.4)	17
Nasarawa	(47.8)	14	*	11
Niger	51.1	125	37.6	100
Plateau	64.7	49	25.2	34
North East				
Adamawa	44.8	77	23.1	58
Bauchi	55.4	193	35.3	126
Borno	17.6	79	6.8	66
Gombe	59.3	75	33.5	49
Taraba	40.4	65	21.6	48
Yobe	33.9	130	14.8	86
North West				
Jigawa	57.6	134	45.6	96
Kaduna	39.5	167	38.6	127
Kano	52.7	193	43.3	143
Katsina	68.9	208	32.6	145
Kebbi	78.3	132	43.5	94
Sokoto	61.8	96	41.4	75
Zamfara	55.5	75	36.5	52
South East				
Abia	(24.2)	12	*	10
Anambra	27.3	82	16.2	66
Ebonyi	56.4	120	29.7	98
Enugu	(46.4)	31	(15.8)	27
Imo	26.5	78	15.5	52
South South				
Akwa Ibom	37.0	98	29.0	64
Bayelsa	(44.2)	10	(21.1)	8
Cross River	*	16	*	8
Delta	*	12	*	9
Edo	(29.6)	27	(21.7)	16
Rivers	23.8	168	8.2	128
South West				
Ekiti	55.9	28	(47.7)	20
Lagos	(7.4)	56	(5.8)	42
Ogun	*	19	*	11
Ondo	(57.2)	20	(32.5)	16
Osun	(58.7)	47	(12.2)	37
Oyo	*	29	*	21

Continued…

Table 12.17—*Continued*

Background characteristic	Malaria prevalence according to RDT		Malaria prevalence according to microscopy	
	RDT positive	Number of children with a fever in the last 2 weeks	Microscopy positive	Number of children with a fever in the last 2 weeks
Mother's education				
No education	57.7	1,339	38.5	973
Primary	51.5	450	28.4	330
Secondary	36.4	821	18.9	591
More than secondary	16.4	165	8.9	133
Wealth quintile				
Lowest	63.3	733	41.4	515
Second	57.0	662	39.5	477
Middle	48.4	580	28.3	421
Fourth	32.2	465	15.3	354
Highest	17.2	336	6.3	259
Total	47.9	2,775	29.2	2,026

Note: Table includes children whose mothers were interviewed. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
RDT = Rapid diagnostic test (SD Bioline Ag P.f.)

Table 12.18.1 Beliefs about the effectiveness of the recommended malaria behaviours and products: Women

Among women age 15-49 who had a live birth in the 5 years prior to the survey, percentage who agree with specified statements regarding malaria behaviours and products, according to background characteristics, Nigeria DHS 2018

	IPTp		RDT		Treatment	
Background characteristic	The medicine given to pregnant women to prevent malaria works well to keep the mother healthy	The medicine given to pregnant women to prevent malaria works well to keep the baby healthy when it is born	Taking a malaria test is the only way to know if someone really has malaria or not	Even if a malaria test shows that the fever is not caused by malaria, I will still seek out treatment for malaria because I don't trust the test result	When the entire course of malaria medicine is taken, the disease will be fully cured	Number of women
Age						
15-19	96.0	96.1	83.9	41.6	90.1	7,763
20-24	96.0	95.9	83.8	41.8	91.0	5,788
25-29	95.9	96.1	83.6	41.6	90.4	5,972
30-34	95.2	95.0	82.8	45.0	89.5	4,873
35-39	95.4	95.7	79.8	41.5	89.2	4,027
40-44	95.7	96.5	81.6	41.7	90.5	2,775
45-49	95.4	96.1	82.5	44.5	90.9	2,155
50-54	91.5	92.7	84.3	39.8	89.1	397
55-59	93.9	95.3	78.0	46.9	80.0	240
Residence						
Urban	95.9	95.7	77.3	44.4	90.7	13,170
Rural	95.5	95.9	86.4	41.1	89.8	21,023
Zone						
North Central	95.0	94.9	78.7	42.1	80.6	4,619
North East	93.8	94.1	87.7	45.9	90.3	6,213
North West	96.8	97.6	94.7	40.7	94.4	12,558
South East	98.4	99.0	62.1	34.8	93.7	3,428
South South	95.3	95.0	67.3	46.8	85.5	2,968
South West	93.8	92.1	73.8	45.0	87.9	4,407
State						
North Central						
FCT-Abuja	94.6	95.9	64.0	42.6	81.1	225
Benue	98.7	99.0	84.4	34.7	90.0	949
Kogi	89.8	91.1	75.0	35.5	75.1	451
Kwara	88.8	87.1	59.8	46.2	91.3	533
Nasarawa	94.2	92.2	73.8	66.7	83.7	521
Niger	96.6	97.2	91.1	44.0	65.5	1,312
Plateau	95.8	95.0	72.3	29.7	90.0	628
North East						
Adamawa	95.3	94.5	83.3	60.0	88.0	786
Bauchi	96.4	95.7	95.8	55.7	95.7	1,469
Borno	94.4	95.2	96.5	66.6	93.9	1,219
Gombe	92.5	92.1	80.5	20.8	88.7	728
Taraba	82.2	84.0	72.0	43.2	69.5	758
Yobe	97.0	98.2	85.9	21.8	95.3	1,253
North West						
Jigawa	98.6	99.2	90.3	19.0	96.8	1,497
Kaduna	94.2	96.5	92.3	53.6	88.0	2,402
Kano	99.0	99.4	96.0	41.8	98.0	2,738
Katsina	99.4	99.4	99.6	61.2	98.1	2,428
Kebbi	99.1	100.0	99.2	25.0	98.4	1,228
Sokoto	81.9	83.4	80.5	58.6	77.6	978
Zamfara	99.4	99.5	98.4	2.4	97.9	1,287
South East						
Abia	94.3	96.9	94.4	60.4	73.7	426
Anambra	99.3	99.5	24.4	31.0	98.8	1,045
Ebonyi	98.7	99.2	80.0	35.3	99.1	814
Enugu	97.8	99.7	84.3	50.5	98.9	486
Imo	99.6	98.9	62.2	12.1	88.1	657
South South						
Akwa Ibom	96.7	97.1	72.6	21.4	82.5	522
Bayelsa	96.4	96.4	91.0	88.8	92.0	217
Cross River	95.5	97.8	83.6	66.9	79.7	318
Delta	92.0	90.6	41.2	55.8	87.0	595
Edo	97.2	97.2	57.5	59.4	79.7	411
Rivers	95.3	94.4	74.3	32.8	89.5	906

Continued…

Table 12.18.1—*Continued*

Background characteristic	IPTp		RDT		Treatment	Number of women
	The medicine given to pregnant women to prevent malaria works well to keep the mother healthy	The medicine given to pregnant women to prevent malaria works well to keep the baby healthy when it is born	Taking a malaria test is the only way to know if someone really has malaria or not	Even if a malaria test shows that the fever is not caused by malaria, I will still seek out treatment for malaria because I don't trust the test result	When the entire course of malaria medicine is taken, the disease will be fully cured	
South West						
Ekiti	96.1	98.1	72.5	52.5	93.5	329
Lagos	90.2	86.5	56.3	34.7	80.4	1,545
Ogun	99.4	99.4	100.0	73.8	99.5	586
Ondo	90.5	88.5	83.9	45.5	84.3	423
Osun	95.1	95.8	58.8	47.1	96.8	549
Oyo	95.9	93.9	90.3	39.9	87.5	976
Education						
No education	95.0	95.3	88.9	41.5	90.2	15,858
Primary	95.5	95.8	80.7	45.1	89.6	5,103
Secondary	96.4	96.4	75.7	42.6	90.0	10,413
More than secondary	97.1	96.7	79.4	41.1	91.2	2,818
Wealth quintile						
Lowest	94.6	94.9	87.3	34.6	91.3	7,572
Second	95.9	96.2	86.9	44.4	90.2	7,782
Middle	95.6	96.0	83.5	45.6	90.5	7,043
Fourth	96.0	96.4	77.8	44.0	88.6	6,254
Highest	96.5	95.6	76.3	44.1	89.6	5,541
Total	95.7	95.8	82.9	42.3	90.1	34,193

Table 12.18.2 Beliefs about the effectiveness of the recommended malaria behaviours and products: Men

Among men age 15-49 who are married or cohabitating and have at least one child under age 5, percentage who agree with specified statements regarding malaria behaviours and products, according to background characteristics, Nigeria DHS 2018

	IPTp		RDT		Treatment	
Background characteristic	The medicine given to pregnant women to prevent malaria works well to keep the mother healthy	The medicine given to pregnant women to prevent malaria works well to keep the baby healthy when it is born	Taking a malaria test is the only way to know if someone really has malaria or not	Even if a malaria test shows that the fever is not caused by malaria, I will still seek out treatment for malaria because I don't trust the test result	When the entire course of malaria medicine is taken, the disease will be fully cured	Number of men
Age						
15-19	*	*	*	*	*	1
20-24	90.7	91.3	71.7	51.3	76.8	151
25-29	89.0	90.5	74.3	54.6	82.8	614
30-34	88.6	88.6	74.4	56.3	83.4	1,224
35-39	91.0	90.7	76.0	53.0	83.1	1,417
40-44	88.1	89.4	75.0	55.0	81.3	1,191
45-49	89.7	90.3	74.4	51.0	78.1	783
Residence						
Urban	88.6	88.6	72.0	52.2	80.8	2,504
Rural	90.1	90.9	77.4	55.6	82.8	2,877
Zone						
North Central	97.1	96.9	78.7	56.6	89.2	751
North East	87.1	85.2	79.6	62.0	81.6	837
North West	88.3	93.3	82.1	48.2	86.3	1,377
South East	92.0	92.3	58.2	40.3	82.7	659
South South	90.2	85.4	76.1	59.7	73.1	580
South West	85.4	85.5	69.3	58.4	76.0	1,178
State						
North Central						
FCT-Abuja	95.0	94.2	94.8	5.2	84.6	44
Benue	97.6	98.3	82.4	51.5	93.9	157
Kogi	100.0	100.0	88.2	13.8	80.2	57
Kwara	84.6	81.5	41.2	35.8	64.8	77
Nasarawa	100.0	100.0	29.4	78.2	84.4	79
Niger	99.1	99.2	95.1	77.5	99.7	244
Plateau	98.0	98.0	89.0	60.4	85.4	92
North East						
Adamawa	98.8	98.8	85.5	82.7	94.8	109
Bauchi	71.3	70.3	69.7	53.4	81.3	193
Borno	79.4	74.8	76.1	74.6	74.5	199
Gombe	98.5	98.5	70.0	27.9	79.3	91
Taraba	96.2	94.2	90.8	24.8	82.9	87
Yobe	96.6	94.5	91.6	82.2	82.3	158
North West						
Jigawa	99.5	98.8	83.9	21.7	56.1	141
Kaduna	71.4	98.5	91.7	59.7	94.4	292
Kano	95.9	95.6	93.1	54.2	88.0	258
Katsina	98.1	93.6	69.2	56.5	88.9	276
Kebbi	83.5	83.9	98.6	28.5	96.7	139
Sokoto	80.8	82.8	45.7	75.3	85.4	106
Zamfara	89.3	90.2	77.4	26.6	83.1	166
South East						
Abia	99.3	99.3	80.9	76.2	89.2	71
Anambra	100.0	100.0	39.8	31.7	99.5	241
Ebonyi	100.0	100.0	85.0	13.4	60.1	134
Enugu	97.1	99.3	47.2	59.2	99.5	78
Imo	63.0	62.7	58.7	52.6	61.5	134
South South						
Akwa Ibom	97.4	100.0	87.9	51.1	57.0	102
Bayelsa	96.4	95.3	80.7	86.9	83.9	45
Cross River	93.3	91.1	73.4	56.1	69.3	49
Delta	84.3	74.0	69.6	50.4	69.1	138
Edo	92.3	83.5	23.9	33.7	47.5	52
Rivers	87.9	82.7	88.2	72.6	89.6	194
South West						
Ekiti	88.5	92.0	69.2	81.0	82.3	78
Lagos	80.0	82.6	74.1	67.8	80.6	432
Ogun	98.2	97.8	43.9	73.4	92.7	180
Ondo	99.3	90.6	66.6	57.8	97.2	90
Osun	50.8	50.2	44.9	32.8	35.8	143
Oyo	99.1	97.6	93.6	39.6	69.4	254

Continued…

Table 12.18.2—*Continued*

Background characteristic	IPTp		RDT		Treatment	Number of men
	The medicine given to pregnant women to prevent malaria works well to keep the mother healthy	The medicine given to pregnant women to prevent malaria works well to keep the baby healthy when it is born	Taking a malaria test is the only way to know if someone really has malaria or not	Even if a malaria test shows that the fever is not caused by malaria, I will still seek out treatment for malaria because I don't trust the test result	When the entire course of malaria medicine is taken, the disease will be fully cured	
Education						
No education	86.7	88.3	77.8	56.1	83.5	1,366
Primary	89.1	90.1	71.5	52.1	79.8	885
Secondary	90.9	90.8	73.8	54.8	81.6	2,194
More than secondary	90.0	89.6	76.1	51.0	81.9	936
Wealth quintile						
Lowest	88.6	88.5	76.2	54.8	81.4	908
Second	88.9	91.8	79.9	53.3	84.7	967
Middle	88.9	90.3	74.6	51.9	78.8	1,086
Fourth	87.7	87.9	68.2	54.3	81.2	1,139
Highest	92.2	90.7	76.2	55.6	83.1	1,282
Total	89.4	89.9	74.9	54.0	81.8	5,381

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 12.19.1 Beliefs about the consequences of malaria: Women

Among women age 15-49 who had a live birth in the 5 years prior to the survey, percentage who agree with specified statements regarding malaria consequences, according to background characteristics, Nigeria DHS 2018

Background characteristic	Every case of malaria can potentially lead to death	You don't worry about malaria because it can be easily treated	You know people who have become dangerously sick with malaria	Only weak children can die from malaria	Number of women
Age					
15-19	67.1	43.7	71.0	28.6	7,763
20-24	65.1	43.5	69.1	29.6	5,788
25-29	65.8	44.9	69.4	29.0	5,972
30-34	66.7	48.0	71.3	31.9	4,873
35-39	65.2	48.4	70.8	29.6	4,027
40-44	67.5	49.7	70.7	31.2	2,775
45-49	66.1	49.8	66.8	27.8	2,155
50-54	64.6	43.3	66.8	27.4	397
55-59	67.4	51.6	71.6	28.8	240
Residence					
Urban	69.1	57.1	70.9	30.8	13,170
Rural	64.3	39.1	69.6	29.0	21,023
Zone					
North Central	56.0	33.2	52.7	17.6	4,619
North East	52.1	36.8	71.6	35.0	6,213
North West	76.3	37.1	76.9	30.5	12,558
South East	77.8	75.1	65.3	37.8	3,428
South South	65.2	61.5	79.1	27.5	2,968
South West	59.1	65.1	64.4	27.7	4,407
State					
North Central					
FCT-Abuja	34.2	37.3	58.2	7.3	225
Benue	48.2	16.2	40.0	5.1	949
Kogi	59.4	61.8	46.4	8.5	451
Kwara	58.0	35.4	48.8	13.4	533
Nasarawa	87.6	71.4	72.6	60.6	521
Niger	57.9	26.5	51.5	16.2	1,312
Plateau	41.2	17.5	63.4	17.4	628
North East					
Adamawa	53.3	42.0	72.8	29.6	786
Bauchi	46.8	24.8	87.9	34.0	1,469
Borno	47.1	49.4	64.1	41.6	1,219
Gombe	82.4	38.1	64.7	30.6	728
Taraba	44.5	32.8	45.6	34.9	758
Yobe	49.5	37.0	78.6	35.7	1,253
North West					
Jigawa	75.8	4.4	70.3	14.4	1,497
Kaduna	82.1	59.5	80.8	40.5	2,402
Kano	94.1	38.9	92.9	39.2	2,738
Katsina	83.2	43.4	57.8	30.3	2,428
Kebbi	22.5	41.0	69.3	38.9	1,228
Sokoto	57.3	49.0	71.2	33.5	978
Zamfara	81.1	4.4	91.0	1.9	1,287
South East					
Abia	75.1	39.3	86.3	73.8	426
Anambra	63.8	93.6	23.3	3.6	1,045
Ebonyi	90.6	83.7	92.0	52.8	814
Enugu	78.1	59.4	91.1	46.3	486
Imo	85.6	69.8	66.4	43.8	657
South South					
Akwa Ibom	56.3	66.8	64.6	20.5	522
Bayelsa	91.7	90.7	91.7	85.7	217
Cross River	57.7	78.5	77.5	28.8	318
Delta	70.3	40.6	85.8	8.5	595
Edo	37.6	69.3	70.3	37.9	411
Rivers	75.8	55.7	84.5	24.9	906
South West					
Ekiti	65.1	73.0	55.2	31.7	329
Lagos	47.6	58.6	61.5	21.9	1,545
Ogun	48.0	72.6	72.0	20.8	586
Ondo	77.8	57.4	30.3	9.5	423
Osun	86.2	90.8	50.5	19.9	549
Oyo	58.8	57.3	90.1	51.8	976
Education					
No education	65.1	36.7	72.0	30.4	15,858
Primary	64.9	49.2	68.9	31.9	5,103
Secondary	67.9	55.9	67.9	28.3	10,413
More than secondary	67.9	56.2	69.2	26.2	2,818

Continued…

Table 12.19.1—*Continued*

Background characteristic	Every case of malaria can potentially lead to death	You don't worry about malaria because it can be easily treated	You know people who have become dangerously sick with malaria	Only weak children can die from malaria	Number of women
Wealth quintile					
Lowest	62.9	31.8	73.2	28.3	7,572
Second	64.5	41.3	69.2	30.7	7,782
Middle	69.4	49.2	69.0	31.5	7,043
Fourth	69.1	55.0	69.5	30.4	6,254
Highest	65.3	58.0	69.1	27.0	5,541
Total	66.1	46.0	70.1	29.7	34,193

Table 12.19.2 Beliefs about the consequences of malaria: Men

Among men age 15-49 who are married or cohabitating and have at least one child under age 5, percentage who agree with specified statements regarding malaria consequences, according to background characteristics, Nigeria DHS 2018

Background characteristic	Every case of malaria can potentially lead to death	You don't worry about malaria because it can be easily treated	You know people who have become dangerously sick with malaria	Only weak children can die from malaria	Number of men
Age					
15-19	*	*	*	*	1
20-24	74.6	43.9	76.4	34.1	151
25-29	80.2	47.8	74.2	33.4	614
30-34	75.9	50.1	72.8	33.3	1,224
35-39	75.5	43.1	73.2	28.2	1,417
40-44	72.2	46.5	72.8	33.5	1,191
45-49	71.8	43.6	72.4	30.9	783
Residence					
Urban	72.2	47.1	69.6	31.4	2,504
Rural	77.1	45.2	76.1	31.9	2,877
Zone					
North Central	83.0	44.0	74.9	27.3	751
North East	72.6	54.0	81.1	51.3	837
North West	82.2	43.7	79.5	26.9	1,377
South East	56.3	43.4	44.3	12.2	659
South South	65.7	52.5	74.8	41.2	580
South West	77.5	43.0	74.1	32.2	1,178
State					
North Central					
FCT-Abuja	73.0	24.3	36.6	5.9	44
Benue	83.3	10.5	36.5	13.7	157
Kogi	92.9	20.3	86.4	9.1	57
Kwara	68.8	50.1	80.9	25.5	77
Nasarawa	68.6	55.7	93.8	44.0	79
Niger	90.6	54.5	97.0	31.4	244
Plateau	85.3	82.3	72.3	48.5	92
North East					
Adamawa	98.9	81.1	90.4	78.3	109
Bauchi	56.6	59.6	70.2	53.3	193
Borno	76.3	73.5	80.8	76.4	199
Gombe	72.6	14.5	81.5	8.4	91
Taraba	99.3	13.6	95.3	7.8	87
Yobe	54.8	48.8	80.4	47.2	158
North West					
Jigawa	97.8	12.8	66.2	3.4	141
Kaduna	92.3	56.7	97.2	54.2	292
Kano	91.2	57.2	72.9	25.9	258
Katsina	79.4	54.5	89.3	21.3	276
Kebbi	97.8	12.1	77.1	12.7	139
Sokoto	59.8	58.9	38.4	17.6	106
Zamfara	42.9	24.5	82.1	27.8	166
South East					
Abia	96.6	27.5	58.9	25.0	71
Anambra	41.7	68.8	10.9	4.3	241
Ebonyi	98.2	9.1	91.7	5.6	134
Enugu	24.8	43.7	46.8	1.1	78
Imo	37.5	40.0	47.4	32.9	134
South South					
Akwa Ibom	44.9	25.1	85.3	19.8	102
Bayelsa	90.9	82.0	92.6	68.3	45
Cross River	86.3	48.6	78.6	56.0	49
Delta	64.4	82.0	76.4	47.1	138
Edo	42.8	12.4	43.4	33.7	52
Rivers	72.7	51.1	71.5	40.2	194
South West					
Ekiti	57.5	72.2	80.7	75.6	78
Lagos	78.5	67.1	64.0	59.2	432
Ogun	87.3	46.9	82.7	4.7	180
Ondo	97.1	47.8	90.2	37.7	90
Osun	47.2	4.2	45.8	0.0	143
Oyo	85.3	10.6	93.3	8.5	254
Education					
No education	75.3	45.7	77.6	35.6	1,366
Primary	72.1	46.5	65.7	25.9	885
Secondary	75.2	47.7	71.6	31.9	2,194
More than secondary	75.8	42.5	77.1	30.8	936

Continued…

Table 12.19.2—*Continued*

Background characteristic	Every case of malaria can potentially lead to death	You don't worry about malaria because it can be easily treated	You know people who have become dangerously sick with malaria	Only weak children can die from malaria	Number of men
Wealth quintile					
Lowest	72.4	43.2	71.4	31.2	908
Second	81.4	46.5	79.7	32.9	967
Middle	74.1	45.7	74.9	32.6	1,086
Fourth	72.4	46.1	71.4	29.9	1,139
Highest	74.4	48.2	69.4	31.9	1,282
Total	74.8	46.1	73.1	31.7	5,381

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOUR

13

Key Findings

- ***Knowledge about HIV transmission and prevention:*** 46% of women and 45% of men age 15-49 have 'comprehensive knowledge' about the modes of HIV transmission and prevention.
- ***Knowledge of mother-to-child transmission of HIV:*** 57% of women and 52% of men know that HIV can be transmitted during pregnancy, labour/delivery, or breastfeeding. Additionally, 72% of women and 62% of men know that the risk of mother-to-child transmission can be reduced by the mother taking special drugs.
- ***Discriminatory attitudes:*** 47% of women and 46% of men think that children living with HIV should not be able to attend school with children who are HIV negative; 53% of women and 50% of men would not buy fresh vegetables from a shopkeeper with HIV.
- ***Sexual partners:*** 1% of women and 13% of men reported having two or more sexual partners in the past 12 months.
- ***Comprehensive knowledge of HIV among young people:*** 43% of young women and 34% of young men age 15-24 have comprehensive knowledge of HIV.

Acquired immunodeficiency syndrome (AIDS) is one of the most serious public health and development challenges facing the world today. AIDS is caused by the human immunodeficiency virus (HIV). HIV weakens the immune system, making the body susceptible to secondary infections and opportunistic diseases. Without treatment, HIV infection leads to AIDS, which is invariably fatal. The predominant mode of HIV transmission is sexual contact. Other modes of transmission are unsafe injections, use of tainted blood supplies during blood transfusions, and mother-to-child transmission (in which the mother passes HIV to her child during pregnancy, delivery, or breastfeeding).

Since 1991, the Government of Nigeria has employed a sentinel surveillance system among pregnant women age 15-49 attending antenatal care to track HIV prevalence (Federal Ministry of Health 2008). To further strengthen its coordination of the multi-sectoral response, the federal government transformed the National Action Committee on AIDS into the Agency for the Control of AIDS in July 2007 (National Agency for the Control of AIDS 2007). For the purpose of sustaining and improving the effectiveness and coordination of the national HIV response, states have taken the same step of transforming smaller committees and bodies into agencies.

Nationally, HIV and AIDS programmes have received a boost through the efforts of the government and the support of development partners, which has led to a scale up of prevention, care, and treatment programmes aimed at combating the disease. The objective of this chapter is to provide data on levels of and trends in HIV/AIDS knowledge, attitudes, and behaviours, including knowledge of HIV prevention

methods, stigma and discrimination, number of sexual partners, condom use, and prevention of mother-to-child transmission (PMTCT) of HIV. The chapter presents these data at the national and regional levels and by demographic and socioeconomic characteristics.

13.1 HIV/AIDS Knowledge, Transmission, and Prevention Methods

The 2018 NDHS included a series of questions to measure respondents' knowledge and attitudes regarding HIV/AIDS. Ever-married women and men age 15-49 were first asked whether they had heard of HIV/AIDS. Those who reported having heard of HIV/AIDS were asked additional questions regarding the various modes of prevention, including whether it is possible to reduce the chances of getting the HIV virus by having just one faithful sex partner and using a condom during every sexual encounter. To allow an assessment of the extent of possible misconceptions, respondents were also asked whether they think it is possible for a healthy-looking person to have the HIV/AIDS virus and whether a person can contract HIV/AIDS from mosquito bites, by sharing food with a person who has HIV/AIDS, or through supernatural means.

Seventy-one percent of women and 74% of men know that consistent use of condoms and limiting sexual intercourse to one uninfected partner can reduce the risk of HIV (**Table 13.1**).

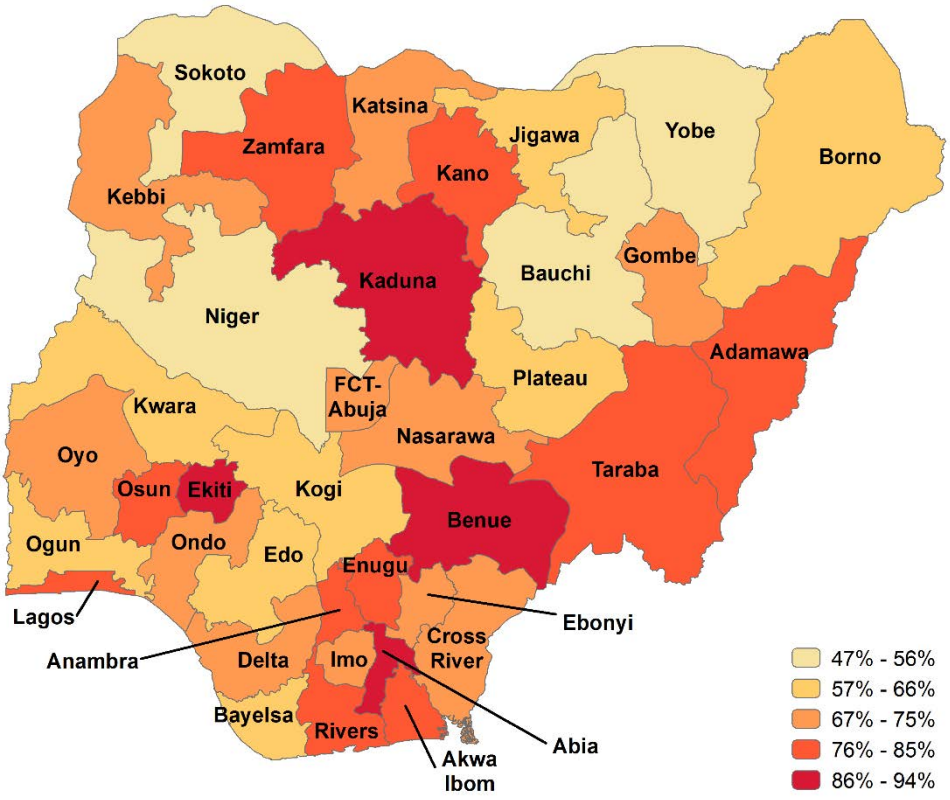
Trends: The percentage of respondents who know that using condoms and limiting sexual intercourse to one uninfected partner who has no other partner can reduce the risk of HIV has increased since 2013, from 54% to 71% among women and from 70% to 74% among men.

Patterns by background characteristics

- The percentage of women who know that using condoms and limiting sexual intercourse to one uninfected partner can reduce the risk of HIV varies by age, from 62% among those age 15-19 to 74% among those age 30-39. The same pattern is observed among men (60% and 79%, respectively).
- There are notable differences in knowledge of HIV/AIDS prevention methods by zone. The proportions of women and men who know about both methods are lowest in the North East (62% and 58%, respectively) and highest in the South East (77% and 88%, respectively).

Figure 13.1 **Knowledge of HIV prevention among women by state**

Percentage of women age 15-49 who know that HIV can be prevented by using condoms and limiting sex to one uninfected partner



- Across states, knowledge of HIV/AIDS prevention methods among women ranges from a high of 94% in Benue to a low of 47% in Niger (**Figure 13.1**).
- Among men and women alike, knowledge of both prevention methods increases with increasing education and wealth. For example, women with no education (61%) are less likely to know of the prevention methods than those with more than a secondary education (85%). Similarly, 81% of women in the highest wealth quintile know of both methods, as compared with only 57% of women in the lowest quintile.

Comprehensive knowledge of HIV

Knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about transmission or prevention of HIV.

Sample: Women and men age 15-24 and 15-49

The two most common local misconception about HIV transmission in Nigeria are that HIV can be transmitted through mosquitoes and sharing of food. The survey results showed that 46% of women and 45% of men age 15-49 have comprehensive knowledge of HIV (**Table 13.2**).

The percentage of women with comprehensive knowledge about HIV varies by age, from 38% among those age 15-19 to 50% among those age 25-29. The percentage of men with comprehensive knowledge ranges from 29% among those age 15-19 to 52% among those age 40-49.

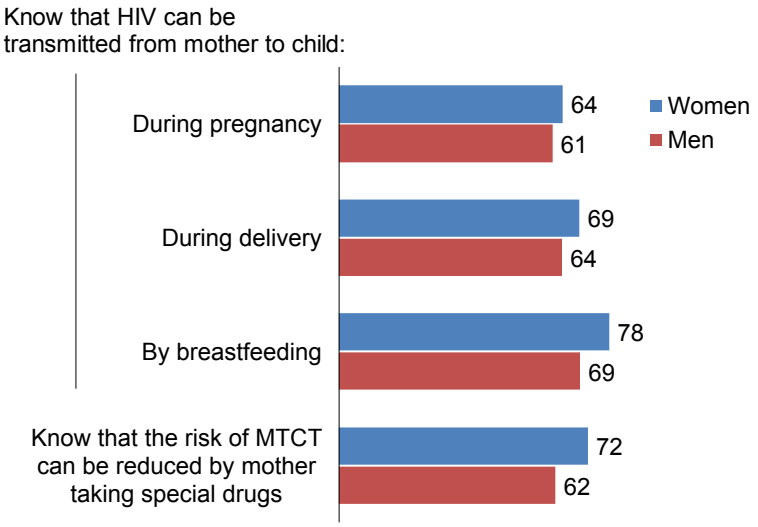
Trends: The percentage of women and men with comprehensive knowledge of HIV has increased since 2013, from 26% to 46% among women and from 37% to 45% among men.

13.2 Knowledge about Mother-to-Child Transmission

Increasing the level of general knowledge about transmission of HIV from mother to child and reducing the risk of transmission using antiretroviral drugs are critical in reducing mother-to-child transmission (MTCT) of HIV. To assess MTCT knowledge, respondents were asked whether HIV can be transmitted from a mother to her child during pregnancy, during delivery, or through breastfeeding and whether a mother with HIV can reduce the risk of transmission to her baby by taking certain drugs during pregnancy.

Figure 13.2 **Knowledge of mother-to-child transmission (MTCT) of HIV**

Percentage of women and men age 15-49

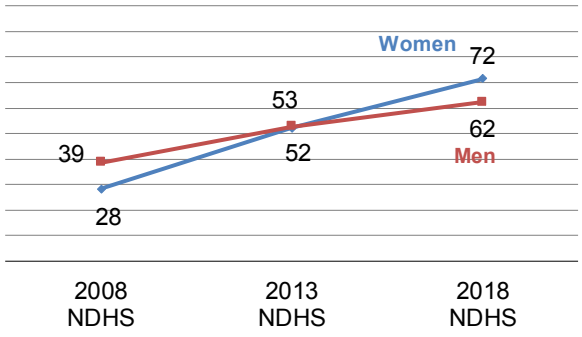


Overall, women are more likely than men to be aware of all three means of HIV transmission (57% versus 52%) (**Table 13.3**). About two-thirds (64%) of women know that HIV can be transmitted during pregnancy, 69% know that it can be transmitted during delivery, and 78% know that it can be transmitted through breastfeeding. Among men, 61% know that HIV can be transmitted during pregnancy, 64% know that it can be transmitted during delivery, and 69% know that it can be transmitted during breastfeeding (**Figure 13.2**).

Trends: The percentage of women who know that MTCT can be reduced by taking special medications increased from 53% in 2013 to 72% in 2018. The percentage among men increased from 52% to 62% over the same period (**Figure 13.3**).

Figure 13.3 **Trends in knowledge of mother-to-child transmission (MTCT) of HIV**

Percentage of women and men age 15-49 who know that the risk of MTCT can be reduced by mother taking special drugs



Patterns by background characteristics

- Overall, more than three quarters (78%) of women know that HIV can be transmitted during breastfeeding. Percentages vary by age, from 68% among women age 15-19 to 81% among women age 30-39.
- Knowledge that MTCT can be reduced by mothers taking special drugs is higher among women (72%) than men (62%). Knowledge generally increases with age among women and men alike. For example, 61% of women age 15-19 know that MTCT can be reduced by mothers taking special drugs, as compared with 75% of women age 30-39.

13.3 Discriminatory Attitudes towards People Living with HIV

Widespread stigma and discrimination in a population can adversely affect both people's willingness to be tested and their adherence to antiretroviral therapy (ART). Thus, reduction of stigma and discrimination in a population is an important indicator of the success of programmes targeting HIV/AIDS prevention and control.

Discriminatory attitudes towards people living with HIV

Women and men are asked two questions to assess discriminatory attitudes towards people living with HIV. Respondents with discriminatory attitudes towards people living with HIV are those who say that they would not buy fresh vegetables from a shopkeeper or vendor if they knew that person had HIV or who say that children living with HIV should not be allowed to attend school with children who do not have HIV.

Sample: Women and men age 15-49 who have heard of HIV or AIDS

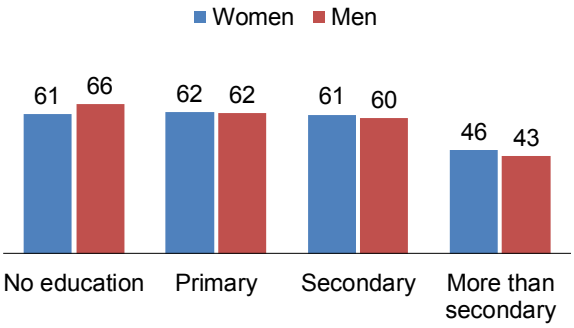
The results showed that, overall, discriminatory attitudes are similar among women (59%) and men (58%) (**Table 13.4**). Forty-seven percent of women and 46% of men do not think that children living with HIV should be able to attend school with children who are HIV negative. Similarly, 53% of women and 50% of men would not buy fresh vegetables from a shopkeeper who has HIV.

Patterns by background characteristics

- Overall, there are minimal differences in discriminatory attitudes between women and men in urban areas (57% each) and rural areas (61% and 59%, respectively).
- Women and men in the South West (76% and 71%, respectively) are more likely to have discriminatory attitudes towards people with HIV than women and men in other regions.
- The proportion of women and men with discriminatory attitudes generally decreases with increasing education; 61% of women and 66% of men with no education have discriminatory attitudes, as compared with 46% of women and 43% of men with more than a secondary education reported (**Figure 13.4**).
- Discriminatory attitudes also generally decrease with increasing wealth. The percentage of women with discriminatory attitudes decreases from 68% among those in the lowest wealth quintile to 56% among those in the highest wealth quintile. Among men, the percentage decreases from 71% among those in the lowest wealth quintile to 54% among those in the highest quintile.

Figure 13.4 **Discriminatory attitudes towards people living with HIV by education**

Percentage among women and men age 15-49 who have heard of HIV



Note: Respondents have discriminatory attitudes if they do not think that children living with HIV should be able to attend school with children who are HIV negative or would not buy fresh vegetables from a shopkeeper who has HIV.

13.4 Multiple Sexual Partners

Given that most HIV infections in Nigeria are acquired through heterosexual intercourse, information on number of sexual partners and use of safe sex practices is important in designing and monitoring programmes that control the spread of HIV.

Only 1% of women age 15-49 reported having two or more sexual partners in the past 12 months. In the 12 months before the survey, 9% of women reported having sexual intercourse with a person who neither was their husband nor lived with them, and fewer than 4 in 10 of those women (36%) reported using a condom during the last sexual intercourse with such a partner (**Table 13.5.1**).

Among men age 15-49, 13% reported having two or more sexual partners in the 12 months before the survey, and 16% reported having sexual intercourse with a person who neither was their wife nor lived with them. Almost 6 in 10 of those men (65%) reported using a condom during the last sexual intercourse with such a partner (**Table 13.5.2**).

Patterns by background characteristics

- Women in urban areas are more likely (11%) than women in rural areas (7%) to have had sex in the last 12 months with a person who neither was their husband nor lived with them. They are also more likely to have used a condom during the last sexual intercourse with such a partner (37% versus 34%). The pattern is similar among men.
- The percentage of men who used a condom during their last sexual intercourse with a non-marital or non-cohabiting partner was higher among those with more than a secondary education (73%) than among those with no education (41%).
- Women living in urban and rural areas reported comparable numbers of lifetime partners (2.3 and 1.9, respectively), while urban men reported a higher number of partners than rural men (5.0 and 3.8, respectively).

13.5 Paid Sex

The act of paying for sex introduces an uneven negotiating ground for safer sexual intercourse. Transactional sex is the exchange of money, favours, or gifts for sexual intercourse. This type of sexual intercourse is associated with a greater risk of contracting HIV and other sexually transmitted infections (STIs) because of compromised power relations and the likelihood of having multiple partners.

Five percent of men age 15-49 have ever paid for sex. The percentage of men who have paid for sex increases from 1% among those age 15-19 to 7% among those age 30-39. Among men who paid for sex in the last 12 months, almost three quarters (74%) reported using a condom during the last paid sexual intercourse (**Table 13.6**).

Trends: The percentage of men who reported having ever paid for sex did not change between 2013 and 2018 (5% in both years). However, condom use during last paid sexual intercourse increased from 66% to 74%.

13.6 Male Circumcision

Male circumcision is a common practice in many parts of Nigeria for traditional, health, and other reasons and often serves as a rite of passage to adulthood. Male circumcision has been shown to be associated with lower rates of STI transmission, including transmission of HIV (WHO and UNAIDS 2007). Ninety-six percent of men age 15-49 have been circumcised, 26% by health professionals and 60% by traditional practitioners or family and friends (**Table 13.7**).

Patterns by background characteristics

- Men age 15-19 (32%) are more likely than men age 40-49 (20%) to have been circumcised by a health professional. In contrast, men age 40-49 are more likely to have been circumcised by traditional practitioners or family and friends (65% and 55%, respectively).

- Urban men are more likely than rural men to have been circumcised by a health professional (35% versus 18%), while rural men are more likely to have been circumcised by traditional practitioners or family and friends (72% versus 47%).

- The proportion of men who have been circumcised by a health professional varies markedly by zone, from 12% in the North East to 45% in the South East.

13.7 Self-reporting of Sexually Transmitted Infections

Sexually transmitted infections (STIs) and symptoms

Respondents who have ever had sex are asked whether they had an STI or symptoms of an STI (a bad-smelling, abnormal discharge from the vagina/penis or a genital sore or ulcer) in the 12 months before the survey.

Sample: Women and men age 15-49 who have ever had sex

Sexually transmitted infections are associated with HIV, and people with an STI are more likely to contract HIV than those without an STI. Overall, 14% of women and 8% of men who have ever had sexual intercourse reported having an STI and/or STI symptoms in the 12 months preceding the survey (**Table 13.8**). Among them, 44% of women and 54% of men sought no advice or treatment (**Table 13.9**).

13.8 HIV/AIDS-related Knowledge and Behaviour among Young People

This section addresses HIV/AIDS-related knowledge among young people age 15-24 and also assesses the extent to which young people are engaged in behaviours that may place them at risk of contracting HIV.

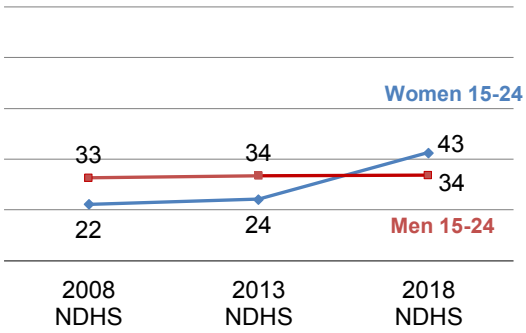
13.8.1 Comprehensive Knowledge

Knowledge of how HIV is transmitted is crucial in enabling people to avoid HIV infection, and this is especially true for young people, who are often at greater risk because they may have shorter relationships with more partners or engage in other risky behaviours. Forty-three percent of young women and 34% of young men age 15-24 have comprehensive knowledge of HIV/AIDS (defined as knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about transmission or prevention of HIV) (**Table 13.10**).

Trends: The proportion of young women with comprehensive knowledge about HIV has increased since 2013 (from 24% to 43%), while the proportion among young men has not changed (34% in both years) (**Figure 13.5**).

Figure 13.5 **Trends in comprehensive HIV knowledge among youth**

Percentage of young women and men age 15-24 who know how to prevent HIV transmission and reject local myths



Patterns by background characteristics

- Comprehensive knowledge is higher among young women and men in urban areas (51% and 42%, respectively) than among those in rural areas (36% and 28%, respectively).

- The proportion of both young women and young men with comprehensive knowledge about HIV increases with increasing education. Thirty-one percent of young women with no education have comprehensive knowledge, as compared with

66% of those with more than a secondary education. The corresponding proportions among men are 16% and 59%.

13.8.2 First Sex

Young people who initiate sex at an early age are typically at higher risk of becoming pregnant or contracting an STI than young people who initiate sex later. Consistent condom use can reduce such risks. Twelve percent of young women and 2% of young men age 15-24 had sexual intercourse before age 15 (**Table 13.11**). As a result of early female marriage, a higher proportion of young women (53%) than young men (14%) reported having sex before age 18.

Trends: The percentage of young people age 15-24 who had sex before age 15 has decreased slightly since 2013, from 17% to 12% among women and from 3% to 2% among men. While there has also been a decrease in the percentage of young men age 18-24 who have had sex by age 18, the percentage among young women has increased slightly (from 52% to 53%).

Patterns by background characteristics

- Young women in rural areas (17%) are more likely to have sex before age 15 than their urban counterparts (6%).
- The percentage of young women age 18-24 who had sexual intercourse before age 18 decreases with increasing education, from 82% among those with no education to 17% among those with more than a secondary education.

13.8.3 Premarital Sex

Table 13.12 shows that 73% of never-married young women and 81% of never-married young men age 15-24 have never had sexual intercourse. The percentage of never-married respondents who have never had sexual intercourse decreases sharply with age; 91% of young women and 94% of young men age 15-17 have never had sex, as compared with 29% of young women and 50% of young men age 23-24.

The percentage of never-married young men age 15-24 who have never had sexual intercourse is higher in rural areas than in urban areas (84% versus 77%); there is only a marginal difference between young women in urban and rural areas (74% versus 73%). The proportion of never-married respondents who have never had sexual intercourse decreases with increasing education, from 91% among young women and 95% among young men with no education to 55% among young women and 61% among young men with more than a secondary education.

13.8.4 Multiple Sexual Partners

Young men age 15-24 are more likely than their female counterparts to have had more than one partner in the 12 months before the survey; 4% of men had more than one partner in the previous 12 months, as compared with 1% of women (**Table 13.13.1** and **Table 13.13.2**). Young men (15%) are also more likely than young women (13%) to have had intercourse with a non-marital, non-cohabiting partner in the last 12 months. Thirty-eight percent of young women and 62% of young men used a condom during their last sex with a non-marital, non-cohabiting partner.

Patterns by background characteristics

- The proportion of respondents who used a condom during their last sex with a non-marital, non-cohabiting partner is higher in urban than rural areas; 39% of young women and 67% of young men in urban areas used a condom during their last sexual intercourse with such a partner, as compared with 36% of young women and 56% of young men in rural areas.

- The percentage of young women who reported using a condom during their last sexual intercourse with a non-marital, non-cohabiting partner increases with increasing education, from 29% among those with no education to 48% among those with more than a secondary education. Among men, the percentage who reported using a condom during their last sexual intercourse with such a partner increases from 63% among those with a secondary education to 73% among those with more than a secondary education.

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Table 13.1 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting HIV by using condoms every time they have sexual intercourse and by having one sex partner who is not infected and has no other partners, according to background characteristics, Nigeria DHS 2018

	Women				Men			
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of men
Age								
15-24	69.3	85.6	66.8	15,284	71.1	78.0	65.9	3,888
15-19	64.6	82.3	61.9	8,448	66.2	73.0	60.2	2,415
20-24	75.1	89.8	72.7	6,835	79.1	86.2	75.2	1,472
25-29	75.3	89.4	73.4	7,255	81.1	88.8	77.6	1,599
30-39	76.3	90.6	74.2	11,641	82.3	89.8	79.3	3,624
40-49	72.8	89.2	70.8	7,642	80.7	88.9	77.1	2,757
Residence								
Urban	79.0	90.7	76.7	19,163	82.7	88.9	79.2	5,512
Rural	67.8	86.3	65.6	22,658	74.1	82.7	69.8	6,356
Zone								
North Central	67.4	79.9	65.4	5,891	78.7	82.2	76.0	1,704
North East	63.1	89.1	61.6	6,636	63.3	74.4	57.9	1,936
North West	75.1	92.4	74.0	12,225	77.5	87.9	73.3	3,195
South East	78.4	94.6	77.0	4,963	90.2	95.0	87.9	1,355
South South	74.6	85.3	70.6	4,840	84.6	87.6	80.4	1,438
South West	77.7	85.4	73.6	7,266	79.8	87.5	75.5	2,240
State								
North Central								
FCT-Abuja	75.4	89.9	72.3	319	85.0	91.0	83.6	96
Benue	94.2	98.9	93.7	1,354	80.3	80.9	77.5	351
Kogi	60.0	80.8	58.9	654	81.0	84.5	77.6	156
Kwara	60.6	70.5	58.1	684	66.1	72.9	61.3	208
Nasarawa	70.6	88.4	66.8	648	96.3	97.4	96.2	206
Niger	47.9	58.2	46.9	1,357	88.6	92.3	85.4	442
Plateau	61.5	80.7	57.4	875	51.0	56.0	48.4	246
North East								
Adamawa	81.1	94.1	81.0	903	64.7	80.0	57.3	218
Bauchi	49.3	89.5	48.0	1,343	51.0	63.4	46.3	420
Borno	58.2	84.9	56.8	1,469	69.3	78.9	63.0	398
Gombe	73.8	85.4	72.4	717	60.6	78.0	57.8	240
Taraba	82.0	91.6	79.4	877	75.5	82.0	71.1	187
Yobe	51.9	90.3	49.8	1,327	65.1	73.1	59.1	472
North West								
Jigawa	65.5	98.2	64.9	1,382	90.8	96.4	88.9	291
Kaduna	87.1	95.3	85.8	2,493	95.1	95.5	94.4	636
Kano	80.2	97.1	79.7	2,692	68.0	87.5	63.9	676
Katsina	70.2	93.3	68.7	2,283	75.3	90.0	70.6	687
Kebbi	70.7	79.1	69.3	1,136	57.6	77.5	53.8	291
Sokoto	55.8	71.3	53.7	910	69.4	71.9	65.8	218
Zamfara	78.0	95.8	76.5	1,328	78.4	83.2	67.6	396
South East								
Abia	90.2	96.7	89.1	630	87.4	97.1	85.5	185
Anambra	79.6	93.9	78.2	1,477	98.2	99.5	98.2	409
Ebonyi	73.8	95.0	72.5	1,027	89.2	96.0	87.8	233
Enugu	80.7	95.4	79.9	880	98.9	99.6	98.5	192
Imo	71.5	93.4	69.4	948	77.5	85.0	70.7	337
South South								
Akwa Ibom	79.7	88.1	75.7	948	89.8	94.7	86.6	291
Bayelsa	62.4	74.7	61.0	298	94.4	97.0	93.8	109
Cross River	74.9	82.6	67.3	574	72.8	80.4	66.7	137
Delta	69.3	80.7	67.4	931	68.3	69.0	59.3	326
Edo	66.5	83.5	59.8	555	91.7	95.7	90.2	140
Rivers	80.0	90.1	76.3	1,534	92.4	94.2	90.0	435

Continued...

Table 13.1—*Continued*

Background characteristic	Women: Using condoms[1]	Women: Limiting sexual intercourse to one uninfected partner[2]	Women: Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Women: Number of women	Men: Using condoms[1]	Men: Limiting sexual intercourse to one uninfected partner[2]	Men: Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Men: Number of men
South West								
Ekiti	89.5	91.3	86.8	475	81.4	84.0	80.9	139
Lagos	80.7	84.4	75.8	2,891	77.0	84.9	73.1	845
Ogun	65.4	88.3	60.4	927	93.7	90.0	85.8	309
Ondo	83.5	84.9	75.3	683	77.7	89.8	72.9	247
Osun	80.1	83.3	78.2	938	53.6	86.4	50.6	269
Oyo	71.2	85.0	69.5	1,352	92.3	91.4	88.3	432
Education								
No education	62.5	84.3	60.9	14,603	66.0	76.3	60.7	2,555
Primary	70.3	87.5	68.3	6,039	76.4	85.1	72.3	1,590
Secondary	79.2	90.4	76.3	16,583	81.0	87.5	77.1	5,697
More than secondary	86.7	94.7	84.8	4,596	86.4	92.4	84.2	2,025
Wealth quintile								
Lowest	58.5	84.1	57.2	7,222	63.1	73.6	57.6	1,991
Second	67.8	86.1	65.9	8,045	72.9	84.0	68.8	2,123
Middle	73.1	87.9	70.8	8,207	80.7	87.9	77.0	2,393
Fourth	78.6	89.9	75.5	8,990	83.6	89.4	80.3	2,590
Highest	82.8	92.5	80.6	9,357	85.4	89.9	81.9	2,770
Total 15-49	72.9	88.3	70.7	41,821	78.1	85.6	74.1	11,868
50-59	na	na	na	na	78.4	89.5	75.2	1,443
Total 15-59	na	na	na	na	78.1	86.0	74.3	13,311

na = Not applicable
[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

Table 13.2 Comprehensive knowledge about HIV

Percentage of women and men age 15-49 who say that a healthy-looking person can have HIV and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of HIV, and percentage with comprehensive knowledge about HIV, according to age, Nigeria DHS 2018

Age	Percentage of respondents who say that:				Percentage who say that a healthy-looking person can have HIV and who reject the two most common local miscon-ceptions[1]	Percentage with a comprehensive knowledge about HIV[2]	Number of respondents
	A healthy-looking person can have HIV	HIV cannot be transmitted by mosquito bites	HIV cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has HIV			
WOMEN							
15-24	80.0	68.4	71.4	73.1	54.0	42.6	15,284
15-19	76.5	65.5	69.2	71.1	50.5	38.1	8,448
20-24	84.4	72.0	74.1	75.7	58.4	48.1	6,835
25-29	83.4	72.8	73.0	76.3	58.7	49.5	7,255
30-39	84.5	73.3	74.2	77.4	58.7	49.3	11,641
40-49	82.8	71.4	71.7	75.2	56.0	45.5	7,642
Total 15-49	82.3	71.1	72.5	75.2	56.5	46.2	41,821
MEN							
15-24	68.7	61.5	63.5	64.3	40.8	33.7	3,888
15-19	64.3	55.8	57.2	58.9	35.8	28.7	2,415
20-24	75.9	70.8	73.7	73.2	48.9	41.9	1,472
25-29	82.2	74.4	76.9	75.2	55.4	48.3	1,599
30-39	84.4	76.0	78.1	77.3	58.2	51.1	3,624
40-49	83.7	76.8	78.1	78.2	60.2	52.2	2,757
Total 15-49	78.8	71.2	73.1	73.0	52.6	45.3	11,868
50-59	83.9	74.1	76.0	77.9	59.2	49.5	1,443
Total 15-59	79.3	71.5	73.4	73.5	53.3	45.8	13,311

[1] Two most common local misconceptions: the AIDS virus can be transmitted by mosquito bites and by sharing food with a person who has HIV.
[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission or prevention (that HIV can be transmitted by mosquito bites and by sharing food with person who has HIV).

Table 13.3 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child during pregnancy, during delivery, by breastfeeding, and by all three means, and percentage who know that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by the mother taking special drugs, according to age, Nigeria DHS 2018

Age	Percentage who know that HIV can be transmitted from mother to child: During pregnancy	During delivery	By breastfeeding	By all three means	Percentage who know that the risk of MTCT can be reduced by mother taking special drugs	Number of respondents
			WOMEN			
15-24	59.6	62.7	72.8	51.7	66.6	15,284
15-19	55.8	57.2	68.3	47.7	60.7	8,448
20-24	64.3	69.4	78.4	56.6	74.0	6,835
25-29	65.7	70.8	79.5	58.1	74.2	7,255
30-39	67.6	73.5	80.8	60.7	75.3	11,641
40-49	67.3	73.4	80.3	60.6	72.9	7,642
Total 15-49	64.3	69.1	77.6	56.9	71.5	41,821
			MEN			
15-24	57.3	58.1	63.8	47.0	55.0	3,888
15-19	55.0	54.8	60.9	46.1	48.9	2,415
20-24	61.1	63.4	68.5	48.4	65.0	1,472
25-29	61.3	65.4	71.0	51.8	65.8	1,599
30-39	63.2	67.7	72.5	53.6	65.8	3,624
40-49	64.6	67.3	71.7	55.4	65.4	2,757
Total 15-49	61.3	64.1	69.3	51.6	62.2	11,868
50-59	68.3	68.5	73.7	57.1	67.5	1,443
Total 15-59	62.1	64.6	69.7	52.2	62.7	13,311

Table 13.4 Discriminatory attitudes towards people living with HIV

Among women and men age 15-49 who have heard of HIV or AIDS, percentage who do not think that children living with HIV should be able to attend school with children who are HIV negative, percentage who would not buy fresh vegetables from a shopkeeper who has HIV, and percentage with discriminatory attitudes towards people living with HIV, according to background characteristics, Nigeria DHS 2018

	Women				Men			
Background characteristic	Percentage who do not think that children living with HIV should be able to attend school with children who are HIV negative	Percentage who would not buy fresh vegetables from a shopkeeper who has HIV	Percentage with discriminatory attitudes towards people living with HIV[1]	Number of women who have heard of AIDS	Percentage who do not think that children living with HIV should be able to attend school with children who are HIV negative	Percentage who would not buy fresh vegetables from a shopkeeper who has HIV	Percentage with discriminatory attitudes towards people living with HIV[1]	Number of men who have heard of AIDS
Age								
15-24	48.0	54.1	60.9	14,166	51.6	56.3	64.5	3,555
15-19	49.6	56.7	63.4	7,671	55.2	60.0	67.5	2,154
20-24	46.0	51.1	57.9	6,495	46.0	50.5	59.9	1,401
25-29	47.0	51.4	58.4	6,843	42.9	46.8	55.0	1,537
30-39	47.1	51.5	59.1	11,139	43.2	46.0	55.1	3,509
40-49	47.0	51.8	58.1	7,285	43.9	46.7	55.5	2,674
Marital status								
Never married	44.9	52.5	59.7	9,880	47.4	51.7	59.9	4,576
Ever had sex	44.7	51.3	59.8	3,719	41.7	45.6	55.4	1,468
Never had sex	45.1	53.2	59.7	6,161	50.1	54.6	62.1	3,107
Married/living together	48.6	52.8	59.7	27,442	44.9	47.9	56.8	6,573
Divorced/separated/ widowed	42.9	48.6	54.6	2,111	52.7	54.1	62.5	126
Residence								
Urban	45.8	49.7	57.4	18,539	46.5	47.3	57.1	5,355
Rural	48.8	55.0	61.2	20,894	45.5	51.5	59.1	5,921
Zone								
North Central	39.9	49.2	55.7	5,046	44.0	52.4	59.5	1,499
North East	30.7	36.5	41.5	6,218	34.0	41.0	47.1	1,770
North West	49.3	51.5	58.2	11,742	43.5	47.2	55.4	3,060
South East	44.0	56.2	62.9	4,888	49.4	49.5	59.5	1,352
South South	48.1	55.4	62.9	4,685	37.6	46.2	56.1	1,414
South West	66.6	66.5	75.8	6,854	63.7	60.0	70.5	2,181
State								
North Central								
FCT-Abuja	19.0	44.1	48.6	304	44.6	39.5	45.7	92
Benue	28.2	43.0	45.0	1,350	14.0	14.2	20.6	301
Kogi	53.0	72.7	77.8	555	47.2	49.5	65.0	138
Kwara	67.7	69.5	74.8	618	69.2	65.1	77.8	185
Nasarawa	37.1	32.7	47.2	606	48.5	40.9	51.2	200
Niger	43.3	52.7	59.5	816	55.0	87.7	89.2	427
Plateau	35.7	38.1	48.9	796	33.2	39.2	45.5	155
North East								
Adamawa	6.5	20.7	20.9	873	20.1	34.6	42.1	201
Bauchi	59.1	60.1	68.9	1,267	61.2	67.2	73.4	386
Borno	15.0	19.3	23.6	1,335	20.4	27.1	33.9	368
Gombe	22.1	23.3	28.3	647	32.8	37.4	43.9	236
Taraba	30.3	43.2	48.2	842	15.1	19.4	24.8	177
Yobe	40.6	44.3	49.7	1,255	36.3	43.2	48.0	402
North West								
Jigawa	78.2	63.9	80.1	1,375	60.8	60.2	71.8	290
Kaduna	14.8	17.9	25.4	2,464	14.9	18.5	20.5	611
Kano	57.1	57.0	62.2	2,666	44.1	50.0	57.5	670
Katsina	41.6	56.4	59.2	2,242	49.8	42.6	54.2	662
Kebbi	87.3	82.0	88.6	922	32.4	62.5	66.0	268
Sokoto	56.7	62.9	67.5	748	44.1	57.9	62.9	175
Zamfara	50.3	54.2	60.7	1,325	72.1	70.1	86.6	384
South East								
Abia	43.9	53.6	59.5	625	25.9	33.2	37.8	184
Anambra	52.0	58.3	65.1	1,454	72.0	54.7	76.8	409
Ebonyi	39.7	43.3	50.1	1,009	44.6	48.6	53.3	231
Enugu	16.8	54.7	59.3	862	37.7	31.2	40.4	192
Imo	61.5	70.2	78.6	938	44.8	63.0	65.3	337

Continued...

Table 13.4—*Continued*

Background characteristic	Women				Men			
	Percentage who do not think that children living with HIV should be able to attend school with children who are HIV negative	Percentage who would not buy fresh vegetables from a shopkeeper who has HIV	Percentage with discrimi-natory attitudes towards people living with HIV[1]	Number of women who have heard of AIDS	Percentage who do not think that children living with HIV should be able to attend school with children who are HIV negative	Percentage who would not buy fresh vegetables from a shopkeeper who has HIV	Percentage with discrimi-natory attitudes towards people living with HIV[1]	Number of men who have heard of AIDS
South South								
Akwa Ibom	44.5	54.0	61.1	922	21.7	28.8	38.2	289
Bayelsa	9.1	10.9	12.7	267	31.4	77.8	79.6	108
Cross River	18.5	22.7	28.8	565	31.2	34.1	40.4	124
Delta	77.5	82.6	89.5	866	40.4	54.0	68.1	323
Edo	65.5	58.1	71.0	544	55.8	57.5	63.8	138
Rivers	45.3	59.8	67.4	1,521	43.8	43.8	55.3	433
South West								
Ekiti	82.9	73.2	87.8	464	43.6	49.6	60.4	118
Lagos	55.5	56.9	66.9	2,782	58.7	56.2	65.3	831
Ogun	81.9	87.6	93.2	908	75.0	75.4	79.4	309
Ondo	63.0	70.2	76.0	666	73.0	68.3	81.5	240
Osun	69.4	70.7	78.9	820	78.3	80.3	88.8	253
Oyo	74.4	65.0	76.3	1,215	57.1	42.3	59.8	430
Education								
No education	51.3	55.2	61.3	13,088	50.6	58.1	65.5	2,312
Primary	50.1	56.0	62.1	5,692	51.3	53.8	61.8	1,507
Secondary	47.2	53.4	61.0	16,099	47.7	50.6	59.5	5,482
More than secondary	33.3	37.1	45.5	4,554	31.6	33.1	42.8	1,975
Wealth quintile								
Lowest	57.8	61.9	67.9	6,454	57.7	63.6	71.3	1,767
Second	48.3	53.5	59.7	7,360	45.3	50.6	57.6	1,977
Middle	44.2	49.9	56.6	7,735	41.4	48.2	55.5	2,301
Fourth	46.5	51.7	59.2	8,695	44.7	45.5	56.6	2,515
Highest	42.9	48.0	55.9	9,189	43.8	44.4	53.6	2,715
Total 15-49	47.4	52.5	59.4	39,433	46.0	49.5	58.1	11,275
50-59	na	na	na	na	39.8	43.2	50.7	1,396
Total 15-59	na	na	na	na	45.3	48.8	57.3	12,671

na = Not applicable
[1] Percentage who do not think that children living with HIV should be able to attend school with children who are HIV negative and/or would not buy fresh vegetables from a shopkeeper who has HIV

Table 13.5.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women

Among all women age 15-49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months and percentage who had intercourse in the past 12 months with a person who neither was their husband nor lived with them; among women having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; among women who had sexual intercourse in the past 12 months with a person who neither was their husband nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among women who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, Nigeria DHS 2018

	All women			Women who had 2+ partners in the past 12 months		Women who had intercourse in the past 12 months with a person who neither was their husband nor lived with them		Women who ever had sexual intercourse[1]	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who neither was their husband nor lived with them	Number of women	Percentage who reported using a condom during last sexual inter-course	Number of women	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of women	Mean number of sexual partners in lifetime	Number of women
Age									
15-24	1.3	12.6	15,284	35.6	194	37.9	1,923	1.6	8,811
15-19	0.7	9.6	8,448	31.5	63	34.2	809	1.4	2,982
20-24	1.9	16.3	6,835	37.6	131	40.5	1,114	1.8	5,828
25-29	2.0	9.5	7,255	38.3	146	42.0	687	2.1	6,959
30-39	1.3	6.2	11,641	27.8	156	30.3	723	2.4	11,359
40-49	0.8	4.3	7,642	27.5	58	21.5	330	2.2	7,505
Marital status									
Never married	3.4	27.4	10,550	37.3	354	37.9	2,890	2.8	3,745
Married or living together	0.4	0.7	29,090	14.9	127	34.6	194	1.9	28,768
Divorced/separated/widowed	3.3	26.6	2,181	45.7	72	25.1	580	2.8	2,121
Residence									
Urban	1.6	11.2	19,163	36.8	305	36.7	2,147	2.3	15,010
Rural	1.1	6.7	22,658	28.8	248	34.3	1,517	1.9	19,624
Zone									
North Central	1.3	9.1	5,891	37.8	75	44.3	536	1.9	4,961
North East	1.3	5.0	6,636	40.2	83	32.8	335	1.7	5,497
North West	0.2	0.9	12,225	*	26	47.6	112	1.9	10,333
South East	1.3	12.8	4,963	24.4	66	37.6	636	1.9	4,026
South South	3.8	22.6	4,840	38.3	183	31.8	1,092	3.1	3,962
South West	1.6	13.1	7,266	23.4	119	33.6	952	2.3	5,855
State									
North Central									
FCT-Abuja	2.3	11.7	319	(78.4)	7	56.6	37	5.7	239
Benue	2.3	14.9	1,354	(47.8)	31	62.3	202	2.3	1,164
Kogi	0.6	11.8	654	*	4	35.4	77	1.6	562
Kwara	0.3	7.6	684	*	2	26.9	52	1.9	563
Nasarawa	1.4	10.0	648	*	9	36.2	65	1.3	529
Niger	0.5	2.2	1,357	*	7	(28.8)	30	1.4	1,185
Plateau	1.8	8.3	875	*	16	23.2	72	1.7	719
North East									
Adamawa	3.1	14.6	903	(67.2)	28	45.9	132	2.8	793
Bauchi	0.0	0.0	1,343	*	0	*	0	1.2	1,184
Borno	1.1	3.8	1,469	*	16	(32.0)	56	1.3	1,107
Gombe	0.5	2.3	717	*	3	(29.5)	17	1.5	598
Taraba	4.1	14.8	877	18.7	36	20.6	130	2.4	756
Yobe	0.0	0.0	1,327	*	0	*	1	1.4	1,059
North West									
Jigawa	0.0	0.1	1,382	*	0	*	2	1.5	1,196
Kaduna	0.7	3.8	2,493	*	18	52.3	94	1.9	2,149
Kano	0.0	0.4	2,692	*	1	*	12	1.5	2,197
Katsina	0.2	0.2	2,283	*	5	*	4	3.6	1,856
Kebbi	0.1	0.0	1,136	*	1	*	0	1.1	978
Sokoto	0.2	0.0	910	*	2	*	0	1.3	809
Zamfara	0.0	0.1	1,328	*	0	*	1	1.1	1,149

Continued...

Table 13.5.1—*Continued*

Background characteristic	All women			Women who had 2+ partners in the past 12 months		Women who had intercourse in the past 12 months with a person who neither was their husband nor lived with them		Women who ever had sexual intercourse[1]	
	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who neither was their husband nor lived with them	Number of women	Percentage who reported using a condom during last sexual inter-course	Number of women	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of women	Mean number of sexual partners in lifetime	Number of women
South East									
Abia	1.3	15.5	630	*	8	47.3	98	1.8	518
Anambra	0.8	14.0	1,477	*	12	33.9	207	1.8	1,238
Ebonyi	0.8	8.3	1,027	*	8	15.8	86	1.6	806
Enugu	1.2	12.6	880	*	11	50.0	111	1.5	684
Imo	2.8	14.2	948	(28.7)	27	40.1	135	2.9	779
South South									
Akwa Ibom	3.4	23.3	948	(12.8)	32	33.0	221	3.7	644
Bayelsa	1.5	17.9	298	*	4	8.7	54	1.8	258
Cross River	1.8	24.3	574	*	10	37.9	139	2.5	502
Delta	2.2	20.1	931	*	21	18.7	187	3.1	781
Edo	0.6	11.2	555	*	4	31.8	62	2.1	466
Rivers	7.3	27.9	1,534	49.0	112	37.6	428	3.7	1,311
South West									
Ekiti	1.6	11.8	475	*	8	28.9	56	2.1	406
Lagos	2.6	16.8	2,891	(21.5)	74	38.9	485	2.8	2,098
Ogun	0.9	9.8	927	*	8	42.0	91	2.0	810
Ondo	1.2	16.2	683	*	8	29.2	111	1.8	584
Osun	1.5	9.7	938	*	14	18.2	91	2.0	773
Oyo	0.5	8.7	1,352	*	6	23.7	118	2.2	1,183
Education									
No education	0.4	1.3	14,603	24.3	53	28.3	192	1.7	13,683
Primary	1.0	6.2	6,039	21.3	63	23.1	374	2.2	5,367
Secondary	2.0	13.6	16,583	35.0	332	34.7	2,253	2.3	11,704
More than secondary	2.3	18.4	4,596	39.4	106	45.4	844	2.5	3,880
Wealth quintile									
Lowest	0.7	2.6	7,222	13.6	50	25.7	189	1.5	6,461
Second	0.9	5.2	8,045	36.7	70	31.6	419	1.7	7,003
Middle	1.1	9.0	8,207	30.2	93	29.6	737	2.1	6,812
Fourth	2.1	12.4	8,990	35.1	187	37.7	1,114	2.4	7,185
Highest	1.6	12.9	9,357	37.6	154	40.5	1,204	2.6	7,175
Total 15-49	1.3	8.8	41,821	33.2	553	35.7	3,663	2.1	34,634

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave non-numeric responses.

Table 13.5.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men

Among all men age 15-49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months and percentage who had intercourse in the past 12 months with a person who neither was their wife nor lived with them; among men having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; among men who had sexual intercourse in the past 12 months with a person who neither was their wife nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among men who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, Nigeria DHS 2018

	All men			Men who had 2+ partners in the past 12 months		Men who had intercourse in the past 12 months with a person who neither was their wife nor lived with them		Men who ever had sexual intercourse[1]	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who neither was their wife nor lived with them	Number of men	Percentage who reported using a condom during last sexual inter-course	Number of men	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of men	Mean number of sexual partners in lifetime	Number of men
Age									
15-24	3.8	15.3	3,888	56.0	149	62.1	595	3.3	913
15-19	1.3	7.9	2,415	(59.7)	31	56.6	191	2.5	236
20-24	8.0	27.5	1,472	55.1	118	64.7	405	3.6	677
25-29	12.3	29.0	1,599	46.6	197	68.7	464	3.7	1,214
30-39	16.0	15.3	3,624	19.4	580	65.1	555	4.5	3,313
40-49	21.7	8.5	2,757	9.6	598	63.8	234	4.8	2,585
Marital status									
Never married	6.0	25.2	4,951	68.7	297	65.4	1,250	4.6	1,409
Married or living together	17.8	8.0	6,786	11.2	1,210	66.1	545	4.3	6,496
Divorced/separated/ widowed	12.3	40.3	131	*	16	40.2	53	5.4	120
Type of union									
In polygynous union	84.5	4.7	864	2.1	730	(51.8)	40	3.9	856
In non-polygynous union	8.1	8.5	5,922	25.0	481	67.2	505	4.4	5,640
Not currently in union	6.2	25.6	5,082	66.8	313	64.4	1,303	4.6	1,529
Residence									
Urban	10.7	19.1	5,512	33.8	590	69.3	1,054	5.0	3,794
Rural	14.7	12.5	6,356	15.6	934	59.0	794	3.8	4,230
Zone									
North Central	12.6	16.3	1,704	15.6	215	64.4	278	3.2	1,192
North East	13.2	9.6	1,936	16.8	256	50.0	185	3.2	1,204
North West	14.4	3.4	3,195	4.5	460	67.4	109	1.9	1,836
South East	9.6	22.4	1,355	47.2	130	69.2	303	6.6	940
South South	18.6	36.3	1,438	45.1	267	64.6	522	9.9	1,016
South West	8.7	20.1	2,240	33.8	195	68.0	451	4.2	1,837
State									
North Central									
FCT-Abuja	6.6	7.1	96	*	6	(83.6)	7	2.5	65
Benue	8.4	18.1	351	(25.1)	30	87.7	63	3.0	258
Kogi	17.2	40.0	156	(11.0)	27	46.6	62	4.4	129
Kwara	20.4	29.1	208	22.5	42	55.9	61	2.9	155
Nasarawa	11.0	19.7	206	(19.3)	23	58.3	41	3.3	136
Niger	14.3	5.8	442	4.9	63	*	26	2.8	305
Plateau	9.7	7.6	246	(16.8)	24	*	19	3.6	143
North East									
Adamawa	17.6	28.5	218	(40.4)	38	49.6	62	4.8	184
Bauchi	13.1	5.1	420	17.9	55	*	22	2.2	264
Borno	15.9	12.6	398	19.3	63	(58.5)	50	4.1	276
Gombe	8.7	3.3	240	(2.1)	21	*	8	2.0	120
Taraba	17.7	18.2	187	(11.5)	33	(27.9)	34	4.2	135
Yobe	9.7	2.0	472	(2.8)	46	*	9	2.0	225

Continued...

Table 13.5.2—*Continued*

Background characteristic	All men			Men who had 2+ partners in the past 12 months		Men who had intercourse in the past 12 months with a person who neither was their wife nor lived with them		Men who ever had sexual intercourse[1]	
	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who neither was their wife nor lived with them	Number of men	Percentage who reported using a condom during last sexual inter-course	Number of men	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of men	Mean number of sexual partners in lifetime	Number of men
North West									
Jigawa	12.8	0.4	291	(0.0)	37	*	1	2.0	183
Kaduna	19.6	10.8	636	8.0	125	(79.3)	69	2.5	449
Kano	10.9	0.9	676	0.0	74	*	6	1.6	335
Katsina	13.4	1.8	687	5.6	92	*	13	1.6	338
Kebbi	19.2	2.6	291	0.0	56	*	8	2.0	180
Sokoto	10.2	0.6	218	*	22	*	1	1.9	125
Zamfara	13.5	3.0	396	4.4	53	*	12	1.7	226
South East									
Abia	2.6	20.9	185	*	5	69.8	39	6.7	150
Anambra	9.5	18.6	409	(53.1)	39	87.1	76	4.0	306
Ebonyi	9.1	15.7	233	(49.4)	21	(69.0)	37	8.3	166
Enugu	4.2	21.7	192	*	8	(86.7)	42	3.8	146
Imo	17.1	32.6	337	42.3	57	50.1	110	12.0	172
South South									
Akwa Ibom	6.9	31.3	291	*	20	72.5	91	3.9	202
Bayelsa	20.3	40.6	109	32.5	22	51.2	44	8.9	93
Cross River	4.9	23.7	137	*	7	(65.5)	32	4.7	112
Delta	12.4	25.1	326	(36.1)	40	63.0	82	15.6	172
Edo	18.2	35.2	140	(50.3)	25	59.7	49	8.4	103
Rivers	35.0	51.3	435	45.3	152	65.6	223	13.1	335
South West									
Ekiti	11.7	26.4	139	(39.8)	16	73.8	37	11.4	106
Lagos	5.9	23.0	845	(41.1)	50	71.5	194	3.3	727
Ogun	8.9	7.5	309	*	28	*	23	3.2	253
Ondo	18.5	37.7	247	41.1	46	61.7	93	6.0	197
Osun	9.2	19.8	269	*	25	(67.7)	53	3.2	228
Oyo	7.4	11.7	432	*	32	(56.6)	50	3.9	326
Education									
No education	16.9	3.9	2,555	3.5	432	40.8	101	2.4	1,769
Primary	13.4	10.5	1,590	14.3	213	56.4	167	4.6	1,181
Secondary	11.1	19.6	5,697	32.2	633	65.1	1,118	5.2	3,485
More than secondary	12.2	22.8	2,025	38.9	246	72.6	461	4.6	1,590
Wealth quintile									
Lowest	12.1	5.0	1,991	4.2	242	37.1	99	2.4	1,216
Second	15.5	9.4	2,123	13.1	328	57.5	200	3.3	1,362
Middle	14.2	16.2	2,393	20.9	340	59.3	388	4.3	1,600
Fourth	11.9	20.5	2,590	31.7	307	66.2	532	5.5	1,758
Highest	11.1	22.7	2,770	40.3	306	73.9	629	5.3	2,087
Total 15-49	12.8	15.6	11,868	22.7	1,524	64.9	1,848	4.4	8,025
50-59	23.4	4.4	1,443	3.4	338	49.0	64	4.4	1,355
Total 15-59	14.0	14.4	13,311	19.2	1,862	64.3	1,912	4.4	9,379

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave non-numeric responses.

Table 13.6 Payment for sexual intercourse and condom use at last paid sexual intercourse

Percentage of men age 15-49 who ever paid for sexual intercourse and percentage reporting payment for sexual intercourse in the past 12 months, and among them, percentage reporting that a condom was used the last time they paid for sexual intercourse, according to age, Nigeria DHS 2018

	Among all men:			Among men who paid for sex in the past 12 months:	
Age	Percentage who ever paid for sexual intercourse	Percentage who paid for sexual intercourse in the past 12 months	Number of men	Percentage reporting condom use at last paid sexual intercourse	Number of men
15-24	2.4	1.8	3,888	67.5	71
15-19	0.9	0.6	2,415	*	15
20-24	5.0	3.8	1,472	71.9	56
25-29	6.4	4.0	1,599	72.1	64
30-39	6.5	3.1	3,624	84.1	114
40-49	6.0	2.5	2,757	63.7	68
Total 15-49	5.0	2.7	11,868	73.6	316
50-59	3.8	1.5	1,443	*	22
Total 15-59	4.9	2.5	13,311	74.0	338

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 13.7 Male circumcision

Percent distribution of men age 15-49 by circumcision status and provider of circumcision, and percentage of men circumcised, according to background characteristics, Nigeria DHS 2018

Background characteristic	Circumcised by: Health worker/ professional	Traditional practitioner/ family/friend	Other/don't know/missing	Not circumcised	Don't know/ missing circumcision status	Total	Percentage of men circumcised[1]	Number of men
Age								
15-24	30.8	56.7	8.3	3.0	1.2	100.0	95.8	3,888
15-19	31.6	54.9	8.7	3.3	1.6	100.0	95.1	2,415
20-24	29.6	59.6	7.7	2.6	0.5	100.0	96.9	1,472
25-29	27.3	61.5	8.2	2.7	0.3	100.0	97.0	1,599
30-39	25.0	60.1	11.2	3.4	0.3	100.0	96.3	3,624
40-49	19.5	64.9	11.6	3.9	0.1	100.0	96.0	2,757
Residence								
Urban	35.1	47.2	13.1	3.5	1.0	100.0	95.4	5,512
Rural	17.9	71.7	7.2	3.1	0.1	100.0	96.8	6,356
Zone								
North Central	21.6	68.1	7.4	2.8	0.0	100.0	97.2	1,704
North East	12.0	86.2	0.6	1.2	0.0	100.0	98.8	1,936
North West	14.8	84.2	0.3	0.6	0.0	100.0	99.4	3,195
South East	45.2	16.3	36.5	1.1	0.9	100.0	98.1	1,355
South South	43.1	25.4	21.0	10.1	0.4	100.0	89.5	1,438
South West	34.4	46.7	10.5	6.3	2.1	100.0	91.6	2,240
State								
North Central								
FCT-Abuja	45.3	33.7	15.9	5.1	0.0	100.0	94.9	96
Benue	17.4	58.2	19.0	5.3	0.0	100.0	94.7	351
Kogi	36.6	47.9	13.7	1.8	0.0	100.0	98.2	156
Kwara	26.6	69.5	1.7	2.2	0.0	100.0	97.8	208
Nasarawa	40.2	54.6	3.6	1.3	0.3	100.0	98.4	206
Niger	4.9	91.7	2.8	0.6	0.0	100.0	99.4	442
Plateau	19.0	76.3	0.0	4.7	0.0	100.0	95.3	246
North East								
Adamawa	34.1	62.6	0.7	2.7	0.0	100.0	97.3	218
Bauchi	2.5	95.1	0.7	1.7	0.0	100.0	98.3	420
Borno	20.2	78.3	0.7	0.7	0.0	100.0	99.3	398
Gombe	3.0	96.6	0.2	0.1	0.0	100.0	99.9	240
Taraba	21.2	77.2	1.6	0.0	0.0	100.0	100.0	187
Yobe	4.3	94.3	0.0	1.4	0.0	100.0	98.6	472
North West								
Jigawa	5.0	94.6	0.0	0.5	0.0	100.0	99.5	291
Kaduna	17.5	81.6	0.0	1.0	0.0	100.0	99.0	636
Kano	10.6	88.6	0.8	0.0	0.0	100.0	100.0	676
Katsina	35.8	63.8	0.2	0.2	0.0	100.0	99.8	687
Kebbi	9.9	87.9	0.7	1.6	0.0	100.0	98.4	291
Sokoto	0.5	98.0	1.0	0.5	0.0	100.0	99.5	218
Zamfara	0.0	98.8	0.0	1.2	0.0	100.0	98.8	396
South East								
Abia	83.2	10.4	5.3	1.1	0.0	100.0	98.9	185
Anambra	50.5	2.1	46.4	0.7	0.3	100.0	99.1	409
Ebonyi	13.5	44.2	41.3	0.3	0.8	100.0	98.9	233
Enugu	63.5	31.6	2.9	2.0	0.0	100.0	98.0	192
Imo	29.5	9.0	57.3	1.5	2.7	100.0	95.8	337
South South								
Akwa Ibom	33.2	31.0	27.2	8.5	0.0	100.0	91.5	291
Bayelsa	54.8	43.8	0.0	1.3	0.0	100.0	98.7	109
Cross River	63.1	31.2	4.9	0.3	0.5	100.0	99.2	137
Delta	44.7	13.8	4.7	35.9	1.0	100.0	63.1	326
Edo	37.3	51.7	10.4	0.3	0.3	100.0	99.4	140
Rivers	41.2	15.4	42.9	0.3	0.3	100.0	99.5	435
South West								
Ekiti	34.5	28.9	33.3	2.2	1.1	100.0	96.7	139
Lagos	44.2	48.4	5.3	1.0	1.1	100.0	97.9	845
Ogun	8.3	57.8	26.5	7.4	0.0	100.0	92.6	309
Ondo	38.5	38.7	16.2	3.3	3.3	100.0	93.4	247
Osun	23.9	37.5	0.7	36.7	1.2	100.0	62.0	269
Oyo	38.3	51.4	4.8	0.0	5.6	100.0	94.4	432

Continued...

Table 13.7—*Continued*

Background characteristic	Circumcised by: Health worker/ professional	Traditional practitioner/ family/friend	Other/don't know/missing	Not circumcised	Don't know/ missing circumcision status	Total	Percentage of men circumcised[1]	Number of men
Religion								
Catholic	41.5	31.7	23.0	2.9	0.8	100.0	96.2	1,339
Other Christian	38.4	37.8	18.0	4.9	0.8	100.0	94.3	4,092
Islam	14.7	80.8	1.9	2.3	0.3	100.0	97.4	6,351
Traditionalist	14.4	65.7	16.9	3.0	0.0	100.0	97.0	74
Other	*	*	*	*	*	100.0	*	11
Ethnic group								
Ekoi	*	*	*	*	*	*	*	2
Fulani	5.3	91.5	0.8	2.3	0.0	100.0	97.7	630
Hausa	12.4	85.8	0.7	1.0	0.1	100.0	98.9	3,687
Ibibio	38.4	41.7	16.3	3.6	0.0	100.0	96.4	217
Igala	32.0	42.2	22.9	1.1	1.8	100.0	97.0	125
Igbo	45.1	21.1	30.7	2.4	0.7	100.0	96.9	1,764
Ijaw/Izon	53.2	33.8	12.6	0.4	0.0	100.0	99.6	189
Kanuri/Beriberi	13.5	86.2	0.3	0.0	0.0	100.0	100.0	301
Tiv	21.8	57.9	13.3	7.0	0.0	100.0	93.0	258
Yoruba	34.9	46.0	10.2	7.0	2.0	100.0	91.0	1,892
Other	28.8	55.6	10.4	4.9	0.3	100.0	94.8	2,797
Total 15-49	25.9	60.3	9.9	3.3	0.5	100.0	96.2	11,868
50-59	12.5	75.5	8.0	3.7	0.3	100.0	96.0	1,443
Total 15-59	24.5	61.9	9.7	3.3	0.5	100.0	96.1	13,311

Note: Total includes 6 men with missing information on ethnic group. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes all men who reported they are circumcised, regardless of provider

Table 13.8 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms

Among women and men age 15-49 who ever had sexual intercourse, percentage reporting having an STI and/or symptoms of an STI in the past 12 months, according to background characteristics, Nigeria DHS 2018

	Percentage of women who reported having in the past 12 months:					Percentage of men who reported having in the past 12 months:				
Background characteristic	STI	Bad-smelling/ abnormal genital discharge	Genital sore or ulcer	STI/ genital discharge/ sore or ulcer	Number of women who ever had sexual inter-course	STI	Bad-smelling/ abnormal discharge from penis	Genital sore or ulcer	STI/ abnormal discharge from penis/ sore or ulcer	Number of men who ever had sexual inter-course
Age										
15-24	7.9	12.4	7.1	15.7	8,853	3.3	3.5	3.2	6.5	927
15-19	6.0	11.0	6.0	13.8	2,989	1.6	1.4	3.1	4.1	237
20-24	8.9	13.1	7.7	16.6	5,864	3.8	4.3	3.3	7.3	690
25-29	8.5	12.8	6.6	16.1	7,046	5.1	4.6	3.5	8.7	1,256
30-39	8.0	10.7	5.9	14.0	11,560	4.5	4.2	2.5	7.6	3,476
40-49	6.5	8.0	5.1	11.2	7,629	4.2	4.4	3.0	8.0	2,738
Marital status										
Never married	9.9	14.4	8.5	17.9	3,821	5.3	4.8	2.8	8.5	1,483
Married or living together	7.4	10.7	5.9	13.9	29,087	4.1	4.1	2.9	7.5	6,783
Divorced/separated/ widowed	8.0	9.4	5.4	12.8	2,180	6.3	6.4	4.0	11.7	131
Circumcised										
Yes[1]	na	na	na	na	na	4.4	4.0	2.8	7.3	8,080
No	na	na	na	na	na	4.6	11.7	6.7	20.7	294
Residence										
Urban	8.7	10.4	5.7	13.7	15,274	4.6	4.1	2.6	7.9	4,013
Rural	7.0	11.4	6.5	14.6	19,814	4.1	4.3	3.1	7.7	4,384
Zone										
North Central	7.5	20.0	8.8	23.8	4,980	3.7	3.8	2.6	6.0	1,193
North East	6.5	12.4	8.6	14.6	5,500	5.6	4.6	4.2	9.2	1,211
North West	9.0	9.1	5.7	13.1	10,335	4.0	5.4	2.7	8.6	1,837
South East	16.0	13.8	10.1	19.4	4,035	3.7	2.4	2.2	5.1	1,088
South South	5.8	8.0	3.8	10.8	4,167	6.6	7.5	3.5	12.1	1,196
South West	2.8	5.6	1.7	6.9	6,071	3.3	2.2	2.4	5.9	1,873
State										
North Central										
FCT-Abuja	6.7	13.2	7.6	16.5	256	0.0	0.0	0.0	0.0	65
Benue	4.3	10.4	5.1	13.8	1,164	0.4	2.1	0.4	2.1	258
Kogi	3.4	13.5	0.8	14.7	563	2.2	2.6	1.5	4.1	130
Kwara	4.1	5.6	4.0	6.7	563	8.4	5.1	4.3	12.6	155
Nasarawa	18.9	23.2	18.2	33.5	530	5.7	5.7	2.5	8.0	136
Niger	10.7	37.9	7.5	40.2	1,185	3.7	3.0	3.3	5.5	305
Plateau	4.7	22.8	20.3	28.7	719	6.0	7.9	5.8	9.8	143
North East										
Adamawa	4.9	6.7	6.5	7.3	794	1.7	2.1	1.9	2.8	184
Bauchi	4.6	11.6	6.3	14.7	1,184	3.0	1.5	1.5	5.0	265
Borno	5.8	7.5	7.0	9.0	1,107	12.4	10.6	9.0	20.8	277
Gombe	5.0	16.2	14.9	19.1	598	7.3	5.1	4.9	10.4	121
Taraba	11.0	19.8	11.4	23.6	757	4.9	4.6	5.0	9.8	139
Yobe	8.1	15.4	9.1	16.9	1,059	2.8	2.4	2.4	4.1	225
North West										
Jigawa	5.3	5.9	9.3	13.1	1,196	0.0	4.9	3.2	6.5	183
Kaduna	15.8	14.3	5.9	18.8	2,150	8.5	6.3	2.6	13.6	449
Kano	12.9	9.7	5.9	15.5	2,197	5.5	9.7	5.1	13.5	336
Katsina	1.0	3.6	3.0	5.4	1,856	0.0	0.8	0.0	0.8	338
Kebbi	12.6	15.2	10.8	18.6	978	1.8	2.8	1.0	3.8	180
Sokoto	2.2	6.9	3.4	9.9	809	6.1	5.4	1.1	7.6	125
Zamfara	7.6	6.4	2.4	8.1	1,149	2.2	6.5	5.0	9.4	227
South East										
Abia	3.0	4.7	1.8	5.4	519	1.5	0.0	0.6	2.1	150
Anambra	8.3	8.0	4.3	11.4	1,241	1.3	2.1	0.3	2.3	347
Ebonyi	14.3	11.2	7.7	18.5	811	1.5	0.0	1.6	2.3	183
Enugu	49.6	39.4	36.6	52.3	684	5.1	2.7	7.6	10.4	146
Imo	9.0	9.4	4.2	13.6	781	8.9	5.6	2.9	9.7	262

Continued...

Table 13.8—*Continued*

Background characteristic	Percentage of women who reported having in the past 12 months: STI	Bad-smelling/ abnormal genital discharge	Genital sore or ulcer	STI/ genital discharge/ sore or ulcer	Number of women who ever had sexual inter-course	Percentage of men who reported having in the past 12 months: STI	Bad-smelling/ abnormal discharge from penis	Genital sore or ulcer	STI/ abnormal discharge from penis/ sore or ulcer	Number of men who ever had sexual inter-course
South South										
Akwa Ibom	5.8	5.7	5.1	10.6	805	2.4	1.8	3.1	5.5	242
Bayelsa	4.5	2.7	1.3	5.5	258	9.5	6.8	4.4	10.9	93
Cross River	4.3	7.2	1.9	8.7	505	6.1	5.6	3.1	8.5	112
Delta	5.7	6.9	6.1	8.9	784	5.2	15.1	5.1	23.9	244
Edo	4.8	8.3	2.3	10.6	466	1.3	0.0	0.0	1.3	107
Rivers	6.9	11.3	3.5	13.9	1,350	11.0	9.0	3.7	13.0	397
South West										
Ekiti	3.0	7.4	2.4	9.4	407	2.4	6.8	0.5	7.2	118
Lagos	2.4	8.8	2.0	9.6	2,313	4.9	2.8	2.4	7.0	732
Ogun	2.8	2.7	2.3	4.2	810	3.0	1.2	8.7	11.7	253
Ondo	1.3	2.8	0.8	3.5	584	3.5	3.9	1.6	5.8	203
Osun	2.3	4.3	1.1	5.2	774	0.0	0.0	0.0	0.0	228
Oyo	4.4	3.1	1.3	5.6	1,183	2.4	0.4	0.4	2.8	339
Education										
No education	7.0	11.4	6.4	14.4	13,717	3.5	4.1	3.3	7.8	1,780
Primary	7.3	10.0	6.1	13.4	5,447	3.6	4.9	3.6	8.5	1,251
Secondary	8.7	11.3	6.2	14.8	11,964	5.2	4.3	2.7	8.1	3,708
More than secondary	7.9	9.8	5.4	12.9	3,960	3.9	3.8	2.2	6.5	1,658
Wealth quintile										
Lowest	5.8	10.6	6.6	13.3	6,466	3.2	3.9	2.5	6.6	1,225
Second	8.1	12.2	6.9	15.6	7,038	3.3	3.1	2.1	5.8	1,386
Middle	9.2	12.2	7.3	16.4	6,877	5.3	5.9	4.3	9.9	1,683
Fourth	8.0	10.5	5.6	13.7	7,317	5.4	5.0	2.9	9.4	1,894
Highest	7.5	9.5	4.7	12.3	7,390	4.1	3.2	2.5	6.6	2,209
Total 15-49	7.7	11.0	6.2	14.2	35,088	4.4	4.2	2.9	7.8	8,397
50-59	na	na	na	na	na	3.2	3.3	1.7	5.7	1,440
Total 15-59	na	na	na	na	na	4.2	4.1	2.7	7.5	9,837

Note: Total includes 24 men with missing information on circumcision status.
na = Not applicable
[1] Includes all men who reported they are circumcised, regardless of provider

Table 13.9 Women and men seeking treatment for STIs

Percentage of women and men age 15-49 reporting an STI or symptoms of an STI in the past 12 months who sought advice or treatment, Nigeria DHS 2018

Source of advice or treatment	Women	Men
Clinic/hospital/private doctor/other health professional	33.1	30.8
Advice or medicine from shop/pharmacy	12.9	14.8
Advice or treatment from any other source	10.9	5.2
No advice or treatment	44.3	53.9
Number with STI or symptoms of STI	4,997	653

Table 13.10 Comprehensive knowledge about HIV among young people

Percentage of young women and young men age 15-24 with comprehensive knowledge about HIV, according to background characteristics, Nigeria DHS 2018

	Women		Men	
Background characteristic	Percentage with comprehensive knowledge of HIV[1]	Number of respondents	Percentage with comprehensive knowledge of HIV[1]	Number of respondents
Age				
15-19	38.1	8,448	28.7	2,415
15-17	35.5	5,242	25.5	1,583
18-19	42.4	3,206	34.9	832
20-24	48.1	6,835	41.9	1,472
20-22	47.6	4,625	39.7	1,038
23-24	49.3	2,211	47.2	435
Marital status				
Never married	43.0	8,763	33.7	3,642
Ever had sex	49.3	2,334	51.1	681
Never had sex	40.7	6,429	29.7	2,961
Ever married	42.1	6,521	34.8	246
Residence				
Urban	51.4	6,737	41.6	1,661
Rural	35.7	8,546	27.9	2,227
Education				
No education	31.0	4,383	16.2	803
Primary	33.8	1,601	21.2	370
Secondary	47.6	8,262	38.3	2,404
More than secondary	65.5	1,037	58.6	311
Total	42.6	15,284	33.7	3,888

[1] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission or prevention. The components of comprehensive knowledge are presented in Tables 13.1 and 13.2.

Table 13.11 Age at first sexual intercourse among young people

Percentage of young women and young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and young men age 18-24 who had sexual intercourse before age 18, according to background characteristics, Nigeria DHS 2018

	Women				Men			
Background characteristic	Percentage who had sexual intercourse before age 15	Number of respondents (15-24)	Percentage who had sexual intercourse before age 18	Number of respondents (18-24)	Percentage who had sexual intercourse before age 15	Number of respondents (15-24)	Percentage who had sexual intercourse before age 18	Number of respondents (18-24)
Age								
15-19	8.6	8,448	na	na	2.4	2,415	na	na
15-17	7.3	5,242	na	na	2.0	1,583	na	na
18-19	10.8	3,206	47.3	3,206	3.1	832	12.9	832
20-24	15.8	6,835	55.9	6,835	2.2	1,472	13.8	1,472
20-22	16.0	4,625	56.9	4,625	1.9	1,038	13.0	1,038
23-24	15.3	2,211	53.9	2,211	2.7	435	15.6	435
Residence								
Urban	5.8	6,737	35.7	4,375	2.0	1,661	14.4	1,000
Rural	16.6	8,546	66.7	5,666	2.5	2,227	12.8	1,304
Education								
No education	24.0	4,383	81.6	3,070	0.9	803	6.1	430
Primary	16.3	1,601	70.8	989	1.3	370	10.3	184
Secondary	5.7	8,262	39.5	4,978	3.0	2,404	16.9	1,385
More than secondary	2.1	1,037	16.6	1,005	1.9	311	10.2	305
Total	11.8	15,284	53.2	10,041	2.3	3,888	13.5	2,304

na = Not applicable

Table 13.12 Premarital sexual intercourse among young people

Among never-married women and men age 15-24, percentage who have never had sexual intercourse, according to background characteristics, Nigeria DHS 2018

	Women age 15-24		Men age 15-24	
Background characteristic	Percentage who have never had sexual intercourse	Number of never-married women	Percentage who have never had sexual intercourse	Number of never-married men
Age				
15-19	84.3	6,471	90.5	2,407
15-17	91.4	4,433	94.4	1,582
18-19	68.9	2,038	82.9	825
20-24	42.4	2,292	63.4	1,235
20-22	47.8	1,648	68.3	911
23-24	28.6	644	49.7	324
Residence				
Urban	73.6	4,970	77.3	1,608
Rural	73.1	3,793	84.4	2,034
Education				
No education	91.1	951	95.0	699
Primary	78.4	731	89.6	333
Secondary	72.6	6,215	78.6	2,310
More than secondary	55.3	866	61.3	300
Total	73.4	8,763	81.3	3,642

Table 13.13.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months among young people: Women

Among all young women age 15-24, percentage who had sexual intercourse with more than one sexual partner in the past 12 months and percentage who had intercourse in the past 12 months with a person who neither was their husband nor lived with them; among young women having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; and among young women who had sexual intercourse in the past 12 months with a person who neither was their husband nor lived with them, percentage who used a condom during last sexual intercourse with such a partner, according to background characteristics, Nigeria DHS 2018

	Women age 15-24			Women age 15-24 who had 2+ partners in the past 12 months		Women age 15-24 who had intercourse in the past 12 months with a person who neither was their husband nor lived with them	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who neither was their husband nor lived with them	Number of women	Percentage who reported using a condom during last sexual intercourse	Number of women	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of women
Age							
15-19	0.7	9.6	8,448	31.5	63	34.2	809
15-17	0.4	5.8	5,242	(21.6)	23	29.0	303
18-19	1.2	15.8	3,206	(37.3)	39	37.3	507
20-24	1.9	16.3	6,835	37.6	131	40.5	1,114
20-22	1.9	15.8	4,625	36.2	88	40.9	729
23-24	2.0	17.4	2,211	(40.4)	43	39.8	385
Marital status							
Never married	1.9	21.0	8,763	37.9	162	38.3	1,840
Ever married	0.5	1.3	6,521	(23.7)	31	28.2	83
Residence							
Urban	1.4	16.0	6,737	38.6	97	39.0	1,079
Rural	1.1	9.9	8,546	32.6	97	36.4	844
Education							
No education	0.4	1.6	4,383	*	17	28.7	72
Primary	0.6	8.0	1,601	*	10	31.0	128
Secondary	1.7	16.8	8,262	32.6	137	36.4	1,387
More than secondary	2.9	32.4	1,037	(58.7)	30	48.3	336
Total 15-24	1.3	12.6	15,284	35.6	194	37.9	1,923

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 13.13.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months among young people: Men

Among all young men age 15-24, percentage who had sexual intercourse with more than one sexual partner in the past 12 months and percentage who had intercourse in the past 12 months with a person who neither was their wife nor lived with them; among young men having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; and among young men who had sexual intercourse in the past 12 months with a person who neither was their wife nor lived with them, percentage who used a condom during last sexual intercourse with such a partner, according to background characteristics, Nigeria DHS 2018

	Men age 15-24			Men age 15-24 who had 2+ partners in the past 12 months		Men age 15-24 who had intercourse in the past 12 months with a person who neither was their wife nor lived with them	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who neither was their wife nor lived with them	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of men
Age							
15-19	1.3	7.9	2,415	(59.7)	31	56.6	191
15-17	0.6	4.4	1,583	*	10	45.2	70
18-19	2.5	14.5	832	(63.9)	20	63.3	120
20-24	8.0	27.5	1,472	55.1	118	64.7	405
20-22	7.2	25.0	1,038	51.1	74	58.8	259
23-24	10.1	33.4	435	61.7	44	75.1	145
Marital status							
Never married	3.5	15.6	3,642	60.4	126	62.8	568
Ever married	9.3	10.9	246	(32.1)	23	(47.2)	27
Residence							
Urban	4.8	19.5	1,661	57.7	80	67.3	324
Rural	3.1	12.2	2,227	54.0	69	55.9	271
Education							
No education	0.7	3.7	803	*	6	(23.2)	30
Primary	3.3	9.5	370	*	12	(50.2)	35
Secondary	4.4	18.1	2,404	57.1	106	63.3	435
More than secondary	7.9	30.5	311	(61.2)	25	73.0	95
Total 15-24	3.8	15.3	3,888	56.0	149	62.1	595

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

ADULT AND MATERNAL MORTALITY 14

Key Findings

- ***Adult mortality:*** The adult mortality rate is 3.18 deaths per 1,000 population among women and 3.25 deaths per 1,000 population among men.
- ***Lifetime risk of maternal death:*** The lifetime risk of maternal death indicates that one in 34 women in Nigeria will have a death related to maternal causes.
- ***Maternal mortality ratio:*** The maternal mortality ratio for the 7-year period before the 2018 NDHS is estimated at 512 maternal deaths per 100,000 live births.
- ***Pregnancy-related mortality ratio:*** The pregnancy-related mortality ratio (including deaths from accidents or violence, comparable with previous NDHS surveys) for the 7-year period before the 2018 NDHS is estimated at 556 pregnancy-related deaths per 100,000 live births.

Adult and maternal mortality indicators can be used to assess the health status of a population. In most developing countries, reproductive health is a major concern, and there is a need for reliable data on maternal deaths. Maternal mortality continues to be a serious problem in Nigeria.

WHO explains this problem using a delay model that includes delays in seeking health care, delays in reaching health facilities, and poor health services in facilities. This model has been associated with human, health system, and socioeconomic factors such as poverty, poor emergency obstetric services, and fatalistic beliefs. These problems have contributed to a high incidence of infectious diseases, postpartum haemorrhage, hypertensive disorders, unsafe abortions, and prolonged labour, which have led to high adult and maternal mortality in Nigeria. The target of SDG 3.1 is to reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030.

Estimation of mortality rates requires complete and accurate data on adult and maternal deaths. In the 2018 NDHS, data were collected from all female respondents on the survival of their sisters and brothers to obtain an estimate of adult mortality. Questions were included to determine if any of the sisters' deaths were maternity-related, which permits an estimation of maternal mortality—a key indicator of maternal health and well-being.

This chapter presents information on the levels of and trends in adult mortality and maternal mortality in Nigeria. The chapter includes a summary measure (${}_{35}q_{15}$) that represents the probability of dying between exact ages 15 and 50—that is, between the 15th and 50th birthdays.

14.1 DATA

To obtain a sibling history, each respondent was first asked to provide the total number of her mother's live births. The respondent was then asked to provide a list of all children born to her mother, starting with the first born, and the survival status of each sibling. Information on current age was collected for each surviving sibling. Age at death and number of years since death were recorded for each deceased sibling. When a respondent could not provide precise information on age at death or years since death, the

interviewers were instructed to accept an approximate but quantitative answer. For sisters who died at age 12 or above, three questions were used to determine whether the death was maternity-related: "Was [NAME OF SISTER] pregnant when she died?" and, if not, "Did she die during childbirth?" and, if not, "Did she die within 2 months after the end of a pregnancy or childbirth?" Estimation of adult and pregnancy-related mortality by either direct or indirect means requires reasonably accurate reporting of the respondent's number of sisters and brothers, the number who have died, and (for pregnancy-related mortality) the number of sisters who died of pregnancy-related causes. **Table 14.1** shows the number of siblings reported by respondents and the completeness of data on current age, age at death, and years since death.

A total of 219,561 siblings were recorded in the adult mortality section of the 2018 NDHS. There were only 20 siblings (0.01%) for whom survival status was not reported. Current age (used to estimate exposure to death) was reported for all surviving siblings. Also, data on age at death and years since death were obtained for all dead siblings. It is interesting to note that there were no reports of missing dates in the adult mortality section. The sex ratio for enumerated siblings (the ratio of brothers to sisters multiplied by 100) is 106, the same figure as in the 2013 NDHS (**Appendix Table C.10**).

14.2 Direct Estimates of Adult Mortality

Adult mortality rate

The number of adult deaths per 1,000 population age 15-49. Adult mortality rates by 5-year age groups are calculated as follows: the number of deaths to a respondent's siblings in each age group is divided by the number of person-years of exposure to the risk of dying in that age group during the 7 years preceding the survey. The number of deaths is the number of siblings (brothers or sisters) reported as having died within the 7 years preceding the survey. The person-years of exposure in each age group are calculated for both surviving and dead siblings based on their current age (living siblings) or age at death and years since death (dead siblings).

Sample: Siblings (both living and dead) who were age 15-49 in the 7 years preceding the survey, by sex and 5-year age groups.

One way to assess the quality of the data used to estimate pregnancy-related mortality is to evaluate the plausibility and stability of overall adult mortality. If estimated rates of overall adult mortality are implausible, rates based on a subset of deaths (pregnancy-related deaths in particular) may have questionable plausibility.

The reported ages at death and years since death of the respondents' brothers and sisters are used to make direct estimates of adult mortality. Age- and sex-specific death rates are presented in this report because of the differentials in exposure to the risk of dying. To ensure a sufficiently large number of adult deaths to generate a robust estimate, the rates are calculated for the 7-year period before the survey (approximately mid-2011 to mid-2018).

Nevertheless, age-specific mortality rates obtained in this manner are subject to considerable sampling variation. Use of this 7-year period was a compromise between the desire for the most recent data and the need to minimise sampling error.

Figure 14.1 **Adult mortality rates by age**

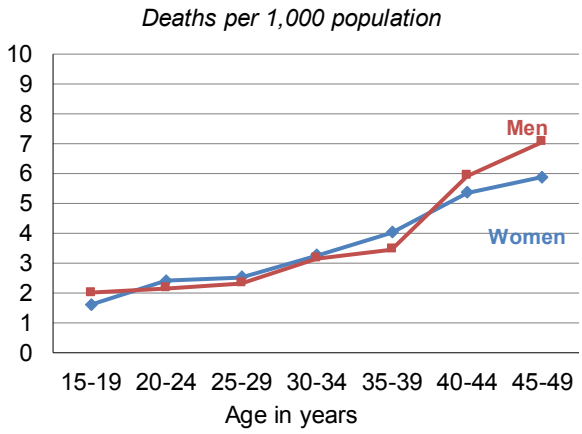


Table 14.2 and **Figure 14.1** show direct estimates of age-specific mortality rates among women and men age 15-49 for the 7-year period before the survey. Overall, the level of adult mortality is slightly higher among men (3.25 deaths per 1,000 population) than among women (3.18 deaths per 1,000 population). Mortality rates rise rapidly with age among women, from 1.59 per 1,000 population in the 15-19 age group to 5.86 per 1,000 population in the 45-49 age group. Similarly, mortality rates among men increase steadily from 1.99 per 1,000 population in the 15-19 age group to 7.04 per 1,000 in the 45-49 age group. Mortality rates are higher among women than men in the 20-39 age groups. However, rates are higher among men in the youngest age group (15-19) and the older age groups (40 years and above). The trends in **Table 14.2** show that there has been an improvement in adult mortality since the 2008 NDHS, from 4.7 to 3.18 deaths per 1,000 population among women and from 4.6 to 3.25 deaths per 1,000 population among men.

14.3 Trends in Adult Mortality

Table 14.3 shows the probability of dying between exact ages 15 and 50 ($_{35}q_{15}$) in the 7 years preceding the last three NDHS surveys; $_{35}q_{15}$ is the probability of a woman or man who has just reached age 15 dying before age 50 if age-specific death rates in the 7 years before the survey are constant. The 2018 NDHS data show that women have a lower probability of dying than men: 117 of 1,000 women age 15 and 122 of 1,000 men age 15 would be expected to die before age 50.

Since 2008, the probability of dying between exact ages 15 and 50 has improved among women, declining from 161 per 1,000 women in the 7 years before the 2008 NDHS to 117 per 1,000 women in the 7 years before 2018. Similarly, the probability among men decreased from 168 per 1,000 men in the 7 years before 2008 to 122 per 1,000 men in the 7 years before 2018.

14.4 Direct Estimates of Maternal Mortality

Maternal mortality rate

The number of maternal deaths per 1,000 women age 15-49. Maternal mortality rates by 5-year age groups are calculated by dividing the number of maternal deaths to female siblings of respondents in each age group by the total person-years of exposure of the sisters to the risk of dying in that age group during the 7 years preceding the survey. The number of deaths is the number of sisters reported as having died in the 7 years preceding the survey either during pregnancy or delivery, or in the 42 days following the delivery or termination of a pregnancy, by their age group at the time of death; deaths due to accidents or violence are excluded. The person-years of exposure in each age group are calculated for both surviving and dead sisters based on their reported current age (living sisters) or age at death and years since death (dead sisters).

Sample: Sisters (both living and dead) age 15-49 in the 7 years preceding the survey, by 5-year age groups

Maternal mortality ratio

The number of maternal deaths per 100,000 live births. The maternal mortality ratio is calculated by dividing the age-standardised maternal mortality rate for women age 15-49 in the 7 years preceding the survey by the general fertility rate (GFR) for the same time period.

Maternal deaths are a subset of all female deaths; they are defined as any deaths that occur during pregnancy or childbirth or within 42 days after the birth or termination of a pregnancy. Maternal deaths do not include deaths due to accidents or violence. Two methods are generally used to estimate maternal mortality in low- and middle-income countries: the indirect sisterhood method (Graham et al. 1989) and a direct variant of the sisterhood method (Rutenberg and Sullivan 1991; Stanton et al. 1997). **Table 14.4** presents age-specific direct estimates of maternal mortality from the reported survivorship of sisters for the

7-year period prior to the 2018 NDHS. These rates were calculated by dividing the number of maternal deaths by woman-years of exposure. To remove the effect of truncation bias (the lower boundary for eligibility among women interviewed in the survey is 15 years, and the upper boundary is 49 years), the overall rate for women age 15-49 was standardised by the age distribution of survey respondents.

Table 14.4 shows that the maternal mortality rate among women age 15-49 is 0.92 deaths per 1,000 woman-years of exposure. By 5-year age groups, the maternal mortality rate is highest among women age 35-39 (1.30) and lowest among those age 15-19 (0.63). The overall percentage of female deaths due to maternal causes is 31%. The percentage of female deaths that are maternal deaths generally decreases with age, from 40%-41% in the 15-19 and 20-24 age groups to 12% in the 45-49 age group.

The estimated maternal mortality ratio is 512 deaths per 100,000 live births during the 7-year period before the survey (with a 95% confidence interval of 447 to 578). Thus, for every 1,000 live births in Nigeria during the 7 years before the 2018 NDHS, approximately five women died during pregnancy, during childbirth, or within 2 months after childbirth. The lifetime risk of maternal death (0.029) indicates that of 1,000 women of exact age 15, about 29 (one in 34 women) would die before age 50 during pregnancy, during childbirth, or within 2 months of childbirth.

14.5 Trends in Pregnancy-Related Mortality

Pregnancy-related mortality rate

The number of pregnancy-related deaths per 1,000 women age 15-49. Pregnancy-related mortality rates by 5-year age groups are calculated by dividing the number of pregnancy-related deaths to female siblings of respondents in each age group by the total person-years of exposure of the sisters to the risk of dying in that age group during the 7 years preceding the survey. The number of deaths is the number of sisters reported as having died in the 7 years preceding the survey during pregnancy or delivery, or in the 2 months following the delivery or termination of a pregnancy, by their age group at the time of death. The person-years of exposure in each age group are calculated for both surviving and dead sisters based on their reported current age (living sisters) or age at death and years since death (dead sisters).

Sample: Sisters (both living and dead) age 15-49 in the 7 years preceding the survey, by 5-year age groups

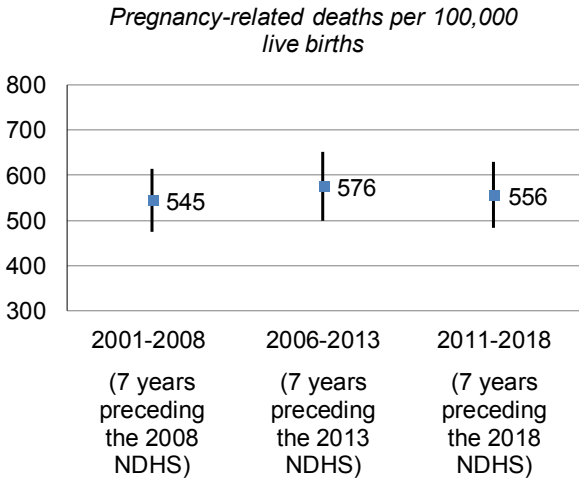
Pregnancy-related mortality ratio

The number of pregnancy-related deaths per 100,000 live births. The pregnancy-related mortality ratio is calculated by dividing the age-standardised pregnancy-related mortality rate for women age 15-49 in the 7 years preceding the survey by the general fertility rate (GFR) for the same time period.

To allow comparisons with estimates from previous NDHS surveys, the 2018 NDHS defines a pregnancy-related death as the death of a woman during pregnancy or childbirth or within 2 months of delivery or termination of a pregnancy, irrespective of the cause of death. Estimates of pregnancy-related mortality are therefore based solely on the timing of the death in relationship to the pregnancy. Note that this definition varies from the WHO definition of a pregnancy-related death, which limits the window to 42 days. What the 2018 NDHS defines as a pregnancy-related death had been labelled a maternal death in prior NDHS surveys.

Figure 14.2 presents estimates of the pregnancy-related mortality ratio (PRMR) with confidence intervals for the 2018 NDHS and previous NDHS surveys. The pregnancy-related maternal mortality ratio for the 2018 NDHS is 556 (CI: 484-629) deaths per 100,000 live births. The point estimates from NDHS surveys show a fluctuation in the PRMR in Nigeria since 2008. The figure shows a decline in pregnancy-related mortality from 576 deaths per 100,000 live births in the 7 years before the 2013 NDHS to 556 deaths per 100,000 live births in the 7 years before the 2018 NDHS. However, the confidence intervals for the PRMR estimates from 2013 and 2018 overlap, and thus the difference between the 2013 and 2018 estimates of the PRMR is not statistically significant.

Figure 14.2 **Trends in the pregnancy-related mortality ratio (PRMR) with confidence intervals**



List of Tables

For more information on adult and maternal mortality, see the following tables:

- **Table 14.1 Completeness of information on siblings**
- **Table 14.2 Adult mortality rates**
- **Table 14.3 Adult mortality probabilities**
- **Table 14.4 Maternal mortality**
- **Table C.11 Pregnancy-related mortality trends (see Appendix C)**

Table 14.1 Completeness of information on siblings

Completeness of data on survival status of sisters and brothers reported by interviewed women, age of living siblings, and age at death (AD) and years since death (YSD) of dead siblings (unweighted), Nigeria DHS 2018

	Sisters		Brothers		All siblings	
	Number	Percent	Number	Percent	Number	Percent
All siblings	106,590	100.0	112,971	100.0	219,561	100.0
Living	94,068	88.3	99,247	87.9	193,315	88.0
Dead	12,514	11.7	13,712	12.1	26,226	11.9
Survival status unknown	8	0.0	12	0.0	20	0.0
Living siblings	94,068	100.0	99,247	100.0	193,315	100.0
Age reported	94,068	100.0	99,247	100.0	193,315	100.0
Dead siblings	12,514	100.0	13,712	100.0	26,226	100.0
AD and YSD reported	12,514	100.0	13,712	100.0	26,226	100.0

Table 14.2 Adult mortality rates

Direct estimates of female and male mortality rates for the 7 years preceding the survey, according to 5-year age groups, Nigeria DHS 2018

	2018 NDHS			2013 NDHS	2008 NDHS
Age	Deaths	Exposure years	Mortality rate[1]	Mortality rate[1]	Mortality rate[1]
			FEMALE		
15-19	142	89,203	1.59	2.3	3.3
20-24	234	97,777	2.39	2.8	3.4
25-29	236	93,464	2.52	3.6	4.3
30-34	261	80,364	3.25	3.6	6.2
35-39	244	60,748	4.01	4.4	5.2
40-44	199	37,201	5.35	4.8	6.3
45-49	127	21,625	5.86	5.1	6.3
Total 15-49	1,442	480,382	3.18[a]	3.5[a]	4.7[a]
			MALE		
15-19	184	92,441	1.99	1.7	2.8
20-24	222	103,300	2.15	2.6	2.9
25-29	224	97,194	2.31	2.7	3.6
30-34	266	84,669	3.14	3.2	5.0
35-39	228	66,201	3.44	4.4	5.4
40-44	251	42,406	5.91	5.2	8.7
45-49	166	23,629	7.04	6.5	8.2
Total 15-49	1,542	509,841	3.25[a]	3.3[a]	4.6[a]

[1] Expressed per 1,000 population
[a] Age-adjusted rate

Table 14.3 Adult mortality probabilities

The probability of dying between ages 15 and 50 for women and men during the 7 years preceding the survey, Nigeria DHS 2008, 2013, and 2018

Survey	Female $_{35}q_{15}$[1]	Male $_{35}q_{15}$[1]
2018 NDHS	117 (CI: 109-126)	122 (CI: 113-122)
2013 NDHS	124 (CI: 114-134)	123 (CI: 113-134)
2008 NDHS	161 (CI: 149-172)	168 (CI: 156-180)

CI: Confidence interval
[1] The probability of dying between exact ages 15 and 50, expressed per 1,000 persons age 15

Table 14.4 Maternal mortality

Direct estimates of maternal mortality rates for the 7 years preceding the survey, by 5-year age groups, and the general fertility rate, maternal mortality ratio, and lifetime risk of maternal death for the 7 years preceding the survey, Nigeria DHS 2018

Age	Percentage of female deaths that are maternal	Maternal deaths[1]	Exposure years	Maternal mortality rate[2]
15-19	39.7	56	89,203	0.63
20-24	41.0	96	97,777	0.98
25-29	37.5	88	93,464	0.95
30-34	33.8	88	80,364	1.10
35-39	32.3	79	60,748	1.30
40-44	14.1	28	37,201	0.76
45-49	11.8	15	21,625	0.69
Total 15-49	31.3	451	480,382	0.92[a]
General fertility rate (GFR)[3]	0.179[a]			
Maternal mortality ratio (MMR)[4]	512	(CI: 447-578)		
Lifetime risk of maternal death[5]	0.029			

CI: Confidence interval
[1] A maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, from any cause except accidents or violence.
[2] Expressed per 1,000 woman-years of exposure
[3] Age-adjusted rate, expressed per 1,000 women age 15-49
[4] Expressed per 100,000 live births; calculated as the age-adjusted maternal mortality rate times 100 divided by the age-adjusted general fertility rate
[5] Calculated as $1-(1-MMR)^{TFR}$, where TFR represents the total fertility rate for the 7 years preceding the survey
[a] Age-adjusted rate

WOMEN'S EMPOWERMENT 15

Key Findings

- ***Employment and earnings:*** 74% of currently married women age 15-49 were employed in the 12 months before the survey, as compared with 99% of currently married men. Fifteen percent of employed women and 8% of employed men do not receive payment for their work.
- ***Women's control over their cash earnings:*** 72% of currently married women with cash earnings report that they themselves make decisions about how their earnings are used, a slight increase from the percentage in 2013 (70%).
- ***Participation in decision making:*** 34% of currently married women participate in three specified household decisions (regarding their own health care, household purchases, and visits to their family or relatives), while 37% are not involved in any of these decisions.
- ***Attitudes toward wife beating:*** 28% of women and 21% of men agree that a husband is justified in beating his wife under one or more specified circumstances. Agreement with wife beating has declined substantially over time.
- ***Ownership and use of bank accounts and mobile phones:*** 22% of women have a bank account that they use, and 55% own a mobile phone. Among women with a mobile phone, 28% use their phone for financial transactions.
- ***Reproductive health:*** Contraceptive use and antenatal care, delivery assistance, postnatal care, and child survival indicators are all positively associated with women's empowerment.

The Nigerian government is strongly committed to promoting gender equality and women's empowerment, and, as a signatory to the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the government has adopted a number of institutional and policy measures that support these goals. Examples include the 1999 Nigerian Constitution; the National Gender Policy 2007; the National Gender Policy Strategic Framework (Implementation Plan) 2008-2013; the 2nd National Action Plan on Implementation of UN Security Council Resolution (UNSCR) 1325 and Related Resolutions on Women, Peace and Security (2017); and the Violence Against Persons (Prohibition) Act 2015. The government has also shown an increasing commitment to supporting social and economic empowerment of women and fostering gender equality through constant review of policies, reassessment of priorities, commitment of adequate financial resources, and effective implementation of programs such as the Federal Republic of Nigeria Economic Recovery and Growth Plan (ERGP) (2017-2020) (Ministry of Budget and National Planning 2017).

This chapter explores women's empowerment in terms of their employment and control over earnings, asset ownership, gender-related attitudes, and household decision making. In order to examine gender differentials, where possible, indicators for women are compared with those for men. In addition, women's responses to specific questions on their participation in household decision making and attitudes towards wife beating are used to examine how selected demographic and health indicators vary by women's empowerment.

15.1 Married Women's and Men's Employment

Employment

Respondents are considered to be employed if they have done any work other than their housework in the 12 months before the survey.

Sample: Currently married women and men age 15-49

Earning cash for employment

Respondents are asked if they are paid for their labour in cash or in-kind. Only those who receive payment in cash only or in cash and in-kind are considered to earn cash for their employment.

Sample: Currently married women and men age 15-49 employed in the 12 months before the survey

Seventy-four percent of currently married women age 15-49 were employed in the 12 months before the survey, as compared with 99% of currently married men (**Table 15.1**). Among those employed, women are less likely than men to be paid in cash only (73% versus 80%). Fifteen percent of women and 8% of men do not receive any payment for their work.

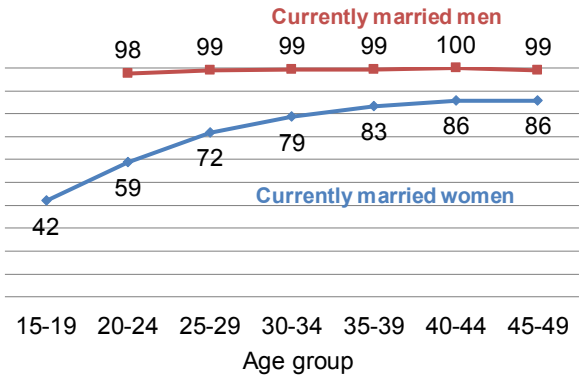
Trends: The percentage of currently married women employed in the 12 months before the survey has increased slightly over time, from 71% in both 2008 and 2013 to 74% in 2018. After increasing from 81% in 2008 to 93% in 2013, the percentage of employed married women who receive cash earnings (including cash and in-kind) declined to 85% in 2018. The percentage of employed married women not paid for their work declined from 17% to 6% between 2008 and 2013 before rising to 15% in 2018.

Patterns by background characteristics

- Among married women, the percentage currently employed increases with age, from 42% in the 15-19 age group to 86% in the 40-49 age group. In contrast, currently married men's employment does not vary by age (**Figure 15.1**).
- The percentage of employed married women who are not paid for their work is highest in the 15-19 age group and lowest in the 30-34 age group (19% and 12%, respectively).

Figure 15.1 **Employment by age**

Percentage of currently married women and men who were employed at any time in the 12 months before the survey



15.2 Control over Women's Earnings

Control over one's own cash earnings

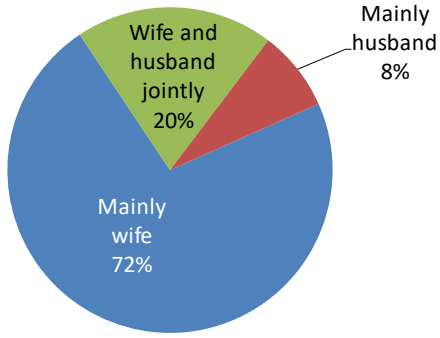
Respondents are considered to have control over their own earnings if they participate in decisions alone or jointly with their spouse about how their own earnings will be used.

Sample: Currently married women and men age 15-49 who received cash earnings for employment during the 12 months before the survey

In addition to having access to income, women need to have control over their earnings to be empowered. Currently married women age 15-49 who were paid in cash for employment in the 12 months before the survey were asked who makes decisions about the use of their earnings. **Table 15.2.1** shows that among women earning cash, 72% report that they themselves mainly decide how their cash earnings are used and 20% report that they make such decisions jointly with their husbands. Only 8% say that these decisions are made primarily by their husbands (**Figure 15.2**). The majority of women earn less than their husbands (84%); only 5% earn more than their husbands.

Figure 15.2 **Control over women's earnings**

Percent distribution of currently married women with cash earnings in the 12 months before the survey



Trends: The proportion of currently married women who decide mainly on their own how their earnings will be used has increased slowly over time, from 66% in 2008 and 70% in 2013 to 72% in 2018. The proportion who decide jointly with their husband has remained relatively constant from 2008 to 2018 (19%-20%).

Patterns by background characteristics

- By zone, the proportion of women who decide on their own how their earnings are used is highest in the North West and lowest in the South East (88% versus 40%).
- The percentage of married women who make decisions alone about how their cash earnings will be used declines with increasing education, from 83% among those with no education to 62% among those with more than a secondary education. By contrast, the percentage who say they make these decisions jointly with their husband increases sharply from 7% among women with no education to 31% among women with more than a secondary education.
- As in the case of education, the percentage of women who make decisions alone about their own earnings declines with increasing wealth, whereas the percentage who make these decisions jointly with their husband increases sharply.

15.3 Control over Men's Earnings

Currently married men who receive cash earnings were asked who makes decisions about the utilisation of their earnings. The majority of currently married men age 15-49 earning cash report that they themselves decide how their cash earnings are used (64%); 22% say that such decisions are made jointly with their wives, and 14% say the decisions are made primarily by their wives (**Table 15.2.2**). By contrast, when women were asked about decisions regarding their husband's earnings, 73% said that their husband makes these decisions alone and 21% said that the decisions are made jointly; only 6% of women said that they primarily make these decisions.

The percentage of men who report joint control over their own cash earnings increases with increasing education and wealth, while the percentage who report making decisions about their earnings by themselves declines sharply with both increasing education and increasing wealth.

15.4 Women's Control over Their Own Earnings and over Those of Their Husbands

Women's participation in decisions regarding the use of their own and their husband's earnings varies by the amount of their earnings relative to the amount of their husband's earnings. Women who earn about the same as their husband are more likely to decide jointly about the use of their own earnings (48%) and those of their husband (53%) than women who earn more or less than their husband and less likely to decide mainly alone about the use of their own earnings (47%) and their husband's earnings (4%) (**Table 15.3**).

Women who are not employed (88%) and women who earn less than their husband (73%) were most likely to report that their husband primarily decides on his own about the use of his earnings. Women who earn about the same as their husband were least likely to report that their husband alone makes such decisions (43%).

15.5 Women's and Men's Ownership of Assets

Ownership of a house or land

Respondents who own a house or land, whether alone or jointly with someone else.

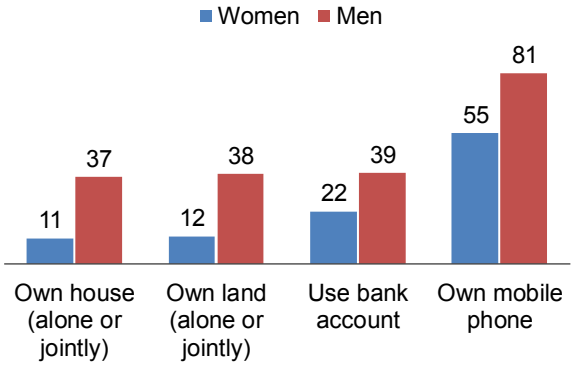
Sample: Women and men age 15-49

In Nigeria, men are more than three times as likely to own a house or land as women (**Table 15.4.1** and **Table 15.4.2**). Thirty-seven percent of men own a house and 38% own land alone or jointly with someone, as compared with only 11% and 12% of women, respectively (**Figure 15.3**).

Trends: The percentage of women who own a house alone or jointly with someone else declined from 18% in 2013 to 11% in 2018, and the percentage who own land alone or jointly declined from 15% to 12%. House ownership also declined among men, from 40% to 37%. However, over the same period, land ownership among men increased from 34% to 38%.

Figure 15.3 **Ownership of assets**

Percentage of women and men age 15-49 by ownership of specific items



Patterns by background characteristics

- Ownership of property increases with age among both women and men. For example, 27% of women and 60% of men age 45-49 own a house, as compared with 3% of women and 9% of men age 15-19 (**Table 15.4.1** and **Table 15.4.2**).
- By zone, house ownership among women is highest in the South East (27%) and lowest in the North West (4%). The proportion of women who own land is highest in the South East (31%) and lowest in the South West (5%).

15.6 Possession of Title or Deed for a House or Land

A title or deed that includes the owner's name is important in establishing legal rights to property. The 2018 NDHS sought information from currently married women and men who said that they own a house or land about whether or not they possess a title or deed for their property and whether or not their name appears on the title or deed. Seventy-one percent of women and 78% of men age 15-49 who own a house do not have a title or deed for their house (**Tables 15.5.1** and **15.5.2**). Similarly, most women and men who say that they own land do not have a title deed for their land (73% and 79%, respectively) (**Tables 15.6.1** and **15.6.2**). However, it is notable that among women and men who do have a title or deed to the house or land they own, the majority say that their name is on the title or deed.

15.7 Ownership and Use of Bank Accounts and Mobile Phones

Ownership of a bank account and a mobile phone are reflections of autonomy, social functioning, and financial independence. Women and men interviewed in the 2018 NDHS were asked if they had an account in a bank or other financial institution that they themselves used and if they owned a mobile phone. Those who owned a mobile phone were asked if they used the phone for financial transactions.

Wide disparities are observed between women and men with respect to ownership and use of bank accounts and ownership of mobile phones. Twenty-two percent of women and 39% of men have an account in a bank or other financial institution that they use, while 55% of women and 81% of men say that they own a mobile phone. Among those with a mobile phone, 28% of women and 35% of men use their phone for financial transactions (**Tables 15.7.1** and **15.7.2**).

Patterns by background characteristics

- Among women, ownership of a mobile phone is highest in the South West (82%) and lowest in the North West (35%). The proportion of men who own a mobile phone is highest in the South West (91%) and lowest in the North East (70%).
- The percentages of women and men who have a bank account and a mobile phone increase with increasing education and wealth. For example, ownership and use of a bank account increases from 2% among women with no education to 87% among women with more than a secondary education. Similarly, the proportion of women who own a mobile phone increases from 26% among those with no education to 98% among those with more than a secondary education (**Table 15.7.1** and **Table 15.7.2**).
- Although women and men in the highest wealth quintile are much more likely to own a mobile phone than women and men in other wealth quintiles and gender differences are very large, it is notable that, even in the lowest wealth quintile, 18% of women and 57% of men own a mobile phone.

15.8 Women's Participation in Decision Making

Participation in major household decisions

Women are considered to participate in household decisions if they make decisions alone or jointly with their husband in all three of the following areas: (1) their own health care, (2) major household purchases, and (3) visits to their family or relatives.

Sample: Currently married women age 15-49

Participation in household decision making is an essential aspect of women's empowerment and reflects women's level of agency within their own household and environment. In the 2018 NDHS, currently married women were asked about their participation in decisions about their own health care, major household purchases, and visits to their family or relatives. The majority of currently married women say

that decisions about their own health care and about major household purchases are made mainly by their husband (56% and 59%, respectively). Thirty-three percent of women say that decisions about their own health care are made jointly with their husband, while only 11% say that they themselves mainly make decisions about their own health care. Similarly, 34% of women say that decisions about major household purchases are made jointly with their husband and only 6% say that they mainly make these decisions. By contrast, a higher proportion of women say that decisions about visits to their family or relatives are made jointly with their husband (45%) as opposed to mainly by their husband (40%). Only 15% of women say that they mainly make decisions about visits to family or relatives (**Table 15.8**).

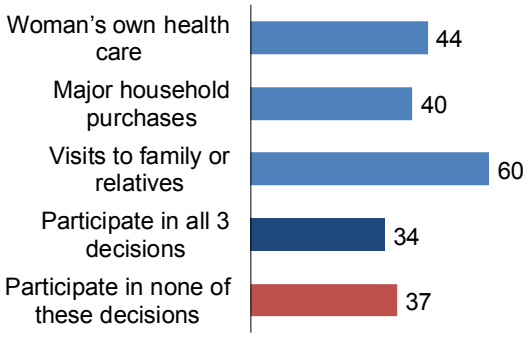
In contrast to women, the majority of currently married men say that they are the main decision maker about their own health care (57%). Regarding decisions about major household purchases, about half (52%) of currently married men say that they mainly make these decisions and 19% say that their wife is the main decision maker. Notably, men are much more likely than women to say that women are the main decision makers regarding decisions about major household purchases.

Overall, 44% of currently married women participate alone or jointly with their husband in decisions regarding their health care, 40% participate in decisions about major household purchases, 60% participate in decisions about visits to their family and relatives, and 34% participate in all decisions. Notably, 37% of currently married women say that they are not involved in any of the three specified household decisions (**Table 15.9.1** and **Figure 15.4**).

Trends: Currently married women's participation in all three decisions has increased only slightly since 2013, from 31% to 34%; however, the percentage of women who do not participate in any of the three decisions has fallen from 48% to 37%.

Figure 15.4 **Women's participation in decision making**

Percentage of currently married women age 15-49 participating in specific decisions



Patterns by background characteristics

- Participation in all three decisions increases with age, from 13% among women age 15-19 to 43% among women age 45-49.
- Employed women, whether they earn cash or not, are more likely to participate in all three decisions (42% and 35%, respectively) than women who are not employed (11%).
- Urban women (47%) are twice as likely to participate in all three decisions as rural women (24%).
- Women's participation in decision making increases with increasing education and wealth. Fourteen percent of women with no education participate in all three decisions, as compared with 59% of women with more than a secondary education. Similarly, 13% of women in the lowest wealth quintile participate in all three decisions, compared with 58% of women in the highest quintile.

15.9 ATTITUDES TOWARD WIFE BEATING

Attitudes toward wife beating

Respondents are asked if they agree that a husband is justified in hitting or beating his wife under each of the following five circumstances: she burns the food, she argues with him, she goes out without telling him, she neglects the children, and she refuses to have sex with him. If respondents answer "yes" in at least one circumstance, they are considered to have attitudes justifying wife beating.

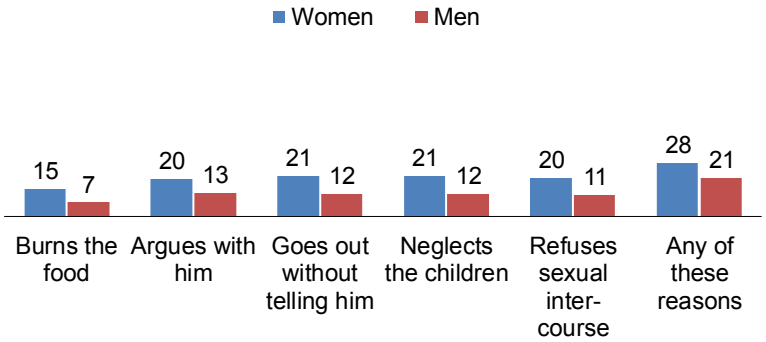
Sample: Women and men age 15-49

Attitudes that accept and normalise violence by a husband against his wife undermine gender equality and women's empowerment. To gain insight into the extent to which spousal violence is accepted, the 2018 NDHS collected information on women's and men's attitudes toward wife beating in five separate circumstances. Overall, 28% of Nigerian women believe that a husband is justified in beating his wife in at least one of the five specified circumstances, as compared with 21% of men (**Table 15.10.1** and **Table 15.10.2**). About one in five women agree that wife beating is justified if a wife argues with her husband, goes out without telling him, neglects the children, and refuses to have sexual intercourse, while 15% agree that wife beating is justified if she burns the food (**Figure 15.5**). Overall, men are less likely to justify wife beating in each of the five different circumstances than women.

Trends: The percentage of women who agree that wife beating is justified in at least one of the five specified circumstances has declined substantially over time, from 43% in 2008 and 35% in 2013 to 28% in 2018. The percentage of men justifying wife beating in at least one of the specified circumstances has also decreased, from 30% in 2008 to 21% in 2018.

Figure 15.5 **Attitudes towards wife beating**

Percentage of women and men age 15-49 who agree that a husband is justified in beating his wife for specific reasons



Patterns by background characteristics

- Women who are employed for cash are less likely to agree that wife beating is justified in at least one of the five specified circumstances (24%) than women who are not employed (32%) and women who are employed but not earning cash (37%).
- Almost one in three currently married women (31%) agree that wife beating is justified in at least one of the five specified circumstances, as compared with about one in five formerly married and never-married women (22% each).
- Rural women are more than twice as likely as urban women to have attitudes that justify wife beating (38% versus 16%).
- By zone, the percentage of women who agree that wife beating is justified in at least one of the five circumstances ranges from a high of 45% in the North East to 7% in the South West.

- Acceptance of wife beating decreases with increasing education and wealth. Forty-three percent of women with no education agree that wife beating is justified in at least one of the five specified circumstances, as compared with 9% of women with more than a secondary education. Similarly, 46% of women in the lowest wealth quintile agree that wife beating is justified in at least one of the specified circumstances, compared with 10% of women in the highest quintile.

15.10 Negotiating Sexual Relations

To assess attitudes toward a wife's right to negotiate safer sexual relations with her husband, women and men were asked whether they thought that a wife is justified in refusing to have sexual intercourse with her husband if she knows he has sex with other women and asking him to use a condom if she knows he has a sexually transmitted infection (STI).

The majority of Nigerian women and men agree that a wife is justified in negotiating sexual relations with her husband. Approximately two-thirds of women (69%) and men (65%) agree that a wife is justified in refusing sex if her husband has other partners; 77% of women and 74% of men agree that she is justified in asking her husband to use a condom if he has an STI (**Table 15.11**).

To assess the ability of women to actually negotiate safer sexual relations with their husband, currently married women were asked whether they could say no to their husband if they do not want to have sexual intercourse and whether they could ask their husband to use a condom. Fifty-six percent of women said that they can say no to their husband if they do not want to have sexual intercourse, and 41% said that they can ask their husband to use a condom (**Table 15.12**).

Patterns by background characteristics

- Currently married women age 15-19 are much less likely than older women to be able to negotiate sexual relations with their husband. For example, only 28% of women age 15-19 can ask their husband to use a condom, as compared with 37% to 45% of older women.

- Currently married women's ability to negotiate sexual relations increases sharply with increasing education and wealth and is much lower in the North West than in any of the other zones.

15.11 Women's Empowerment and Demographic and Health Outcomes

Two indices based on information collected in the 2018 NDHS on women's participation in household decision making and their attitudes toward wife beating can be used to examine the relationship between women's empowerment and selected demographic and health indicators. The first index, which ranges from 0 to 3, shows the number of decisions (see Section 15.8 for the list) in which women participate. For this index, the higher the value, the greater the respondent's level of empowerment. The second index is the total number of circumstances (see Section 15.9 for the list) in which women agree that wife beating is justified. This index ranges from 0 to 5. In this case, the higher the number, the lower the respondent's empowerment. The two indices are positively correlated (**Table 15.13**).

Tables 15.14-15.16 show how women's contraceptive use, mean ideal number of children, unmet need for family planning, and reproductive health care vary by the two empowerment indices. In general, women's empowerment is positively associated with desirable health outcomes. For example, the more decisions in which women participate, the higher their contraceptive use: 27% of women participating in all three decisions use a contraceptive method, as compared with 8% of women who do not participate in any of the three decisions. Similarly, 20% of women who do not justify wife beating in any of the five circumstances use a method of contraception, compared with 5% of women who justify wife beating in all five circumstances (**Table 15.14**).

The 2018 NDHS results also provide evidence that child survival is positively associated with women's empowerment. Under-5 mortality rates in the 10 years before the survey range from a high of 153 deaths per 1,000 live births among women who do not participate in any of the three household decisions to a low of 86 deaths per 1,000 live births among women who participate in all of the decisions. Likewise, under-5 mortality ranges from 117 deaths per 1,000 live births among women who do not justify wife beating for any reason to 175 deaths per 1,000 live births among women who justify wife beating for all five reasons (**Table 15.17**).

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Table 15.1 Employment and cash earnings of currently married women and men

Percentage of currently married women and men age 15-49 who were employed at any time in the past 12 months and percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, Nigeria DHS 2018

	Among currently married respondents:		Percent distribution of currently married respondents employed in the past 12 months, by type of earnings					
Age	Percentage employed in past 12 months	Number of respondents	Cash only	Cash and in-kind	In-kind only	Not paid	Total	Number of respondents
				WOMEN				
15-19	41.9	1,927	64.1	14.5	2.0	19.4	100.0	808
20-24	58.9	4,362	68.1	12.3	1.4	18.3	100.0	2,571
25-29	71.6	6,060	72.3	10.8	1.1	15.8	100.0	4,339
30-34	78.5	5,417	76.2	10.6	0.9	12.3	100.0	4,252
35-39	83.2	4,841	75.2	10.5	0.4	13.9	100.0	4,026
40-44	85.7	3,457	73.8	12.6	0.8	12.8	100.0	2,962
45-49	85.8	3,026	73.9	11.3	1.1	13.6	100.0	2,597
Total 15-49	74.1	29,090	73.2	11.3	0.9	14.5	100.0	21,555
				MEN				
15-19	*	7	*	*	*	*	*	5
20-24	97.6	233	65.1	20.7	1.4	12.8	100.0	227
25-29	99.0	790	76.3	13.0	1.0	9.7	100.0	782
30-34	99.1	1,412	81.2	10.4	1.0	7.4	100.0	1,399
35-39	99.2	1,693	82.7	10.0	0.4	6.9	100.0	1,680
40-44	99.8	1,502	81.7	10.9	0.7	6.8	100.0	1,499
45-49	98.8	1,150	76.9	11.9	1.2	10.1	100.0	1,136
Total 15-49	99.1	6,786	79.8	11.3	0.8	8.0	100.0	6,727
50-59	97.6	1,395	74.6	15.1	1.6	8.8	100.0	1,362
Total 15-59	98.9	8,180	78.9	12.0	0.9	8.2	100.0	8,089

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 15.2.1 Control over women's cash earnings and relative magnitude of women's cash earnings

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how the wife's cash earnings are used and by whether she earned more or less than her husband, according to background characteristics, Nigeria DHS 2018

	Person who decides how the wife's cash earnings are used:					Wife's cash earnings compared with husband's cash earnings:						
Background characteristic	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	More	Less	About the same	Husband has no earnings	Don't know	Total	Number of women
Age												
15-19	76.7	11.4	11.0	0.8	100.0	2.0	93.1	4.0	0.4	0.5	100.0	635
20-24	75.6	15.2	9.1	0.1	100.0	2.9	90.4	5.6	0.3	0.8	100.0	2,065
25-29	70.5	20.2	9.3	0.0	100.0	3.7	87.9	6.3	0.7	1.5	100.0	3,606
30-34	70.9	21.6	7.5	0.0	100.0	4.6	85.0	7.8	0.5	2.1	100.0	3,692
35-39	73.2	19.6	7.2	0.0	100.0	5.6	83.0	9.1	0.5	1.8	100.0	3,452
40-44	70.9	21.7	7.4	0.0	100.0	7.0	79.4	10.5	0.9	2.1	100.0	2,560
45-49	73.3	20.0	6.8	0.0	100.0	9.1	74.6	12.2	1.8	2.2	100.0	2,214
Number of living children												
0	68.3	20.1	11.1	0.6	100.0	5.9	83.1	8.4	0.3	2.3	100.0	1,089
1-2	70.8	21.4	7.8	0.0	100.0	4.6	85.3	8.0	0.7	1.4	100.0	5,513
3-4	70.9	21.2	7.9	0.0	100.0	5.0	84.0	8.6	0.6	1.7	100.0	5,700
5+	75.7	16.5	7.8	0.0	100.0	5.9	83.1	8.2	0.9	1.8	100.0	5,923
Residence												
Urban	69.7	24.5	5.7	0.1	100.0	5.5	82.1	9.7	1.0	1.7	100.0	8,510
Rural	74.5	15.4	10.0	0.1	100.0	5.0	85.8	7.1	0.5	1.7	100.0	9,715
Zone												
North Central	69.8	19.6	10.5	0.0	100.0	5.7	80.4	10.9	0.7	2.4	100.0	2,030
North East	80.4	13.5	5.8	0.2	100.0	2.8	93.8	3.0	0.4	0.0	100.0	2,502
North West	88.2	2.2	9.5	0.0	100.0	5.4	90.4	3.9	0.3	0.1	100.0	5,504
South East	39.6	51.3	9.0	0.0	100.0	6.0	75.5	12.5	1.2	4.8	100.0	2,232
South South	57.1	34.9	7.9	0.1	100.0	7.5	71.7	14.9	1.6	4.2	100.0	2,129
South West	72.8	21.9	5.3	0.0	100.0	4.6	82.4	10.6	1.0	1.5	100.0	3,828
State												
North Central												
FCT-Abuja	61.5	32.3	6.2	0.0	100.0	6.5	71.9	10.6	1.6	9.4	100.0	104
Benue	47.0	45.7	7.3	0.0	100.0	1.8	71.9	19.1	2.0	5.2	100.0	288
Kogi	67.8	27.1	5.1	0.0	100.0	8.4	75.0	13.7	0.6	2.2	100.0	351
Kwara	82.8	15.2	1.9	0.0	100.0	4.0	78.7	15.6	0.0	1.6	100.0	356
Nasarawa	49.1	4.4	46.5	0.0	100.0	3.5	88.5	4.9	0.1	2.9	100.0	214
Niger	82.7	7.7	9.6	0.0	100.0	7.1	90.0	2.0	0.6	0.3	100.0	389
Plateau	78.7	13.6	7.7	0.0	100.0	7.3	81.2	9.9	0.5	1.1	100.0	328
North East												
Adamawa	78.5	17.5	4.0	0.0	100.0	1.9	91.6	3.7	2.8	0.0	100.0	215
Bauchi	71.8	18.2	9.7	0.4	100.0	2.1	94.0	3.5	0.4	0.0	100.0	703
Borno	83.0	12.9	3.4	0.7	100.0	3.2	94.2	2.6	0.0	0.0	100.0	491
Gombe	86.9	9.5	3.5	0.0	100.0	3.3	95.1	1.3	0.2	0.0	100.0	144
Taraba	67.5	28.9	3.6	0.0	100.0	3.6	92.7	3.8	0.0	0.0	100.0	303
Yobe	93.1	1.2	5.7	0.0	100.0	3.1	94.4	2.5	0.0	0.0	100.0	647
North West												
Jigawa	98.3	0.1	1.6	0.0	100.0	3.0	95.3	1.0	0.8	0.0	100.0	835
Kaduna	93.4	5.5	1.1	0.0	100.0	4.8	83.7	11.0	0.5	0.0	100.0	1,369
Kano	97.7	0.7	1.5	0.1	100.0	2.7	93.2	3.9	0.1	0.1	100.0	1,289
Katsina	92.6	2.9	4.4	0.1	100.0	3.7	95.7	0.5	0.0	0.1	100.0	913
Kebbi	30.7	0.0	69.3	0.0	100.0	0.5	99.5	0.0	0.0	0.0	100.0	387
Sokoto	84.4	0.3	15.3	0.0	100.0	31.6	68.1	0.3	0.0	0.0	100.0	385
Zamfara	63.6	2.4	34.0	0.0	100.0	3.8	95.1	0.0	0.0	1.1	100.0	326
South East												
Abia	38.4	54.3	7.3	0.0	100.0	3.4	85.8	6.6	0.3	3.9	100.0	239
Anambra	35.6	62.5	1.9	0.0	100.0	3.6	72.1	14.4	1.1	8.8	100.0	795
Ebonyi	23.7	56.8	19.5	0.0	100.0	6.1	78.9	12.2	1.5	1.3	100.0	533
Enugu	62.6	29.4	8.0	0.0	100.0	8.6	71.8	17.4	0.2	2.0	100.0	227
Imo	55.1	34.0	10.7	0.2	100.0	10.2	73.9	9.9	2.0	4.0	100.0	438
South South												
Akwa Ibom	49.6	43.6	6.6	0.2	100.0	10.6	64.6	13.8	0.3	10.7	100.0	357
Bayelsa	23.7	31.1	45.2	0.0	100.0	7.0	58.7	29.1	0.5	4.6	100.0	136
Cross River	70.7	23.4	5.9	0.0	100.0	13.5	71.8	14.0	0.2	0.5	100.0	220
Delta	60.6	36.0	3.4	0.0	100.0	6.0	62.1	28.0	0.5	3.4	100.0	478
Edo	53.6	41.0	5.2	0.2	100.0	7.8	81.2	7.3	0.2	3.5	100.0	229
Rivers	61.8	32.2	6.0	0.0	100.0	5.2	81.3	6.6	4.2	2.7	100.0	709
South West												
Ekiti	63.7	30.3	6.0	0.0	100.0	6.7	86.5	5.2	0.0	1.6	100.0	293
Lagos	84.0	11.2	4.8	0.0	100.0	3.7	84.5	8.1	2.0	1.6	100.0	1,110
Ogun	49.9	34.9	15.2	0.0	100.0	1.8	81.4	16.5	0.3	0.0	100.0	590
Ondo	69.5	28.6	1.9	0.0	100.0	5.4	80.5	4.5	0.6	9.0	100.0	284
Osun	87.4	10.0	2.6	0.0	100.0	7.5	81.4	9.2	0.2	1.8	100.0	584
Oyo	68.7	29.0	2.3	0.0	100.0	4.5	80.4	14.1	1.0	0.0	100.0	968

Continued…

Table 15.2.1—*Continued*

Background characteristic	Person who decides how the wife's cash earnings are used: Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Wife's cash earnings compared with husband's cash earnings: More	Less	About the same	Husband has no earnings	Don't know	Total	Number of women
Education												
No education	82.5	7.2	10.2	0.1	100.0	4.7	89.9	4.4	0.3	0.7	100.0	6,808
Primary	71.0	21.6	7.4	0.0	100.0	4.6	81.1	10.5	1.2	2.6	100.0	3,130
Secondary	65.2	28.4	6.3	0.0	100.0	5.3	81.0	10.3	1.0	2.5	100.0	6,073
More than secondary	62.0	31.2	6.8	0.0	100.0	7.5	78.6	11.6	0.9	1.3	100.0	2,214
Wealth quintile												
Lowest	80.4	7.9	11.6	0.1	100.0	4.4	91.1	3.8	0.2	0.6	100.0	2,970
Second	77.3	12.8	9.9	0.0	100.0	5.0	86.3	6.9	0.5	1.3	100.0	3,385
Middle	73.6	18.4	8.0	0.0	100.0	5.7	82.9	8.5	0.7	2.2	100.0	3,652
Fourth	68.4	24.9	6.6	0.1	100.0	5.6	81.0	10.1	0.8	2.6	100.0	3,928
Highest	65.0	29.6	5.4	0.0	100.0	5.2	81.2	10.7	1.3	1.6	100.0	4,289
Total	72.3	19.7	8.0	0.1	100.0	5.2	84.0	8.3	0.7	1.7	100.0	18,225

Table 15.2.2 Control over men's cash earnings

Percent distributions of currently married men age 15-49 who receive cash earnings and of currently married women age 15-49 whose husbands receive cash earnings, by person who decides how the husband's cash earnings are used, according to background characteristics, Nigeria DHS 2018

	Men						Women					
Background characteristic	Mainly wife	Husband and wife jointly	Mainly husband	Other	Total	Number	Mainly wife	Husband and wife jointly	Mainly husband	Other	Total	Number
Age												
15-19	*	*	*	*	100.0	3	5.2	9.1	85.0	0.7	100.0	1,918
20-24	14.5	7.5	76.7	1.3	100.0	195	5.4	14.8	79.7	0.1	100.0	4,354
25-29	13.5	18.5	67.6	0.3	100.0	698	6.2	20.8	72.9	0.1	100.0	6,025
30-34	11.0	21.6	67.3	0.1	100.0	1,281	6.2	22.3	71.4	0.1	100.0	5,391
35-39	13.6	24.0	62.4	0.0	100.0	1,558	6.7	22.8	70.4	0.1	100.0	4,820
40-44	16.3	22.0	61.6	0.1	100.0	1,387	6.1	24.0	69.7	0.2	100.0	3,424
45-49	16.2	23.0	60.7	0.0	100.0	1,008	8.5	24.2	67.0	0.2	100.0	2,978
Number of living children												
0	14.7	20.1	65.0	0.3	100.0	436	5.1	17.9	76.6	0.5	100.0	2,322
1-2	12.1	24.0	63.7	0.2	100.0	2,146	6.2	21.8	71.8	0.2	100.0	9,309
3-4	14.4	23.7	61.9	0.1	100.0	1,843	6.3	22.2	71.3	0.1	100.0	8,562
5+	16.2	17.1	66.6	0.1	100.0	1,706	6.7	18.0	75.1	0.1	100.0	8,716
Residence												
Urban	12.9	26.8	60.2	0.0	100.0	2,965	6.3	26.9	66.7	0.1	100.0	11,687
Rural	15.2	16.9	67.6	0.2	100.0	3,166	6.3	16.1	77.4	0.2	100.0	17,222
Zone												
North Central	11.5	24.1	64.4	0.1	100.0	798	9.6	20.2	70.1	0.0	100.0	4,056
North East	14.9	7.8	77.0	0.3	100.0	853	4.6	14.6	80.2	0.6	100.0	4,821
North West	17.7	10.4	71.6	0.3	100.0	1,628	5.4	4.2	90.3	0.0	100.0	9,809
South East	25.4	34.8	39.8	0.0	100.0	739	5.9	50.3	43.6	0.2	100.0	2,863
South South	20.7	17.0	62.3	0.0	100.0	704	8.1	44.3	47.3	0.2	100.0	2,740
South West	1.7	37.4	60.9	0.0	100.0	1,408	6.2	28.7	65.0	0.1	100.0	4,620
State												
North Central												
FCT-Abuja	0.5	20.3	79.2	0.0	100.0	36	4.3	30.9	64.8	0.0	100.0	198
Benue	1.6	0.8	97.7	0.0	100.0	125	9.7	37.6	52.8	0.0	100.0	861
Kogi	12.2	56.3	31.5	0.0	100.0	48	8.5	25.0	66.5	0.0	100.0	425
Kwara	5.2	3.5	91.3	0.0	100.0	104	3.1	22.2	74.8	0.0	100.0	486
Nasarawa	0.0	36.2	63.3	0.5	100.0	78	9.6	5.6	84.8	0.0	100.0	416
Niger	26.4	19.0	54.6	0.0	100.0	284	11.5	9.5	79.1	0.0	100.0	1,102
Plateau	2.5	57.9	39.6	0.0	100.0	123	14.3	16.6	69.0	0.1	100.0	568
North East												
Adamawa	3.5	34.9	61.6	0.0	100.0	130	8.8	22.9	68.3	0.0	100.0	617
Bauchi	2.0	8.5	88.3	1.2	100.0	123	3.9	15.3	78.3	2.5	100.0	1,129
Borno	5.1	2.2	92.7	0.0	100.0	215	1.7	9.7	88.6	0.0	100.0	953
Gombe	49.4	6.4	43.4	0.8	100.0	77	1.7	9.7	88.4	0.2	100.0	553
Taraba	65.2	0.9	33.9	0.0	100.0	109	5.7	36.3	58.0	0.0	100.0	577
Yobe	0.0	0.0	100.0	0.0	100.0	199	6.5	3.2	90.2	0.1	100.0	992
North West												
Jigawa	0.0	6.0	93.2	0.8	100.0	172	6.3	0.8	92.9	0.0	100.0	1,151
Kaduna	52.8	9.1	38.1	0.0	100.0	381	4.2	13.2	82.6	0.0	100.0	1,965
Kano	22.8	8.6	67.5	1.1	100.0	291	9.1	1.2	89.7	0.1	100.0	2,084
Katsina	5.2	18.1	76.7	0.0	100.0	324	1.9	4.1	93.9	0.1	100.0	1,772
Kebbi	0.5	0.4	99.0	0.0	100.0	148	8.8	1.0	90.1	0.0	100.0	945
Sokoto	0.4	14.5	85.1	0.0	100.0	117	4.5	0.4	95.2	0.0	100.0	777
Zamfara	1.6	12.2	86.1	0.0	100.0	195	3.3	3.4	93.4	0.0	100.0	1,116
South East												
Abia	9.1	80.3	10.7	0.0	100.0	68	1.8	65.1	33.1	0.0	100.0	375
Anambra	53.3	29.9	16.8	0.0	100.0	275	6.6	63.1	30.0	0.2	100.0	896
Ebonyi	3.1	47.3	49.6	0.0	100.0	145	5.0	57.7	37.3	0.0	100.0	592
Enugu	1.8	16.1	82.0	0.0	100.0	85	4.6	26.0	69.2	0.2	100.0	454
Imo	17.5	22.5	59.9	0.0	100.0	165	9.8	31.1	58.6	0.5	100.0	545
South South												
Akwa Ibom	32.2	31.4	36.3	0.0	100.0	129	8.5	49.1	42.3	0.2	100.0	489
Bayelsa	0.5	39.1	60.4	0.0	100.0	59	5.6	33.5	60.9	0.0	100.0	194
Cross River	33.7	14.3	52.0	0.0	100.0	55	17.3	69.3	13.4	0.0	100.0	317
Delta	1.3	9.8	88.8	0.0	100.0	172	5.8	36.4	57.6	0.3	100.0	547
Edo	0.0	44.7	55.3	0.0	100.0	41	6.9	46.6	45.7	0.8	100.0	369
Rivers	33.3	5.3	61.3	0.0	100.0	249	7.1	38.8	54.0	0.1	100.0	824

Continued…

Table 15.2.2—*Continued*

Background characteristic	Men						Women					
	Mainly wife	Husband and wife jointly	Mainly husband	Other	Total	Number	Mainly wife	Husband and wife jointly	Mainly husband	Other	Total	Number
South West												
Ekiti	1.1	54.1	44.8	0.0	100.0	88	6.6	43.7	49.5	0.2	100.0	325
Lagos	2.9	44.9	52.2	0.0	100.0	559	5.1	16.3	78.5	0.1	100.0	1,618
Ogun	2.0	21.5	76.5	0.0	100.0	225	1.7	39.7	58.6	0.0	100.0	623
Ondo	0.6	59.5	39.9	0.0	100.0	103	3.3	30.3	66.1	0.3	100.0	419
Osun	0.0	12.2	87.8	0.0	100.0	135	10.4	13.0	76.6	0.0	100.0	624
Oyo	0.5	34.0	65.6	0.0	100.0	299	9.1	46.0	44.8	0.0	100.0	1,011
Education												
No education	13.0	8.9	77.8	0.2	100.0	1,457	5.8	7.3	86.7	0.2	100.0	12,917
Primary	16.2	22.8	60.9	0.1	100.0	1,014	7.0	24.8	68.0	0.2	100.0	4,535
Secondary	13.7	24.8	61.4	0.1	100.0	2,483	6.6	32.4	60.9	0.1	100.0	8,692
More than secondary	14.5	30.3	55.3	0.0	100.0	1,177	6.6	37.3	55.9	0.1	100.0	2,765
Wealth quintile												
Lowest	9.2	10.4	80.2	0.2	100.0	895	5.8	7.9	85.9	0.4	100.0	5,991
Second	16.5	13.6	69.4	0.5	100.0	1,060	7.4	14.3	78.1	0.1	100.0	6,197
Middle	16.0	21.3	62.7	0.0	100.0	1,214	6.1	20.6	73.2	0.1	100.0	5,562
Fourth	14.8	24.5	60.8	0.0	100.0	1,342	6.5	26.8	66.6	0.1	100.0	5,561
Highest	13.2	31.3	55.4	0.0	100.0	1,620	5.7	34.4	59.8	0.1	100.0	5,598
Total 15-49	14.1	21.7	64.1	0.1	100.0	6,131	6.3	20.5	73.0	0.2	100.0	28,909
50-59	13.8	21.9	64.3	0.1	100.0	1,221	na	na	na	na	na	na
Total 15-59	14.0	21.8	64.1	0.1	100.0	7,352	na	na	na	na	na	na

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

Table 15.3 Women's control over their own earnings and over those of their husbands

Percent distribution of currently married women age 15-49 with cash earnings in the last 12 months by person who decides how the wife's cash earnings are used and percent distribution of currently married women age 15-49 whose husbands have cash earnings by person who decides how the husband's cash earnings are used, according to the relation between wife's and husband's cash earnings, Nigeria DHS 2018

	Person who decides how the wife's cash earnings are used:						Person who decides how the husband's cash earnings are used:					
Woman's earnings relative to husband's earnings	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number of women	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number of women
More than husband	73.0	21.9	5.0	0.1	100.0	951	11.4	29.2	59.1	0.2	100.0	951
Less than husband	75.0	16.3	8.6	0.1	100.0	15,318	5.2	21.4	73.3	0.1	100.0	15,318
Same as husband	46.8	48.3	4.9	0.0	100.0	1,510	4.4	52.8	42.7	0.0	100.0	1,510
Husband has no cash earnings or did not work	56.3	39.3	4.4	0.0	100.0	134	na	na	na	na	na	0
Woman worked but has no cash earnings	na	na	na	na	na	0	14.7	27.7	57.1	0.5	100.0	3,301
Woman did not work	na	na	na	na	na	0	4.5	7.5	87.8	0.2	100.0	7,518
Total[1]	72.3	19.7	8.0	0.1	100.0	18,225	6.3	20.5	73.0	0.2	100.0	28,909

na = Not applicable
[1] Includes cases where a woman does not know whether she earned more or less than her husband

Table 15.4.1 Ownership of assets: Women

Percent distribution of women age 15-49 by ownership of housing and land, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage who own a house: Alone	Jointly	Alone and jointly	Percentage who do not own a house	Total	Percentage who own land: Alone	Jointly	Alone and jointly	Percentage who do not own land	Total	Number
Age											
15-19	0.3	2.0	0.2	97.4	100.0	1.0	1.9	0.1	97.0	100.0	8,448
20-24	1.0	3.1	0.8	95.1	100.0	2.3	3.4	0.5	93.8	100.0	6,835
25-29	1.6	5.6	1.6	91.2	100.0	3.4	6.3	1.0	89.4	100.0	7,255
30-34	2.0	6.9	2.3	88.8	100.0	4.0	6.9	1.3	87.8	100.0	6,178
35-39	3.6	9.9	2.5	84.0	100.0	5.6	8.9	1.4	84.1	100.0	5,463
40-44	5.6	10.8	2.3	81.3	100.0	8.3	9.4	1.7	80.6	100.0	3,940
45-49	8.2	15.0	3.5	73.3	100.0	10.5	12.9	2.9	73.7	100.0	3,701
Residence											
Urban	2.3	7.4	1.8	88.5	100.0	2.8	7.2	0.8	89.2	100.0	19,163
Rural	2.7	5.9	1.5	89.9	100.0	5.4	5.4	1.3	87.9	100.0	22,658
Zone											
North Central	4.6	7.6	3.1	84.7	100.0	3.8	6.8	2.1	87.3	100.0	5,891
North East	1.6	3.9	0.6	93.9	100.0	5.9	2.0	1.2	90.8	100.0	6,636
North West	1.2	2.6	0.4	95.9	100.0	3.9	2.4	0.1	93.6	100.0	12,225
South East	4.9	18.6	3.2	73.3	100.0	5.4	23.2	2.4	68.9	100.0	4,963
South South	3.8	9.7	2.0	84.5	100.0	5.3	8.4	1.3	85.0	100.0	4,840
South West	1.4	4.6	2.2	91.8	100.0	1.9	3.1	0.6	94.5	100.0	7,266
State											
North Central											
FCT-Abuja	1.7	2.9	13.1	82.3	100.0	1.3	1.0	7.7	90.1	100.0	319
Benue	15.7	2.3	2.4	79.6	100.0	5.5	2.6	1.6	90.3	100.0	1,354
Kogi	2.8	29.3	4.0	63.9	100.0	4.4	27.4	2.6	65.5	100.0	654
Kwara	0.4	6.2	4.9	88.5	100.0	1.6	4.9	3.1	90.3	100.0	684
Nasarawa	2.0	3.4	0.8	93.9	100.0	2.1	1.8	0.6	95.5	100.0	648
Niger	0.4	0.7	0.6	98.4	100.0	5.3	0.7	0.4	93.6	100.0	1,357
Plateau	1.6	15.9	4.3	78.2	100.0	2.2	14.4	3.4	79.9	100.0	875
North East											
Adamawa	3.2	13.4	1.0	82.4	100.0	4.5	4.7	7.3	83.5	100.0	903
Bauchi	1.2	3.2	0.7	94.9	100.0	5.0	2.4	0.3	92.4	100.0	1,343
Borno	0.9	2.0	0.3	96.8	100.0	1.4	0.8	0.0	97.8	100.0	1,469
Gombe	1.4	1.0	0.9	96.7	100.0	2.3	1.5	0.3	95.9	100.0	717
Taraba	1.9	1.9	0.7	95.5	100.0	3.1	1.0	0.8	95.2	100.0	877
Yobe	1.7	3.0	0.6	94.7	100.0	16.7	2.1	0.2	80.9	100.0	1,327
North West											
Jigawa	1.0	0.5	0.0	98.5	100.0	5.7	1.6	0.0	92.8	100.0	1,382
Kaduna	0.8	3.2	1.2	94.8	100.0	4.7	2.3	0.4	92.7	100.0	2,493
Kano	1.4	1.7	0.1	96.9	100.0	3.7	2.1	0.0	94.1	100.0	2,692
Katsina	1.5	0.5	0.0	98.0	100.0	5.5	0.4	0.0	94.1	100.0	2,283
Kebbi	0.6	3.3	0.4	95.6	100.0	1.5	3.4	0.3	94.8	100.0	1,136
Sokoto	1.2	12.5	0.5	85.8	100.0	1.3	9.7	0.3	88.7	100.0	910
Zamfara	1.6	1.9	0.1	96.4	100.0	1.9	1.3	0.2	96.5	100.0	1,328
South East											
Abia	5.3	1.5	4.2	89.0	100.0	4.7	0.9	2.8	91.5	100.0	630
Anambra	3.5	27.6	2.3	66.6	100.0	3.8	38.8	1.6	55.8	100.0	1,477
Ebonyi	7.5	31.1	6.2	55.2	100.0	7.3	32.4	4.9	55.3	100.0	1,027
Enugu	7.9	15.8	2.4	73.8	100.0	10.1	20.1	1.8	68.0	100.0	880
Imo	1.3	5.2	1.3	92.3	100.0	2.0	6.7	1.3	90.0	100.0	948
South South											
Akwa Ibom	3.2	11.4	2.0	83.4	100.0	6.5	12.0	1.7	79.8	100.0	948
Bayelsa	5.2	18.8	2.8	73.2	100.0	16.9	10.9	2.6	69.5	100.0	298
Cross River	16.4	4.5	3.6	75.5	100.0	13.0	3.0	0.8	83.3	100.0	574
Delta	1.3	8.4	3.3	87.0	100.0	1.8	7.8	1.8	88.5	100.0	931
Edo	2.7	10.1	1.4	85.8	100.0	4.6	7.4	0.4	87.5	100.0	555
Rivers	1.1	9.3	0.6	88.9	100.0	1.8	8.4	1.0	88.8	100.0	1,534
South West											
Ekiti	3.0	9.0	0.4	87.6	100.0	4.6	17.0	0.8	77.6	100.0	475
Lagos	0.8	2.6	1.0	95.7	100.0	0.5	1.4	0.0	98.1	100.0	2,891
Ogun	2.6	7.8	8.5	81.1	100.0	1.1	2.9	1.9	94.1	100.0	927
Ondo	2.4	5.5	1.5	90.6	100.0	5.8	6.1	1.4	86.8	100.0	683
Osun	1.9	4.3	1.4	92.5	100.0	3.8	1.2	1.2	93.8	100.0	938
Oyo	0.7	4.8	2.0	92.5	100.0	1.1	1.5	0.1	97.3	100.0	1,352
Education											
No education	2.1	4.0	0.9	93.0	100.0	5.1	3.6	0.8	90.5	100.0	14,603
Primary	4.8	10.7	2.8	81.7	100.0	6.3	10.1	2.0	81.6	100.0	6,039
Secondary	2.0	7.0	1.6	89.4	100.0	2.8	7.2	0.9	89.1	100.0	16,583
More than secondary	2.8	7.7	2.5	87.0	100.0	3.5	6.1	1.3	89.1	100.0	4,596

Continued…

Table 15.4.1—*Continued*

Background characteristic	Percentage who own a house: Alone	Jointly	Alone and jointly	Percentage who do not own a house	Total	Percentage who own land: Alone	Jointly	Alone and jointly	Percentage who do not own land	Total	Number
Wealth quintile											
Lowest	2.2	4.8	1.0	92.0	100.0	6.8	4.7	1.1	87.4	100.0	7,222
Second	2.6	6.3	1.3	89.8	100.0	4.8	5.9	1.2	88.0	100.0	8,045
Middle	3.4	7.6	1.7	87.2	100.0	4.8	8.2	1.2	85.8	100.0	8,207
Fourth	2.6	7.0	1.8	88.6	100.0	3.0	7.3	1.0	88.7	100.0	8,990
Highest	1.8	6.8	2.2	89.2	100.0	2.3	4.9	0.9	91.9	100.0	9,357
Total	2.5	6.6	1.6	89.3	100.0	4.2	6.2	1.1	88.5	100.0	41,821

Table 15.4.2 Ownership of assets: Men

Percent distribution of men age 15-49 by ownership of housing and land, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage who own a house: Alone	Jointly	Alone and jointly	Percentage who do not own a house	Total	Percentage who own land: Alone	Jointly	Alone and jointly	Percentage who do not own land	Total	Number
Age											
15-19	1.8	7.0	0.6	90.5	100.0	1.8	7.0	0.4	90.9	100.0	2,415
20-24	7.9	11.4	0.7	79.9	100.0	10.5	11.4	0.5	77.5	100.0	1,472
25-29	19.7	15.1	2.0	63.2	100.0	23.8	13.9	1.7	60.6	100.0	1,599
30-34	25.4	15.6	3.8	55.3	100.0	28.8	12.8	3.0	55.4	100.0	1,792
35-39	28.0	15.9	4.6	51.5	100.0	34.6	13.1	3.8	48.5	100.0	1,832
40-44	34.3	16.0	4.3	45.3	100.0	38.5	13.0	3.1	45.4	100.0	1,569
45-49	41.4	14.7	3.4	40.5	100.0	45.0	11.1	3.6	40.2	100.0	1,188
Residence											
Urban	12.4	9.8	2.6	75.1	100.0	13.0	7.8	2.0	77.2	100.0	5,512
Rural	28.2	16.3	2.7	52.9	100.0	33.8	14.7	2.3	49.1	100.0	6,356
Zone											
North Central	18.6	20.4	5.0	56.0	100.0	24.6	14.2	4.5	56.7	100.0	1,704
North East	32.7	15.7	2.1	49.5	100.0	34.4	14.7	1.8	49.1	100.0	1,936
North West	31.1	17.9	2.2	48.9	100.0	34.2	15.7	1.1	49.0	100.0	3,195
South East	14.7	14.2	5.7	65.4	100.0	18.6	15.2	6.8	59.4	100.0	1,355
South South	12.1	7.1	1.0	79.8	100.0	16.6	5.7	0.5	77.2	100.0	1,438
South West	7.0	2.6	1.5	88.9	100.0	8.8	2.1	0.7	88.4	100.0	2,240
State											
North Central											
FCT-Abuja	12.3	9.0	0.5	78.3	100.0	9.2	5.2	0.8	84.8	100.0	96
Benue	31.1	1.9	0.9	66.1	100.0	30.1	2.7	1.0	66.2	100.0	351
Kogi	13.0	48.5	1.6	36.9	100.0	39.1	34.6	1.6	24.7	100.0	156
Kwara	10.9	5.4	0.0	83.7	100.0	19.1	2.5	0.0	78.4	100.0	208
Nasarawa	12.9	35.8	4.6	46.7	100.0	9.9	18.8	6.7	64.6	100.0	206
Niger	17.8	37.5	5.8	39.0	100.0	29.9	27.5	4.0	38.5	100.0	442
Plateau	19.2	2.7	17.7	60.4	100.0	21.2	3.1	15.3	60.4	100.0	246
North East											
Adamawa	55.9	8.6	1.6	33.9	100.0	55.6	10.8	1.5	32.1	100.0	218
Bauchi	22.7	41.1	3.7	32.5	100.0	29.7	40.7	2.5	27.2	100.0	420
Borno	20.8	6.0	4.4	68.7	100.0	16.6	5.6	4.6	73.2	100.0	398
Gombe	32.8	25.4	1.0	40.8	100.0	44.9	17.9	0.2	37.0	100.0	240
Taraba	38.7	10.5	0.0	50.8	100.0	34.2	8.2	0.0	57.7	100.0	187
Yobe	38.7	1.6	0.2	59.5	100.0	38.5	2.2	0.4	58.9	100.0	472
North West											
Jigawa	31.6	25.3	1.0	42.0	100.0	35.1	21.9	0.3	42.7	100.0	291
Kaduna	13.0	32.8	1.1	53.1	100.0	25.8	29.4	1.1	43.7	100.0	636
Kano	27.1	8.9	1.1	62.9	100.0	26.5	6.5	0.7	66.4	100.0	676
Katsina	48.1	2.1	2.6	47.3	100.0	42.6	4.7	1.2	51.5	100.0	687
Kebbi	14.2	60.1	0.0	25.7	100.0	26.0	46.4	0.0	27.6	100.0	291
Sokoto	24.9	6.9	11.4	56.8	100.0	44.0	4.5	1.4	50.2	100.0	218
Zamfara	52.7	6.1	2.6	38.6	100.0	46.2	7.9	2.7	43.2	100.0	396
South East											
Abia	12.9	3.6	0.7	82.8	100.0	20.3	3.3	7.8	68.6	100.0	185
Anambra	9.1	40.3	3.0	47.6	100.0	13.7	42.0	4.8	39.5	100.0	409
Ebonyi	27.2	4.9	12.9	54.9	100.0	39.0	3.1	10.3	47.6	100.0	233
Enugu	21.8	3.8	17.2	57.2	100.0	11.4	9.8	17.7	61.1	100.0	192
Imo	9.9	0.8	0.0	89.4	100.0	13.5	0.6	0.2	85.7	100.0	337
South South											
Akwa Ibom	10.2	5.3	2.4	82.1	100.0	24.7	5.9	0.7	68.7	100.0	291
Bayelsa	19.6	1.6	2.8	76.0	100.0	37.4	2.0	0.6	59.9	100.0	109
Cross River	14.8	3.2	0.2	81.8	100.0	22.3	1.2	0.8	75.7	100.0	137
Delta	9.7	3.4	0.0	86.8	100.0	6.1	1.7	0.1	92.0	100.0	326
Edo	14.5	1.5	0.4	83.6	100.0	23.1	1.1	0.0	75.7	100.0	140
Rivers	11.7	15.6	0.8	72.0	100.0	9.9	12.5	0.6	77.0	100.0	435
South West											
Ekiti	9.5	1.9	1.6	87.0	100.0	24.2	3.3	1.4	71.1	100.0	139
Lagos	6.0	6.2	2.2	85.6	100.0	2.0	2.3	0.4	95.3	100.0	845
Ogun	5.1	0.9	3.0	91.0	100.0	8.8	1.3	0.6	89.4	100.0	309
Ondo	10.3	0.2	0.7	88.8	100.0	21.2	3.7	2.2	72.9	100.0	247
Osun	5.5	0.0	0.0	94.5	100.0	10.0	3.7	0.6	85.6	100.0	269
Oyo	8.3	0.0	0.4	91.2	100.0	9.4	0.0	0.2	90.4	100.0	432
Education											
No education	36.3	21.0	2.3	40.4	100.0	41.7	18.8	1.4	38.0	100.0	2,555
Primary	25.0	15.0	3.7	56.3	100.0	29.9	12.7	4.1	53.3	100.0	1,590
Secondary	13.7	9.8	2.6	73.8	100.0	16.4	8.8	2.1	72.7	100.0	5,697
More than secondary	18.0	11.9	2.6	67.5	100.0	19.1	9.0	2.0	69.9	100.0	2,025

Continued…

Table 15.4.2—*Continued*

Background characteristic	Percentage who own a house: Alone	Jointly	Alone and jointly	Percentage who do not own a house	Total	Percentage who own land: Alone	Jointly	Alone and jointly	Percentage who do not own land	Total	Number
Wealth quintile											
Lowest	36.0	16.9	2.4	44.7	100.0	39.8	16.7	1.4	42.0	100.0	1,991
Second	29.0	17.4	3.1	50.5	100.0	36.3	15.8	2.7	45.1	100.0	2,123
Middle	21.7	15.5	2.9	59.9	100.0	26.7	13.0	2.6	57.7	100.0	2,393
Fourth	12.7	11.6	2.7	73.0	100.0	15.4	8.9	2.7	73.0	100.0	2,590
Highest	10.5	7.2	2.4	79.9	100.0	9.5	5.5	1.5	83.4	100.0	2,770
Total 15-49	20.8	13.3	2.7	63.2	100.0	24.1	11.5	2.2	62.2	100.0	11,868
50-59	51.2	15.5	4.2	29.2	100.0	51.6	12.0	3.9	32.5	100.0	1,443
Total 15-59	24.1	13.5	2.8	59.5	100.0	27.1	11.6	2.4	58.9	100.0	13,311

Table 15.5.1 Ownership of title or deed for house: Women

Among women age 15-49 who own a house, percent distribution by whether the house owned has a title or deed and whether or not the woman's name appears on the title or deed, according to background characteristics, Nigeria DHS 2018

Background characteristic	House has a title or deed and: Woman's name is on title/deed	Woman's name is not on title/deed	Does not have a title/deed	Don't know/ missing[1]	Total	Number who own a house[2]
Age						
15-19	10.1	5.7	74.1	10.0	100.0	216
20-24	14.8	4.7	77.3	3.1	100.0	337
25-29	13.3	6.0	77.3	3.5	100.0	636
30-34	16.4	4.7	76.4	2.5	100.0	694
35-39	21.6	9.8	65.5	3.2	100.0	876
40-44	26.2	7.0	63.5	3.3	100.0	737
45-49	19.6	7.1	68.8	4.4	100.0	987
Residence						
Urban	18.2	7.4	71.4	3.1	100.0	2,200
Rural	19.6	6.4	69.7	4.3	100.0	2,282
Zone						
North Central	11.2	11.0	72.7	5.1	100.0	900
North East	57.0	2.3	40.1	0.6	100.0	407
North West	43.8	4.8	50.6	0.9	100.0	505
South East	2.0	2.6	94.9	0.6	100.0	1,327
South South	10.6	5.5	75.1	8.9	100.0	748
South West	31.4	16.7	45.2	6.7	100.0	595
State						
North Central						
FCT-Abuja	29.5	4.8	64.5	1.3	100.0	56
Benue	5.8	4.2	89.3	0.7	100.0	276
Kogi	14.0	25.0	46.5	14.5	100.0	236
Kwara	13.6	9.4	76.3	0.7	100.0	78
Nasarawa	32.1	7.4	60.5	0.0	100.0	40
Niger	*	*	*	*	*	22
Plateau	5.8	8.2	81.9	4.2	100.0	190
North East						
Adamawa	96.4	0.0	3.6	0.0	100.0	159
Bauchi	24.5	1.0	72.8	1.7	100.0	68
Borno	(31.8)	(2.0)	(63.5)	(2.7)	100.0	47
Gombe	(52.4)	(0.0)	(47.6)	(0.0)	100.0	23
Taraba	25.8	18.9	55.3	0.0	100.0	39
Yobe	35.5	0.3	64.2	0.0	100.0	70
North West						
Jigawa	*	*	*	*	*	20
Kaduna	18.9	10.3	70.0	0.9	100.0	129
Kano	58.2	4.5	37.3	0.0	100.0	85
Katsina	(72.0)	(0.0)	(28.0)	(0.0)	100.0	45
Kebbi	27.4	8.1	59.5	5.0	100.0	50
Sokoto	45.8	2.3	51.2	0.7	100.0	129
Zamfara	66.0	0.0	34.0	0.0	100.0	47
South East						
Abia	4.8	9.7	84.3	1.2	100.0	69
Anambra	0.8	0.2	98.5	0.5	100.0	494
Ebonyi	1.3	0.5	98.1	0.2	100.0	461
Enugu	2.2	4.3	92.4	1.1	100.0	230
Imo	10.9	19.5	68.0	1.6	100.0	73
South South						
Akwa Ibom	10.9	15.1	70.5	3.5	100.0	157
Bayelsa	16.7	3.0	66.9	13.4	100.0	80
Cross River	1.3	0.9	97.7	0.0	100.0	140
Delta	3.9	1.0	79.8	15.2	100.0	121
Edo	35.1	5.3	58.0	1.6	100.0	79
Rivers	8.5	4.8	68.9	17.8	100.0	170
South West						
Ekiti	14.4	24.9	59.8	0.8	100.0	59
Lagos	34.4	15.0	49.2	1.4	100.0	125
Ogun	32.4	3.3	54.7	9.6	100.0	175
Ondo	23.2	15.5	45.5	15.8	100.0	64
Osun	32.4	56.8	9.1	1.7	100.0	71
Oyo	40.5	9.9	40.4	9.1	100.0	101
Education						
No education	24.2	4.0	69.3	2.5	100.0	1,026
Primary	14.9	6.6	74.9	3.7	100.0	1,102
Secondary	14.0	6.6	74.8	4.7	100.0	1,756
More than secondary	31.5	12.9	52.5	3.1	100.0	597

Continued…

Table 15.5.1—*Continued*

Background characteristic	House has a title or deed and: Woman's name is on title/deed	Woman's name is not on title/deed	Does not have a title/deed	Don't know/ missing[1]	Total	Number who own a house[2]
Wealth quintile						
Lowest	22.3	2.1	73.6	1.9	100.0	579
Second	15.3	5.7	76.8	2.3	100.0	821
Middle	14.6	5.8	76.3	3.3	100.0	1,051
Fourth	17.1	7.9	69.8	5.2	100.0	1,022
Highest	26.1	10.6	58.5	4.8	100.0	1,009
Total	18.9	6.8	70.6	3.7	100.0	4,482

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes women who have a house with a title/deed, but they do not know if their name is on it (or this information is missing), and women who do not know if there is a title/deed for the house (or this information is missing)
[2] Includes sole, joint, or sole and joint ownership

Table 15.5.2 Ownership of title or deed for house: Men

Among men age 15-49 who own a house, percent distribution by whether the house owned has a title or deed and whether or not the man's name appears on the title or deed, according to background characteristics, Nigeria DHS 2018

Background characteristic	House has a title or deed and: Man's name is on title/deed	Man's name is not on title/deed	Does not have a title/deed	Don't know/ missing[1]	Total	Number who own a house[2]
Age						
15-19	2.4	1.4	95.8	0.4	100.0	229
20-24	8.8	4.1	86.7	0.3	100.0	296
25-29	11.4	2.5	85.7	0.4	100.0	589
30-34	20.0	2.2	76.5	1.3	100.0	801
35-39	18.5	2.3	77.9	1.3	100.0	889
40-44	25.6	1.5	71.7	1.2	100.0	857
45-49	26.5	2.5	70.7	0.2	100.0	707
Residence						
Urban	26.9	2.5	68.5	2.2	100.0	1,371
Rural	15.4	2.2	82.1	0.3	100.0	2,997
Zone						
North Central	6.8	4.0	89.1	0.1	100.0	749
North East	14.8	2.1	83.0	0.1	100.0	978
North West	22.3	1.9	75.5	0.3	100.0	1,633
South East	16.5	1.1	81.8	0.7	100.0	469
South South	24.8	2.6	68.4	4.3	100.0	291
South West	48.6	2.2	42.5	6.8	100.0	248
State						
North Central						
FCT-Abuja	24.0	2.1	73.9	0.0	100.0	21
Benue	6.0	0.9	93.1	0.0	100.0	119
Kogi	5.1	4.6	90.3	0.0	100.0	99
Kwara	(12.3)	(16.5)	(71.2)	(0.0)	100.0	34
Nasarawa	5.4	5.3	88.9	0.4	100.0	110
Niger	4.3	3.8	91.8	0.0	100.0	270
Plateau	12.2	2.2	85.6	0.0	100.0	97
North East						
Adamawa	51.1	5.4	43.5	0.0	100.0	144
Bauchi	4.6	0.5	94.9	0.0	100.0	284
Borno	33.2	4.1	62.6	0.0	100.0	124
Gombe	5.9	2.7	90.9	0.4	100.0	142
Taraba	4.9	1.4	93.8	0.0	100.0	92
Yobe	1.9	0.7	97.5	0.0	100.0	191
North West						
Jigawa	16.3	2.6	81.1	0.0	100.0	169
Kaduna	8.4	0.4	91.2	0.0	100.0	298
Kano	18.8	3.7	77.5	0.0	100.0	251
Katsina	45.6	0.7	53.7	0.0	100.0	362
Kebbi	1.1	0.8	97.8	0.4	100.0	217
Sokoto	12.9	3.8	82.9	0.4	100.0	94
Zamfara	35.2	3.4	60.1	1.3	100.0	243
South East						
Abia	(23.2)	(1.4)	(67.3)	(8.2)	100.0	32
Anambra	0.4	0.0	99.6	0.0	100.0	214
Ebonyi	30.6	1.4	68.0	0.0	100.0	105
Enugu	37.6	3.3	59.1	0.0	100.0	82
Imo	(16.8)	(1.3)	(80.5)	(1.3)	100.0	36
South South						
Akwa Ibom	(32.6)	(8.6)	(58.8)	(0.0)	100.0	52
Bayelsa	5.1	3.0	91.9	0.0	100.0	26
Cross River	(63.0)	(8.9)	(28.0)	(0.0)	100.0	25
Delta	(30.3)	(0.0)	(58.5)	(11.2)	100.0	43
Edo	(66.9)	(0.0)	(33.1)	(0.0)	100.0	23
Rivers	7.9	0.0	85.9	6.3	100.0	122
South West						
Ekiti	(47.5)	(7.4)	(45.2)	(0.0)	100.0	18
Lagos	39.8	2.5	44.0	13.8	100.0	122
Ogun	*	*	*	*	*	28
Ondo	(40.9)	(0.0)	(59.1)	(0.0)	100.0	28
Osun	*	*	*	*	*	15
Oyo	(69.4)	(0.0)	(30.6)	(0.0)	100.0	38
Education						
No education	13.4	2.0	84.2	0.4	100.0	1,522
Primary	18.0	2.1	79.0	0.9	100.0	696
Secondary	18.3	1.8	78.8	1.2	100.0	1,492
More than secondary	34.8	4.1	59.8	1.3	100.0	658

Continued…

Table 15.5.2—*Continued*

Background characteristic	House has a title or deed and: Man's name is on title/deed	Man's name is not on title/deed	Does not have a title/deed	Don't know/ missing[1]	Total	Number who own a house[2]
Wealth quintile						
Lowest	10.0	2.3	87.6	0.0	100.0	1,101
Second	15.8	1.8	82.3	0.1	100.0	1,051
Middle	17.8	2.0	79.1	1.0	100.0	961
Fourth	21.8	3.3	73.4	1.6	100.0	698
Highest	41.5	2.3	53.5	2.7	100.0	556
Total 15-49	19.0	2.3	77.9	0.9	100.0	4,367
50-59	29.0	2.1	68.3	0.6	100.0	1,022
Total 15-59	20.9	2.2	76.1	0.8	100.0	5,389

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes men who have a house with a title/deed, but they do not know if their name is on it (or this information is missing), and men who do not know if there is a title/deed for the house (or this information is missing)
[2] Includes sole, joint, or sole and joint ownership

Table 15.6.1 Ownership of title or deed for land: Women

Among women age 15-49 who own land, percent distribution by whether the land owned has a title or deed and whether or not the woman's name appears on the title or deed, according to background characteristics, Nigeria DHS 2018

Background characteristic	Land has a title or deed and: Woman's name is on title/deed	Woman's name is not on title/deed	Does not have a title/deed	Don't know/ missing[1]	Total	Number who own land[2]
Age						
15-19	12.5	4.1	77.5	5.9	100.0	253
20-24	20.5	3.9	74.6	1.0	100.0	424
25-29	18.5	3.8	75.7	2.0	100.0	770
30-34	19.9	3.9	75.2	1.1	100.0	755
35-39	20.5	3.8	72.4	3.4	100.0	867
40-44	23.8	5.9	68.4	1.9	100.0	763
45-49	23.4	3.7	70.8	2.1	100.0	975
Residence						
Urban	18.1	4.7	75.6	1.6	100.0	2,073
Rural	22.8	3.7	70.8	2.7	100.0	2,735
Zone						
North Central	16.4	6.7	73.6	3.3	100.0	746
North East	37.6	2.3	58.9	1.2	100.0	610
North West	47.9	4.7	47.0	0.4	100.0	783
South East	2.2	1.4	96.1	0.4	100.0	1,542
South South	14.3	3.4	75.5	6.8	100.0	726
South West	33.5	13.2	49.4	3.9	100.0	402
State						
North Central						
FCT-Abuja	40.3	2.0	57.7	0.0	100.0	32
Benue	20.8	4.3	74.1	0.8	100.0	131
Kogi	15.7	16.7	59.4	8.2	100.0	225
Kwara	11.7	1.3	86.1	0.9	100.0	66
Nasarawa	35.3	7.4	57.3	0.0	100.0	29
Niger	12.8	0.0	86.3	0.9	100.0	86
Plateau	10.2	1.7	85.9	2.2	100.0	175
North East						
Adamawa	89.9	0.0	10.1	0.0	100.0	149
Bauchi	30.7	3.0	66.3	0.0	100.0	102
Borno	(24.6)	(1.9)	(73.5)	(0.0)	100.0	33
Gombe	49.4	7.0	43.6	0.0	100.0	29
Taraba	38.4	13.3	48.3	0.0	100.0	42
Yobe	9.7	1.0	86.4	2.9	100.0	254
North West						
Jigawa	33.9	0.9	65.3	0.0	100.0	100
Kaduna	32.1	10.8	57.1	0.0	100.0	183
Kano	67.5	1.1	31.4	0.0	100.0	158
Katsina	43.5	7.3	49.2	0.0	100.0	135
Kebbi	36.7	4.1	53.3	5.9	100.0	59
Sokoto	63.7	1.9	34.4	0.0	100.0	103
Zamfara	66.0	0.0	34.0	0.0	100.0	46
South East						
Abia	12.4	6.0	81.7	0.0	100.0	53
Anambra	0.9	0.2	98.5	0.4	100.0	653
Ebonyi	1.8	0.5	97.6	0.2	100.0	459
Enugu	0.7	0.8	97.9	0.6	100.0	282
Imo	10.7	13.0	74.6	1.6	100.0	95
South South						
Akwa Ibom	13.8	5.3	76.4	4.5	100.0	191
Bayelsa	14.5	3.1	82.4	0.0	100.0	91
Cross River	2.3	0.0	97.7	0.0	100.0	96
Delta	11.4	0.0	80.6	8.0	100.0	107
Edo	48.8	4.1	45.4	1.7	100.0	69
Rivers	9.5	5.1	67.4	18.0	100.0	172
South West						
Ekiti	11.6	23.6	64.3	0.5	100.0	106
Lagos	(46.3)	(12.8)	(32.8)	(8.0)	100.0	56
Ogun	46.8	3.8	49.5	0.0	100.0	55
Ondo	34.4	2.5	53.3	9.8	100.0	90
Osun	53.9	26.4	19.7	0.0	100.0	58
Oyo	(22.6)	(2.4)	(69.6)	(5.4)	100.0	36
Education						
No education	26.8	2.7	69.5	1.0	100.0	1,394
Primary	15.2	3.3	79.5	2.0	100.0	1,114
Secondary	15.9	4.8	75.8	3.5	100.0	1,800
More than secondary	34.0	7.5	56.7	1.8	100.0	500

Continued…

Table 15.6.1—*Continued*

Background characteristic	Land has a title or deed and: Woman's name is on title/deed	Woman's name is not on title/deed	Does not have a title/deed	Don't know/ missing[1]	Total	Number who own land[2]
Wealth quintile						
Lowest	21.8	2.6	74.5	1.2	100.0	909
Second	21.5	3.5	73.4	1.6	100.0	965
Middle	17.4	4.0	76.9	1.7	100.0	1,163
Fourth	16.8	5.3	74.3	3.6	100.0	1,015
Highest	29.1	5.4	62.2	3.2	100.0	755
Total	20.8	4.1	72.9	2.2	100.0	4,808

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes women who have land with a title/deed, but they do not know if their name is on it (or this information is missing), and women who do not know if there is a title/deed for the land (or this information is missing)
[2] Includes sole, joint, or sole and joint ownership

Table 15.6.2 Ownership of title or deed for land: Men

Among men age 15-49 who own land, percent distribution by whether the land owned has a title or deed and whether or not the man's name appears on the title or deed, according to background characteristics, Nigeria DHS 2018

Background characteristic	Land has a title or deed and: Man's name is on title/deed	Man's name is not on title/deed	Does not have a title/deed	Don't know/ missing[1]	Total	Number who own land[2]
Age						
15-19	1.4	0.9	97.7	0.0	100.0	221
20-24	11.7	4.5	83.8	0.0	100.0	331
25-29	13.8	1.1	85.1	0.0	100.0	631
30-34	20.3	2.0	77.7	0.0	100.0	799
35-39	19.6	1.6	78.6	0.3	100.0	943
40-44	27.3	0.9	71.6	0.2	100.0	856
45-49	25.3	1.5	73.1	0.2	100.0	710
Residence						
Urban	26.5	1.6	71.9	0.1	100.0	1,257
Rural	17.2	1.6	81.0	0.2	100.0	3,233
Zone						
North Central	7.3	1.8	90.8	0.1	100.0	737
North East	13.5	2.0	84.5	0.0	100.0	985
North West	25.0	1.6	73.3	0.0	100.0	1,629
South East	17.8	0.9	81.1	0.2	100.0	550
South South	25.6	0.6	72.8	1.0	100.0	328
South West	43.1	2.2	54.6	0.0	100.0	260
State						
North Central						
FCT-Abuja	12.5	0.0	87.5	0.0	100.0	15
Benue	1.4	0.0	98.6	0.0	100.0	119
Kogi	14.0	0.8	85.2	0.0	100.0	118
Kwara	16.1	3.3	80.6	0.0	100.0	45
Nasarawa	3.9	5.1	90.5	0.5	100.0	73
Niger	4.7	2.0	93.4	0.0	100.0	271
Plateau	11.6	1.9	86.6	0.0	100.0	97
North East						
Adamawa	45.6	6.5	48.0	0.0	100.0	148
Bauchi	5.2	1.9	92.9	0.0	100.0	306
Borno	35.3	2.2	62.4	0.0	100.0	106
Gombe	5.8	1.3	92.9	0.0	100.0	151
Taraba	0.7	0.0	99.3	0.0	100.0	79
Yobe	1.6	0.0	98.4	0.0	100.0	194
North West						
Jigawa	18.4	0.5	81.1	0.0	100.0	167
Kaduna	11.0	2.1	86.9	0.0	100.0	358
Kano	18.0	3.0	79.0	0.0	100.0	227
Katsina	46.2	0.7	53.1	0.0	100.0	333
Kebbi	2.5	0.4	96.7	0.4	100.0	211
Sokoto	16.2	2.2	81.6	0.0	100.0	109
Zamfara	53.5	2.6	43.9	0.0	100.0	225
South East						
Abia	7.6	0.9	91.4	0.0	100.0	58
Anambra	0.9	0.4	98.7	0.0	100.0	247
Ebonyi	36.1	1.8	62.2	0.0	100.0	122
Enugu	42.0	1.8	56.2	0.0	100.0	75
Imo	32.7	0.0	65.0	2.3	100.0	48
South South						
Akwa Ibom	26.9	1.4	71.7	0.0	100.0	91
Bayelsa	3.0	0.0	97.0	0.0	100.0	44
Cross River	(31.0)	(1.8)	(67.2)	(0.0)	100.0	33
Delta	(28.3)	(0.0)	(71.7)	(0.0)	100.0	26
Edo	(87.3)	(0.0)	(12.7)	(0.0)	100.0	34
Rivers	10.7	0.0	85.9	3.4	100.0	100
South West						
Ekiti	29.4	2.1	68.4	0.0	100.0	40
Lagos	(42.9)	(1.4)	(55.7)	(0.0)	100.0	40
Ogun	(20.3)	(0.0)	(79.7)	(0.0)	100.0	33
Ondo	54.9	0.0	45.1	0.0	100.0	67
Osun	(20.6)	(4.1)	(75.3)	(0.0)	100.0	39
Oyo	(76.5)	(6.9)	(16.6)	(0.0)	100.0	42
Education						
No education	16.2	1.8	81.9	0.0	100.0	1,584
Primary	19.7	1.0	79.1	0.2	100.0	743
Secondary	18.6	1.6	79.7	0.2	100.0	1,554
More than secondary	32.4	1.8	65.6	0.1	100.0	610

Continued…

Table 15.6.2—*Continued*

Background characteristic	Land has a title or deed and: Man's name is on title/deed	Man's name is not on title/deed	Does not have a title/deed	Don't know/ missing[1]	Total	Number who own land[2]
Wealth quintile						
Lowest	13.2	1.5	85.3	0.0	100.0	1,154
Second	18.3	1.9	79.8	0.0	100.0	1,166
Middle	19.3	1.7	78.5	0.5	100.0	1,012
Fourth	22.7	1.1	76.1	0.1	100.0	699
Highest	36.9	1.7	61.4	0.0	100.0	459
Total 15-49	19.8	1.6	78.5	0.1	100.0	4,490
50-59	24.6	2.0	73.3	0.0	100.0	974
Total 15-59	20.7	1.7	77.5	0.1	100.0	5,464

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes men who have land with a title/deed, but they do not know if their name is on it (or this information is missing), and men who do not know if there is a title/deed for the land (or this information is missing)
[2] Includes sole, joint, or sole and joint ownership

Table 15.7.1 Ownership and use of bank accounts and mobile phones: Women

Percentage of women age 15-49 who have and use an account in a bank or other financial institution and percentage who own a mobile phone, and among women who own a mobile phone, percentage who use it for financial transactions, according to background characteristics, Nigeria DHS 2018

Background characteristic	Have and use a bank account	Own a mobile phone	Number of women	Use mobile phone for financial transactions	Number of women who own a mobile phone
Age					
15-19	5.7	36.6	8,448	11.1	3,090
20-24	20.2	57.7	6,835	26.0	3,942
25-29	26.4	61.1	7,255	30.8	4,435
30-34	29.3	61.0	6,178	34.0	3,771
35-39	30.1	62.7	5,463	34.2	3,424
40-44	27.5	58.4	3,940	31.1	2,302
45-49	24.9	58.6	3,701	27.5	2,168
Residence					
Urban	36.8	74.4	19,163	36.7	14,249
Rural	9.6	39.2	22,658	14.3	8,884
Zone					
North Central	17.8	54.2	5,891	18.1	3,191
North East	8.4	39.2	6,636	12.5	2,602
North West	6.9	34.7	12,225	12.4	4,242
South East	36.5	74.6	4,963	35.2	3,700
South South	36.6	70.6	4,840	29.4	3,419
South West	44.1	82.3	7,266	46.2	5,978
State					
North Central					
FCT-Abuja	31.7	69.2	319	26.0	220
Benue	15.3	50.8	1,354	11.7	687
Kogi	22.4	69.9	654	8.8	457
Kwara	22.7	64.7	684	27.6	443
Nasarawa	26.6	65.9	648	13.7	427
Niger	8.3	37.3	1,357	17.0	506
Plateau	17.5	51.5	875	28.9	451
North East					
Adamawa	8.9	49.9	903	6.2	450
Bauchi	5.4	27.2	1,343	9.8	366
Borno	12.5	50.8	1,469	17.7	746
Gombe	8.0	31.5	717	17.0	226
Taraba	12.9	44.6	877	17.1	391
Yobe	3.8	31.9	1,327	6.0	424
North West					
Jigawa	5.9	28.3	1,382	7.8	392
Kaduna	13.9	44.6	2,493	22.3	1,111
Kano	9.4	40.6	2,692	16.9	1,093
Katsina	2.7	33.6	2,283	3.3	768
Kebbi	0.7	22.3	1,136	1.3	253
Sokoto	2.4	23.7	910	1.2	216
Zamfara	5.6	30.8	1,328	8.2	409
South East					
Abia	35.8	82.6	630	25.4	521
Anambra	46.0	82.7	1,477	52.5	1,221
Ebonyi	11.5	51.9	1,027	17.0	533
Enugu	40.6	75.1	880	28.0	661
Imo	45.4	80.6	948	32.9	764
South South					
Akwa Ibom	34.2	69.2	948	24.0	656
Bayelsa	29.2	67.4	298	21.3	201
Cross River	32.7	58.1	574	30.7	333
Delta	35.1	72.4	931	28.0	675
Edo	33.1	72.2	555	39.5	401
Rivers	43.1	75.2	1,534	30.9	1,154
South West					
Ekiti	33.7	78.5	475	25.0	373
Lagos	58.8	85.9	2,891	60.8	2,483
Ogun	32.0	81.1	927	36.0	752
Ondo	32.1	75.0	683	33.7	512
Osun	29.0	84.8	938	29.7	795
Oyo	41.0	78.6	1,352	44.8	1,063
Education					
No education	1.8	26.0	14,603	4.1	3,793
Primary	9.6	54.7	6,039	9.6	3,305
Secondary	26.6	69.7	16,583	25.6	11,553
More than secondary	86.8	97.5	4,596	68.5	4,482

Continued…

Table 15.7.1—*Continued*

Background characteristic	Have and use a bank account	Own a mobile phone	Number of women	Use mobile phone for financial transactions	Number of women who own a mobile phone
Wealth quintile					
Lowest	1.0	17.7	7,222	2.0	1,282
Second	2.7	32.1	8,045	4.5	2,580
Middle	11.7	54.4	8,207	11.8	4,461
Fourth	28.5	74.2	8,990	24.8	6,671
Highest	58.0	87.0	9,357	51.2	8,139
Total	22.1	55.3	41,821	28.1	23,133

Table 15.7.2 Ownership and use of bank accounts and mobile phones: Men

Percentage of men age 15-49 who have and use an account in a bank or other financial institution and percentage who own a mobile phone, and among men who own a mobile phone, percentage who use it for financial transactions, according to background characteristics, Nigeria DHS 2018

Background characteristic	Have and use a bank account	Own a mobile phone	Number of men	Use mobile phone for financial transactions	Number of men who own a mobile phone
Age					
15-19	6.4	46.0	2,415	10.7	1,110
20-24	32.3	81.8	1,472	29.5	1,204
25-29	42.8	89.0	1,599	36.7	1,424
30-34	49.6	93.1	1,792	39.0	1,669
35-39	52.0	91.5	1,832	40.7	1,676
40-44	52.5	90.5	1,569	41.1	1,419
45-49	49.9	90.0	1,188	40.1	1,069
Residence					
Urban	57.0	88.3	5,512	49.9	4,865
Rural	22.5	74.0	6,356	19.4	4,706
Zone					
North Central	33.7	78.2	1,704	28.5	1,333
North East	18.0	70.1	1,936	19.9	1,358
North West	19.1	75.1	3,195	19.2	2,398
South East	55.2	88.6	1,355	47.8	1,199
South South	56.6	85.9	1,438	37.5	1,236
South West	66.1	91.4	2,240	58.3	2,048
State					
North Central					
FCT-Abuja	51.3	83.3	96	36.1	80
Benue	30.7	75.0	351	26.6	263
Kogi	44.8	88.4	156	21.1	138
Kwara	34.5	79.4	208	36.8	165
Nasarawa	30.8	72.1	206	25.5	148
Niger	32.2	77.6	442	28.6	343
Plateau	28.2	79.4	246	28.6	195
North East					
Adamawa	14.3	61.8	218	15.8	135
Bauchi	13.4	70.0	420	16.4	294
Borno	27.0	81.1	398	29.9	323
Gombe	14.0	69.5	240	15.2	167
Taraba	22.6	71.3	187	12.0	134
Yobe	16.2	64.8	472	20.4	305
North West					
Jigawa	12.5	77.9	291	13.4	227
Kaduna	27.5	76.3	636	22.9	485
Kano	24.2	78.7	676	29.2	532
Katsina	17.6	81.9	687	13.5	563
Kebbi	8.8	63.2	291	8.5	184
Sokoto	15.8	75.1	218	17.4	164
Zamfara	13.5	61.4	396	18.4	243
South East					
Abia	46.7	91.2	185	46.6	169
Anambra	71.0	91.2	409	52.0	373
Ebonyi	36.0	79.5	233	38.6	185
Enugu	53.5	87.6	192	26.7	168
Imo	55.0	90.7	337	60.7	305
South South					
Akwa Ibom	49.2	85.4	291	18.5	249
Bayelsa	60.6	80.3	109	71.1	87
Cross River	48.7	71.0	137	28.0	97
Delta	55.5	91.1	326	28.5	297
Edo	50.4	83.8	140	49.2	117
Rivers	65.8	89.2	435	47.9	388
South West					
Ekiti	47.4	89.8	139	33.8	125
Lagos	81.3	95.1	845	80.8	803
Ogun	70.0	89.2	309	44.9	275
Ondo	44.2	84.8	247	25.7	209
Osun	51.0	89.6	269	44.3	241
Oyo	61.4	91.2	432	55.3	394
Education					
No education	4.4	65.8	2,555	4.2	1,680
Primary	25.0	78.1	1,590	16.2	1,242
Secondary	40.7	81.6	5,697	34.2	4,650
More than secondary	86.0	98.7	2,025	73.9	1,999

Continued…

Table 15.7.2—*Continued*

Background characteristic	Have and use a bank account	Own a mobile phone	Number of men	Use mobile phone for financial transactions	Number of men who own a mobile phone
Wealth quintile					
Lowest	2.4	57.3	1,991	3.9	1,141
Second	12.6	74.5	2,123	9.9	1,581
Middle	28.9	82.1	2,393	21.4	1,964
Fourth	53.4	88.3	2,590	41.1	2,288
Highest	78.7	93.7	2,770	68.5	2,597
Total 15-49	38.5	80.6	11,868	34.9	9,571
50-59	44.8	85.8	1,443	34.7	1,238
Total 15-59	39.2	81.2	13,311	34.9	10,809

Table 15.8 Participation in decision making

Percent distribution of currently married women and currently married men age 15-49 by person who usually makes decisions about various issues, Nigeria DHS 2018

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Total	Number of women
WOMEN							
Own health care	11.2	33.0	55.5	0.3	0.0	100.0	29,090
Major household purchases	6.3	34.1	59.2	0.3	0.1	100.0	29,090
Visits to her family or relatives	14.6	44.9	40.2	0.2	0.0	100.0	29,090
MEN							
Own health care	17.8	24.8	57.2	0.1	0.1	100.0	6,786
Major household purchases	19.4	28.6	51.7	0.2	0.1	100.0	6,786

Table 15.9.1 Women's participation in decision making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, according to background characteristics, Nigeria DHS 2018

Background characteristic	Specific decisions			All three decisions	None of the three decisions	Number of women
	Woman's own health care	Making major household purchases	Visits to her family or relatives			
Age						
15-19	19.8	19.8	40.7	12.5	56.1	1,927
20-24	32.2	28.5	51.0	22.4	45.8	4,362
25-29	41.3	38.0	57.5	31.1	38.7	6,060
30-34	47.2	43.0	61.8	36.4	34.3	5,417
35-39	52.8	47.2	64.6	40.3	31.2	4,841
40-44	51.9	48.3	65.5	40.8	29.8	3,457
45-49	54.7	51.3	68.8	42.9	26.7	3,026
Employment (past 12 months)						
Not employed	19.6	15.8	37.4	11.3	60.6	7,534
Employed for cash	53.6	49.7	68.1	42.4	27.4	18,225
Employed not for cash	48.5	45.6	62.5	34.6	31.9	3,330
Number of living children						
0	34.8	32.6	52.7	25.8	43.8	2,333
1-2	46.6	41.9	60.9	35.3	34.9	9,363
3-4	47.7	43.2	62.1	36.2	34.3	8,615
5+	40.7	38.3	57.4	30.8	38.5	8,779
Residence						
Urban	59.8	53.3	69.5	46.9	26.2	11,790
Rural	33.5	31.6	52.7	24.3	43.6	17,299
Zone						
North Central	39.5	41.7	60.8	29.6	33.9	4,086
North East	28.8	30.0	45.6	20.9	50.8	4,841
North West	19.9	15.8	44.2	11.0	53.7	9,826
South East	80.0	74.4	82.0	69.3	13.6	2,893
South South	74.2	70.5	75.4	61.7	16.2	2,777
South West	75.3	63.2	82.0	58.2	14.1	4,666
State						
North Central						
FCT-Abuja	63.0	65.1	75.9	55.8	20.9	202
Benue	38.7	43.5	76.7	23.9	16.4	876
Kogi	75.8	67.4	76.8	61.5	15.7	428
Kwara	54.3	51.8	74.1	46.3	23.7	486
Nasarawa	9.4	8.1	9.4	6.7	88.3	416
Niger	29.3	39.3	48.4	22.0	45.3	1,108
Plateau	34.2	31.8	69.0	22.6	26.3	570
North East						
Adamawa	39.6	41.8	52.2	36.6	46.8	624
Bauchi	19.3	19.7	38.1	12.3	57.2	1,134
Borno	36.2	30.4	51.4	22.5	46.6	953
Gombe	29.6	22.7	44.2	14.8	52.6	554
Taraba	51.9	61.9	76.4	46.5	18.6	580
Yobe	12.0	19.5	27.1	7.7	67.8	996
North West						
Jigawa	18.2	10.8	42.9	4.3	48.3	1,158
Kaduna	37.0	41.6	61.5	35.7	37.4	1,975
Kano	33.0	7.0	41.2	4.9	56.7	2,085
Katsina	10.2	14.1	59.7	7.5	39.9	1,772
Kebbi	4.4	12.9	54.3	3.4	44.2	945
Sokoto	1.6	2.3	9.9	0.3	88.8	777
Zamfara	8.2	5.8	10.8	4.6	88.2	1,116
South East						
Abia	89.3	84.0	91.3	82.2	6.9	376
Anambra	97.6	96.9	97.9	95.9	1.5	905
Ebonyi	71.9	76.6	74.9	65.6	17.9	600
Enugu	62.8	55.5	64.9	54.2	34.0	458
Imo	68.0	44.5	71.4	33.7	16.2	554
South South						
Akwa Ibom	81.4	66.9	86.7	61.6	8.1	490
Bayelsa	40.6	38.5	39.6	37.5	58.4	195
Cross River	94.8	93.3	93.2	88.2	2.1	318
Delta	85.0	84.3	90.6	80.3	7.8	551
Edo	47.4	32.7	42.1	20.3	38.6	370
Rivers	74.5	78.7	75.2	63.2	12.3	855

Continued…

Table 15.9.1—*Continued*

Background characteristic	Specific decisions			All three decisions	None of the three decisions	Number of women
	Woman's own health care	Making major household purchases	Visits to her family or relatives			
South West						
Ekiti	85.2	72.4	88.1	71.4	11.0	326
Lagos	82.7	61.2	81.5	57.2	11.2	1,645
Ogun	68.3	71.9	88.9	59.3	8.0	624
Ondo	55.7	56.2	76.1	49.4	22.4	421
Osun	40.2	28.2	51.5	23.6	43.8	625
Oyo	94.1	82.3	97.5	79.8	2.1	1,024
Education						
No education	22.8	20.5	43.3	13.7	53.4	12,955
Primary	52.1	48.6	66.5	41.6	29.3	4,580
Secondary	62.4	57.4	73.2	50.2	22.2	8,767
More than secondary	73.1	66.2	80.6	59.2	14.8	2,788
Wealth quintile						
Lowest	21.7	19.1	39.5	12.5	57.1	6,008
Second	30.4	29.3	53.0	21.6	43.7	6,224
Middle	42.6	40.3	59.2	33.0	36.5	5,601
Fourth	57.0	52.1	68.9	45.2	26.9	5,599
Highest	72.1	63.8	79.1	57.5	16.3	5,657
Total	44.2	40.4	59.5	33.5	36.5	29,090

Table 15.9.2 Men's participation in decision making by background characteristics

Percentage of currently married men age 15-49 who usually make specific decisions either alone or jointly with their wife, according to background characteristics, Nigeria DHS 2018

Background characteristic	Specific decisions: Man's own health	Specific decisions: Making major household purchases	Both decisions	Neither of the two decisions	Number of men
Age					
15-19	*	*	*	*	7
20-24	83.7	81.1	79.7	14.9	233
25-29	82.7	82.4	79.2	14.1	790
30-34	85.3	83.5	80.3	11.6	1,412
35-39	81.2	80.2	77.0	15.6	1,693
40-44	80.5	77.8	75.5	17.2	1,502
45-49	80.0	78.4	76.7	18.3	1,150
Employment (past 12 months)					
Not employed	82.0	78.2	75.3	15.1	59
Employed for cash	81.0	79.5	76.8	16.2	6,131
Employed not for cash	92.0	88.9	87.2	6.2	596
Number of living children					
0	81.3	81.7	78.9	15.9	491
1-2	83.1	80.6	78.0	14.3	2,372
3-4	81.2	79.8	76.4	15.5	2,019
5+	81.5	80.3	78.2	16.4	1,904
Residence					
Urban	81.1	78.5	75.6	16.0	3,122
Rural	82.7	81.9	79.4	14.8	3,663
Zone					
North Central	89.0	89.0	87.5	9.6	968
North East	85.2	80.9	79.8	13.8	1,026
North West	77.7	78.7	75.1	18.8	1,703
South East	72.4	72.2	70.6	26.0	797
South South	72.1	64.0	60.2	24.0	782
South West	90.3	89.1	85.6	6.2	1,509
State					
North Central					
FCT-Abuja	98.9	99.6	98.9	0.4	58
Benue	99.5	99.5	99.5	0.5	216
Kogi	88.8	93.0	84.7	3.0	84
Kwara	84.5	81.4	79.6	13.7	106
Nasarawa	100.0	98.9	98.9	0.0	96
Niger	72.2	73.2	71.6	26.2	284
Plateau	99.6	98.0	97.7	0.0	125
North East					
Adamawa	92.9	94.0	92.2	5.2	131
Bauchi	97.5	95.4	94.9	2.1	238
Borno	91.3	74.7	74.4	8.4	229
Gombe	61.2	56.6	54.0	36.2	111
Taraba	36.2	38.3	34.8	60.3	115
Yobe	99.7	99.7	99.7	0.3	202
North West					
Jigawa	98.0	98.0	96.8	0.8	173
Kaduna	47.1	45.0	45.0	52.9	385
Kano	68.2	66.4	60.0	25.3	311
Katsina	87.2	90.6	87.2	9.4	325
Kebbi	84.7	96.7	82.9	1.5	171
Sokoto	98.5	97.3	96.7	0.9	124
Zamfara	97.8	97.9	96.4	0.7	214
South East					
Abia	81.1	88.3	81.1	11.7	93
Anambra	46.2	46.5	45.9	53.2	277
Ebonyi	94.5	95.6	94.1	4.0	154
Enugu	95.6	92.0	91.1	3.6	101
Imo	76.8	72.6	71.8	22.4	172
South South					
Akwa Ibom	63.6	63.7	60.6	33.3	147
Bayelsa	100.0	96.7	96.7	0.0	60
Cross River	47.4	40.9	36.8	48.4	73
Delta	88.1	85.3	76.8	3.4	185
Edo	98.1	35.7	35.7	1.9	65
Rivers	59.3	54.8	52.1	37.9	252

Continued…

Table 15.9.2—*Continued*

Background characteristic	Specific decisions: Man's own health	Specific decisions: Making major household purchases	Both decisions	Neither of the two decisions	Number of men
South West					
Ekiti	99.4	94.2	94.2	0.6	95
Lagos	82.2	79.6	76.4	14.6	562
Ogun	87.7	86.9	78.5	3.9	236
Ondo	96.0	94.1	90.6	0.5	126
Osun	93.7	97.7	91.8	0.4	188
Oyo	100.0	99.5	99.5	0.0	302
Education					
No education	84.8	84.3	82.4	13.2	1,665
Primary	81.9	80.3	78.1	15.8	1,133
Secondary	81.6	79.8	76.6	15.2	2,752
More than secondary	79.0	76.2	73.2	18.1	1,235
Wealth quintile					
Lowest	89.6	89.3	87.4	8.5	1,106
Second	81.7	80.9	78.7	16.1	1,203
Middle	82.1	79.4	77.4	15.8	1,360
Fourth	80.9	79.8	76.7	16.1	1,445
Highest	77.9	75.3	71.5	18.3	1,672
Total 15-49	82.0	80.3	77.7	15.3	6,786
50-59	82.5	82.2	78.9	14.2	1,395
Total 15-59	82.1	80.7	77.9	15.2	8,180

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 15.10.1 Attitude toward wife beating: Women

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, according to background characteristics, Nigeria DHS 2018

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number
Age							
15-19	15.0	20.1	22.0	22.7	20.0	29.8	8,448
20-24	15.5	20.2	22.6	22.4	21.5	29.4	6,835
25-29	14.7	20.5	21.9	22.3	21.6	29.3	7,255
30-34	14.1	18.7	20.8	20.7	19.6	26.5	6,178
35-39	13.2	18.5	19.9	19.7	18.1	25.6	5,463
40-44	14.3	19.1	20.7	20.7	19.6	26.6	3,940
45-49	13.4	19.0	20.3	19.8	19.1	26.6	3,701
Employment (past 12 months)							
Not employed	18.3	22.6	25.3	25.1	24.4	31.8	13,214
Employed for cash	11.5	16.4	18.1	17.8	16.3	23.8	23,139
Employed not for cash	17.6	25.9	25.6	28.1	25.6	36.8	5,468
Number of living children							
0	11.2	15.5	17.3	17.8	15.1	24.4	12,271
1-2	13.5	18.6	20.1	20.2	19.3	26.4	10,731
3-4	14.6	20.1	22.0	22.1	21.0	28.5	9,363
5+	19.7	25.4	27.4	26.9	26.6	34.1	9,457
Marital status							
Never married	9.2	13.2	14.7	15.9	12.2	21.8	10,550
Married or living together	16.7	22.2	24.2	23.8	23.4	30.7	29,090
Divorced/separated/widowed	9.8	15.1	16.1	16.5	14.0	22.3	2,181
Residence							
Urban	6.4	9.9	11.4	11.8	9.3	16.3	19,163
Rural	21.3	27.8	29.8	29.6	29.2	37.9	22,658
Zone							
North Central	14.4	23.2	21.5	24.0	25.1	34.8	5,891
North East	23.7	33.2	34.8	32.3	35.0	45.2	6,636
North West	24.7	27.5	32.2	31.4	31.7	37.3	12,225
South East	5.9	12.2	12.0	13.4	5.1	17.2	4,963
South South	3.4	7.5	10.1	11.6	4.8	15.8	4,840
South West	2.2	3.9	4.6	4.7	3.3	6.8	7,266
State							
North Central							
FCT-Abuja	1.1	3.1	4.3	4.8	4.1	9.7	319
Benue	24.2	32.0	31.8	39.0	34.6	48.0	1,354
Kogi	1.9	5.2	4.9	7.3	2.9	10.1	654
Kwara	3.0	3.1	4.5	6.5	2.6	8.4	684
Nasarawa	14.5	17.8	9.2	12.9	22.1	31.3	648
Niger	22.4	45.9	42.7	45.4	50.9	62.4	1,357
Plateau	9.7	15.0	13.7	8.7	14.6	22.6	875
North East							
Adamawa	0.7	1.9	2.3	1.1	0.8	4.7	903
Bauchi	47.7	61.0	64.4	63.4	61.6	73.9	1,343
Borno	8.3	9.6	10.3	9.0	5.8	16.6	1,469
Gombe	14.0	23.9	18.2	18.6	32.7	36.3	717
Taraba	28.4	45.0	38.8	43.5	44.7	57.0	877
Yobe	34.0	49.9	60.5	48.1	58.8	72.4	1,327
North West							
Jigawa	0.6	1.7	1.7	1.0	2.0	2.9	1,382
Kaduna	11.8	14.3	16.8	14.9	18.9	22.3	2,493
Kano	1.3	2.2	2.9	2.5	4.3	5.4	2,692
Katsina	64.8	62.1	71.9	76.2	73.0	80.6	2,283
Kebbi	66.9	73.7	81.6	76.7	82.4	87.4	1,136
Sokoto	8.3	13.6	16.4	10.3	20.2	25.0	910
Zamfara	27.5	41.1	52.6	51.4	35.5	57.0	1,328
South East							
Abia	20.6	23.7	29.0	31.2	10.4	31.9	630
Anambra	0.1	0.3	0.1	0.1	0.3	0.6	1,477
Ebonyi	11.5	29.5	28.1	30.1	13.7	39.6	1,027
Enugu	1.6	4.4	4.1	4.6	1.2	5.4	880
Imo	3.0	11.7	9.3	12.2	3.6	20.0	948
South South							
Akwa Ibom	3.0	9.6	10.3	10.5	4.6	15.8	948
Bayelsa	5.5	8.4	9.0	9.4	9.1	10.1	298
Cross River	1.9	9.5	11.2	10.9	4.0	22.4	574
Delta	3.3	2.5	11.8	17.3	3.3	18.7	931
Edo	3.4	6.3	5.8	8.1	3.1	9.2	555
Rivers	3.8	8.9	10.3	10.9	5.8	15.0	1,534

Continued…

Table 15.10.1—*Continued*

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number
South West							
Ekiti	10.8	15.1	16.1	16.4	10.3	17.3	475
Lagos	0.3	0.7	0.7	1.8	1.2	2.9	2,891
Ogun	0.7	0.9	1.0	1.1	0.8	1.2	927
Ondo	4.0	10.2	12.9	9.6	8.4	16.3	683
Osun	1.7	4.3	5.3	5.4	2.6	9.0	938
Oyo	3.9	5.2	6.7	6.4	4.7	8.9	1,352
Education							
No education	25.4	32.2	34.9	33.5	35.2	42.7	14,603
Primary	15.4	20.7	22.6	22.7	20.5	29.4	6,039
Secondary	7.8	12.3	13.5	14.7	11.0	19.9	16,583
More than secondary	2.5	4.2	5.0	5.9	4.2	8.9	4,596
Wealth quintile							
Lowest	26.1	34.7	37.3	35.8	36.6	45.7	7,222
Second	23.9	30.4	32.7	32.4	32.4	40.8	8,045
Middle	14.7	21.0	22.5	22.6	20.8	30.1	8,207
Fourth	8.1	11.9	13.4	14.7	11.5	19.7	8,990
Highest	3.2	4.7	5.9	6.4	4.4	9.5	9,357
Total	14.5	19.6	21.4	21.4	20.1	28.0	41,821

Table 15.10.2 Attitude toward wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, according to background characteristics, Nigeria DHS 2018

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number
Age							
15-19	12.3	16.8	16.4	15.6	15.4	26.2	2,415
20-24	8.3	14.7	13.5	12.9	14.4	24.9	1,472
25-29	8.1	12.7	10.8	12.8	12.6	23.1	1,599
30-34	5.9	10.8	9.5	9.6	9.6	17.8	1,792
35-39	4.1	9.3	8.8	9.8	7.8	16.1	1,832
40-44	6.1	11.4	10.6	9.5	8.3	16.9	1,569
45-49	3.7	9.5	9.0	8.6	7.4	16.1	1,188
Employment (past 12 months)							
Not employed	5.6	9.1	9.7	8.3	8.8	14.9	1,431
Employed for cash	7.1	12.5	11.5	11.7	11.3	21.0	8,987
Employed not for cash	9.9	15.6	13.7	14.2	12.0	23.1	1,450
Number of living children							
0	9.2	14.3	13.3	13.2	13.6	23.3	5,410
1-2	5.9	10.1	8.9	9.4	7.8	17.1	2,488
3-4	4.8	11.1	10.1	9.7	8.7	17.0	2,050
5+	6.4	12.0	11.8	11.8	11.0	21.0	1,920
Marital status							
Never married	9.3	14.7	13.6	13.3	13.7	23.6	4,951
Married or living together	5.6	10.7	10.0	10.2	9.0	18.1	6,786
Divorced/separated/widowed	17.8	18.8	18.8	17.4	22.6	34.0	131
Residence							
Urban	4.6	10.1	9.2	9.3	7.6	16.4	5,512
Rural	9.6	14.6	13.7	13.6	14.1	24.2	6,356
Zone							
North Central	2.1	6.7	5.0	5.0	5.1	12.0	1,704
North East	17.8	20.3	19.2	21.1	22.9	33.5	1,936
North West	11.1	16.2	16.2	14.9	18.0	28.5	3,195
South East	2.8	9.6	7.3	6.1	3.7	12.7	1,355
South South	3.4	14.9	13.1	10.9	7.3	20.8	1,438
South West	2.0	5.1	5.1	7.4	2.5	9.1	2,240
State							
North Central							
FCT-Abuja	0.2	1.0	3.0	1.2	2.8	4.6	96
Benue	2.6	13.7	4.6	3.9	3.2	17.0	351
Kogi	4.6	5.3	9.5	6.8	3.9	14.2	156
Kwara	1.6	8.5	11.9	10.8	8.3	19.1	208
Nasarawa	1.9	10.5	6.1	9.9	4.8	13.9	206
Niger	1.7	3.0	2.8	2.8	8.2	9.6	442
Plateau	1.7	1.5	1.0	2.2	1.7	2.7	246
North East							
Adamawa	4.7	22.7	14.2	17.5	15.4	29.6	218
Bauchi	12.1	21.5	25.3	24.5	21.0	32.3	420
Borno	46.7	49.0	48.2	57.3	52.4	66.5	398
Gombe	1.4	11.0	5.4	2.8	11.8	19.8	240
Taraba	1.9	7.4	6.2	9.5	7.2	14.1	187
Yobe	19.2	3.6	3.7	3.0	15.1	23.1	472
North West							
Jigawa	11.1	14.5	13.7	9.9	18.3	26.9	291
Kaduna	14.6	18.4	17.3	14.7	18.7	28.1	636
Kano	12.3	18.0	16.5	17.9	18.4	33.1	676
Katsina	2.1	6.8	8.5	7.5	4.6	12.9	687
Kebbi	27.8	31.9	41.6	36.6	52.9	62.0	291
Sokoto	10.0	18.2	23.6	16.9	23.9	34.9	218
Zamfara	7.8	14.2	6.0	9.2	10.6	21.3	396
South East							
Abia	10.1	13.8	15.3	14.2	11.5	17.4	185
Anambra	1.2	9.5	5.9	3.4	3.1	11.1	409
Ebonyi	3.0	12.8	4.3	4.2	2.5	15.1	233
Enugu	0.9	6.4	6.3	7.5	0.4	12.1	192
Imo	1.5	6.9	7.1	5.5	3.0	11.0	337
South South							
Akwa Ibom	1.0	3.0	3.7	3.5	1.0	7.7	291
Bayelsa	2.2	8.4	3.7	9.0	16.9	17.7	109
Cross River	3.7	5.8	12.0	10.3	4.3	15.2	137
Delta	5.5	27.9	25.0	19.8	17.3	37.1	326
Edo	0.0	8.0	1.7	9.3	1.3	11.2	140
Rivers	4.8	20.0	16.9	10.3	4.3	23.0	435

Continued…

Table 15.10.2—*Continued*

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number
South West							
Ekiti	6.0	9.2	10.1	10.7	8.2	14.1	139
Lagos	0.5	1.5	0.8	2.6	0.4	3.2	845
Ogun	0.0	6.5	6.3	14.3	2.8	15.5	309
Ondo	12.6	24.0	26.8	29.8	13.1	39.4	247
Osun	0.0	3.0	2.0	3.6	0.0	4.0	269
Oyo	0.0	0.4	0.4	0.4	0.0	0.4	432
Education							
No education	13.4	15.3	14.7	14.1	18.3	27.1	2,555
Primary	7.1	14.1	15.1	14.3	11.7	23.1	1,590
Secondary	6.3	13.2	11.4	11.7	9.9	20.6	5,697
More than secondary	2.5	5.8	5.2	5.9	5.0	10.3	2,025
Wealth quintile							
Lowest	14.2	17.1	15.1	14.9	19.4	29.9	1,991
Second	10.7	16.3	15.6	15.3	16.3	26.0	2,123
Middle	6.4	12.9	12.7	11.6	10.6	20.9	2,393
Fourth	5.7	11.9	10.5	11.7	8.1	19.6	2,590
Highest	2.0	6.4	6.0	6.2	4.4	10.3	2,770
Total 15-49	7.3	12.5	11.6	11.6	11.1	20.5	11,868
50-59	5.5	9.9	9.7	9.3	9.2	16.3	1,443
Total 15-59	7.1	12.2	11.4	11.3	10.9	20.1	13,311

Table 15.11 Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows that he has sexual intercourse with other women, and percentage who believe that a woman is justified in asking that they use a condom if she knows that her husband has a sexually transmitted infection (STI), according to background characteristics, Nigeria DHS 2018

	Women			Men		
Background characteristic	Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Number of women	Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Number of men
Age						
15-24	69.2	72.9	15,284	61.8	68.1	3,888
15-19	66.8	68.7	8,448	60.2	64.4	2,415
20-24	72.2	78.2	6,835	64.3	74.2	1,472
25-29	69.3	78.8	7,255	67.4	76.5	1,599
30-39	69.0	79.3	11,641	66.3	76.8	3,624
40-49	68.3	77.2	7,642	65.6	75.9	2,757
Marital status						
Never married	66.7	73.4	10,550	62.8	70.5	4,951
Ever had sex	68.3	85.6	3,821	63.7	80.3	1,483
Never had sex	65.8	66.5	6,730	62.3	66.3	3,468
Married or living together	69.7	77.3	29,090	66.3	76.1	6,786
Divorced/separated/widowed	70.7	80.4	2,181	64.0	71.7	131
Residence						
Urban	69.0	80.4	19,163	63.9	75.4	5,512
Rural	69.0	73.2	22,658	65.6	72.3	6,356
Zone						
North Central	57.4	74.1	5,891	61.0	73.0	1,704
North East	74.1	70.0	6,636	60.5	56.0	1,936
North West	76.0	76.0	12,225	76.3	81.0	3,195
South East	68.9	82.2	4,963	70.6	86.8	1,355
South South	64.8	80.3	4,840	54.6	79.4	1,438
South West	64.8	78.8	7,266	58.1	67.6	2,240
State						
North Central						
FCT-Abuja	68.4	80.2	319	33.7	75.4	96
Benue	69.3	92.6	1,354	80.6	84.5	351
Kogi	62.6	84.1	654	74.4	91.3	156
Kwara	59.8	78.3	684	61.1	71.0	208
Nasarawa	46.0	43.2	648	30.7	80.2	206
Niger	35.5	59.0	1,357	80.1	72.3	442
Plateau	71.8	79.0	875	26.2	40.9	246
North East						
Adamawa	85.3	87.2	903	44.9	59.0	218
Bauchi	85.8	76.3	1,343	53.9	52.9	420
Borno	60.8	62.4	1,469	80.2	51.7	398
Gombe	55.3	69.4	717	58.7	61.3	240
Taraba	62.0	71.0	877	55.3	79.9	187
Yobe	87.6	60.1	1,327	59.8	49.0	472
North West						
Jigawa	80.6	69.7	1,382	82.6	87.1	291
Kaduna	72.9	77.4	2,493	87.3	87.6	636
Kano	71.9	82.9	2,692	77.1	79.5	676
Katsina	89.8	85.1	2,283	80.5	86.8	687
Kebbi	60.4	49.0	1,136	70.2	61.3	291
Sokoto	53.8	46.4	910	45.3	62.3	218
Zamfara	90.7	93.5	1,328	66.6	83.1	396
South East						
Abia	84.1	88.2	630	64.3	75.5	185
Anambra	50.3	83.6	1,477	73.2	97.9	409
Ebonyi	70.6	66.5	1,027	72.7	91.9	233
Enugu	89.9	88.4	880	67.8	91.1	192
Imo	66.3	87.4	948	71.1	73.5	337
South South						
Akwa Ibom	68.0	87.5	948	32.5	84.3	291
Bayelsa	60.9	48.9	298	28.7	50.0	109
Cross River	56.5	52.1	574	76.1	79.0	137
Delta	75.8	77.7	931	64.6	66.6	326
Edo	60.3	84.8	555	62.8	90.0	140
Rivers	61.7	92.5	1,534	58.9	89.6	435

Continued…

Table 15.11—*Continued*

Background characteristic	Women: Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Women: Asking that they use a condom if she knows that her husband has an STI	Women: Number of women	Men: Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Men: Asking that they use a condom if she knows that her husband has an STI	Men: Number of men
South West						
Ekiti	63.5	75.6	475	72.4	61.0	139
Lagos	51.8	89.1	2,891	21.7	47.9	845
Ogun	76.5	67.8	927	92.4	86.4	309
Ondo	69.1	80.4	683	85.9	89.0	247
Osun	79.2	82.9	938	63.7	72.1	269
Oyo	72.9	61.7	1,352	80.7	79.8	432
Education						
No education	67.3	68.1	14,603	65.0	64.6	2,555
Primary	67.7	76.3	6,039	63.9	73.2	1,590
Secondary	69.4	80.7	16,583	64.2	76.2	5,697
More than secondary	74.9	88.4	4,596	66.9	78.7	2,025
Wealth quintile						
Lowest	69.5	66.5	7,222	61.8	62.7	1,991
Second	67.9	72.1	8,045	67.1	71.8	2,123
Middle	69.1	76.6	8,207	68.3	76.8	2,393
Fourth	68.7	80.0	8,990	64.8	77.3	2,590
Highest	69.8	84.6	9,357	62.2	77.0	2,770
Total 15-49	69.0	76.5	41,821	64.8	73.7	11,868
50-59	na	na	na	66.4	76.4	1,443
Total 15-59	na	na	na	65.0	74.0	13,311

na = Not applicable

Table 15.12 Ability to negotiate sexual relations with husband

Percentage of currently married women age 15-49 who can say no to their husband if they do not want to have sexual intercourse, and percentage who can ask their husband to use a condom, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage who can say no to their husband if they do not want to have sexual intercourse	Percentage who can ask their husband to use a condom	Number of women
Age			
15-24	47.3	34.3	6,289
15-19	41.0	28.2	1,927
20-24	50.1	37.0	4,362
25-29	55.5	44.0	6,060
30-39	59.7	45.3	10,258
40-49	58.6	39.4	6,483
Residence			
Urban	67.6	53.7	11,790
Rural	47.9	32.9	17,299
Zone			
North Central	54.6	43.2	4,086
North East	51.4	31.8	4,841
North West	36.9	26.2	9,826
South East	79.8	50.0	2,893
South South	79.9	65.7	2,777
South West	72.5	61.4	4,666
State			
North Central			
FCT-Abuja	64.9	54.5	202
Benue	69.7	50.3	876
Kogi	78.9	55.9	428
Kwara	66.9	62.5	486
Nasarawa	54.8	50.7	416
Niger	27.3	25.9	1,108
Plateau	52.2	30.4	570
North East			
Adamawa	51.3	47.9	624
Bauchi	46.1	21.4	1,134
Borno	70.3	43.0	953
Gombe	52.9	24.5	554
Taraba	57.0	36.5	580
Yobe	35.6	24.4	996
North West			
Jigawa	40.7	23.2	1,158
Kaduna	53.7	45.8	1,975
Kano	38.7	16.2	2,085
Katsina	20.2	15.0	1,772
Kebbi	15.1	8.1	945
Sokoto	29.4	30.5	777
Zamfara	50.0	43.8	1,116
South East			
Abia	82.7	52.7	376
Anambra	61.2	36.0	905
Ebonyi	92.1	46.8	600
Enugu	89.4	81.8	458
Imo	87.0	48.2	554
South South			
Akwa Ibom	86.4	77.4	490
Bayelsa	62.5	61.9	195
Cross River	69.6	39.0	318
Delta	75.6	63.7	551
Edo	85.8	78.0	370
Rivers	84.1	65.7	855
South West			
Ekiti	64.0	64.9	326
Lagos	66.4	50.3	1,645
Ogun	81.8	76.1	624
Ondo	71.8	43.4	421
Osun	88.5	78.7	625
Oyo	69.8	66.0	1,024
Education			
No education	38.0	23.5	12,955
Primary	61.4	42.7	4,580
Secondary	72.2	57.9	8,767
More than secondary	78.7	69.9	2,788

Continued…

Table 15.12—*Continued*

Background characteristic	Percentage who can say no to their husband if they do not want to have sexual intercourse	Percentage who can ask their husband to use a condom	Number of women
Wealth quintile			
Lowest	38.1	21.8	6,008
Second	43.5	28.4	6,224
Middle	58.3	42.5	5,601
Fourth	67.1	53.1	5,599
Highest	75.0	63.4	5,657
Total	55.9	41.3	29,090

Table 15.13 Indicators of women's empowerment

Percentage of currently married women age 15-49 who participate in all decision making and percentage who disagree with all of the reasons justifying wife beating, according to value on each of the indicators of women's empowerment, Nigeria DHS 2018

Empowerment indicator	Percentage who participate in all decision making	Percentage who disagree with all of the reasons justifying wife beating	Number of women
Number of decisions in which women participate[1]			
0	na	63.1	10,627
1-2	na	62.7	8,730
3	na	81.9	9,733
Number of reasons for which wife beating is justified[2]			
0	39.6	na	20,152
1-2	26.9	na	2,516
3-4	20.7	na	2,506
5	14.4	na	3,916

na = Not applicable
[1] See Table 15.9.1 for the list of decisions.
[2] See Table 15.10.1 for the list of reasons.

Table 15.14 Current use of contraception by women's empowerment

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's status, Nigeria DHS 2018

			Modern methods						
Empowerment indicator	Any method	Any modern method[1]	Female sterilisation	Temporary modern female methods[2]	Male condom	Any traditional method	Not currently using	Total	Number of women
Number of decisions in which women participate[3]									
0	8.3	6.9	0.2	6.2	0.5	1.5	91.7	100.0	10,627
1-2	15.4	12.0	0.2	10.1	1.6	3.5	84.6	100.0	8,730
3	26.8	17.8	0.4	14.7	2.8	9.1	73.2	100.0	9,733
Number of reasons for which wife beating is justified[4]									
0	20.4	14.4	0.3	12.1	2.1	6.0	79.6	100.0	20,152
1-2	12.8	10.2	0.2	9.3	0.8	2.6	87.2	100.0	2,516
3-4	8.7	7.3	0.4	6.3	0.6	1.4	91.3	100.0	2,506
5	4.7	4.2	0.1	3.8	0.3	0.6	95.3	100.0	3,916
Total	16.6	12.0	0.2	10.2	1.6	4.6	83.4	100.0	29,090

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Female sterilisation, male sterilisation, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhoea method (LAM), and other modern methods
[2] Pill, IUD, injectables, implants, female condom, emergency contraception, standard days method, lactational amenorrhoea method, and other modern methods
[3] See Table 15.9.1 for the list of decisions.
[4] See Table 15.10.1 for the list of reasons.

Table 15.15 Ideal number of children and unmet need for family planning by women's empowerment

Mean ideal number of children for women age 15-49 and percentage of currently married women age 15-49 with an unmet need for family planning, according to indicators of women's empowerment, Nigeria DHS 2018

Empowerment indicator	Mean ideal number of children[1]	Number of women	Percentage of currently married women with an unmet need for family planning[2]			Number of women
			For spacing	For limiting	Total	
Number of decisions in which women participate[3]						
0	7.3	10,416	12.7	5.7	18.4	10,627
1-2	7.0	8,412	12.0	6.3	18.3	8,730
3	5.4	9,422	11.5	8.4	19.9	9,733
Number of reasons for which wife beating is justified[4]						
0	5.7	29,213	12.1	7.4	19.5	20,152
1-2	6.5	3,607	14.7	6.0	20.7	2,516
3-4	6.9	3,277	13.2	5.0	18.2	2,506
5	7.7	4,524	9.5	5.3	14.9	3,916
Total	6.1	40,621	12.1	6.8	18.9	29,090

[1] Mean excludes respondents who gave non-numeric responses.
[2] Figures for unmet need correspond to the revised definition described in Bradley et al. 2012.
[3] Restricted to currently married women. See Table 15.9.1 for the list of decisions.
[4] See Table 15.10.1 for the list of reasons.

Table 15.16 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the 5 years preceding the survey who received antenatal care, delivery assistance, and postnatal care from health personnel for the most recent birth, according to indicators of women's empowerment, Nigeria DHS 2018

Empowerment indicator	Percentage receiving antenatal care from a skilled provider[1]	Percentage receiving delivery care from a skilled provider[1]	Percentage with a postnatal check during the first 2 days after birth[2]	Number of women with a child born in the last 5 years
Number of decisions in which women participate[3]				
0	55.3	30.8	28.3	8,103
1-2	67.5	45.5	42.7	6,294
3	80.7	71.4	59.7	6,240
Number of reasons for which wife beating is justified[4]				
0	73.7	56.3	49.5	14,984
1-2	62.3	42.7	37.4	1,922
3-4	53.6	33.5	30.3	1,942
5	45.9	22.8	21.8	3,064
Total	67.0	48.4	42.8	21,911

[1] Skilled provider includes doctor, nurse, midwife, or auxiliary nurse/midwife.
[2] Includes women who received a postnatal checkup from a doctor, nurse, midwife, community health worker, or traditional birth attendant (TBA) in the first 2 days after the birth. Includes women who gave birth in a health facility and those who did not give birth in a health facility.
[3] Restricted to currently married women. See Table 15.9.1 for the list of decisions.
[4] See Table 15.10.1 for the list of reasons.

Table 15.17 Early childhood mortality rates by women's status

Infant, child, and under-5 mortality rates for the 10-year period preceding the survey, according to indicators of women's empowerment, Nigeria DHS 2018

Empowerment indicator	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Number of decisions in which women participate[1]			
0	74	85	153
1-2	68	81	143
3	52	37	86
Number of reasons for which wife beating is justified[2]			
0	61	59	117
1-2	79	64	137
3-4	64	74	133
5	79	104	175

[1] Restricted to currently married women. See Table 15.9.1 for the list of decisions.
[2] See Table 15.10.1 for the list of reasons.

DOMESTIC VIOLENCE 16

Key Findings

- ***Experience of violence:*** Among women age 15-49, (31%) have experienced physical violence and 9% have experienced sexual violence; 6% of women have experienced physical violence during pregnancy.
- ***Spousal violence:*** 36% of ever-married women have experienced spousal physical, sexual, or emotional violence. The prevalence of one or more of these forms of spousal violence was higher in 2018 than in 2008 (31%) and 2013 (25%).
- ***Injuries due to spousal violence***: 29% of ever-married women who have experienced spousal physical or sexual violence have sustained injuries; 26% reported cuts, bruises, or aches, and 9% reported deep wounds and other serious injuries.
- ***Help seeking:*** More than half of women (55%) who have experienced physical or sexual violence have never sought help to stop the violence; only 32% have sought help, approximately the same percentage as in 2013 (31%). Women's own families are the most common source of help.

Gender-based violence against women has been acknowledged worldwide as a violation of basic human rights. Increasing research has highlighted the health burdens, intergenerational effects, and demographic consequences of such violence (United Nations 2006). Gender-based violence is defined by the United Nations as any act of violence that results in physical, sexual, or psychological harm or suffering to women, girls, men, and boys, as well as threats of such acts, coercion, or the arbitrary deprivation of liberty. This chapter focuses on domestic violence, mainly intimate partner violence, a significant component of gender-based violence.

In Nigeria, domestic violence is widely acknowledged to be of great concern not just from a human rights perspective but also from an economic and health perspective. In 2015, Nigeria passed the comprehensive Violence Against Persons Prohibition Act 2015, which aims to eliminate all forms of violence in both the private and public spheres and includes the right to assistance for victims of violence (Federal Ministry of Women Affairs and Social Development 2015). In addition, Nigeria is a signatory to the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Nonetheless, despite legislation and ongoing efforts to protect women and vulnerable populations against violence, much remains to be done in protecting victims and prosecuting perpetrators. Nationally representative data on the prevalence of different forms of violence can help monitor progress towards the elimination of violence against persons in Nigeria.

Accordingly, the 2018 NDHS included a module of questions designed to obtain information on the extent to which women in Nigeria experience domestic violence, including both intimate partner violence and violence by perpetrators other than husbands or other intimate partners. The module on domestic violence

was administered in the subsample of households that were selected for the men's survey. In accordance with the World Health Organization (WHO) guidelines on the ethical collection of information on domestic violence, only one eligible woman age 15-49 per household was randomly selected for the module, and the module was not implemented if privacy could not be obtained (WHO 2001). In total, 10,678 women completed the module. Only 1% of women eligible for the domestic violence module could not be successfully interviewed with the module because privacy could not be obtained or for other reasons. Special weights were used to adjust for the selection of only one woman per household and to ensure that the domestic violence subsample was nationally representative.

This chapter presents findings for women age 15-49 on their experience of physical or sexual violence. It also provides detailed information for ever-married women on their experience of spousal physical, sexual, and emotional violence at any time and in the past 12 months; the physical consequences of the violence; and when the violence first began in the relationship. Finally, it documents whether and from whom help was sought to stop the violence.

16.1 Measurement of Violence

In the Nigeria DHS, information was obtained from never-married women on their experience of violence committed by anyone and from ever-married women on their experience of violence committed by their current and former husbands/partners and by others. More specifically, violence committed by the current husband/partner (for currently married women) and by the most recent husband/partner (for formerly married women) was measured by asking all ever-married women if their husband/partner ever did the following to them:

> ***Physical spousal violence:*** push you, shake you, or throw something at you; slap you; twist your arm or pull your hair; punch you with his fist or with something that could hurt you; kick you, drag you, or beat you up; try to choke you or burn you on purpose; or threaten or attack you with a knife, gun, or any other weapon
>
> ***Sexual spousal violence*:** physically force you to have sexual intercourse with him even when you did not want to, physically force you to perform any other sexual acts you did not want to, or force you with threats or in any other way to perform sexual acts you did not want to
>
> ***Emotional spousal violence*:** say or do something to humiliate you in front of others, threaten to hurt or harm you or someone close to you, or insult you or make you feel bad about yourself

In addition, information was obtained from all women (married and unmarried) about physical violence committed by anyone (other than a current or most recent husband/partner) since they were age 15 by asking if anyone had hit, slapped, kicked, or done something else to hurt them physically. Similarly, information was gathered on experiences of sexual violence committed by anyone (other than a current or most recent husband/partner) by asking women if at any time in their life, as a child or as an adult, they were forced in any way to have sexual intercourse or to perform any other sexual acts when they did not want to.

In this chapter, married women include both women who said they were married and women who said they were living with a man as if married. Correspondingly, husbands include both husbands of married women and partners of women who are not married but are living with a man as if married.

16.2 Women's Experience of Physical Violence

Physical violence by anyone

Percentage of women who have experienced any physical violence (committed by a husband or anyone else) since age 15 and in the 12 months before the survey.

Sample: Women age 15-49

Almost one in three (31%) women age 15-49 have ever experienced physical violence, and 14% experienced physical violence in the 12 months preceding the survey (**Table 16.1**).

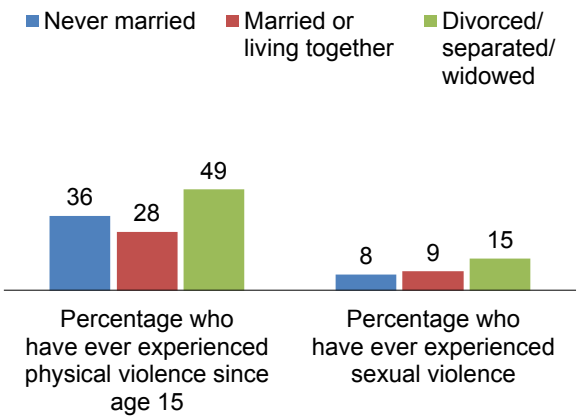
Six percent of women who have ever been pregnant have experienced physical violence during pregnancy (**Table 16.2**).

Trends: The percentage of women who have experienced physical violence since age 15 increased from 28% in both 2008 and 2013 to 31% in 2018. After decreasing from 15% in 2008 to 11% in 2013, the percentage of women who had experienced physical violence in the past 12 months increased to 14% in 2018.

Patterns by background characteristic

- Experiences of physical violence vary greatly by religion. Forty-two percent of women in the other Christian category report physical violence since age 15, as compared with 38% of Catholic women and 22% of Muslim women (**Table 16.1**).
- Women who are divorced, separated, or widowed are most likely to have experienced physical violence (49%), followed by never-married women (36%). Currently married women are least likely (28%) to report experiencing physical violence since age 15 (**Figure 16.1**).

Figure 16.1 **Women's experience of violence by marital status**



- A higher percentage of women who are employed but do not earn cash have experienced physical violence since age 15 (43%) than women who are employed for cash (32%) and women who are not employed (25%). Women who are employed but do not have cash earnings are also much more likely than women in the other employment categories to report having experienced violence in the past 12 months (23%).
- The percentage of women who have experienced physical violence since age 15 varies by zone, from a high of 46% in the South South to a low of 12% in the North West.
- The percentage of women who have ever experienced violence during pregnancy is highest in the North East (12%) and lowest in the North West (1%) (**Table 16.2**).
- Divorced, separated, or widowed women (15%) are more likely than currently married women (5%) and never-married women (9%) to have experienced violence during pregnancy.

16.2.1 Perpetrators of Physical Violence

Fifty-eight percent of ever-married women age 15-49 who have experienced physical violence since age 15 named their current husband/partner as the perpetrator of the violence. Never-married women who have experienced physical violence most often reported the perpetrator as their mother/stepmother (35%) or father/stepfather (26%). Notably, 10% of all women who have experienced physical violence mentioned a teacher as the perpetrator, including 17% of never-married women (**Table 16.3**).

16.3 Experience of Sexual Violence

Sexual violence

Percentage of women who have experienced any sexual violence (committed by a husband or anyone else) ever and in the 12 months before the survey.

Sample: Women age 15-49

16.3.1 Prevalence of Sexual Violence

Nine percent of women age 15-49 reported that they had ever experienced sexual violence, and 4% said that they had experienced sexual violence in the past 12 months (**Table 16.4**). Four percent of women first experienced sexual violence before age 18 (**Table 16.6**).

Patterns by background characteristics

- As was the case for physical violence, divorced, separated, or widowed women were more likely (15%) to have experienced sexual violence than currently married women (9%) and never-married women (8%) (**Table 16.4**).
- By zone, the prevalence of sexual violence ranges from 5% each in the North West and South West to 16% in the North East. By state, the percentage of women who have experienced sexual violence is highest in Gombe (45%) and lowest in Kebbi (less than 1%).
- Six percent of never-married women report having experienced sexual violence by age 18, as compared with 4% of ever-married women (**Table 16.6**).

16.3.2 Perpetrators of Sexual Violence

Ever-married women who reported having experienced sexual violence most often named their current or most recent husband/partner as the perpetrator (65%). Among never-married women, the most commonly reported perpetrators were strangers (28%), current or former boyfriends (27%), and friends or acquaintances (24%). Notably, 7% of currently married women reported a stranger as the perpetrator of the violence (**Table 16.5**).

16.4 Experience of Different Forms of Violence

Physical violence and sexual violence may not occur in isolation; rather, women may experience a combination of different forms of violence. Overall, 33% of women age 15-49 in Nigeria have experienced physical or sexual violence: 24% have experienced only physical violence, 2% have experienced only sexual violence, and 7% have experienced both physical and sexual violence (**Table 16.7**).

16.5 Marital Control by Husband

Marital control

Percentage of women whose current husband/partner (if currently married) or most recent husband/partner (if formerly married) demonstrates at least one of the following controlling behaviours: is jealous or angry if she talks to other men, frequently accuses her of being unfaithful, does not permit her to meet her female friends, tries to limit her contact with her family, and insists on knowing where she is at all times.

Sample: Ever-married women age 15-49

Marital control in the form of a husband trying to control or monitor his wife's activities can be a warning sign of the potential for violence in a relationship. With respect to the five specified controlling behaviours, ever-married women most often reported that their husband/partner is jealous or angry if they talk to other men (44%). An additional 41% of women reported that their husband insists on knowing where they are at all times, and 16% reported that their husband does not permit them to meet their female friends. Approximately 1 in 10 women said that their husband frequently accuses them of being unfaithful or tries to limit their contact with their family. Overall, 18% of women reported that their husband displays at least three of the specified marital control behaviours, and 42% said that their husband does not display any of the behaviours (**Table 16.8**).

Patterns by background characteristics

- By zone, women in the North East are most likely to report that their husband displays three or more of the specified behaviours (28%), while those in the South West and North West are least likely to do so (12% each) (**Table 16.8**).
- Women with more than a secondary education (13%) are less likely than women in the other education groups (18% each) to report that their husband displays three or more of the specified behaviours. The percentage of women whose husbands display at least three of the specified behaviours generally declines with increasing wealth, from 21% among women in the lowest wealth quintile to 14% among those in the highest wealth quintile.
- There is a strong correlation between whether women are afraid of their husband and whether the husband displays any of the specified controlling behaviours. Forty-three percent of women who say they are afraid of their husband most of the time report that their husband displays at least three of the specified behaviours, as compared with only 12% of women who say they are never afraid of their husband.

16.6 Forms of Spousal Violence

Spousal violence

Percentage of women who have experienced any of the specified acts of physical, sexual, or emotional violence committed by their current husband/partner (if currently married) or most recent husband/partner (if formerly married), ever and in the 12 months preceding the survey.

Sample: Ever-married women age 15-49

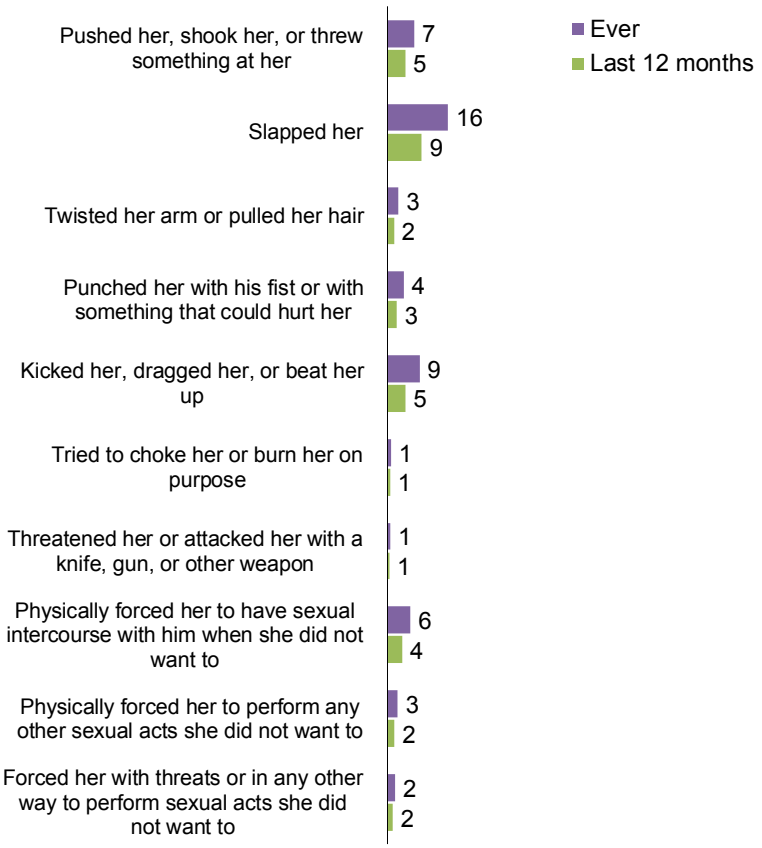
16.6.1 Prevalence of Spousal Violence

Thirty-six percent of ever-married women have experienced emotional, sexual, or physical violence from their current or most recent husband, and 30% experienced such violence in the 12 months preceding the survey (**Table 16.9**).

Women experiencing spousal physical violence most commonly reported that their husband slapped them (16%). Nine percent of women reported that their husband kicked, dragged, or beat them up; 7% reported that their husband pushed, shook, or threw something at them; 4% reported that their husband punched them with his fist or with something else that could hurt them; and 3% reported that their husband twisted their arm or pulled their hair. One percent each of women said that their husband tried to choke or burn them on purpose and that their husband threatened or attacked them with a knife, gun, or other weapon (**Figure 16.2**).

Figure 16.2 **Forms of spousal violence**

Percentage of ever-married women age 15-49 who have ever experienced specfic acts of violence by their husband/partner



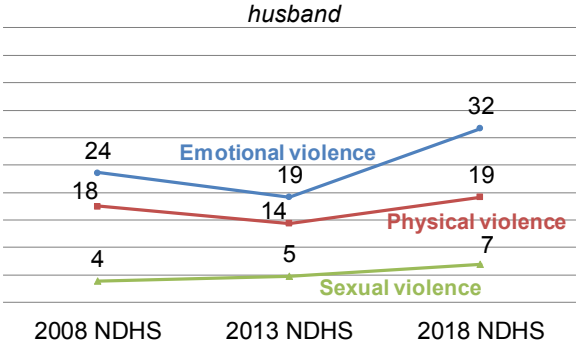
With respect to sexual violence, women most often reported that their husband used physical force to have sexual intercourse with them when they did not want to (6%). Three percent of women reported that their husband physically forced them to perform other sexual acts they did not want to, and 2% reported that their husband forced them with threats or in other ways to perform sexual acts they did not want to (**Figure 16.2**).

Women experiencing emotional violence were most likely to report that their husband insulted them or made them feel bad about themselves (28%) or that he said or did something to humiliate them in front of others (19%). Six percent of women said that their husband threatened to hurt or harm them or someone close to them (**Table 16.9**).

Women who have been married (or cohabited as if married with a partner) more than once were also asked about spousal violence committed by any previous husband or partner. Thirty-seven percent of women have ever experienced spousal physical, sexual, or emotional violence committed by any husband (**Table 16.9**).

Figure 16.3 **Trends in women's experience of spousal violence**

Percentage of ever-married women who have experienced specified forms of violence by their current or most recent husband



Trends: The prevalence of all forms of violence was higher in 2018 than in 2008 and 2013 (**Figure 16.3**). Overall, the prevalence of spousal physical, sexual, or emotional violence increased from 31% in 2008 and 25% in 2013 to 36% in 2018.

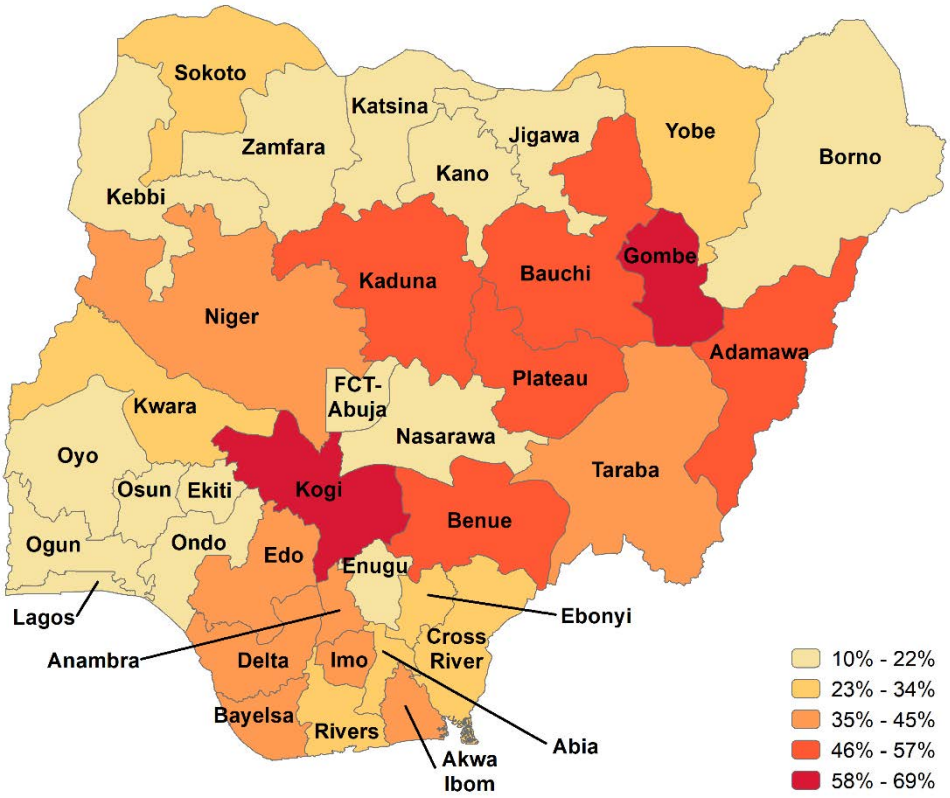
Patterns by background characteristics

- Women who are employed but do not earn cash are much more likely (49%) to have experienced spousal physical, sexual, or emotional violence than women who are employed for cash (36%) and women who are not employed (32%) (**Table 16.10**).

- Women who have more than a secondary education (26%) are less likely than women at lower educational levels (35%-40%) to have experienced spousal physical, sexual, or emotional violence. Similarly, women in the highest wealth quintile (29%) are less likely than women in the other wealth quintiles (36%-40%) to have experienced spousal violence.

Figure 16.4 **Spousal violence by state**

Percentage of ever-married women age 15-49 who have experienced physical, sexual, or emotional violence committed by any husband/partner in past 12 months



- The prevalence of spousal physical, sexual, or emotional violence ranges from a high of 50% in the North Central zone to a low of 20% in the South West.

- By state, the percentage of women who have experienced spousal physical, sexual, or emotional violence by any husband in the last 12 months is highest in Gombe (69%) and lowest in Jigawa (10%) (**Table 16.12** and **Figure 16.4**).

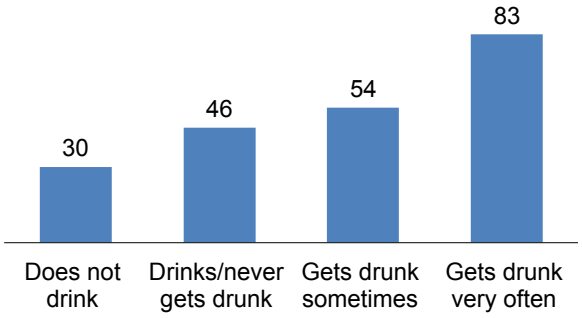
Patterns by husband's characteristics and empowerment indicators

- Husbands' alcohol consumption is highly correlated with women's likelihood of experiencing any form of violence. Overall, 83% of women whose husbands are often drunk have ever experienced physical, sexual, or emotional violence, as compared with 30% of women whose husbands do not drink alcohol (**Table 16.11** and **Figure 16.5**).

- Intergenerational effects on the experience of spousal violence are evident in Nigeria. Women who report that their fathers beat their mothers are twice as likely (66%) as women who report that their fathers did not beat their mothers (32%) to have themselves experienced spousal physical, sexual, or emotional violence (**Table 16.11**).

Figure 16.5 **Spousal violence by husband's alcohol consumption**

Percentage of ever-married women who have ever experienced spousal (physical, sexual, or emotional) violence by their husband/partner



- Experiences of spousal violence vary according to women's fear of their husband. Women who say that they are afraid of their husband most of the time are much more likely to have ever experienced spousal physical, sexual, or emotional violence (65%) than women who are sometimes afraid of their husband (43%) and women who are never afraid of their husband (26%).

16.6.2 Onset of Spousal Violence

Table 16.13 shows when spousal violence first occurred in relation to the start of marriage among women married only once. Among currently married women age 15-49 who have been married only once, 8% first experienced spousal physical or sexual violence within the first 2 years of marriage, 15% by 5 years of marriage, and 18% by 10 years of marriage.

16.7 Injuries to Women due to Spousal Violence

Injuries due to spousal violence

Percentage of women who have the following types of injuries from spousal violence: cuts, bruises, or aches; eye injuries, sprains, dislocations, or burns; or deep wounds, broken bones, broken teeth, or any other serious injury.

Sample: Ever-married women age 15-49 who have experienced physical or sexual violence committed by their current husband (if currently married) or most recent husband (if formerly married)

Among ever-married women who have experienced spousal physical or sexual violence, 29% have sustained injuries (**Table 16.14**). Those who have experienced spousal sexual violence are more likely to report having sustained injuries (37%) than those who have experienced spousal physical violence (31%). Cuts, bruises, or aches are the most common type of injury (26%) among women who have experienced physical or sexual violence. Ten percent of women reported that they have sustained eye injuries, sprains, dislocations, or burns, while 9% said that they have sustained deep wounds, broken bones, broken teeth, and other serious injuries.

16.8 Violence Initiated by Women against Husbands

Initiation of physical violence by wives

Percentage of women who have ever hit, slapped, kicked, or done anything else to physically hurt their current (if currently married) or most recent (if formerly married) husband at times when he was not already beating or physically hurting them.

Sample: Ever-married women age 15-49

Either spouse can play a role in instigating domestic violence. All ever-married women were asked if they had ever initiated acts of physical violence against their husbands. Two percent of women said that they had hit, slapped, kicked, or done anything else to physically hurt their husband at times when he was not already beating or physically hurting them (**Table 16.15**).

Trends: The percentage of women who have ever initiated physical violence against their husband has not changed since 2008 (2%).

Patterns by background characteristics

- Women's initiation of violence against their husband is highly correlated with their own experience of spousal violence. Eleven percent of women who have ever experienced spousal physical violence and 14% who have experienced spousal physical violence in the past 12 months have initiated violence against their husband, as compared with less than 1% of women who have never experienced spousal physical violence (**Table 16.15**).
- Given that women who have ever initiated violence are primarily those who have ever experienced it, variations in women's initiation of violence by background characteristics are largely the same as variations in women's own experiences of violence by background characteristics.
- Thirteen percent of women whose husbands are often drunk have initiated violence against their husbands (**Table 16.16**).
- The percentage of women who have initiated physical violence against their husbands increases sharply with the number of marital control behaviours that their husbands display, from 1% among women whose husbands do not display any of the specified marital control behaviours to 12% among those whose husbands display all five marital control behaviours.
- Nine percent of women who report that their father beat their mother have initiated violence against their husband, as compared with 2% of women who report that their father did not beat their mother.

16.9 Help Seeking among Women Who Have Experienced Violence

Thirty-two percent of women who have ever experienced physical or sexual violence have sought help to stop the violence, while 55% have never sought help or told anyone about the violence (**Table 16.17**).

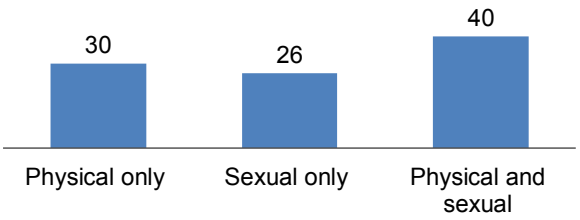
Trends: There was only a minimal change between 2013 and 2018 in the percentage of women who have experienced physical or sexual violence and sought help (31% and 32%, respectively).

Patterns by background characteristics

- Women who have experienced both physical and sexual violence are more likely to have sought help (40%) than women who have experienced only sexual violence (26%) and those who have experienced only physical violence (30%) (**Figure 16.6**).
- The percentage of women who have sought help varies by zone, from a high of 47% in the South South to a low of 18% in the South West.
- Help seeking does not vary consistently by education or wealth.

Figure 16.6 **Help seeking by type of violence experienced**

Percentage of women age 15-49 who have experienced physical or sexual violence and sought help



Sources for Help

Among women who have experienced physical or sexual violence and sought help, the most common sources for help were their own family (73%) and their husband's/partner's family (26%) (**Table 16.18**). Four percent of women sought help from a religious leader, and 1% each sought help from doctors or medical personnel, the police, or lawyers. A negligible proportion of women sought help from a social work organisation.

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- **Table 16.2 Experience of violence during pregnancy**
- **Table 16.3 Persons committing physical violence**
- **Table 16.4 Experience of sexual violence**
- **Table 16.5 Persons committing sexual violence**
- **Table 16.6 Age at first experience of sexual violence**
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Table 16.1 Experience of physical violence

Percentage of women age 15-49 who have experienced physical violence since age 15 and percentage who experienced physical violence during the 12 months preceding the survey, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage who have experienced physical violence since age 15[1]	Percentage who experienced physical violence in the past 12 months			Number of women
		Often	Sometimes	Often or sometimes[2]	
Age					
15-19	31.8	1.6	16.7	18.3	1,885
20-24	31.1	2.0	13.5	15.5	1,655
25-29	31.1	2.7	11.8	14.6	1,902
30-39	31.9	2.5	10.3	12.9	3,296
40-49	28.2	1.1	7.4	8.5	1,940
Religion					
Catholic	38.4	3.1	13.8	17.0	1,102
Other Christian	41.5	2.8	14.9	17.8	3,994
Islam	21.9	1.3	8.9	10.2	5,525
Traditionalist	(34.9)	(2.5)	(9.9)	(12.5)	39
Other	(9.7)	(0.0)	(6.7)	(6.7)	18
Residence					
Urban	32.3	2.1	10.7	12.7	4,970
Rural	29.8	2.0	12.5	14.6	5,708
Zone					
North Central	43.3	2.8	17.1	19.9	1,511
North East	38.3	2.8	16.6	19.4	1,597
North West	11.7	0.9	5.7	6.6	2,881
South East	36.1	3.2	13.4	16.7	1,308
South South	46.4	2.3	15.2	17.5	1,341
South West	29.8	1.7	8.7	10.4	2,040
State					
North Central					
FCT-Abuja	35.3	0.0	7.9	7.9	82
Benue	48.2	4.2	27.0	31.3	354
Kogi	40.3	1.0	13.8	14.7	157
Kwara	42.5	2.3	13.2	15.5	184
Nasarawa	19.1	4.0	9.0	13.1	171
Niger	54.8	2.9	18.5	21.4	346
Plateau	41.7	2.1	14.5	16.6	218
North East					
Adamawa	44.4	11.5	25.6	37.1	210
Bauchi	35.7	2.1	16.1	18.1	307
Borno	35.4	1.5	15.6	17.1	374
Gombe	59.3	3.2	24.6	27.8	174
Taraba	67.6	1.2	23.9	25.1	209
Yobe	10.2	0.3	3.3	3.6	324
North West					
Jigawa	4.4	0.0	2.3	2.3	322
Kaduna	28.7	1.4	14.5	15.9	607
Kano	5.9	0.4	2.5	2.9	589
Katsina	8.5	1.7	3.0	4.6	565
Kebbi	9.0	1.6	5.0	6.6	284
Sokoto	8.6	0.0	2.2	2.2	210
Zamfara	7.1	0.0	6.3	6.3	305
South East					
Abia	32.2	1.9	20.5	22.4	175
Anambra	35.3	3.0	8.6	11.7	372
Ebonyi	54.7	6.3	19.9	26.2	246
Enugu	14.9	1.2	6.1	7.3	239
Imo	41.4	3.4	16.0	19.4	277
South South					
Akwa Ibom	45.4	3.2	15.6	18.8	255
Bayelsa	30.9	3.4	22.1	25.5	86
Cross River	35.7	0.5	12.1	12.7	163
Delta	33.5	1.8	9.1	11.3	243
Edo	64.7	6.9	16.8	23.7	139
Rivers	55.0	1.1	17.4	18.5	455
South West					
Ekiti	30.7	0.6	17.0	17.7	140
Lagos	25.7	0.1	6.8	7.0	759
Ogun	54.1	1.2	9.8	11.5	268
Ondo	29.4	1.6	6.6	8.2	181
Osun	36.9	3.7	18.8	22.5	267
Oyo	17.1	3.7	3.2	6.9	424

Continued…

Table 16.1—*Continued*

Background characteristic	Percentage who have experienced physical violence since age 15[1]	Percentage who experienced physical violence in the past 12 months			Number of women
		Often	Sometimes	Often or sometimes[2]	
Marital status					
Never married	36.0	1.1	15.4	16.6	2,317
Married or living together	28.3	2.1	10.5	12.6	7,847
Divorced/separated/ widowed	48.8	5.8	12.1	17.9	515
Employment					
Employed for cash	31.5	1.9	9.6	11.5	6,116
Employed not for cash	42.7	2.6	19.9	22.5	1,355
Not employed	25.0	2.1	12.2	14.3	3,206
Number of living children					
0	32.9	1.2	14.7	15.9	2,661
1-2	32.0	2.8	11.9	14.7	2,907
3-4	31.0	2.2	10.7	12.9	2,544
5+	27.7	1.9	9.2	11.2	2,567
Education					
No education	22.3	1.4	9.6	11.0	3,660
Primary	35.6	2.8	14.0	16.9	1,584
Secondary	35.9	2.6	13.4	16.0	4,344
More than secondary	33.6	0.9	8.2	9.2	1,090
Wealth quintile					
Lowest	22.8	1.5	10.2	11.7	1,726
Second	28.4	2.3	12.9	15.2	2,010
Middle	33.4	2.8	13.5	16.3	2,160
Fourth	33.8	2.5	12.5	15.0	2,324
Highest	33.9	1.2	9.3	10.5	2,458
Total	31.0	2.0	11.7	13.7	10,678

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes violence in the past 12 months. For women who were married before age 15 and reported physical violence only by their husband/partner, the violence could have occurred before age 15.
[2] Includes women for whom frequency in the past 12 months is not known

Table 16.2 Experience of violence during pregnancy

Among women age 15-49 who have ever been pregnant, percentage who have ever experienced physical violence during pregnancy, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage who experienced violence during pregnancy	Number of women who have ever been pregnant
Age		
15-19	4.6	372
20-24	5.7	1,175
25-29	5.9	1,745
30-39	6.2	3,172
40-49	4.1	1,885
Religion		
Catholic	7.5	832
Other Christian	7.2	3,025
Islam	4.0	4,446
Traditionalist	(0.0)	35
Other	(6.4)	11
Residence		
Urban	5.9	3,718
Rural	5.2	4,631
Zone		
North Central	5.7	1,155
North East	12.0	1,255
North West	0.6	2,362
South East	9.5	988
South South	8.0	972
South West	3.6	1,618
State		
North Central		
FCT-Abuja	1.3	60
Benue	4.2	278
Kogi	1.5	117
Kwara	4.1	135
Nasarawa	3.6	130
Niger	13.3	279
Plateau	3.1	157
North East		
Adamawa	20.5	171
Bauchi	3.5	265
Borno	19.7	273
Gombe	17.7	152
Taraba	10.9	157
Yobe	3.7	237
North West		
Jigawa	0.0	270
Kaduna	1.8	484
Kano	0.0	473
Katsina	0.5	460
Kebbi	0.5	240
Sokoto	0.7	177
Zamfara	0.2	258
South East		
Abia	5.0	119
Anambra	9.3	306
Ebonyi	11.1	207
Enugu	4.9	149
Imo	14.2	208
South South		
Akwa Ibom	5.9	188
Bayelsa	1.0	68
Cross River	3.2	122
Delta	2.0	169
Edo	12.4	113
Rivers	14.3	313
South West		
Ekiti	4.7	119
Lagos	5.5	532
Ogun	3.1	234
Ondo	2.7	145
Osun	1.7	204
Oyo	2.4	384

Continued…

Table 16.2—*Continued*

Background characteristic	Percentage who experienced violence during pregnancy	Number of women who have ever been pregnant
Marital status		
Never married	9.4	262
Married or living together	4.8	7,601
Divorced/separated/widowed	15.3	486
Number of living children		
0	2.3	332
1-2	5.5	2,907
3-4	5.5	2,544
5+	6.0	2,567
Education		
No education	4.6	3,299
Primary	6.6	1,386
Secondary	6.1	2,868
More than secondary	5.3	797
Wealth quintile		
Lowest	3.6	1,478
Second	5.9	1,651
Middle	6.3	1,731
Fourth	6.6	1,765
Highest	5.0	1,724
Total	5.5	8,349

Note: Figures in parentheses are based on 25-49 unweighted cases.

Table 16.3 Persons committing physical violence

Among women age 15-49 who have experienced physical violence since age 15, percentage who report specific persons who committed the violence, according to respondent's current marital status, Nigeria DHS 2018

	Marital status		
Person	Ever married	Never married	Total
Current husband/partner	58.0	na	43.4
Former husband/partner	13.1	na	9.8
Current boyfriend	0.2	1.7	0.6
Former boyfriend	2.5	4.3	2.9
Father/stepfather	12.8	25.6	16.0
Mother/stepmother	19.4	35.4	23.4
Sister/brother	12.5	22.5	15.0
Daughter/son	0.2	0.2	0.2
Other relative	9.1	13.4	10.2
Mother-in-law	0.0	na	0.0
Father-in-law	0.0	na	0.0
Other in-law	0.9	na	0.9
Teacher	7.5	17.1	9.9
Employer/someone at work	0.2	0.8	0.3
Police/soldier	0.1	0.0	0.1
Other	4.8	9.4	5.9
Number of women who have experienced physical violence since age 15	2,472	833	3,305

Note: Women can report more than one person who committed the violence.
na = Not applicable

Table 16.4 Experience of sexual violence

Percentage of women age 15-49 who have ever experienced sexual violence and percentage who experienced sexual violence in the 12 months preceding the survey, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage who have experienced sexual violence: Ever[1]	In the past 12 months	Number of women
Age			
15-19	7.6	3.0	1,885
20-24	10.3	6.3	1,655
25-29	9.2	4.2	1,902
30-39	10.6	4.3	3,296
40-49	7.2	2.9	1,940
Religion			
Catholic	11.4	4.4	1,102
Other Christian	11.1	4.4	3,994
Islam	7.3	3.8	5,525
Traditionalist	(2.3)	(1.6)	39
Other	(2.5)	(2.5)	18
Residence			
Urban	8.5	3.5	4,970
Rural	9.7	4.7	5,708
Zone			
North Central	9.7	3.6	1,511
North East	15.6	8.6	1,597
North West	5.0	3.2	2,881
South East	12.1	4.8	1,308
South South	12.6	4.7	1,341
South West	5.3	1.4	2,040
State			
North Central			
FCT-Abuja	3.0	1.3	82
Benue	6.5	2.9	354
Kogi	15.1	3.1	157
Kwara	3.6	1.5	184
Nasarawa	3.7	1.9	171
Niger	14.6	3.2	346
Plateau	15.5	10.0	218
North East			
Adamawa	18.8	9.6	210
Bauchi	21.1	15.6	307
Borno	6.9	3.1	374
Gombe	44.9	22.0	174
Taraba	12.5	4.5	209
Yobe	4.7	3.3	324
North West			
Jigawa	2.7	0.9	322
Kaduna	13.8	7.9	607
Kano	3.1	2.2	589
Katsina	4.1	3.2	565
Kebbi	0.4	0.4	284
Sokoto	1.0	0.7	210
Zamfara	2.5	2.5	305
South East			
Abia	4.8	1.0	175
Anambra	7.7	2.8	372
Ebonyi	20.8	10.6	246
Enugu	8.6	2.5	239
Imo	18.0	6.5	277
South South			
Akwa Ibom	16.1	8.2	255
Bayelsa	4.4	4.4	86
Cross River	3.2	0.6	163
Delta	6.4	3.2	243
Edo	13.6	4.9	139
Rivers	18.7	4.9	455
South West			
Ekiti	7.8	2.1	140
Lagos	7.0	0.2	759
Ogun	1.3	0.0	268
Ondo	4.5	1.6	181
Osun	6.6	4.0	267
Oyo	3.2	2.3	424

Continued…

Table 16.4—*Continued*

Background characteristic	Percentage who have experienced sexual violence: Ever[1]	In the past 12 months	Number of women
Marital status			
Never married	7.7	1.5	2,317
Married or living together	9.2	4.7	7,847
Divorced/separated/widowed	15.3	6.0	515
Employment			
Employed for cash	9.3	4.0	6,116
Employed not for cash	11.7	5.0	1,355
Not employed	7.7	4.0	3,206
Number of living children			
0	8.1	2.3	2,661
1-2	10.6	5.4	2,907
3-4	8.8	4.1	2,544
5+	8.9	4.6	2,567
Education			
No education	8.8	4.8	3,660
Primary	9.5	4.6	1,584
Secondary	9.9	4.1	4,344
More than secondary	6.7	1.2	1,090
Wealth quintile			
Lowest	9.5	5.8	1,726
Second	9.4	5.4	2,010
Middle	9.6	4.3	2,160
Fourth	9.8	4.0	2,324
Highest	7.7	1.7	2,458
Total	9.1	4.1	10,678

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes violence in the past 12 months

Table 16.5 Persons committing sexual violence

Among women age 15-49 who have experienced sexual violence, percentage who report specific persons who committed the violence, according to respondent's current marital status, Nigeria DHS 2018

Person	Marital status: Ever married	Never married	Total
Current husband/partner	64.8	na	53.0
Former husband/partner	18.4	na	15.0
Current/former boyfriend	6.6	26.7	10.3
Father/stepfather	0.9	0.0	0.7
Brother/stepbrother	0.9	0.2	0.8
Other relative	2.8	12.0	4.2
In-law	0.6	na	0.8
Own friend/acquaintance	4.7	24.2	8.2
Family friend	0.8	2.9	1.1
Teacher	0.5	3.9	1.2
Employer/someone at work	0.2	1.8	0.5
Police/soldier	0.0	0.0	0.0
Priest/religious leader	0.1	0.4	0.2
Stranger	6.5	27.6	10.3
Other	0.0	0.2	0.0
Number women who have experienced sexual violence	799	177	976

Note: Ever-married women can report up to three perpetrators: a current husband, former husband, or one other person who is not a current or former husband. Never-married women can report only the person who was the first to commit the violence.
na = Not applicable

Table 16.6 Age at first experience of sexual violence

Percentage of women age 15-49 who experienced sexual violence by specific exact ages, according to current age and current marital status, Nigeria DHS 2018

Background characteristic	Percentage who first experienced sexual violence by exact age:					Percentage who have not experienced sexual violence	Number of women
	10	12	15	18	22		
Age							
15-19	0.4	0.4	3.2	na	na	92.4	1,885
20-24	0.4	0.5	1.9	5.9	na	89.7	1,655
25-29	0.3	0.6	1.3	3.5	5.9	90.8	1,902
30-39	0.3	0.5	1.2	4.1	5.9	89.4	3,296
40-49	0.2	0.4	1.0	2.6	3.5	92.8	1,940
Marital status							
Never married	0.6	0.7	2.7	5.7	7.3	92.3	2,317
Ever married	0.2	0.4	1.3	4.1	5.8	90.4	8,361
Total	0.3	0.5	1.6	4.4	6.1	90.9	10,678

na = Not applicable

Table 16.7 Experience of different forms of violence

Percentage of women age 15-49 who have ever experienced different forms of violence according to current age, Nigeria DHS 2018

Age	Physical violence only	Sexual violence only	Physical and sexual violence	Physical or sexual violence	Number of women
15-19	26.9	2.6	4.9	34.4	1,885
15-17	27.6	2.2	3.7	33.6	1,179
18-19	25.6	3.3	7.0	35.9	706
20-24	23.8	3.0	7.2	34.1	1,655
25-29	24.3	2.3	6.8	33.4	1,902
30-39	23.9	2.5	8.0	34.4	3,296
40-49	22.5	1.6	5.7	29.8	1,940
Total	24.2	2.4	6.7	33.4	10,678

Table 16.8 Marital control exercised by husbands

Percentage of ever-married women age 15-49 whose husbands/partners have ever demonstrated specific types of controlling behaviours, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage of women whose husband/partner: Is jealous or angry if she talks to other men	Frequently accuses her of being unfaithful	Does not permit her to meet her female friends	Tries to limit her contact with her family	Insists on knowing where she is at all times	Displays 3 or more of the specific behaviours	Displays none of the specific behaviours	Number of ever-married women
Age								
15-19	51.2	7.7	17.3	17.0	43.8	19.1	34.4	453
20-24	49.9	11.4	15.5	11.5	42.4	18.2	37.3	1,139
25-29	46.2	11.5	16.6	10.1	42.9	19.0	40.3	1,720
30-39	42.9	11.0	17.6	10.1	41.6	18.2	41.6	3,149
40-49	39.5	9.6	13.5	8.2	35.6	14.5	47.2	1,900
Religion								
Catholic	34.6	14.1	14.5	6.8	41.8	17.4	46.9	815
Other Christian	39.8	13.5	18.4	8.1	41.6	18.6	43.5	2,891
Islam	48.8	8.3	15.0	12.2	40.0	17.1	39.5	4,607
Traditionalist	(32.5)	(6.3)	(12.0)	(1.8)	(46.6)	(2.5)	(40.9)	36
Other	(39.7)	(11.4)	(16.3)	(22.0)	(18.0)	(14.0)	(42.1)	12
Residence								
Urban	39.6	9.8	15.2	7.8	36.0	15.5	47.1	3,625
Rural	47.7	11.3	16.9	12.1	44.3	19.2	37.4	4,737
Zone								
North Central	44.9	14.8	13.9	8.0	50.5	19.8	36.5	1,172
North East	63.6	11.6	23.7	20.6	51.9	28.3	24.8	1,290
North West	48.3	6.1	12.1	9.7	37.3	12.1	39.2	2,486
South East	32.9	16.7	17.6	7.4	40.2	19.2	49.3	965
South South	45.2	14.0	26.1	11.4	47.6	22.9	34.4	905
South West	27.6	8.3	11.2	5.2	25.8	11.6	62.8	1,543
State								
North Central								
FCT-Abuja	44.5	2.8	30.9	10.5	46.3	18.9	30.7	60
Benue	34.3	15.3	9.7	6.7	53.3	16.6	36.1	283
Kogi	53.5	14.0	37.0	6.2	84.5	32.8	13.0	119
Kwara	56.5	13.5	7.7	2.2	51.5	12.5	31.4	133
Nasarawa	20.5	6.6	5.6	6.0	10.3	6.7	73.8	125
Niger	63.3	25.0	16.4	16.3	57.3	33.0	28.2	293
Plateau	33.2	7.8	4.9	1.9	40.3	8.2	47.5	160
North East								
Adamawa	92.1	15.0	33.7	25.2	82.0	39.1	3.8	168
Bauchi	62.2	8.9	16.8	26.3	56.5	28.2	20.2	277
Borno	56.6	4.9	7.0	8.7	20.9	9.5	40.6	287
Gombe	74.0	36.0	36.4	23.3	76.2	48.5	13.6	153
Taraba	41.4	8.0	17.6	6.9	42.5	16.1	43.1	155
Yobe	61.2	7.6	39.7	31.6	53.1	37.9	21.4	249
North West								
Jigawa	49.5	1.2	6.4	20.0	32.4	8.5	30.2	285
Kaduna	53.3	2.4	9.6	5.3	36.7	8.7	42.1	504
Kano	30.7	4.7	7.6	8.2	32.1	7.9	49.3	509
Katsina	55.6	12.4	19.6	14.2	34.6	16.8	37.9	469
Kebbi	32.0	2.4	19.8	3.4	42.1	16.5	53.7	255
Sokoto	79.4	22.1	22.6	16.5	66.3	31.4	12.3	191
Zamfara	51.3	2.4	4.0	3.2	33.0	4.0	32.1	274
South East								
Abia	25.9	17.0	31.2	4.4	62.5	23.1	32.4	118
Anambra	33.8	19.0	13.6	7.5	39.4	20.0	49.7	298
Ebonyi	52.0	23.8	24.3	12.8	50.7	26.4	32.5	199
Enugu	16.8	8.6	5.5	5.9	19.1	9.2	75.6	143
Imo	28.3	11.7	17.7	4.9	33.1	15.8	56.1	207
South South								
Akwa Ibom	36.4	14.1	27.3	12.4	46.2	23.6	39.0	176
Bayelsa	45.5	16.0	24.5	9.4	47.0	19.7	26.9	68
Cross River	44.2	23.0	16.1	10.1	31.9	17.8	43.1	102
Delta	43.1	7.1	28.9	15.6	48.7	24.1	37.7	163
Edo	65.8	13.8	31.8	9.1	59.1	26.0	16.0	112
Rivers	43.9	14.3	25.6	10.2	49.1	23.2	35.6	284
South West								
Ekiti	51.6	9.3	14.3	4.7	51.7	16.9	35.9	111
Lagos	20.7	5.8	11.4	3.9	24.9	8.3	65.9	492
Ogun	21.1	6.4	8.8	4.5	10.4	7.9	73.3	225
Ondo	46.7	8.1	23.7	7.4	60.3	21.4	27.3	134
Osun	41.6	8.7	10.0	4.4	31.9	12.2	52.0	201
Oyo	19.3	12.3	7.7	7.2	13.1	12.9	78.9	379
Marital status								
Married or living together	43.9	9.9	15.7	10.0	40.4	17.0	41.8	7,847
Divorced/separated/ widowed	48.5	21.9	22.2	14.1	46.1	26.6	39.2	515

Continued…

Table 16.8—*Continued*

Background characteristic	Percentage of women whose husband/partner: Is jealous or angry if she talks to other men	Frequently accuses her of being unfaithful	Does not permit her to meet her female friends	Tries to limit her contact with her family	Insists on knowing where she is at all times	Displays 3 or more of the specific behaviours	Displays none of the specific behaviours	Number of ever-married women
Number of living children								
0	49.3	8.3	17.6	10.6	46.3	18.2	34.7	549
1-2	43.2	11.0	16.7	10.7	39.8	18.0	43.0	2,729
3-4	42.3	10.8	16.5	9.5	39.0	17.0	43.5	2,527
5+	46.2	10.7	14.9	10.3	42.2	17.5	39.8	2,556
Employment								
Employed for cash	43.6	10.2	16.3	9.9	39.9	17.2	42.7	5,348
Employed not for cash	44.0	14.5	16.9	12.2	49.1	21.5	36.7	972
Not employed	46.1	10.0	15.3	10.2	39.0	16.6	41.0	2,042
Education								
No education	49.2	9.8	14.9	12.9	41.7	17.9	38.1	3,440
Primary	44.7	11.3	16.2	9.9	41.5	17.5	41.7	1,387
Secondary	41.0	12.7	17.0	8.5	41.3	18.4	43.2	2,740
More than secondary	33.3	6.5	18.5	5.2	33.0	13.1	51.4	794
Wealth quintile								
Lowest	49.9	11.1	18.5	14.4	44.4	20.5	34.5	1,552
Second	47.4	10.1	13.1	11.2	41.4	17.2	39.5	1,680
Middle	48.9	12.3	17.6	11.8	45.8	19.7	37.6	1,725
Fourth	41.8	11.1	15.3	7.7	39.5	17.1	44.3	1,710
Highest	33.6	8.7	16.4	6.4	32.8	13.7	51.6	1,694
Woman afraid of husband/partner								
Afraid most of the time	74.5	28.0	35.5	26.0	70.4	43.3	12.1	614
Sometimes afraid	51.5	11.6	17.7	11.6	45.9	20.1	35.8	3,556
Never afraid	33.6	7.4	11.9	6.7	32.0	11.7	50.9	4,190
Total	44.2	10.7	16.1	10.2	40.7	17.6	41.6	8,361

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. Figures in parentheses are based on 25-49 unweighted cases.

Table 16.9 Forms of spousal violence

Percentage of ever-married women age 15-49 who have experienced various forms of violence ever or in the 12 months preceding the survey committed by their current or most recent husband/partner, and percentage of ever-married women age 15-49 who have experienced various forms of violence ever or in the 12 months preceding the survey committed by any husband/partner, Nigeria DHS 2018

Type of violence experienced	Ever experienced	Experienced in the past 12 months	Frequency in the past 12 months	
			Often	Sometimes
Spousal violence committed by current or most recent husband/partner[1]				
Physical violence				
Any physical violence	19.2	11.7	2.2	9.5
Pushed her, shook her, or threw something at her	7.2	4.8	1.0	3.8
Slapped her	16.2	9.2	1.5	7.8
Twisted her arm or pulled her hair	3.0	1.8	0.5	1.3
Punched her with his fist or with something that could hurt her	4.4	2.6	0.7	2.0
Kicked her, dragged her, or beat her up	8.6	4.9	1.0	3.9
Tried to choke her or burn her on purpose	1.0	0.7	0.2	0.4
Threatened her or attacked her with a knife, gun, or other weapon	0.8	0.5	0.1	0.4
Sexual violence				
Any sexual violence	7.0	4.7	0.8	3.9
Physically forced her to have sexual intercourse with him when she did not want to	6.2	4.0	0.6	3.3
Physically forced her to perform any other sexual acts she did not want to	2.8	1.9	0.4	1.5
Forced her with threats or in any other way to perform sexual acts she did not want to	2.1	1.5	0.3	1.2
Emotional violence				
Any emotional violence	31.7	26.7	4.6	22.1
Said or did something to humiliate her in front of others	19.0	15.2	2.7	12.4
Threatened to hurt or harm her or someone she cared about	6.3	4.8	0.9	4.0
Insulted her or made her feel bad about herself	27.5	22.7	3.4	19.3
Any form of physical and/or sexual violence	21.4	13.7	2.7	11.1
Any form of emotional and/or physical and/or sexual violence	36.2	29.5	5.7	23.7
Spousal violence committed by any husband/partner				
Physical violence	19.9	11.8	na	na
Sexual violence	7.7	4.7	na	na
Emotional violence	32.3	26.7	na	na
Any form of physical or sexual violence	22.3	13.8	na	na
Any form of emotional or physical or sexual violence	36.9	29.5	na	na
Number of ever-married women	8,361	8,361	8,361	8,361

[1] Includes current husband/partner for currently married women and most recent husband/partner for divorced, separated, or widowed women
na = Not available

Table 16.10 Spousal violence by background characteristics

Percentage of ever-married women age 15-49 who have ever experienced emotional, physical, or sexual violence committed by their current or most recent husband/partner, according to background characteristics, Nigeria DHS 2018

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married women
Age								
15-19	18.8	11.4	8.3	5.0	4.6	14.7	23.4	453
20-24	32.1	18.4	9.2	5.3	4.9	22.2	37.2	1,139
25-29	33.8	19.3	6.2	4.0	3.8	21.5	37.9	1,720
30-39	33.0	20.7	7.4	5.2	5.0	22.8	37.8	3,149
40-49	30.6	18.9	5.5	4.1	3.7	20.3	34.6	1,900
Religion								
Catholic	40.3	27.5	6.5	4.9	4.2	29.1	46.0	815
Other Christian	36.3	26.4	7.7	5.7	5.2	28.4	42.4	2,891
Islam	27.3	13.1	6.7	4.1	4.0	15.7	30.6	4,607
Traditionalist	(44.4)	(27.0)	(2.5)	(2.5)	(2.5)	(27.0)	(44.4)	36
Other	(4.9)	(10.5)	(3.9)	(3.9)	(3.9)	(10.5)	(11.4)	12
Residence								
Urban	28.7	18.9	6.1	4.4	4.0	20.6	33.5	3,625
Rural	34.1	19.4	7.7	5.0	4.7	22.1	38.3	4,737
Zone								
North Central	43.3	28.1	7.5	4.8	4.6	30.8	50.1	1,172
North East	42.7	23.0	15.7	9.7	9.3	29.1	47.2	1,290
North West	25.3	8.6	3.5	2.1	2.0	10.0	26.8	2,486
South East	38.5	28.2	8.2	6.3	5.5	30.0	44.7	965
South South	38.5	31.5	9.4	7.0	6.0	33.9	46.6	905
South West	16.0	13.3	2.8	2.4	2.3	13.7	20.3	1,543
State								
North Central								
FCT-Abuja	12.7	7.4	1.4	0.4	0.0	8.3	16.4	60
Benue	45.9	35.6	2.3	2.3	1.7	35.6	52.6	283
Kogi	73.6	24.4	6.3	4.1	3.7	26.6	75.4	119
Kwara	34.2	26.0	2.7	2.7	2.7	26.0	36.5	133
Nasarawa	12.4	8.5	2.7	2.4	2.4	8.8	14.3	125
Niger	42.8	36.9	13.1	8.1	8.1	41.8	56.8	293
Plateau	60.2	26.4	17.3	8.8	8.8	34.9	66.7	160
North East								
Adamawa	58.1	38.7	17.2	15.8	15.8	40.1	59.6	168
Bauchi	57.3	21.7	22.7	10.1	9.1	34.3	63.6	277
Borno	21.6	14.4	5.8	3.0	3.0	17.2	24.7	287
Gombe	69.1	47.9	45.9	35.3	35.0	58.6	74.1	153
Taraba	42.0	22.5	8.4	3.0	2.8	27.8	50.3	155
Yobe	24.4	9.0	4.3	1.2	1.0	12.1	28.0	249
North West								
Jigawa	12.3	2.2	1.9	0.5	0.5	3.7	13.2	285
Kaduna	58.6	21.4	8.5	6.0	5.9	23.9	59.4	504
Kano	17.2	4.3	2.7	0.9	0.9	6.1	17.4	509
Katsina	12.7	5.9	3.3	2.3	2.3	6.9	14.7	469
Kebbi	14.2	7.4	0.5	0.5	0.5	7.4	15.6	255
Sokoto	32.8	4.8	1.1	0.2	0.0	5.7	35.4	191
Zamfara	19.7	7.8	2.7	1.1	1.1	9.4	23.3	274
South East								
Abia	29.8	26.0	3.9	1.2	0.8	28.7	38.8	118
Anambra	46.9	28.1	6.0	5.0	4.8	29.1	53.2	298
Ebonyi	44.4	41.5	15.6	12.5	10.6	44.7	53.9	199
Enugu	21.0	16.6	5.7	5.7	4.7	16.6	22.9	143
Imo	37.8	24.7	8.2	5.6	5.0	27.3	42.2	207
South South								
Akwa Ibom	30.1	31.5	14.9	12.0	8.4	34.4	41.9	176
Bayelsa	29.0	27.4	5.5	2.6	2.2	30.4	37.4	68
Cross River	35.4	20.7	2.1	1.2	0.9	21.6	39.4	102
Delta	48.8	27.0	7.6	3.8	3.8	30.8	49.5	163
Edo	59.0	37.4	8.6	7.7	7.7	38.3	60.3	112
Rivers	33.1	36.6	10.8	8.6	8.0	38.8	47.1	284
South West								
Ekiti	23.2	17.0	3.2	2.5	2.3	17.6	28.5	111
Lagos	17.7	13.1	2.2	1.8	1.8	13.5	22.6	492
Ogun	15.6	11.1	1.1	1.1	1.1	11.1	18.0	225
Ondo	13.5	17.4	2.8	2.8	2.4	17.4	21.4	134
Osun	15.6	16.8	4.7	3.4	2.9	18.1	23.7	201
Oyo	13.0	10.6	3.5	3.5	3.5	10.6	14.2	379
Marital status								
Married or living together	30.9	18.1	6.6	4.3	4.0	20.4	35.4	7,847
Divorced/separated/widowed	44.6	35.5	13.3	11.1	10.3	37.7	49.2	515

Continued…

Table 16.10—*Continued*

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married women
Number of living children								
0	27.4	11.0	8.1	3.7	3.6	15.3	31.8	549
1-2	29.7	18.7	6.8	4.5	4.1	21.1	34.1	2,729
3-4	33.8	20.8	6.1	4.4	4.2	22.5	38.4	2,527
5+	32.8	19.8	7.8	5.5	5.1	22.1	37.3	2,556
Employment								
Employed for cash	31.1	18.8	6.5	4.3	3.9	21.1	35.7	5,348
Employed not for cash	41.0	29.7	9.1	6.9	6.5	31.8	48.5	972
Not employed	29.0	15.1	7.2	4.8	4.7	17.5	31.6	2,042
Education								
No education	31.6	16.4	7.3	4.7	4.6	19.0	35.0	3,440
Primary	35.8	24.0	7.3	5.3	4.6	25.9	40.4	1,387
Secondary	32.7	22.5	7.6	5.3	4.9	24.8	38.7	2,740
More than secondary	22.0	11.6	3.0	1.9	1.6	12.7	25.6	794
Wealth quintile								
Lowest	32.8	15.9	8.5	5.2	5.0	19.2	36.4	1,552
Second	34.3	19.4	7.7	5.4	5.2	21.6	38.5	1,680
Middle	36.0	22.0	7.9	5.6	5.2	24.3	39.8	1,725
Fourth	32.0	22.0	6.9	4.6	4.1	24.2	37.5	1,710
Highest	23.6	16.3	4.1	2.7	2.6	17.7	28.9	1,694
Total	31.7	19.2	7.0	4.7	4.4	21.4	36.2	8,361

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. Figures in parentheses are based on 25-49 unweighted cases.

Table 16.11 Spousal violence by husband's characteristics and empowerment indicators

Percentage of ever-married women age 15-49 who have ever experienced emotional, physical, or sexual violence committed by their current or most recent husband/partner, according to the husband's characteristics and women's empowerment indicators, Nigeria DHS 2018

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married women
Husband's/partner's education[1]								
No education	29.7	14.0	7.7	4.9	4.8	16.8	32.6	2,458
Primary	36.5	23.7	6.8	4.9	4.3	25.7	41.7	1,162
Secondary	32.6	21.9	6.5	4.5	4.3	23.9	38.3	2,844
More than secondary	24.7	12.3	4.3	2.1	1.7	14.6	28.6	1,264
Don't know/missing	26.9	18.7	7.9	4.8	4.4	21.7	32.9	118
Husband's/partner's alcohol consumption								
Does not drink alcohol	26.3	13.6	5.8	3.5	3.4	15.9	30.2	6,432
Drinks alcohol but is never drunk	39.4	25.7	5.6	3.5	2.7	27.9	45.7	521
Is sometimes drunk	46.9	35.9	10.1	8.3	7.6	37.7	53.6	1,090
Is often drunk	77.5	63.3	22.3	18.2	17.5	67.4	82.9	319
Spousal education difference[1]								
Husband better educated	32.5	19.3	6.4	4.1	3.7	21.6	37.1	2,880
Wife better educated	32.7	21.5	6.8	5.0	4.7	23.3	38.6	970
Both equally educated	28.9	19.3	5.5	3.5	3.2	21.3	34.3	1,670
Neither educated	29.9	14.0	7.6	4.9	4.8	16.7	32.7	2,155
Don't know/missing	26.2	17.9	6.4	4.1	3.9	20.1	31.5	171
Spousal age difference[1]								
Wife older	33.9	15.5	5.0	4.4	3.8	16.2	35.6	89
Wife is same age	25.7	12.4	2.0	1.1	0.7	13.3	27.9	98
Wife 1-4 years younger	31.1	21.5	5.6	4.0	3.4	23.1	37.0	1,360
Wife 5-9 years younger	33.0	19.0	6.9	4.8	4.5	21.2	37.3	2,804
Wife 10 or more years younger	29.2	16.3	6.9	4.1	3.9	19.0	33.4	3,496
Number of marital control behaviours displayed by husband/partner[2]								
0	14.6	8.3	2.0	0.9	0.8	9.4	18.3	3,480
1-2	35.0	19.0	6.4	3.7	3.3	21.7	40.1	3,412
3-4	63.0	43.2	18.2	14.1	13.6	47.3	68.7	1,257
5	75.8	57.7	32.3	27.4	27.2	62.6	76.3	213
Number of decisions in which women participate[3]								
0	28.6	13.8	6.2	4.0	3.8	16.0	31.9	2,723
1-2	31.2	19.1	7.6	4.9	4.6	21.9	36.2	2,380
3	32.9	21.4	6.1	4.1	3.8	23.4	38.1	2,743
Number of reasons for which wife beating is justified[4]								
0	29.7	18.0	6.2	4.3	4.0	19.9	33.7	5,952
1-2	40.9	25.5	10.8	7.3	6.9	29.0	47.5	711
3-4	38.3	26.8	9.0	6.4	6.2	29.3	46.3	708
5	32.8	16.5	7.5	4.4	3.7	19.6	36.2	990
Father beat mother								
Yes	58.8	42.0	14.3	10.9	10.3	45.4	65.5	827
No	27.7	15.7	5.5	3.6	3.3	17.6	31.7	7,110
Don't know/missing	46.7	33.4	17.2	11.5	11.0	39.1	54.4	425
Woman afraid of husband/partner								
Afraid most of the time	60.3	49.4	23.7	22.0	21.8	51.0	65.2	614
Sometimes afraid	38.7	21.3	7.8	4.8	4.4	24.4	43.1	3,556
Never afraid	21.6	12.9	3.9	2.1	1.9	14.6	26.1	4,190
Total	31.7	19.2	7.0	4.7	4.4	21.4	36.2	8,361

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women.
[1] Includes only currently married women
[2] According to the wife's report. See Table 16.8 for list of behaviours.
[3] According to the wife's report. Includes only currently married women. See Table 15.9.1 for list of decisions.
[4] According to the wife's report. See Table 15.10.1 for list of reasons.

Table 16.12 Violence by any husband/partner in the last 12 months

Percentage of ever-married women who experienced emotional, physical, or sexual violence by any husband/partner in the past 12 months, according to background characteristics, Nigeria DHS 2018

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married women
Age								
15-19	17.4	9.4	7.4	4.2	3.8	12.6	21.4	453
20-24	29.4	15.5	8.5	4.6	4.3	19.4	33.6	1,139
25-29	30.9	13.8	4.3	2.6	2.4	15.5	33.1	1,720
30-39	27.9	12.1	4.3	2.6	2.5	13.8	30.6	3,149
40-49	21.7	7.9	2.7	1.5	1.3	9.0	23.8	1,900
Residence								
Urban	22.8	10.5	4.1	2.5	2.2	12.1	25.1	3,625
Rural	29.7	12.8	5.1	2.9	2.8	15.0	32.8	4,737
Zone								
North Central	35.8	18.3	4.2	2.0	1.8	20.4	41.5	1,172
North East	38.4	15.0	9.9	5.2	5.0	19.7	41.3	1,290
North West	22.5	5.9	3.3	1.7	1.7	7.5	23.6	2,486
South East	29.8	14.9	5.5	3.6	3.0	16.8	32.6	965
South South	30.5	18.9	6.2	4.2	3.7	20.9	35.2	905
South West	12.7	7.6	1.5	1.3	1.3	7.8	14.6	1,543
State								
North Central								
FCT-Abuja	11.3	5.0	1.4	0.4	0.0	6.0	13.8	60
Benue	42.9	30.9	2.3	2.3	1.7	30.9	49.4	283
Kogi	58.9	9.5	2.8	1.3	1.3	11.0	59.8	119
Kwara	27.1	11.6	2.0	2.0	2.0	11.6	27.3	133
Nasarawa	9.8	7.8	2.3	2.1	2.1	7.9	11.4	125
Niger	33.3	21.4	3.8	0.6	0.6	24.6	45.3	293
Plateau	47.5	15.4	13.5	5.0	5.0	24.0	52.5	160
North East								
Adamawa	55.9	32.2	11.0	11.0	11.0	32.2	55.9	168
Bauchi	50.2	14.6	17.0	6.9	6.3	24.7	56.2	277
Borno	18.9	11.0	4.1	1.3	1.3	13.7	21.2	287
Gombe	66.6	25.6	24.1	14.1	13.9	35.6	69.2	153
Taraba	32.7	13.2	3.5	0.9	0.9	15.8	37.1	155
Yobe	22.1	3.0	3.2	1.1	0.9	5.1	23.7	249
North West								
Jigawa	9.7	1.8	1.0	0.0	0.0	2.8	10.2	285
Kaduna	53.3	13.8	7.9	5.3	5.1	16.4	54.4	504
Kano	14.2	2.7	2.5	0.4	0.4	4.8	14.7	509
Katsina	10.8	3.9	3.3	2.3	2.3	5.0	11.2	469
Kebbi	13.4	7.2	0.5	0.5	0.5	7.2	14.9	255
Sokoto	30.3	1.8	0.8	0.0	0.0	2.6	30.8	191
Zamfara	17.7	6.9	2.7	0.9	0.9	8.8	21.6	274
South East								
Abia	28.0	20.3	1.4	0.4	0.4	21.3	33.7	118
Anambra	35.2	12.8	3.3	2.5	2.1	13.6	37.4	298
Ebonyi	29.3	18.5	10.1	6.7	5.7	21.8	33.1	199
Enugu	13.2	8.8	3.9	3.9	2.9	8.8	14.1	143
Imo	35.1	15.8	7.8	3.9	3.3	19.6	37.5	207
South South								
Akwa Ibom	24.2	22.9	11.7	8.3	7.3	26.2	34.8	176
Bayelsa	27.4	26.6	5.5	2.6	2.2	29.6	35.3	68
Cross River	27.0	12.6	0.9	0.0	0.0	13.4	30.4	102
Delta	39.4	11.8	4.8	1.0	1.0	15.6	40.6	163
Edo	41.1	21.6	6.1	5.2	4.5	22.5	42.8	112
Rivers	27.1	20.0	5.8	5.1	4.4	20.6	31.1	284
South West								
Ekiti	15.6	11.0	2.2	1.9	1.3	11.4	19.0	111
Lagos	13.8	4.5	0.1	0.1	0.1	4.5	15.1	492
Ogun	12.6	5.5	0.0	0.0	0.0	5.5	12.6	225
Ondo	10.3	8.5	2.1	1.7	1.7	8.9	13.2	134
Osun	14.2	14.8	3.9	2.6	2.6	16.1	21.3	201
Oyo	10.6	7.6	2.6	2.6	2.6	7.6	10.8	379
Education								
No education	27.6	10.3	4.9	2.5	2.4	12.7	30.3	3,440
Primary	27.8	13.7	4.5	3.2	2.8	15.0	30.4	1,387
Secondary	27.2	14.4	5.5	3.4	3.1	16.4	30.6	2,740
More than secondary	19.2	5.9	1.3	0.4	0.4	6.8	20.7	794
Wealth quintile								
Lowest	28.8	10.1	6.2	2.8	2.6	13.5	31.6	1,552
Second	29.5	12.6	5.4	3.4	3.2	14.6	32.8	1,680
Middle	30.1	14.3	5.1	3.2	3.0	16.1	32.8	1,725
Fourth	26.4	13.8	4.8	3.1	2.8	15.5	29.5	1,710
Highest	19.1	8.1	2.1	1.1	1.0	9.1	20.7	1,694
Total	26.7	11.8	4.7	2.7	2.5	13.8	29.5	8,361

Note: Any husband/partner includes all current, most recent, and former husbands/partners.

Table 16.13 Experience of spousal violence by duration of marriage

Among currently married women age 15-49 who have been married only once, percentage who first experienced physical or sexual violence committed by their current husband/partner by specific exact years since marriage, according to marital duration, Nigeria DHS 2018

	Percentage who first experienced spousal physical or sexual violence by exact marital duration				Percentage who have not experienced sexual or physical violence	Number of currently married women who have been married only once
Years since marriage	Before marriage	2 years	5 years	10 years		
<2	0.3	na	na	na	88.0	492
2-4	1.5	11.5	na	na	81.7	1,019
5-9	1.6	9.2	19.5	na	77.7	1,628
10+	0.9	6.1	13.6	17.9	79.1	3,869
Total	1.1	7.9	15.3	18.4	79.8	7,009

na = Not applicable

Table 16.14 Injuries to women due to spousal violence

Among ever-married women age 15-49 who have experienced violence committed by their current or most recent husband/partner, percentage who have been injured as a result of the violence, by types of injuries, according to type of violence, Nigeria DHS 2018

Type of violence experienced	Cuts, bruises, or aches	Eye injuries, sprains, dislocations, or burns	Deep wounds, broken bones, broken teeth, or any other serious injury	Any of these injuries	Number of ever-married women who have experienced physical or sexual violence
Physical violence[1]					
Ever[2]	28.2	11.2	9.4	31.4	1,603
Past 12 months	29.7	13.6	10.2	33.4	982
Sexual violence					
Ever[2]	32.8	12.6	13.5	36.8	585
Past 12 months	31.8	12.7	10.9	33.8	389
Physical or sexual violence[1]					
Ever[2]	26.0	10.0	8.5	29.1	1,793
Past 12 months	27.0	12.1	9.1	30.1	1,146

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women.
[1] Excludes women who reported violence only in response to a direct question on violence during pregnancy
[2] Includes in the past 12 months

Table 16.15 Violence by women against their husband by women's background characteristics

Percentage of ever-married women who have committed physical violence against their current or most recent husband/partner when he was not already beating or physically hurting them, ever and in the past 12 months, according to women's own experience of spousal violence and background characteristics, Nigeria DHS 2018

Background characteristic	Percentage who committed physical violence against their husband/partner		Number of ever-married women
	Ever[1]	Past 12 months	
Women's experience of spousal physical violence			
Ever[1]	10.7	7.9	1,603
In the past 12 months	13.5	11.6	982
Never	0.4	0.2	6,758
Age			
15-19	2.0	1.9	453
20-24	2.6	1.9	1,139
25-29	2.0	1.5	1,720
30-39	2.9	2.0	3,149
40-49	2.0	1.2	1,900
Religion			
Catholic	3.2	2.0	815
Other Christian	4.0	2.8	2,891
Islam	1.3	1.0	4,607
Traditionalist	(0.3)	(0.3)	36
Other	(0.0)	(0.0)	12
Residence			
Urban	2.1	1.4	3,625
Rural	2.6	1.9	4,737
Zone			
North Central	1.9	1.3	1,172
North East	5.1	3.7	1,290
North West	0.5	0.4	2,486
South East	3.4	2.7	965
South South	5.5	3.4	905
South West	1.2	0.9	1,543
State			
North Central			
FCT-Abuja	1.6	1.4	60
Benue	3.2	1.7	283
Kogi	2.1	1.7	119
Kwara	0.6	0.3	133
Nasarawa	1.9	1.7	125
Niger	0.7	0.4	293
Plateau	3.1	2.2	160
North East			
Adamawa	14.6	14.6	168
Bauchi	3.1	2.1	277
Borno	2.1	1.5	287
Gombe	12.7	4.9	153
Taraba	3.6	2.7	155
Yobe	0.5	0.5	249
North West			
Jigawa	0.0	0.0	285
Kaduna	1.3	1.1	504
Kano	0.7	0.5	509
Katsina	0.3	0.3	469
Kebbi	0.0	0.0	255
Sokoto	0.0	0.0	191
Zamfara	0.3	0.3	274
South East			
Abia	4.9	4.4	118
Anambra	1.7	0.9	298
Ebonyi	8.1	7.0	199
Enugu	3.0	2.1	143
Imo	1.0	0.6	207
South South			
Akwa Ibom	4.6	2.0	176
Bayelsa	5.0	5.0	68
Cross River	3.8	2.3	102
Delta	7.2	2.4	163
Edo	3.1	3.1	112
Rivers	6.9	5.1	284

Continued…

Table 16.15—*Continued*

Background characteristic	Percentage who committed physical violence against their husband/partner		Number of ever-married women
	Ever[1]	Past 12 months	
South West			
Ekiti	0.9	0.6	111
Lagos	0.6	0.0	492
Ogun	1.0	1.0	225
Ondo	2.0	1.3	134
Osun	0.9	0.6	201
Oyo	2.0	2.0	379
Marital status			
Married or living together	2.3	1.6	7,847
Divorced/separated/widowed	4.6	3.2	515
Employment			
Employed for cash	2.4	1.7	5,348
Employed not for cash	4.3	2.7	972
Not employed	1.6	1.2	2,042
Number of living children			
0	2.7	2.2	549
1-2	2.7	1.8	2,729
3-4	2.1	1.5	2,527
5+	2.4	1.7	2,556
Education			
No education	1.8	1.3	3,440
Primary	3.0	2.1	1,387
Secondary	3.3	2.3	2,740
More than secondary	1.2	0.6	794
Wealth quintile			
Lowest	2.0	1.7	1,552
Second	2.2	1.1	1,680
Middle	3.7	2.7	1,725
Fourth	2.4	2.1	1,710
Highest	1.7	1.0	1,694
Total	2.4	1.7	8,361

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes in the past 12 months

Table 16.16 Violence by women against their husband by husband's characteristics and empowerment indicators

Percentage of ever-married women who have committed physical violence against their current or most recent husband/partner when he was not already beating or physically hurting them, ever and in the past 12 months, according to their husband's characteristics and women's empowerment indicators, Nigeria DHS 2018

Background characteristic	Percentage who committed physical violence against their husband/partner		Number of ever-married women
	Ever[1]	Past 12 months	
Husband's/partner's education[2]			
No education	1.6	1.3	2,458
Primary	3.2	2.0	1,162
Secondary	2.8	1.9	2,844
More than secondary	1.7	1.4	1,264
Don't know/missing	0.0	0.0	118
Husband's/partner's alcohol consumption			
Does not drink alcohol	1.2	0.8	6,432
Drinks alcohol but is never drunk	3.2	2.3	521
Is sometimes drunk	6.3	4.1	1,090
Is often drunk	13.1	11.6	319
Spousal education difference[2]			
Husband better educated	2.6	1.8	2,880
Wife better educated	3.1	2.3	970
Both equally educated	2.4	1.6	1,670
Neither educated	1.5	1.1	2,155
Don't know/missing	0.4	0.4	171
Spousal age difference[2]			
Wife older	0.4	0.4	89
Wife is same age	3.1	2.8	98
Wife 1-4 years younger	2.4	1.9	1,360
Wife 5-9 years younger	2.6	1.7	2,804
Wife 10 or more years younger	2.0	1.4	3,496
Number of marital control behaviours displayed by husband/partner[3]			
0	0.6	0.3	3,480
1-2	1.8	1.3	3,412
3-4	7.4	5.4	1,257
5	12.3	9.3	213
Number of decisions in which women participate[4]			
0	1.7	1.3	2,723
1-2	2.2	1.5	2,380
3	2.9	2.0	2,743
Number of reasons for which wife beating is justified[5]			
0	2.4	1.8	5,952
1-2	4.5	2.7	711
3-4	1.6	0.8	708
5	1.6	0.9	990
Father beat mother			
Yes	8.6	6.3	827
No	1.5	1.1	7,110
Don't know/missing	5.0	3.1	425
Woman afraid of husband/partner			
Afraid most of the time	8.6	6.5	614
Sometimes afraid	2.6	1.9	3,556
Never afraid	1.4	0.9	4,190
Total	2.4	1.7	8,361

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women.
[1] Includes in the past 12 months
[2] Includes only currently married women
[3] According to the wife's report. See Table 16.8 for list of behaviours.
[4] According to the wife's report. Includes only currently married women. See Table 15.9.1 for list of decisions.
[5] According to the wife's report. See Table 15.10.1 for list of reasons.

Table 16.17 Help seeking to stop violence

Percent distribution of women age 15-49 who have ever experienced physical or sexual violence by their help-seeking behaviour, according to type of violence and background characteristics, Nigeria DHS 2018

Type of violence/ background characteristic	Sought help to stop violence	Never sought help but told someone	Never sought help, never told anyone	Total	Number of women who have ever experienced any physical or sexual violence
Type of violence experienced					
Physical only	29.9	12.5	57.5	100.0	2,586
Sexual only	26.4	15.5	58.1	100.0	257
Both physical and sexual	39.5	17.7	42.8	100.0	719
Age					
15-19	29.7	12.8	57.5	100.0	649
20-24	30.7	12.2	57.1	100.0	565
25-29	30.2	12.6	57.1	100.0	636
30-39	33.4	14.5	52.1	100.0	1,135
40-49	32.6	16.4	51.0	100.0	577
Religion					
Catholic	37.1	10.0	53.0	100.0	462
Other Christian	34.3	12.7	53.0	100.0	1,757
Islam	26.1	16.7	57.2	100.0	1,328
Traditionalist	*	*	*	100.0	14
Other	*	*	*	100.0	2
Residence					
Urban	31.7	13.1	55.2	100.0	1,706
Rural	31.5	14.4	54.1	100.0	1,856
Zone					
North Central	21.2	12.9	66.0	100.0	696
North East	32.1	18.7	49.1	100.0	682
North West	27.9	21.5	50.6	100.0	384
South East	45.7	9.1	45.2	100.0	517
South South	46.5	13.6	39.9	100.0	654
South West	17.6	8.8	73.6	100.0	629
State					
North Central					
FCT-Abuja	11.3	15.2	73.5	100.0	30
Benue	27.1	5.9	66.9	100.0	182
Kogi	27.6	15.0	57.5	100.0	69
Kwara	14.3	20.6	65.1	100.0	78
Nasarawa	46.3	8.9	44.9	100.0	34
Niger	17.9	20.5	61.6	100.0	202
Plateau	12.5	3.3	84.1	100.0	101
North East					
Adamawa	35.8	28.2	36.0	100.0	100
Bauchi	16.4	9.7	73.8	100.0	136
Borno	58.2	17.1	24.7	100.0	140
Gombe	32.4	26.2	41.3	100.0	116
Taraba	23.7	14.7	61.7	100.0	148
Yobe	(16.6)	(24.4)	(58.9)	100.0	43
North West					
Jigawa	*	*	*	100.0	22
Kaduna	28.6	18.9	52.5	100.0	187
Kano	(52.4)	(20.2)	(27.4)	100.0	46
Katsina	(21.4)	(35.6)	(42.9)	100.0	58
Kebbi	(11.8)	(9.3)	(78.8)	100.0	25
Sokoto	*	*	*	100.0	20
Zamfara	*	*	*	100.0	26
South East					
Abia	40.9	16.1	43.0	100.0	61
Anambra	33.8	4.3	61.9	100.0	137
Ebonyi	61.9	0.8	37.4	100.0	147
Enugu	(33.4)	(24.5)	(42.1)	100.0	44
Imo	46.4	15.0	38.6	100.0	128
South South					
Akwa Ibom	38.8	14.3	47.0	100.0	121
Bayelsa	7.5	10.1	82.3	100.0	28
Cross River	47.6	7.2	45.2	100.0	59
Delta	57.8	9.5	32.7	100.0	84
Edo	64.2	4.3	31.5	100.0	91
Rivers	44.4	19.5	36.2	100.0	271

Continued…

Table 16.17—*Continued*

Type of violence/ background characteristic	Sought help to stop violence	Never sought help but told someone	Never sought help, never told anyone	Total	Number of women who have ever experienced any physical or sexual violence
South West					
Ekiti	36.2	4.6	59.2	100.0	46
Lagos	16.6	14.1	69.3	100.0	210
Ogun	7.9	3.3	88.8	100.0	145
Ondo	28.1	10.1	61.8	100.0	55
Osun	16.4	2.3	81.3	100.0	100
Oyo	22.2	14.8	63.0	100.0	73
Marital status					
Never married	26.5	15.2	58.2	100.0	890
Married or living together	31.4	13.6	55.0	100.0	2,410
Divorced/separated/widowed	50.2	10.9	38.9	100.0	262
Number of living children					
0	27.5	14.0	58.5	100.0	955
1-2	32.4	12.5	55.1	100.0	1,003
3-4	34.2	14.8	50.9	100.0	836
5+	32.8	14.1	53.1	100.0	769
Employment					
Employed for cash	32.9	13.6	53.5	100.0	2,068
Employed not for cash	31.2	11.3	57.5	100.0	620
Not employed	28.7	16.1	55.2	100.0	875
Education					
No education	28.9	16.5	54.6	100.0	904
Primary	34.5	10.3	55.2	100.0	608
Secondary	32.2	14.1	53.7	100.0	1,667
More than secondary	30.7	11.4	57.9	100.0	384
Wealth quintile					
Lowest	28.7	15.0	56.3	100.0	445
Second	32.5	13.7	53.8	100.0	624
Middle	32.8	13.5	53.7	100.0	773
Fourth	35.7	11.3	53.0	100.0	838
Highest	27.5	15.8	56.7	100.0	882
Total	31.6	13.8	54.6	100.0	3,562

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 16.18 Sources for help to stop the violence

Percentage of women age 15-49 who have experienced physical or sexual violence and sought help by sources from which they sought help, according to the type of violence that women reported, Nigeria DHS 2018

Source	Type of violence experienced			Physical or sexual violence
	Physical only	Sexual only	Both physical and sexual	
Own family	74.0	82.5	68.3	73.1
Husband/partner's family	27.6	5.7	25.6	25.8
Husband/partner	1.3	1.3	2.4	1.6
Boyfriend	11.5	5.6	12.0	11.3
Friend	11.2	5.6	12.0	11.0
Neighbour	9.7	7.7	2.8	7.8
Religious leader	2.1	1.4	8.3	3.6
Doctor/medical personnel	0.4	0.0	1.9	0.8
Police	0.5	7.4	0.9	1.0
Lawyer	0.0	0.0	1.9	0.5
Social work organisation	0.1	0.0	0.0	0.1
Other	1.1	0.0	0.4	0.9
Number of women who have sought help	774	68	284	1,126

Note: Women can report more than one source from which they sought help.

DISABILITY 17

Key Findings

- ***Disability by domain:*** 7% of household members age 5 or above have some level of difficulty in at least one functional domain, while 1% have a lot of difficulty or cannot function at all in at least one domain.
- ***Disability by age:*** The proportion of household members who have difficulty in each domain generally rises with increasing age. For instance, 1% of household members below age 40 have a lot of difficulty or cannot function at all in at least one domain, as compared with 9% of those age 60 and above.
- ***Disability by marital status:*** Widowed women and men are more likely to have difficulty in each of the domains than their counterparts in the other marital status categories. For example, 30% of women and 37% of men who are widowed have difficulty in seeing, while 19% of widowed women and 20% of widowed men have difficulty in walking or climbing steps.

The 2018 NDHS included The DHS Program's disability module, a series of questions based on the Washington Group on Disability Statistics (WG) questions, which in turn are based on the framework of the World Health Organization's International Classification of Functioning, Disability, and Health. The questions address six core functional domains—seeing, hearing, communication, cognition, walking, and self-care—and provide basic necessary information on disability comparable to that being collected worldwide via the WG disability tools. Nigeria has passed into law the Discrimination Against Persons with Disability (Prohibition) Act 2018, which states, among other things, that an individual with a disability shall not be discriminated against on the grounds of his or her disability by any person or institution in any manner or circumstance. This act provides for full integration of persons with disabilities into society, establishes the National Commission for Persons with Disabilities, and vests that commission with responsibilities for the education, health care, and social, economic, and civil rights of persons with disabilities (Human Rights Watch 2019).

17.1 Disability by Domain and Age

The respondent to the Household Questionnaire provided information for all household members and visitors on whether they had no difficulty, some difficulty, a lot of difficulty, or no ability at all in the specified domain. The results, based on more than 101,000 people, are presented in **Table 17.1** for the de facto household population age 5 and older.

Functional domains

Seeing, hearing, communicating, remembering or concentrating, walking or climbing steps, and washing all over or dressing.

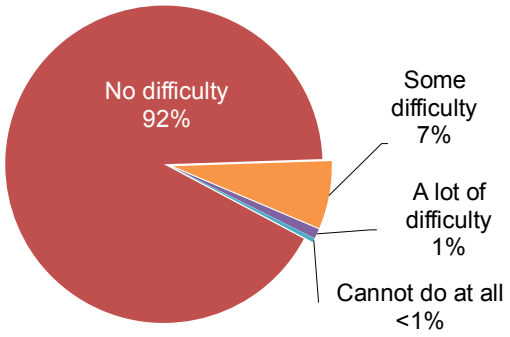
Sample: De facto household population age 5 or above

More than 9 in 10 (92%) de facto household members age 5 or older have no difficulty in any of the functional domains. Seven percent have some level of difficulty in at least one domain (**Figure 17.1**), while 1% either have a lot of difficulty or cannot function at all in at least one domain.

One-third of the population age 60 or older is reported to have some difficulty in at least one domain, while 7% have a lot of difficulty in at least one domain. Disability generally rises with increasing age. For instance, 1% of household members below age 40 have a lot of difficulty or cannot function at all in at least one domain, as compared with 9% of those age 60 and above.

Figure 17.1 **Degree of difficulty**

Percent distribution of de facto household population age 5 and over



17.2 Disability among Adults by Other Background Characteristics

Functional domains

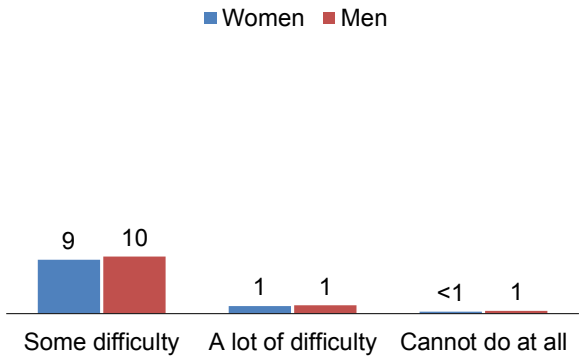
Seeing, hearing, communicating, remembering or concentrating, walking or climbing steps, and washing all over or dressing.

Sample: De facto household population age 15 or above

Tables 17.2.1 and **17.2.2** present disability data for de facto household members age 15 and older by background characteristics. Eighty-nine percent of women and 88% of men have no difficulty in any domain. Eight percent of women and 9% of men have difficulty seeing, the most prominent type of difficulty in the population. Overall, 9% of women and 10% of men have some difficulty in at least one domain (**Figure 17.2**).

Figure 17.2 **Level of difficulty in at least one domain**

Percent distribution of women and men age 15 and above



Patterns by background characteristics

- The data show that 30% of widowed women and 37% of widowed men have difficulty seeing. Thirty-one percent of widowed women and 35% of widowed men have some difficulty in at least one domain (**Tables 17.2.1** and **17.2.2**).
- Sixteen percent of women in the South South have difficulty seeing, while 17% have some difficulty in at least one domain, the highest percentage among the zones.
- Women in Imo (29%) and Akwa Ibom (24%) are most likely to have difficulty seeing. Similarly, 19% of men in Imo and 17% each in Cross River and Ondo have difficulty seeing.

- Women with more than a secondary education (13%) are more likely to have difficulty seeing than women at other educational levels (6%-10%). By contrast, women with more than a secondary education are least likely to have difficulty hearing.

- Women in the highest wealth quintile are more likely to have difficulty seeing (11%) than those in the lowest wealth quintile (5%).

- Five percent of women in Enugu, Imo, Bayelsa, and Cross River have a lot of difficulty in at least one domain or cannot function at all, a percentage that is higher than among the other states and higher than the national average. The percentage of men who have a lot of difficulty in at least one domain or cannot function at all is highest in Enugu (**Tables 17.2.1** and **17.2.2**).

LIST OF TABLES

For more information on disability, see the following tables:

- **Table 17.1 Disability by domain and age**
- **Table 17.2.1 Disability among adults according to background characteristics: Women**
- **Table 17.2.2 Disability among adults according to background characteristics: Men**

Table 17.1 Disability by domain and age

Percent distribution of the de facto household population age 5 and over by degree of difficulty in functioning according to domain, and percent distribution by highest degree of difficulty in functioning in at least one domain by age, Nigeria DHS 2018

	Degree of difficulty							
Domain and age	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Don't know/ missing	Total	A lot of difficulty or cannot do at all	Number of persons
Domain								
Difficulty seeing	94.3	5.1	0.5	0.1	0.0	100.0	0.5	101,481
Difficulty hearing	98.7	1.1	0.1	0.1	0.0	100.0	0.2	101,481
Difficulty communicating	99.0	0.8	0.1	0.1	0.0	100.0	0.2	101,481
Difficulty remembering or concentrating	99.1	0.7	0.2	0.0	0.0	100.0	0.2	101,481
Difficulty walking or climbing steps	97.6	1.9	0.4	0.1	0.0	100.0	0.5	101,481
Difficulty washing all over or dressing	98.6	1.0	0.2	0.2	0.0	100.0	0.4	101,481
Difficulty in at least one domain[1]								
5-9	97.9	1.4	0.2	0.5	0.0	100.0	0.6	19,505
10-14	97.7	1.8	0.3	0.1	0.0	100.0	0.4	14,735
15-19	96.8	2.7	0.3	0.2	0.0	100.0	0.5	11,544
20-29	96.6	2.9	0.2	0.3	0.0	100.0	0.5	16,995
30-39	94.5	4.8	0.5	0.2	0.0	100.0	0.7	14,551
40-49	87.2	11.6	0.9	0.3	0.0	100.0	1.1	9,742
50-59	77.5	20.0	2.1	0.4	0.0	100.0	2.5	6,940
60+	58.3	32.8	7.2	1.8	0.0	100.0	9.0	7,451
Age 15 and over	88.6	9.6	1.3	0.4	0.0	100.0	1.8	67,223
Total	91.7	6.9	1.0	0.4	0.0	100.0	1.4	101,481

Note: Total includes 19 persons with missing information on status of difficulty in at least one domain.
[1] If a person was reported to have difficulty in more than one domain, only the highest level of difficulty is shown.

Table 17.2.1 Disability among adults according to background characteristics: Women

Percentage of de facto female household members age 15 and over who have difficulty in functioning according to domain, and by highest degree of difficulty in at least one domain, and percentage who have a lot of difficulty or cannot function at all in more than one domain, according to background characteristics, Nigeria DHS 2018

		Domain						Difficulty in at least one domain[1]					
Background characteristic	No difficulty in any domain	Seeing	Hearing	Com-muni-cating	Remem-bering or concen-trating	Walking or climbing steps	Washing all over or dressing	Some difficulty	A lot of difficulty	Cannot do at all	A lot of difficulty or cannot do at all	A lot of difficulty or cannot function at all in more than one domain	Number of women
Marital status													
Never married	95.3	2.9	0.8	0.8	0.4	0.8	0.4	4.0	0.5	0.2	0.7	0.2	7,180
Married/living together	91.5	6.1	1.1	0.7	0.7	2.1	0.9	7.6	0.7	0.2	0.9	0.3	22,793
Divorced or separated	83.3	11.8	2.7	1.7	1.7	4.3	1.8	13.7	2.2	0.7	3.0	0.6	825
Widowed	60.4	29.6	7.2	4.6	7.1	19.3	11.5	31.4	6.8	1.3	8.2	2.5	3,424
Residence													
Urban	88.3	8.8	1.3	0.9	1.1	3.5	1.9	10.3	1.2	0.2	1.4	0.4	15,682
Rural	89.6	7.2	2.0	1.3	1.4	3.7	1.9	8.6	1.4	0.4	1.8	0.6	18,540
Zone													
North Central	90.1	6.7	1.7	1.3	1.8	3.2	2.0	8.6	0.9	0.3	1.3	0.5	4,703
North East	89.4	7.1	2.8	1.3	1.1	2.9	1.1	8.7	1.6	0.3	1.9	0.3	5,400
North West	94.2	2.8	1.4	0.9	0.8	2.7	1.6	4.4	0.9	0.5	1.4	0.6	9,755
South East	83.0	14.4	1.9	1.1	1.6	4.7	2.5	14.4	2.1	0.4	2.6	0.7	4,347
South South	80.4	15.5	2.5	1.8	2.6	6.7	3.0	17.1	2.3	0.2	2.6	0.7	3,968
South West	89.2	8.1	0.7	0.7	0.6	3.3	1.8	10.0	0.7	0.1	0.8	0.2	6,049
State													
North Central													
FCT-Abuja	88.7	10.4	0.7	0.1	0.0	0.5	0.5	11.0	0.3	0.0	0.3	0.0	233
Benue	88.8	7.6	2.6	3.0	3.6	3.6	2.9	9.7	0.9	0.6	1.5	0.7	1,034
Kogi	87.1	8.6	2.0	0.5	1.5	3.4	1.2	11.5	1.3	0.1	1.4	0.2	567
Kwara	89.8	5.8	1.5	0.8	1.9	5.4	3.5	8.6	1.1	0.4	1.6	0.8	588
Nasarawa	89.8	8.1	2.2	0.9	0.8	1.7	0.6	8.3	1.3	0.5	1.9	0.5	494
Niger	96.6	2.3	0.3	0.7	0.0	0.9	0.7	3.2	0.2	0.0	0.2	0.0	1,038
Plateau	86.3	9.1	2.3	1.7	3.1	5.7	3.5	11.8	1.5	0.4	2.0	0.8	749
North East													
Adamawa	94.4	3.3	2.1	2.7	1.0	1.6	0.9	4.2	1.3	0.1	1.4	0.1	728
Bauchi	95.5	1.6	1.3	0.7	1.3	1.9	0.8	3.6	0.5	0.4	0.9	0.5	1,147
Borno	82.0	12.8	4.2	1.4	1.9	4.6	1.1	14.5	3.2	0.3	3.5	0.3	1,174
Gombe	93.5	3.9	0.2	0.4	0.2	2.7	0.8	4.9	1.1	0.5	1.6	0.2	577
Taraba	84.4	12.7	4.2	2.0	1.7	3.2	1.3	13.0	2.1	0.5	2.6	0.7	697
Yobe	88.8	7.5	3.6	0.7	0.3	3.1	1.6	9.8	1.1	0.3	1.4	0.2	1,078
North West													
Jigawa	90.7	4.5	2.3	1.6	1.0	3.9	2.3	6.2	2.0	1.0	3.0	1.8	1,118
Kaduna	95.7	2.2	1.5	1.0	1.3	2.4	1.8	2.9	1.0	0.3	1.4	0.7	1,836
Kano	90.5	4.3	1.5	1.0	0.9	5.2	2.3	7.4	1.3	0.7	2.0	0.7	2,286
Katsina	95.0	2.2	1.6	0.6	0.4	1.9	1.7	3.7	0.8	0.4	1.3	0.3	1,858
Kebbi	98.6	1.0	0.1	0.4	0.1	0.4	0.3	1.1	0.1	0.1	0.3	0.1	846
Sokoto	94.9	3.1	1.6	0.9	1.3	1.0	0.7	4.7	0.1	0.3	0.4	0.0	757
Zamfara	97.5	1.2	0.7	0.9	0.4	0.6	0.7	1.7	0.2	0.5	0.7	0.1	1,054
South East													
Abia	87.0	11.8	1.0	0.6	0.4	1.1	0.8	11.4	1.1	0.5	1.6	0.2	561
Anambra	87.3	11.5	0.6	0.7	0.9	2.1	1.5	12.4	0.3	0.0	0.3	0.0	1,290
Ebonyi	93.1	3.6	1.2	0.3	1.5	4.0	2.2	5.3	1.4	0.2	1.7	0.5	876
Enugu	78.1	17.6	2.6	1.8	1.8	8.9	4.3	16.6	4.7	0.4	5.1	0.9	782
Imo	67.8	29.0	4.4	2.3	3.3	7.6	3.9	27.0	4.0	1.2	5.2	2.3	838
South South													
Akwa Ibom	71.1	23.6	4.9	2.0	2.5	8.3	3.8	26.0	2.8	0.1	2.9	0.7	829
Bayelsa	82.3	13.4	3.1	1.1	2.3	8.3	3.1	12.7	4.8	0.2	5.0	1.0	253
Cross River	73.6	21.8	2.9	1.3	2.0	9.3	2.1	21.6	4.3	0.5	4.8	1.1	443
Delta	85.5	9.8	2.6	2.2	5.6	6.0	4.4	13.3	1.0	0.2	1.2	0.7	833
Edo	86.3	10.2	1.0	0.8	0.6	6.1	1.4	12.8	0.5	0.4	0.9	0.3	520
Rivers	82.9	14.2	0.9	2.4	1.8	4.8	2.5	14.5	2.5	0.2	2.7	0.9	1,090
South West													
Ekiti	93.2	4.6	0.8	0.7	0.3	1.7	1.5	6.6	0.2	0.0	0.2	0.0	422
Lagos	90.5	9.0	0.3	0.3	0.2	0.9	0.4	8.9	0.6	0.0	0.6	0.2	2,285
Ogun	92.8	5.8	0.4	0.3	0.2	2.5	1.9	6.1	0.9	0.2	1.1	0.0	767
Ondo	73.7	18.4	3.0	2.2	3.4	8.8	1.3	23.9	1.7	0.7	2.4	0.7	600
Osun	93.4	5.8	0.6	0.7	0.9	1.2	0.9	5.9	0.7	0.0	0.7	0.3	832
Oyo	87.8	5.6	0.4	0.8	0.3	7.5	5.5	11.8	0.4	0.0	0.4	0.1	1,142

Continued…

Table 17.2.1—*Continued*

Background characteristic	No difficulty in any domain	Domain: Seeing	Hearing	Com-muni-cating	Remem-bering or concen-trating	Walking or climbing steps	Washing all over or dressing	Difficulty in at least one domain[1]: Some difficulty	A lot of difficulty	Cannot do at all	A lot of difficulty or cannot do at all	A lot of difficulty or cannot function at all in more than one domain	Number of women
Education													
No education	87.3	7.9	3.1	2.0	2.4	6.0	3.7	9.7	2.3	0.7	3.0	1.0	13,227
Primary	87.0	9.7	1.4	0.9	1.2	4.2	1.8	11.5	1.3	0.2	1.5	0.3	5,791
Secondary	92.9	5.6	0.7	0.4	0.3	1.2	0.4	6.5	0.4	0.1	0.5	0.1	11,613
More than secondary	85.7	12.9	0.6	0.4	0.4	1.6	0.4	13.9	0.4	0.1	0.4	0.1	3,585
Wealth quintile													
Lowest	91.0	5.3	2.4	1.5	1.4	3.5	1.9	6.9	1.6	0.5	2.1	0.7	6,232
Second	89.9	6.2	2.3	1.3	1.6	4.4	2.3	8.0	1.7	0.5	2.2	0.5	6,609
Middle	87.6	8.5	1.9	1.3	1.6	4.7	2.5	10.4	1.5	0.4	2.0	0.6	6,831
Fourth	89.2	8.4	1.4	1.0	1.0	3.2	1.7	9.5	1.1	0.2	1.3	0.4	7,148
Highest	87.5	10.7	0.8	0.5	0.8	2.3	1.1	11.7	0.7	0.1	0.8	0.2	7,402
Total	89.0	7.9	1.7	1.1	1.3	3.6	1.9	9.4	1.3	0.3	1.7	0.5	34,222

Note: Total includes 6 women with missing information on education.
[1] If a person was reported to have difficulty in more than one domain, only the highest level of difficulty is shown.

Table 17.2.2 Disability among adults according to background characteristics: Men

Percentage of de facto male household members age 15 and over who have difficulty in functioning according to domain, and by highest degree of difficulty in at least one domain, and percentage who have a lot of difficulty or cannot function at all in more than one domain, according to background characteristics, Nigeria DHS 2018

		Domain						Difficulty in at least one domain[1]					
Background characteristic	No difficulty in any domain	Seeing	Hearing	Com-muni-cating	Remem-bering or concen-trating	Walking or climbing steps	Washing all over or dressing	Some difficulty	A lot of difficulty	Cannot do at all	A lot of difficulty or cannot do at all	A lot of difficulty or cannot function at all in more than one domain	Number of men
Marital status													
Never married	96.3	1.9	0.8	0.8	0.4	0.7	0.4	3.0	0.4	0.3	0.7	0.3	12,456
Married/living together	84.1	11.8	2.2	1.5	1.4	4.5	2.4	13.5	1.8	0.5	2.3	0.7	19,488
Divorced or separated	83.7	11.3	2.8	3.5	3.1	5.5	3.8	12.1	3.1	1.1	4.2	2.0	520
Widowed	54.6	37.4	8.6	5.5	9.0	19.7	14.5	34.8	8.3	2.2	10.6	3.4	537
Residence													
Urban	88.2	9.0	1.3	1.2	1.0	2.9	1.7	10.3	1.1	0.3	1.5	0.5	15,188
Rural	88.3	8.0	2.1	1.5	1.4	3.7	2.1	9.5	1.6	0.6	2.2	0.7	17,812
Zone													
North Central	89.0	7.9	1.5	1.5	1.6	3.0	1.8	9.5	1.0	0.5	1.5	0.5	4,679
North East	88.0	8.4	3.2	2.2	1.8	3.1	1.6	9.4	2.0	0.6	2.6	0.8	5,468
North West	90.6	5.3	2.0	1.2	0.9	3.6	1.9	7.5	1.3	0.7	2.0	0.6	9,252
South East	83.7	13.3	1.4	1.3	1.8	4.0	2.7	13.0	2.5	0.7	3.2	0.9	3,278
South South	85.5	11.6	1.7	1.4	1.3	3.8	2.0	12.8	1.4	0.3	1.7	0.5	4,113
South West	88.6	8.9	0.6	0.9	0.5	2.7	1.8	10.6	0.7	0.1	0.9	0.2	6,209
State													
North Central													
FCT-Abuja	86.7	12.1	0.7	0.9	0.5	1.3	0.9	12.3	0.5	0.5	1.0	0.1	244
Benue	86.6	9.8	2.0	2.3	2.8	3.4	2.3	12.1	0.9	0.4	1.3	0.3	1,020
Kogi	85.7	9.7	1.6	0.9	2.1	4.0	2.0	12.0	0.9	1.4	2.3	1.2	473
Kwara	88.9	7.2	0.7	1.6	1.6	4.3	2.7	9.1	1.6	0.4	2.0	1.1	562
Nasarawa	88.1	9.1	2.3	0.9	0.3	1.4	0.5	9.4	1.8	0.6	2.5	0.4	517
Niger	94.7	4.2	0.8	0.6	0.6	1.4	1.0	4.8	0.4	0.2	0.6	0.3	1,142
Plateau	87.3	8.3	2.2	2.9	2.2	4.9	2.7	11.1	1.1	0.5	1.6	0.5	721
North East													
Adamawa	93.6	3.5	2.1	3.9	1.3	1.7	1.1	5.1	1.2	0.1	1.3	0.5	748
Bauchi	93.1	3.8	2.4	1.3	1.9	3.2	2.2	4.5	1.6	0.9	2.4	1.2	1,178
Borno	80.3	12.3	6.3	3.0	3.3	4.8	0.9	16.6	2.9	0.2	3.1	0.7	1,159
Gombe	90.7	7.0	0.7	0.7	0.4	2.9	1.6	6.2	2.3	0.7	3.0	0.5	630
Taraba	83.3	15.1	3.5	1.8	1.4	2.9	1.6	13.8	2.0	1.0	2.9	0.6	628
Yobe	87.8	9.3	2.8	2.3	1.4	2.6	1.9	9.4	1.9	0.9	2.8	0.9	1,125
North West													
Jigawa	81.8	9.1	3.0	1.6	1.2	8.9	3.5	13.3	4.1	0.9	5.0	1.4	1,048
Kaduna	94.5	2.4	1.2	1.4	0.6	2.0	1.3	4.2	1.0	0.3	1.3	0.4	1,703
Kano	85.8	8.6	1.9	1.4	1.2	6.0	2.6	11.6	1.4	1.1	2.6	1.0	2,180
Katsina	92.0	4.5	2.6	0.6	0.9	2.6	2.3	6.4	1.0	0.7	1.7	0.3	1,776
Kebbi	96.3	1.5	1.0	1.1	0.1	0.9	0.6	2.9	0.4	0.3	0.8	0.4	804
Sokoto	92.2	6.2	3.1	0.9	2.3	1.7	0.7	6.7	0.8	0.3	1.1	0.7	726
Zamfara	95.1	3.1	1.1	1.0	0.4	1.0	0.5	4.1	0.3	0.5	0.8	0.3	1,015
South East													
Abia	88.3	10.2	0.6	0.9	0.4	1.5	0.8	9.6	1.5	0.6	2.1	0.4	506
Anambra	85.7	12.9	0.4	0.5	1.6	2.4	2.3	13.7	0.6	0.0	0.6	0.2	950
Ebonyi	90.6	6.4	1.0	0.4	1.3	3.7	2.2	6.4	2.1	0.9	3.0	1.2	541
Enugu	77.4	16.4	2.7	2.6	2.7	8.6	5.3	15.7	5.7	1.0	6.7	1.9	573
Imo	77.7	18.9	2.6	2.2	2.5	4.5	3.0	17.4	3.3	1.4	4.7	1.4	708
South South													
Akwa Ibom	80.5	15.5	3.3	1.9	1.6	4.3	2.9	17.8	1.7	0.0	1.7	0.7	776
Bayelsa	84.7	11.5	2.8	1.1	1.5	5.5	2.3	12.5	2.6	0.3	2.8	0.6	297
Cross River	79.0	17.2	1.6	0.9	1.5	6.9	2.5	17.5	3.4	0.1	3.5	0.4	499
Delta	89.3	8.3	1.2	2.2	2.4	3.2	2.1	10.0	0.3	0.5	0.8	0.4	889
Edo	87.3	9.3	1.5	1.1	0.3	3.8	1.0	11.1	1.0	0.6	1.6	0.6	520
Rivers	88.4	10.2	0.8	0.9	0.4	2.1	1.4	10.3	1.1	0.2	1.3	0.5	1,133
South West													
Ekiti	92.9	5.1	0.7	1.0	0.5	1.1	1.3	6.8	0.1	0.1	0.3	0.3	422
Lagos	89.4	9.6	0.3	1.0	0.3	0.9	0.7	10.0	0.6	0.1	0.7	0.1	2,403
Ogun	90.2	6.9	0.0	0.6	0.4	4.1	3.3	8.7	0.8	0.3	1.1	0.6	774
Ondo	77.2	17.2	2.5	1.4	2.3	5.3	1.3	19.8	2.2	0.8	3.0	0.5	569
Osun	94.2	5.4	0.4	0.3	0.5	0.9	0.8	5.1	0.6	0.0	0.6	0.1	817
Oyo	85.9	8.8	0.7	0.8	0.2	6.0	3.9	13.6	0.4	0.0	0.4	0.0	1,224

Continued…

Table 17.2.2—*Continued*

Background characteristic	No difficulty in any domain	Domain: Seeing	Hearing	Communicating	Remembering or concentrating	Walking or climbing steps	Washing all over or dressing	Difficulty in at least one domain[1]: Some difficulty	A lot of difficulty	Cannot do at all	A lot of difficulty or cannot do at all	A lot of difficulty or cannot function at all in more than one domain	Number of men
Education													
No education	84.6	9.7	3.7	2.5	2.5	6.5	4.2	11.5	2.8	1.2	4.0	1.5	8,335
Primary	83.1	12.2	2.0	1.8	1.8	4.8	2.5	14.3	2.1	0.6	2.6	0.4	5,361
Secondary	93.0	5.1	0.9	0.7	0.4	1.4	0.6	6.2	0.7	0.1	0.8	0.2	13,674
More than secondary	87.0	11.2	0.8	0.9	0.5	1.8	0.8	12.3	0.5	0.3	0.7	0.3	5,606
Wealth quintile													
Lowest	87.1	8.1	3.2	2.0	1.9	4.8	2.6	9.5	2.4	0.9	3.3	1.1	6,059
Second	88.8	7.0	2.2	1.6	1.6	4.0	2.3	9.1	1.5	0.6	2.1	0.8	6,006
Middle	89.3	7.3	1.6	1.4	1.2	3.2	2.0	8.8	1.5	0.3	1.8	0.4	6,270
Fourth	89.2	8.1	1.4	1.1	1.1	2.9	1.6	9.4	1.0	0.3	1.4	0.4	6,976
Highest	86.9	11.0	0.7	1.0	0.5	2.1	1.1	12.0	0.8	0.3	1.1	0.3	7,690
Total	88.2	8.5	1.8	1.4	1.2	3.3	1.9	9.9	1.4	0.5	1.9	0.6	33,000

Note: Total includes 25 men with missing information on education.
[1] If a person was reported to have difficulty in more than one domain, only the highest level of difficulty is shown.

FEMALE GENITAL MUTILATION 18

Key Findings

- ***Prevalence of female genital mutilation (FGM):*** 20% of women age 15-49 are circumcised, a decrease from the figure of 25% reported in 2013.
- ***Age at circumcision:*** 86% of circumcised women age 15-49 were circumcised before age 5, while 5% were circumcised at age 15 or older.
- ***Attitudes towards FGM:*** Among women who have heard of FGM, 78% believe that female genital mutilation is not required by their religion and 67% believe that it should not be continued.

Female genital mutilation (FGM), also known as female genital cutting or female circumcision, is defined by the World Health Organization (WHO) as any procedure that involves partial or total removal of the external genitalia and/or injury to the female genital organs whether for cultural or any other non-therapeutic reasons (WHO, UNICEF, and UNFPA 1997). FGM, widely recognized as a violation of human rights, is deeply rooted in beliefs and perceptions over decades and generations. In May 2015, the Federal Government of Nigeria passed the Violence Against Persons Prohibition Act 2015 (VAPP), a law banning FGM and other harmful traditional practices; however, this legislation applied only to the Federal Capital Territory (FCT) of Abuja. While three more states, Anambra, Ekiti, and Oyo, have adopted the law, there remains a need for all states to pass similar legislation (28 Too Many 2016).

WHO classifies female genital mutilation into four main categories:

Type I: Excision of the prepuce with or without excision of part or all of the clitoris.

Type II: Excision of the clitoris with partial or total excision of the labia minora.

Type III: Excision of part or all of the external genitalia and stitching or narrowing of the vaginal opening (infibulation).

Type IV: Other forms, including pricking, piercing, or incising of the clitoris and/or labia; stretching of the clitoris and/or labia; cauterization by burning of the clitoris and surrounding tissue; scraping of tissue surrounding the opening of the vagina (angurya cuts) or cutting of the vagina (gishiri cuts); and introduction of corrosive substances or herbs into the vagina to cause bleeding or to tighten or narrow the vagina.

According to researchers, three major forms of FGM are practiced in Nigeria: female circumcision, hymenectomy (angurya), and gishiri cuts (Mandara 2004). The 2018 NDHS collected information on FGM from all women age 15-49 in two-thirds of the survey households. The topics covered included knowledge and prevalence of FGM, type of circumcision, age at circumcision, and attitudes towards the practice of circumcision.

18.1 Respondents' Knowledge of Female Genital Mutilation

Table 18.1 shows that 61% of all women and 63% of ever-married women in Nigeria have heard of FGM.

Patterns by background characteristics

- Younger women age 15-19 are less likely to have heard of FGM than women age 45-49 (48% versus 71%).
- Women in urban areas are more likely than those in rural areas to have heard of FGM (69% versus 54%).
- Forty percent of women in the North Central zone have heard of FGM, as compared with 77% of women in the South East and 73% in the South West.
- Women in the highest wealth quintile (70%) and those with more than a secondary education (75%) are more knowledgeable about FGM than those in the second wealth quintile (52%) and those with no education (56%).

18.2 Prevalence of Female Genital Mutilation

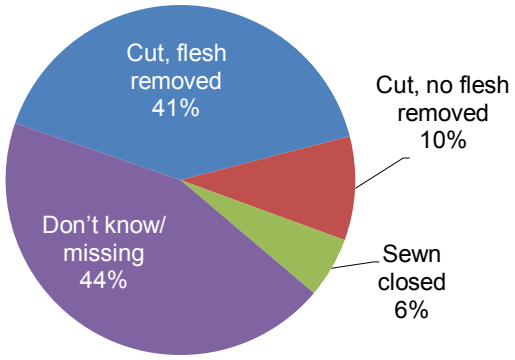
18.2.1 Prevalence and Type of Circumcision

Table 18.2 shows that 20% of women age 15-49 are circumcised. The most common type of FGM in Nigeria is Type II (some flesh removed), with 41% of women undergoing this procedure. Ten percent of women underwent a Type I procedure (clitoris nicked, no flesh removed), and 6% underwent a Type III procedure (also known as infibulation) (**Figure 18.1**).

Trends: Although the prevalence of FGM in the 2018 NDHS cannot be compared with the prevalence in NDHS surveys before 2013 due to variations in definitions, a comparison can be made with the results of the 2013 NDHS as both surveys used the same definition. Overall, the proportion of women who are circumcised decreased from 25% in 2013 to 20% in 2018 (**Figure 18.2**).

Figure 18.1 **Types of FGM**

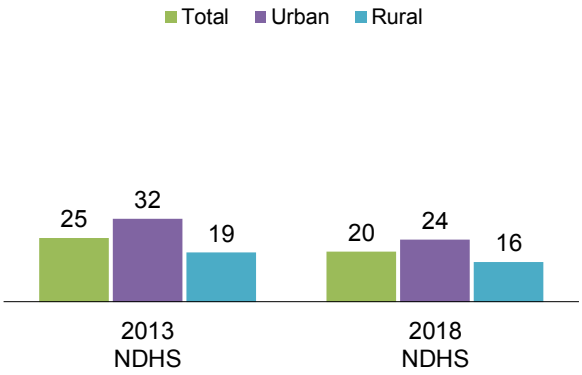
Percentage among circumcised women age 15-49



Note: Figures may not add to 100% due to rounding.

Figure 18.2 **Trends in FGM by residence**

Percentage of women age 15-49 who are circumcised



Patterns by background characteristics

- The prevalence of circumcision seems to be decreasing in Nigeria. Only 14% of women age 15-19 have been circumcised, as compared with 31% of women age 45-49 (**Figure 18.3**).
- By ethnic group, the prevalence of FGM is highest among Yoruba women (35%) and lowest among Tiv and Igala women (1% each).
- Urban women are more likely than rural women to have experienced FGM (24% and 16%, respectively).
- The prevalence of FGM is highest in the South East (35%) and South West (30%) and lowest in the North East (6%).

Figure 18.3 **FGM by age**

Percentage of women age 15-49 who are circumcised

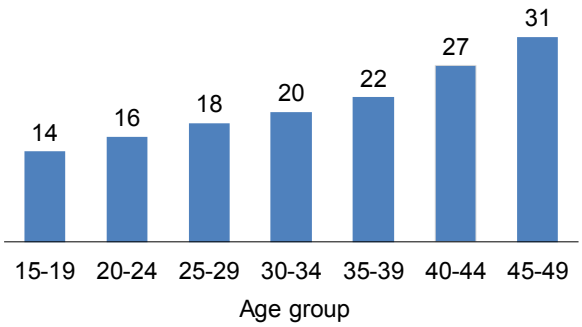
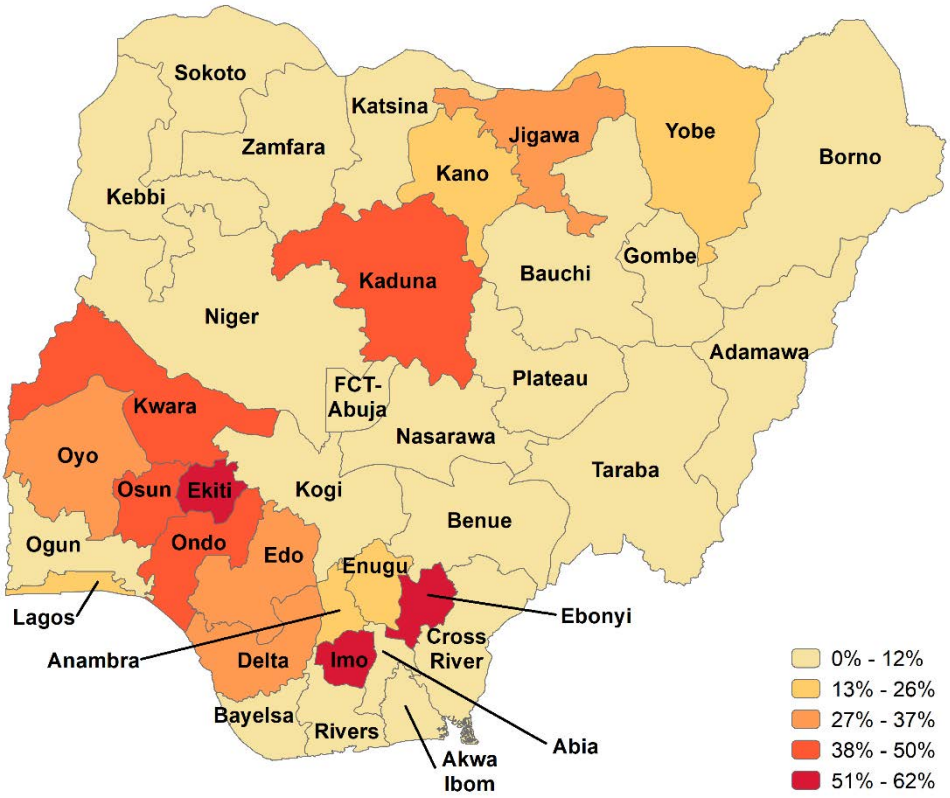


Figure 18.4 **FGM by state**

Percentage of women age 15-49 who are circumcised



- Sixty-two percent of women in Imo have experienced FGM, as compared with less than 1% of women in Adamawa and Gombe (**Table 18.2** and **Figure 18.4**).

18.2.2 Unclassified Types of Female Circumcision

The 2018 NDHS collected additional information on different types of circumcision procedures women have undergone, particularly procedures that are unclassified. All women who had been circumcised were asked whether they had experienced angurya, gishiri, or use of corrosive methods to narrow the virginal

tract. The findings showed that 40% of women who had been circumcised had angurya performed, while 13% had gishiri cuts and 7% experienced use of corrosive substances (**Table 18.3**).

Patterns by background characteristics

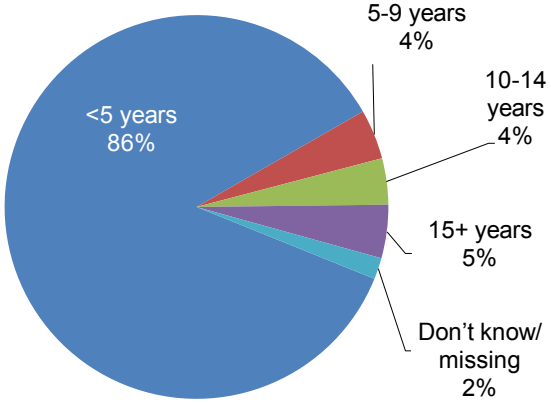
- Angurya is most common in the North East (91%) and North West (81%) and least common in the South West (5%).
- Women in rural areas are more likely to have had angurya cuts (59%) than women in urban areas (26%).
- The percentage of women who have had angurya cuts declines with increasing education, from 71% among those with no education to 18% among those with more than a secondary education.

18.2.3 Age at Circumcision

In Nigeria, female circumcision occurs mostly during infancy; 86% of women age 15-49 were circumcised at less than age 5 (**Table 18.4** and **Figure 18.5**).

***Figure 18.5* Age at FGM**

Percent distribution of women who are circumcised



Note: Figures may not add to 100% due to rounding.

Patterns by background characteristics

- Women less than age 25 are more likely than women age 45-49 to have been circumcised before age 5 (91%-92% versus 79%).
- Nine in 10 women (92%) of Islamic faith were circumcised before age 5, as compared with 77% of women of Catholic faith.
- By zone, the proportion of women circumcised before age 5 is highest in the North West (97%) and lowest in the South South (59%). A quarter (24%) of circumcised women in the South South had the procedure done at age 15 or later.

18.3 Circumcision of Daughters

The 2018 NDHS asked women with female children whether their daughters age 0-14 had been circumcised and, if so, at what age. Eighty-one percent of daughters have not been circumcised, while 17% were circumcised before they celebrated their first birthday (**Table 18.5**).

Patterns by background characteristics

- Twenty-five percent of girls age 0-4 whose mothers are Muslims have been circumcised (**Table 18.6**).
- Daughters of women with more than a secondary education (8%) are less likely than daughters of women with no education (24%) to have been circumcised.
- Daughters of women who are circumcised are more likely to be circumcised themselves; 56% of girls age 0-14 whose mothers are circumcised are also circumcised, as compared with only 17% of girls whose mothers are not circumcised.

The 2018 NDHS also included questions to ascertain the prevalence of various types of FGM among daughters. Women who said their daughter was circumcised were asked whether her genital area had been sewn closed (a process known as infibulation). **Table 18.7** shows that 4% of girls in Nigeria have been

infibulated. Girls from the Kanuri and Beriberi ethnic groups are most likely to have been infibulated (10%). Girls whose mothers had experienced infibulation were more likely to have undergone the procedure themselves (44%) than girls whose mothers were circumcised but not infibulated (2%) and girls whose mothers are not circumcised (4%).

18.4 Person Who Performed the Circumcision

The survey included questions on the person who performed the circumcision. **Table 18.8** shows the percentage of circumcised girls age 0-14 by current age and women age 15-49 according to the person performing the circumcision and the type of circumcision.

Traditional providers such as traditional circumcisers (82% for girls and 76% for women) and traditional birth attendants (8% each for girls and women) perform the majority of female circumcisions in Nigeria. Seven percent of girls and 9% of women were circumcised by medical professionals, with nurses and midwives playing an important role (7% for girls and 8% for women). Four percent of girls age 0-14 had their genital area sewn closed, as compared with 6% of women age 15-49.

18.5 Attitudes towards Female Circumcision

Women age 15-49 who have heard of female circumcision were asked whether this practice is a requirement of their religion. More than three-quarters of women (78%) believe that it is not a requirement (**Table 18.9**). Similarly, 67% believe that female circumcision should not be continued (**Table 18.10**).

Patterns by background characteristics

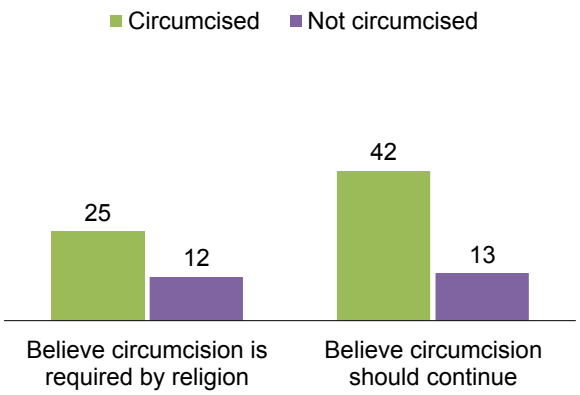
- Women who are circumcised are more likely than those who are not to believe that FGM is required by their religion (25% and 12%, respectively). Similarly, women who are circumcised are more likely to believe that FGM should be continued than those who are not circumcised (42% and 13%, respectively) (**Figure 18.6**).

- Rural women are more likely than urban women to believe that FGM is required by their religion (22% and 12%, respectively) and that FGM should be continued (31% and 16%, respectively).

- Education and wealth have strong influences on beliefs regarding whether FGM is required by one's religion. Women with more than a secondary education and those in the highest wealth quintile are least likely to believe that FGM is required by their religion.

Figure 18.6 **Attitudes about FGM by circumcision status**

Percentage of women age 15-49



List of Tables

For more information on female genital mutilation, see the following tables:

- **Table 18.1 Knowledge of female circumcision**
- **Table 18.2 Prevalence of female circumcision**
- **Table 18.3 Unclassified types of female circumcision**
- **Table 18.4 Age at circumcision**
- **Table 18.5 Prevalence of circumcision and age at circumcision: Girls age 0-14**
- **Table 18.6 Circumcision of girls age 0-14 by mother's background characteristics**
- **Table 18.7 Infibulation among circumcised girls age 0-14**
- **Table 18.8 Aspects of circumcision among circumcised girls age 0-14 and women age 15-49**
- **Table 18.9 Opinions of women about whether circumcision is required by religion**
- **Table 18.10 Opinions of women about whether the practice of circumcision should continue**

Table 18.1 Knowledge of female circumcision

Percentage of women age 15-49 who have heard of female circumcision, according to background characteristics, Nigeria DHS 2018

Background characteristic	All women		Ever-married women	
	Have heard of female circumcision	Number of respondents	Have heard of female circumcision	Number of respondents
Age				
15-19	48.2	5,627	51.3	1,309
20-24	58.9	4,458	57.6	2,915
25-29	61.4	4,509	60.3	3,824
30-34	63.9	3,794	63.1	3,484
35-39	66.2	3,317	65.7	3,171
40-44	69.1	2,589	69.0	2,541
45-49	70.9	2,413	70.9	2,368
Religion				
Catholic	64.5	2,765	67.7	1,754
Other Christian	63.5	9,241	67.6	5,960
Islam	58.4	14,560	60.1	11,793
Traditionalist	65.2	90	64.6	70
Other	30.6	50	38.3	34
Ethnic group				
Ekoi	47.0	148	48.9	87
Fulani	58.0	1,728	59.6	1,536
Hausa	56.2	8,232	58.1	6,866
Ibibio	64.6	479	72.7	290
Igala	31.1	230	33.8	154
Igbo	75.5	4,052	80.4	2,516
Ijaw/Izon	57.8	470	63.1	302
Kanuri/Beriberi	65.1	622	68.7	478
Tiv	49.6	643	48.9	476
Yoruba	74.9	3,919	80.4	2,554
Other	51.1	6,167	53.6	4,339
Residence				
Urban	69.0	12,106	72.4	7,912
Rural	53.9	14,599	56.8	11,699
Zone				
North Central	39.8	3,761	41.6	2,769
North East	62.1	4,355	66.3	3,421
North West	55.1	8,143	56.7	6,768
South East	77.3	3,098	83.0	1,935
South South	65.1	2,951	69.8	1,882
South West	73.2	4,397	77.1	2,836
State				
North Central				
FCT-Abuja	50.9	201	56.7	135
Benue	53.0	858	52.5	615
Kogi	39.5	426	42.9	312
Kwara	68.9	427	71.0	316
Nasarawa	17.9	405	18.0	271
Niger	32.9	873	35.6	718
Plateau	20.7	571	22.3	401
North East				
Adamawa	63.0	601	68.1	449
Bauchi	74.1	897	77.0	781
Borno	57.9	944	58.8	697
Gombe	34.7	469	36.7	380
Taraba	52.8	577	61.2	415
Yobe	74.8	866	79.8	700
North West				
Jigawa	96.1	926	97.4	801
Kaduna	76.3	1,637	79.8	1,340
Kano	62.6	1,862	63.7	1,482
Katsina	8.2	1,475	8.6	1,196
Kebbi	55.2	736	58.1	636
Sokoto	13.7	610	13.6	536
Zamfara	63.9	897	64.3	776
South East				
Abia	59.1	391	65.6	246
Anambra	81.0	948	88.1	598
Ebonyi	78.9	675	84.9	413
Enugu	67.8	539	74.0	331
Imo	91.3	546	93.0	346

Continued…

Table 18.1—*Continued*

Background characteristic	All women		Ever-married women	
	Have heard of female circumcision	Number of respondents	Have heard of female circumcision	Number of respondents
South South				
Akwa Ibom	63.0	592	73.5	352
Bayelsa	37.2	176	38.2	120
Cross River	58.7	343	61.0	223
Delta	70.9	592	74.6	372
Edo	79.6	357	82.9	253
Rivers	64.9	891	68.5	564
South West				
Ekiti	81.1	276	87.2	194
Lagos	81.5	1,817	86.1	1,058
Ogun	40.2	555	47.4	389
Ondo	71.8	425	78.4	284
Osun	90.6	565	94.5	367
Oyo	62.7	759	65.0	544
Education				
No education	55.5	9,573	56.4	8,884
Primary	62.5	3,752	65.5	3,181
Secondary	60.9	10,369	67.5	5,674
More than secondary	74.9	3,011	76.9	1,872
Wealth quintile				
Lowest	57.9	4,791	60.0	4,153
Second	51.8	5,203	54.0	4,254
Middle	57.7	5,142	61.2	3,794
Fourth	64.6	5,681	68.0	3,751
Highest	70.0	5,887	73.9	3,659
Total	60.8	26,705	63.1	19,611

Note: Total includes 15 women with missing information on ethnic group.

Table 18.2 Prevalence of female circumcision

Percentage of women age 15-49 who have been circumcised, and percent distribution of circumcised women by type of circumcision, according to background characteristics, Nigeria DHS 2018

Background characteristic	Percentage of women circumcised	Number of women	Type of circumcision: Cut, no flesh removed	Cut, flesh removed	Sewn closed	Don't know/ missing	Total	Number of circumcised women
Age								
15-19	13.7	5,627	10.6	30.6	3.4	55.3	100.0	770
20-24	15.9	4,458	10.9	35.8	4.2	49.1	100.0	708
25-29	18.0	4,509	10.4	40.9	5.1	43.6	100.0	813
30-34	19.7	3,794	11.5	41.0	4.1	43.3	100.0	749
35-39	21.9	3,317	7.9	46.5	7.5	38.1	100.0	726
40-44	26.7	2,589	8.4	42.6	6.1	42.9	100.0	690
45-49	31.0	2,413	7.0	47.8	8.6	36.5	100.0	747
Religion								
Catholic	24.5	2,765	5.6	50.9	13.9	29.6	100.0	677
Other Christian	19.4	9,241	5.3	50.8	8.8	35.1	100.0	1,790
Islam	18.7	14,560	13.4	31.5	1.3	53.7	100.0	2,723
Traditionalist	11.9	90	*	*	*	*	100.0	11
Other	2.2	50	*	*	*	*	100.0	1
Ethnic group								
Ekoi	11.6	148	*	*	*	*	100.0	17
Fulani	12.6	1,728	22.8	29.2	0.5	47.5	100.0	218
Hausa	19.7	8,232	13.6	23.4	1.0	61.9	100.0	1,624
Ibibio	9.3	479	(2.6)	(59.4)	(11.7)	(26.4)	100.0	44
Igala	0.9	230	*	*	*	*	100.0	2
Igbo	30.7	4,052	5.9	48.9	12.2	33.0	100.0	1,242
Ijaw/Izon	6.9	470	(5.4)	(50.1)	(26.5)	(18.1)	100.0	32
Kanuri/Beriberi	5.6	622	(42.0)	(15.3)	(1.7)	(41.0)	100.0	35
Tiv	0.8	643	*	*	*	*	100.0	5
Yoruba	34.7	3,919	7.1	46.2	2.4	44.3	100.0	1,361
Other	10.0	6,167	6.4	59.1	11.5	23.0	100.0	620
Residence								
Urban	24.2	12,106	6.4	42.8	6.2	44.5	100.0	2,932
Rural	15.6	14,599	13.6	38.0	4.7	43.6	100.0	2,270
Zone								
North Central	9.9	3,761	7.7	59.0	6.7	26.6	100.0	373
North East	6.1	4,355	12.6	38.8	1.1	47.4	100.0	264
North West	20.2	8,143	15.7	20.0	0.9	63.4	100.0	1,643
South East	35.0	3,098	6.3	48.7	13.0	32.1	100.0	1,083
South South	17.7	2,951	2.7	68.0	14.2	15.1	100.0	522
South West	30.0	4,397	7.2	44.4	2.4	45.9	100.0	1,318
State								
North Central								
FCT-Abuja	5.1	201	(3.7)	(42.3)	(24.0)	(30.0)	100.0	10
Benue	5.3	858	(3.3)	(51.4)	(36.7)	(8.6)	100.0	46
Kogi	1.0	426	*	*	*	*	100.0	4
Kwara	46.0	427	12.4	50.4	0.4	36.9	100.0	196
Nasarawa	1.8	405	*	*	*	*	100.0	7
Niger	10.5	873	1.7	89.2	1.3	7.8	100.0	92
Plateau	3.0	571	*	*	*	*	100.0	17
North East								
Adamawa	0.0	601	*	*	*	*	100.0	0
Bauchi	10.7	897	17.3	30.4	0.5	51.7	100.0	96
Borno	2.4	944	*	*	*	*	100.0	22
Gombe	0.1	469	*	*	*	*	100.0	1
Taraba	3.9	577	(0.0)	(34.0)	(2.5)	(63.5)	100.0	23
Yobe	14.2	866	12.4	39.3	1.6	46.7	100.0	123
North West								
Jigawa	34.1	926	73.8	1.5	0.4	24.3	100.0	316
Kaduna	48.8	1,637	0.3	9.8	0.0	90.0	100.0	799
Kano	22.2	1,862	2.3	51.8	0.7	45.3	100.0	414
Katsina	1.4	1,475	*	*	*	*	100.0	21
Kebbi	1.6	736	*	*	*	*	100.0	12
Sokoto	5.4	610	(0.0)	(21.1)	(7.7)	(71.3)	100.0	33
Zamfara	5.3	897	(18.0)	(25.2)	(0.0)	(56.8)	100.0	48
South East								
Abia	12.2	391	2.3	5.0	70.5	22.2	100.0	48
Anambra	21.4	948	0.9	23.9	0.0	75.2	100.0	203
Ebonyi	53.2	675	0.2	50.8	15.1	33.9	100.0	359
Enugu	25.3	539	0.0	36.4	37.9	25.8	100.0	136
Imo	61.7	546	19.1	72.5	0.4	8.1	100.0	337

Continued…

Table 18.2—*Continued*

Background characteristic	Percentage of women circumcised	Number of women	Type of circumcision: Cut, no flesh removed	Cut, flesh removed	Sewn closed	Don't know/ missing	Total	Number of circumcised women
South South								
Akwa Ibom	10.2	592	1.4	80.4	13.9	4.4	100.0	60
Bayelsa	6.7	176	(5.4)	(14.9)	(60.7)	(19.0)	100.0	12
Cross River	11.9	343	0.0	83.3	9.6	7.1	100.0	41
Delta	33.7	592	0.6	69.4	24.2	5.8	100.0	199
Edo	35.5	357	5.0	60.8	2.5	31.7	100.0	127
Rivers	9.3	891	6.5	66.4	3.7	23.3	100.0	83
South West								
Ekiti	57.9	276	2.8	21.4	1.2	74.6	100.0	160
Lagos	23.7	1,817	10.9	48.0	2.3	38.8	100.0	431
Ogun	8.2	555	(33.0)	(24.5)	(11.8)	(30.7)	100.0	45
Ondo	43.7	425	0.3	26.5	0.4	72.8	100.0	186
Osun	45.9	565	10.8	33.4	0.6	55.2	100.0	259
Oyo	31.1	759	0.0	83.7	5.3	11.0	100.0	236
Education								
No education	17.2	9,573	14.3	30.0	3.7	52.0	100.0	1,643
Primary	25.6	3,752	7.9	47.3	6.2	38.6	100.0	962
Secondary	19.4	10,369	7.4	44.7	6.1	41.7	100.0	2,010
More than secondary	19.5	3,011	6.5	46.3	7.6	39.6	100.0	587
Wealth quintile								
Lowest	16.4	4,791	19.2	36.6	4.8	39.5	100.0	785
Second	17.8	5,203	9.5	30.3	3.6	56.5	100.0	928
Middle	20.0	5,142	8.6	39.3	5.7	46.3	100.0	1,028
Fourth	22.6	5,681	5.8	47.0	5.2	42.0	100.0	1,286
Highest	20.0	5,887	8.1	46.1	7.9	38.0	100.0	1,176
Total	19.5	26,705	9.6	40.7	5.6	44.1	100.0	5,202

Note: Total includes 15 women with missing information on ethnic group. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 18.3 Unclassified types of female circumcision

Percentage of circumcised women age 15-49 who experienced any unclassified types of circumcision, according to background characteristics, Nigeria DHS 2018

Background characteristic	Unclassified types of female circumcision			Number of circumcised women
	Angurya	Gishiri	Use of corrosive substances	
Age				
15-19	54.0	7.2	5.6	770
20-24	50.7	8.0	5.0	708
25-29	43.8	12.9	7.4	813
30-34	37.7	13.1	6.9	749
35-39	33.6	16.0	8.0	726
40-44	34.4	16.5	6.5	690
45-49	28.0	17.5	6.2	747
Religion				
Catholic	18.1	23.6	10.7	677
Other Christian	18.4	19.1	5.2	1,790
Islam	60.5	6.3	6.4	2,723
Traditionalist	*	*	*	11
Other	*	*	*	1
Ethnic group				
Ekoi	*	*	*	17
Fulani	73.8	7.8	5.6	218
Hausa	83.3	3.9	8.1	1,624
Ibibio	(31.0)	(38.5)	(1.8)	44
Igala	*	*	*	2
Igbo	16.8	20.2	7.4	1,242
Ijaw/Izon	(38.8)	(43.1)	(39.1)	32
Kanuri/Beriberi	52.5	12.1	5.7	35
Tiv	*	*	*	5
Yoruba	5.3	11.4	1.5	1,361
Other	39.4	21.8	9.5	620
Residence				
Urban	26.4	13.4	5.6	2,932
Rural	58.6	12.5	7.8	2,270
Zone				
North Central	32.0	11.4	8.2	373
North East	91.1	9.4	10.0	264
North West	81.4	4.1	8.0	1,643
South East	16.3	21.0	7.9	1,083
South South	32.3	29.2	9.0	522
South West	4.6	12.3	1.6	1,318
Education				
No education	70.8	7.7	7.8	1,643
Primary	32.9	14.0	4.9	962
Secondary	25.9	15.8	6.2	2,010
More than secondary	17.7	16.7	6.9	587
Wealth quintile				
Lowest	62.3	11.5	5.6	785
Second	63.6	10.1	7.6	928
Middle	41.0	13.5	8.7	1,028
Fourth	26.5	13.0	5.3	1,286
Highest	22.3	15.9	6.0	1,176
Total	40.4	13.0	6.6	5,202

Note: Total includes 1 woman with missing information on ethnic group. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 18.4 Age at circumcision

Percent distribution of circumcised women age 15-49 by age at circumcision, according to background characteristics, Nigeria DHS 2018

Background characteristic	Age at circumcision					Total	Number of circumcised women
	<5[1]	5-9	10-14	15+	Don't know/ missing		
Age							
15-19	91.3	3.7	2.9	0.9	1.3	100.0	770
20-24	92.2	2.5	2.1	2.0	1.2	100.0	708
25-29	85.2	3.5	4.2	4.0	3.1	100.0	813
30-34	85.5	4.7	3.4	5.2	1.2	100.0	749
35-39	83.2	5.1	3.8	5.6	2.2	100.0	726
40-44	82.5	4.2	4.8	6.3	2.2	100.0	690
45-49	79.3	5.3	6.1	7.9	1.4	100.0	747
Religion							
Catholic	77.0	7.4	10.4	3.6	1.6	100.0	677
Other Christian	78.8	5.3	5.2	7.6	3.2	100.0	1,790
Islam	92.3	2.6	1.4	2.8	0.9	100.0	2,723
Traditionalist	*	*	*	*	*	100.0	11
Other	*	*	*	*	*	100.0	1
Ethnic group							
Ekoi	*	*	*	*	*	100.0	17
Fulani	86.2	2.0	1.7	10.1	0.0	100.0	218
Hausa	96.6	0.5	0.6	2.1	0.2	100.0	1,624
Ibibio	(59.2)	(12.7)	(13.0)	(9.3)	(5.9)	100.0	44
Igala	*	*	*	*	*	100.0	2
Igbo	83.8	3.8	8.1	2.5	1.9	100.0	1,242
Ijaw/Izon	(24.7)	(0.0)	(9.6)	(62.9)	(2.8)	100.0	32
Kanuri/Beriberi	(86.9)	(0.0)	(2.6)	(10.5)	(0.0)	100.0	35
Tiv	*	*	*	*	*	100.0	5
Yoruba	88.6	5.1	2.0	0.6	3.7	100.0	1,361
Other	61.4	11.3	7.3	18.1	2.0	100.0	620
Residence							
Urban	85.0	4.7	4.2	3.4	2.7	100.0	2,932
Rural	86.5	3.5	3.4	6.0	0.6	100.0	2,270
Zone							
North Central	77.0	12.3	7.6	1.2	1.9	100.0	373
North East	74.8	6.7	3.6	14.9	0.0	100.0	264
North West	97.1	0.7	0.4	1.7	0.1	100.0	1,643
South East	82.9	4.1	8.8	2.5	1.8	100.0	1,083
South South	58.9	7.7	8.0	23.5	1.9	100.0	522
South West	88.8	4.4	1.6	1.0	4.3	100.0	1,318
Education							
No education	89.5	2.6	2.9	4.4	0.6	100.0	1,643
Primary	78.0	4.7	8.8	6.3	2.2	100.0	962
Secondary	85.6	4.9	2.9	4.3	2.4	100.0	2,010
More than secondary	87.5	5.2	2.2	2.9	2.2	100.0	587
Wealth quintile							
Lowest	83.7	2.9	7.8	5.4	0.2	100.0	785
Second	88.4	3.3	4.5	3.3	0.4	100.0	928
Middle	84.8	4.9	3.6	4.9	1.9	100.0	1,028
Fourth	85.2	4.6	2.7	5.5	2.0	100.0	1,286
Highest	85.9	4.6	2.3	3.5	3.6	100.0	1,176
Total	85.6	4.2	3.9	4.5	1.8	100.0	5,202

Note: Total includes 1 woman with missing information on ethnic group. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes women who reported they were circumcised during infancy but did not provide a specific age

Table 18.5 Prevalence of circumcision and age at circumcision: Girls age 0-14

Percent distribution of girls age 0-14 by age at circumcision, and percentage of girls circumcised according to current age, Nigeria DHS 2018

Current age	Age at circumcision						Total	Number of girls	Percentage circumcised
	<1	1-4	5-9	10-14	Don't know/ missing	Percentage not circumcised			
0-4	17.3	0.9	na	na	0.1	81.2	100.0	9,165	19.0
5-9	17.3	1.1	0.8	na	0.1	80.7	100.0	8,422	19.3
10-14	17.1	1.5	0.5	0.1	0.2	80.6	100.0	6,556	19.5
Total	17.2	1.1	0.7	0.0	0.1	80.9	100.0	24,143	19.2

Note: The circumcision status of girls is reported by their mothers.
na = Not applicable due to censoring

Table 18.6 Circumcision of girls age 0-14 by mother's background characteristics

Percentage of girls age 0-14 who are circumcised, according to age and mother's background characteristics, Nigeria DHS 2018

Background characteristic	Current age of girls 0-4	5-9	10-14	All 0-14
Religion				
Catholic	8.8	9.0	12.9	10.0
Other Christian	6.9	8.0	9.8	8.1
Islam	24.9	25.4	25.0	25.1
Traditionalist	(0.0)	(2.8)	(2.3)	1.8
Other	(0.0)	(0.0)	*	0.0
Ethnic group				
Ekoi	(0.0)	(3.2)	(0.0)	1.2
Fulani	24.0	27.2	25.3	25.4
Hausa	30.2	29.0	27.5	29.1
Ibibio	4.2	0.0	3.2	2.5
Igala	0.0	1.2	0.0	0.4
Igbo	12.7	12.8	15.3	13.5
Kanuri/Beriberi	14.5	9.9	13.7	12.7
Tiv	0.7	0.0	0.0	0.3
Yoruba	10.1	17.9	23.7	17.2
Other	8.9	9.0	9.3	9.0
Residence				
Urban	14.6	16.0	18.6	16.3
Rural	21.5	21.4	20.1	21.1
Zone				
North Central	6.1	8.2	9.0	7.6
North East	21.6	21.1	18.9	20.7
North West	29.2	28.7	27.4	28.6
South East	14.8	14.8	17.1	15.5
South South	4.3	5.2	6.7	5.3
South West	8.2	12.6	18.9	13.2
State				
North Central				
FCT-Abuja	0.6	1.7	7.2	2.6
Benue	0.0	0.5	0.0	0.2
Kwara	9.8	27.3	36.7	22.7
Nasarawa	2.2	1.9	2.0	2.0
Niger	14.2	10.9	13.8	12.9
Plateau	4.0	5.7	4.4	4.8
North East				
Bauchi	38.7	33.2	31.6	34.9
Borno	0.0	1.8	1.8	1.1
Gombe	0.4	0.0	0.0	0.2
Taraba	12.9	9.8	7.4	10.5
Yobe	52.6	54.6	46.7	51.8
North West				
Jigawa	68.5	62.9	58.5	63.8
Kaduna	63.5	64.1	61.1	63.1
Kano	27.8	29.2	25.2	27.6
Katsina	2.8	2.8	2.3	2.6
Kebbi	5.7	7.1	6.4	6.3
Sokoto	2.3	1.8	3.6	2.4
Zamfara	19.1	15.7	17.8	17.5
South East				
Abia	8.3	7.2	10.3	8.5
Anambra	7.7	7.5	7.6	7.6
Ebonyi	2.2	3.5	10.8	5.2
Enugu	0.0	1.9	2.7	1.5
Imo	64.7	60.6	63.1	62.8
South South				
Akwa Ibom	2.4	0.0	2.6	1.7
Cross River	0.8	0.0	0.0	0.2
Delta	4.7	7.4	6.3	6.1
Edo	13.7	17.9	25.1	18.7
Rivers	2.1	2.0	2.2	2.1
South West				
Ekiti	28.1	27.8	34.2	30.0
Lagos	6.7	9.2	22.5	12.7
Ondo	15.6	23.9	28.5	22.8
Osun	10.7	19.7	21.5	17.5
Oyo	3.5	11.0	10.1	8.2

Continued…

Table 18.6—*Continued*

Background characteristic	Current age of girls 0-4	5-9	10-14	All 0-14
Mother's education				
No education	24.8	24.4	23.9	24.4
Primary	17.8	16.2	16.1	16.7
Secondary	12.9	14.4	15.9	14.1
More than secondary	7.8	7.6	6.7	7.5
Mother's circumcision status				
Circumcised	57.9	56.2	53.3	55.9
Not circumcised	18.1	16.4	14.9	16.6
Wealth quintile				
Lowest	27.0	26.4	26.3	26.6
Second	21.1	20.5	20.5	20.8
Middle	18.2	19.8	18.2	18.8
Fourth	14.0	17.1	18.6	16.4
Highest	9.8	9.0	10.8	9.8
Total	19.0	19.3	19.5	19.2

Note: The circumcision status of girls is reported by their mothers. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 18.7 Infibulation among circumcised girls age 0-14

Percent distribution of girls age 0-14 who are circumcised by whether or not they are infibulated, according to mother's background characteristics, Nigeria DHS 2018

Background characteristic	Infibulation status: Sewn closed	Infibulation status: Not sewn closed	Total	Number
Religion				
Catholic	3.8	96.2	100.0	192
Other Christian	8.3	91.7	100.0	524
Islam	2.9	97.1	100.0	3,922
Traditionalist	*	*	100.0	2
Ethnic group				
Ekoi	*	*	100.0	1
Fulani	3.3	96.7	100.0	524
Hausa	2.5	97.5	100.0	2,710
Ibibio	*	*	100.0	7
Igala	*	*	100.0	1
Igbo	8.3	91.7	100.0	392
Kanuri/Beriberi	10.0	90.0	100.0	89
Tiv	*	*	100.0	2
Yoruba	3.7	96.3	100.0	442
Other	4.1	95.9	100.0	472
Residence				
Urban	5.1	94.9	100.0	1,520
Rural	2.8	97.2	100.0	3,120
Zone				
North Central	8.3	91.7	100.0	245
North East	4.1	95.9	100.0	957
North West	1.9	98.1	100.0	2,608
South East	8.2	91.8	100.0	343
South South	10.3	89.7	100.0	110
South West	4.4	95.6	100.0	377
Mother's education				
No education	2.8	97.2	100.0	2,954
Primary	3.8	96.2	100.0	669
Secondary	5.1	94.9	100.0	887
More than secondary	9.2	90.8	100.0	130
Mother's circumcision status				
Infibulated	44.4	55.6	100.0	44
Circumcised, not infibulated	2.4	97.6	100.0	2,782
Not circumcised	4.3	95.7	100.0	1,814
Wealth quintile				
Lowest	2.3	97.7	100.0	1,515
Second	2.9	97.1	100.0	1,121
Middle	2.2	97.8	100.0	905
Fourth	4.6	95.4	100.0	729
Highest	12.1	87.9	100.0	369
Total	3.5	96.5	100.0	4,640

Note: The circumcision status of girls is reported by their mothers. Total includes 1 woman with missing information on ethnic group. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 18.8 Aspects of circumcision among circumcised girls age 0-14 and women age 15-49

Percent distribution of circumcised girls age 0-14 by current age and women age 15-49, according to person performing the circumcision and type of circumcision, Nigeria DHS 2018

Background characteristic	Current age of girls 0-4	5-9	10-14	Girls age 0-14	Women age 15-49
Person who performed the circumcision					
Traditional agent	94.4	93.0	90.4	92.8	85.4
Traditional circumciser	83.2	82.8	80.9	82.4	75.7
Traditional birth attendant	7.6	7.4	7.4	7.5	8.4
Other traditional agent	3.6	2.8	2.0	2.9	1.3
Medical professional	5.6	6.7	9.5	7.0	8.6
Doctor	0.4	0.3	0.8	0.5	0.8
Nurse/midwife	5.1	6.3	8.7	6.5	7.7
Other health professional	0.0	0.0	0.0	0.0	0.1
Don't know/missing	0.0	0.3	0.1	0.1	6.0
Total	100.0	100.0	100.0	100.0	100.0
Type of circumcision					
Sewn closed	3.5	4.0	2.9	3.5	5.6
Not sewn closed	96.5	96.0	97.1	96.5	77.7
Don't know/missing	0.0	0.0	0.0	0.0	16.8
Total	100.0	100.0	100.0	100.0	100.0
Number	1,730	1,633	1,278	4,640	5,202

Note: The circumcision status of girls is reported by their mothers.

Table 18.9 Opinions of women about whether circumcision is required by religion

Percentage of women age 15-49 who have heard of female circumcision by opinion on whether their religion requires female circumcision, according to background characteristics, Nigeria DHS 2018

Background characteristic	Required	Not required	Don't know/ missing	Total	Number of respondents
Female circumcision status					
Circumcised	24.9	68.6	6.5	100.0	5,202
Not circumcised	12.2	84.1	3.7	100.0	10,203
Age					
15-19	16.1	75.8	8.1	100.0	2,712
20-24	19.0	75.7	5.3	100.0	2,623
25-29	17.9	77.2	5.0	100.0	2,770
30-34	15.8	79.2	5.0	100.0	2,425
35-39	15.8	81.0	3.3	100.0	2,196
40-44	15.5	80.5	4.1	100.0	1,789
45-49	15.5	80.3	4.2	100.0	1,712
Religion					
Catholic	7.5	85.0	7.5	100.0	1,783
Other Christian	8.4	86.3	5.3	100.0	5,867
Islam	24.1	71.4	4.5	100.0	8,503
Traditionalist	46.9	46.1	7.0	100.0	58
Other	(0.0)	(100.0)	(0.0)	100.0	15
Ethnic group					
Ekoi	10.2	87.5	2.3	100.0	70
Fulani	26.6	65.9	7.6	100.0	1,003
Hausa	25.7	71.7	2.6	100.0	4,627
Ibibio	4.1	90.7	5.2	100.0	310
Igala	1.9	91.7	6.4	100.0	72
Igbo	7.6	83.8	8.6	100.0	3,060
Ijaw/Izon	11.5	85.5	3.0	100.0	272
Kanuri/Beriberi	12.7	85.8	1.4	100.0	405
Tiv	0.7	98.9	0.4	100.0	319
Yoruba	12.8	79.2	8.0	100.0	2,937
Other	16.8	80.0	3.2	100.0	3,149
Residence					
Urban	12.0	81.7	6.4	100.0	8,358
Rural	21.6	74.6	3.8	100.0	7,869
Zone					
North Central	20.0	76.4	3.6	100.0	1,497
North East	20.4	75.1	4.5	100.0	2,705
North West	24.8	73.0	2.2	100.0	4,487
South East	7.5	82.7	9.8	100.0	2,395
South South	11.0	86.5	2.5	100.0	1,923
South West	10.9	80.6	8.5	100.0	3,220
State					
North Central					
FCT-Abuja	15.9	82.9	1.2	100.0	102
Benue	5.4	94.6	0.0	100.0	455
Kogi	1.9	98.1	0.0	100.0	168
Kwara	23.4	70.2	6.4	100.0	294
Nasarawa	7.1	92.9	0.0	100.0	72
Niger	50.0	39.9	10.1	100.0	287
Plateau	32.0	64.4	3.6	100.0	118
North East					
Adamawa	0.0	100.0	0.0	100.0	379
Bauchi	8.9	79.6	11.5	100.0	664
Borno	3.4	95.8	0.8	100.0	547
Gombe	17.1	69.4	13.5	100.0	163
Taraba	21.4	74.3	4.3	100.0	305
Yobe	58.8	40.2	1.0	100.0	647
North West					
Jigawa	12.2	87.6	0.1	100.0	891
Kaduna	30.5	65.2	4.3	100.0	1,249
Kano	4.8	93.2	2.0	100.0	1,166
Katsina	12.6	83.8	3.6	100.0	120
Kebbi	67.7	31.3	1.1	100.0	406
Sokoto	26.3	64.7	9.0	100.0	83
Zamfara	44.2	55.0	0.8	100.0	573
South East					
Abia	15.4	83.2	1.4	100.0	231
Anambra	4.0	78.0	18.0	100.0	768
Ebonyi	2.8	95.8	1.3	100.0	532
Enugu	1.6	95.5	2.9	100.0	365
Imo	18.5	66.3	15.2	100.0	499

Continued…

Table 18.9—*Continued*

Background characteristic	Required	Not required	Don't know/ missing	Total	Number of respondents
South South					
Akwa Ibom	3.4	92.7	3.9	100.0	373
Bayelsa	20.2	73.4	6.4	100.0	66
Cross River	8.2	87.9	3.9	100.0	201
Delta	4.8	92.7	2.5	100.0	420
Edo	24.5	73.6	1.9	100.0	284
Rivers	13.7	85.3	1.0	100.0	578
South West					
Ekiti	46.7	50.2	3.1	100.0	224
Lagos	7.6	78.8	13.6	100.0	1,480
Ogun	3.8	94.9	1.4	100.0	223
Ondo	20.1	62.7	17.2	100.0	305
Osun	8.1	90.3	1.6	100.0	511
Oyo	4.5	94.8	0.7	100.0	476
Education					
No education	27.7	68.8	3.5	100.0	5,310
Primary	14.5	79.9	5.5	100.0	2,346
Secondary	11.1	82.6	6.3	100.0	6,316
More than secondary	8.6	86.3	5.1	100.0	2,256
Wealth quintile					
Lowest	29.3	67.5	3.2	100.0	2,775
Second	21.0	75.2	3.9	100.0	2,695
Middle	15.7	79.9	4.5	100.0	2,965
Fourth	13.9	80.1	6.1	100.0	3,668
Highest	8.5	84.6	6.9	100.0	4,124
Total	16.6	78.2	5.1	100.0	16,227

Note: Total includes 3 women with missing information on ethnic group. Figures in parentheses are based on 25-49 unweighted cases.

Table 18.10 Opinions of women about whether the practice of circumcision should continue

Percent distribution of women age 15-49 who have heard of female circumcision by opinion on whether the practice of circumcision should be continued, according to background characteristics, Nigeria DHS 2018

Background characteristic	Continued	Not continued	Don't know/ missing/ depends	Total	Number of respondents
Female circumcision status					
Circumcised	41.7	46.2	12.1	100.0	5,202
Not circumcised	13.2	79.2	7.7	100.0	10,203
Age					
15-19	22.4	65.7	11.9	100.0	2,712
20-24	25.5	63.6	10.9	100.0	2,623
25-29	25.3	66.2	8.5	100.0	2,770
30-34	22.6	67.3	10.0	100.0	2,425
35-39	21.4	70.1	8.5	100.0	2,196
40-44	21.9	70.8	7.3	100.0	1,789
45-49	20.8	70.5	8.7	100.0	1,712
Religion					
Catholic	10.5	86.2	3.3	100.0	1,783
Other Christian	10.7	83.2	6.1	100.0	5,867
Islam	34.2	52.5	13.3	100.0	8,503
Traditionalist	39.1	57.7	3.2	100.0	58
Other	(0.0)	(100.0)	(0.0)	100.0	15
Ethnic group					
Ekoi	5.2	90.0	4.8	100.0	70
Fulani	35.7	53.4	10.9	100.0	1,003
Hausa	42.1	46.0	12.0	100.0	4,627
Ibibio	5.0	90.7	4.3	100.0	310
Igala	5.4	89.5	5.1	100.0	72
Igbo	12.6	84.3	3.1	100.0	3,060
Ijaw/Izon	1.7	96.7	1.6	100.0	272
Kanuri/Beriberi	19.4	58.8	21.9	100.0	405
Tiv	1.0	98.4	0.6	100.0	319
Yoruba	14.7	71.1	14.1	100.0	2,937
Other	16.2	75.4	8.4	100.0	3,149
Residence					
Urban	16.0	74.4	9.6	100.0	8,358
Rural	30.6	59.9	9.5	100.0	7,869
Zone					
North Central	19.1	72.7	8.2	100.0	1,497
North East	24.7	62.1	13.2	100.0	2,705
North West	42.4	46.2	11.4	100.0	4,487
South East	13.9	84.0	2.0	100.0	2,395
South South	9.1	86.4	4.5	100.0	1,923
South West	11.8	75.0	13.2	100.0	3,220
State					
North Central					
FCT-Abuja	6.2	87.9	5.9	100.0	102
Benue	0.2	99.8	0.0	100.0	455
Kogi	1.3	95.8	2.9	100.0	168
Kwara	30.1	53.1	16.7	100.0	294
Nasarawa	11.2	86.5	2.3	100.0	72
Niger	52.6	28.8	18.6	100.0	287
Plateau	24.0	69.0	7.0	100.0	118
North East					
Adamawa	0.0	99.9	0.1	100.0	379
Bauchi	21.4	69.4	9.2	100.0	664
Borno	5.0	64.3	30.7	100.0	547
Gombe	6.6	80.2	13.2	100.0	163
Taraba	23.8	64.0	12.2	100.0	305
Yobe	64.2	25.1	10.8	100.0	647
North West					
Jigawa	49.6	36.6	13.8	100.0	891
Kaduna	57.9	26.0	16.1	100.0	1,249
Kano	22.8	68.3	8.9	100.0	1,166
Katsina	20.6	73.1	6.3	100.0	120
Kebbi	31.5	68.4	0.1	100.0	406
Sokoto	27.3	17.0	55.6	100.0	83
Zamfara	51.5	43.1	5.4	100.0	573
South East					
Abia	4.7	93.3	2.0	100.0	231
Anambra	11.9	85.2	3.0	100.0	768
Ebonyi	7.3	92.1	0.6	100.0	532
Enugu	1.2	98.2	0.5	100.0	365
Imo	37.9	59.0	3.1	100.0	499

Continued…

Table 18.10—*Continued*

Background characteristic	Continued	Not continued	Don't know/ missing/ depends	Total	Number of respondents
South South					
Akwa Ibom	3.6	92.1	4.3	100.0	373
Bayelsa	2.3	97.0	0.7	100.0	66
Cross River	3.7	93.1	3.2	100.0	201
Delta	13.5	78.1	8.4	100.0	420
Edo	26.0	69.5	4.5	100.0	284
Rivers	3.8	93.7	2.5	100.0	578
South West					
Ekiti	44.6	49.3	6.1	100.0	224
Lagos	7.4	75.0	17.6	100.0	1,480
Ogun	6.3	87.1	6.5	100.0	223
Ondo	25.1	48.1	26.8	100.0	305
Osun	10.2	82.9	6.9	100.0	511
Oyo	5.7	90.0	4.2	100.0	476
Education					
No education	40.5	46.9	12.7	100.0	5,310
Primary	19.5	70.8	9.7	100.0	2,346
Secondary	15.2	76.7	8.1	100.0	6,316
More than secondary	7.9	85.8	6.3	100.0	2,256
Wealth quintile					
Lowest	42.1	47.5	10.4	100.0	2,775
Second	33.0	56.7	10.2	100.0	2,695
Middle	22.7	68.7	8.6	100.0	2,965
Fourth	16.2	73.6	10.2	100.0	3,668
Highest	10.2	81.1	8.8	100.0	4,124
Total 15-49	23.1	67.4	9.6	100.0	16,227

Note: Total includes 3 women with missing information on ethnic group. Figures in parentheses are based on 25-49 unweighted cases.

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SAMPLE DESIGN

Appendix A

A.1 INTRODUCTION

This section describes the objectives of the survey, the overall sample size, survey domains, and subsamples used. The 2018 Nigeria Demographic and Health Survey (2018 NDHS) is a nationwide survey with a nationally representative sample of approximately 42,000 selected households. All women age 15-49 who are usual members of the selected households or who spent the night before the survey in the selected households were eligible for individual interviews. In addition, a male survey was conducted at the same time in every third household selected for the female survey. In these households, all men age 15-49 who are usual members of the selected households or spent the night before the survey in the selected households were eligible for individual interviews.

The survey was designed to produce reliable estimates for key indicators at the national level as well as urban and rural areas, each of the country's six geographical zones, and each of the 36 states and the Federal Capital Territory (FCT).

A.2 SAMPLE FRAME

The sampling frame used for the 2018 NDHS is the Population and Housing Census of the Federal Republic of Nigeria (NPHC), which was conducted in 2006 by the National Population Commission (NPC). Administratively, Nigeria is divided into states. Each state is subdivided into local government areas (LGAs), and each LGA is divided into localities. In addition to these administrative units, during the 2006 NPHC, each locality was subdivided into convenient areas called census enumeration areas (EAs). The primary sampling unit (PSU), referred to as a cluster for the 2018 NDHS, is defined on the basis of EAs from the 2006 EA census frame.

Although the 2006 NPHC did not provide the number of households and population for each EA, population estimates were published for more than 800 LGA units. A combination of information from cartographic material demarcating each EA and the LGA population estimates from the census was used to identify the list of EAs, estimate the number of households, and distinguish EAs as urban or rural for the survey sample frame. Before the sample selection, all localities were classified separately into urban and rural areas based on the predetermined minimum size of urban areas (cut point); consistent with the official definition in 2017, any locality with more than a minimum size of 20,000 populations was classified as an urban locality. According to the 2006 census, Lagos was predominantly urban; however, some EAs in Lagos were defined as rural according to the 2017 official definition. **Table A.1** shows the state population growth rates, the distribution of the population in each state by residence based on the 2006 NPHC, and the forecasted 2017 population percentage distribution after applying the growth rates and the forecasted distribution of the urban population and after applying the urban/rural cut point. **Table A.2** shows the distribution and number of EAs from the sampling frame after taking the 2017 urban/rural cut point into consideration.

Table A.1 Population distribution

Distribution of population in the census frame by state and residence

Zone/state	Growth rate	Population in frame			Percent of total population (forecasted in 2017)	Percent urban (forecasted in 2017)
		Urban	Rural	Total		
North Central		6,306,370	14,066,404	20,372,774	15.21	35.28
FCT-Abuja	9.30	899,703	506,682	1,406,385	1.96	70.97
Benue	3.00	463,094	3,790,515	4,253,609	2.96	10.89
Kogi	3.00	1,110,418	2,204,910	3,315,328	2.31	36.76
Kwara	3.00	1,619,155	745,731	2,364,886	1.65	69.76
Nasarawa	3.00	411,089	1,459,609	1,870,698	1.30	22.84
Niger	3.40	931,288	3,023,387	3,954,675	2.88	25.80
Plateau	2.70	871,623	2,335,570	3,207,193	2.16	28.64
North East		4,170,827	14,814,133	18,984,960	13.57	23.10
Adamawa	2.90	783,977	2,395,523	3,179,500	2.19	26.15
Bauchi	3.40	611,908	4,039,764	4,651,672	3.38	14.39
Borno	3.40	1,387,434	2,784,113	4,171,547	3.03	34.66
Gombe	3.20	539,899	1,825,601	2,365,500	1.68	23.51
Taraba	2.90	355,091	1,940,734	2,295,825	1.58	16.17
Yobe	3.50	492,518	1,828,398	2,320,916	1.71	21.89
North West		10,073,745	25,846,767	35,920,512	25.26	30.07
Jigawa	2.90	452,462	3,909,329	4,361,791	3.00	11.07
Kaduna	3.00	2,799,079	3,315,487	6,114,566	4.25	47.31
Kano	3.30	3,925,245	5,478,986	9,404,231	6.76	45.37
Katsina	3.00	1,093,024	4,709,805	5,802,829	4.04	20.19
Kebbi	3.10	496,745	2,761,395	3,258,140	2.29	16.68
Sokoto	3.00	733,481	2,968,623	3,702,104	2.58	21.49
Zamfara	3.20	573,709	2,703,142	3,276,851	2.33	18.46
South East		9,861,839	6,534,453	16,396,292	11.31	63.51
Abia	2.70	551,090	2,293,502	2,844,592	1.92	20.46
Anambra	2.80	3,387,426	790,919	4,178,345	2.84	83.70
Ebonyi	2.80	1,827,862	348,889	2,176,751	1.48	86.86
Enugu	3.00	2,282,713	986,361	3,269,074	2.27	72.64
Imo	3.20	1,812,748	2,114,782	3,927,530	2.79	52.66
South South		7,085,129	13,963,895	21,049,024	14.89	36.79
Akwa Ibom	3.40	119,472	3,782,844	3,902,316	2.84	4.21
Bayelsa	2.90	410,562	1,293,325	1,703,887	1.17	28.61
Cross River	2.90	398,369	2,495,235	2,893,604	1.99	14.27
Delta	3.20	1,920,210	2,194,864	4,115,074	2.93	51.42
Edo	2.70	1,824,233	1,409,735	3,233,968	2.18	58.81
Rivers	3.40	2,412,283	2,787,892	5,200,175	3.78	51.63
South West		20,947,122	6,773,844	27,720,966	19.76	76.52
Ekiti	3.10	1,783,711	615,371	2,399,082	1.69	80.25
Lagos	3.20	9,112,690	-	9,112,690	6.48	100.00
Ogun	3.30	1,866,997	1,885,127	3,752,124	2.70	50.57
Ondo	3.00	1,608,673	1,852,151	3,460,824	2.41	47.80
Osun	3.20	2,605,526	810,424	3,415,950	2.43	76.71
Oyo	3.40	3,969,525	1,610,771	5,580,296	4.06	71.66
Nigeria		58,445,032	81,999,496	140,444,528	100.00	43.88

Source: The 2006 NPHC, conducted by the National Population Commission

Table A.2 Enumeration areas

Distribution of enumeration areas in the census frame by state and residence

Zone/state	Number of EAs in frame		
	Urban	Rural	Total
North Central	32,748	74,358	107,106
FCT-Abuja	2,452	1,138	3,590
Benue	2,006	20,850	22,856
Kogi	5,492	10,354	15,846
Kwara	11,715	4,556	16,271
Nasarawa	2,008	7,211	9,219
Niger	5,126	18,319	23,445
Plateau	3,949	11,930	15,879
North East	20,044	71,752	91,796
Adamawa	2,820	9,988	12,808
Bauchi	2,761	17,124	19,885
Borno	7,798	16,288	24,086
Gombe	1,955	7,539	9,494
Taraba	1,657	8,943	10,600
Yobe	3,053	11,870	14,923
North West	43,912	115,200	159,112
Jigawa	2,293	18,900	21,193
Kaduna	9,529	12,263	21,792
Kano	16,957	19,402	36,359
Katsina	6,874	26,442	33,316
Kebbi	2,621	14,020	16,641
Sokoto	2,548	10,231	12,779
Zamfara	3,090	13,942	17,032
South East	52,206	28,728	80,934
Abia	2,106	9,463	11,569
Anambra	18,409	3,498	21,907
Ebonyi	11,911	1,977	13,888
Enugu	9,774	4,223	13,997
Imo	10,006	9,567	19,573
South South	34,398	63,907	98,305
Akwa Ibom	908	16,205	17,113
Bayelsa	2,628	6,379	9,007
Cross River	1,410	14,912	16,322
Delta	9,008	9,201	18,209
Edo	7,964	4,829	12,793
Rivers	12,480	12,381	24,861
South West	92,750	34,996	127,746
Ekiti	9,438	2,123	11,561
Lagos	25,424		25,424
Ogun	7,085	7,408	14,493
Ondo	8,588	10,667	19,255
Osun	19,810	6,097	25,907
Oyo	22,405	8,701	31,106
Nigeria	276,058	388,941	664,999

Source: The 2006 NPHC, conducted by the National Population Commission

A.3 Sample Design and Implementation

The sample for the 2018 NDHS is a stratified sample selected in two stages. Stratification was achieved by separating each of the 37 states into urban and rural areas. In total, 74 sampling strata were identified. Samples were selected independently in every stratum through a two-stage selection. Implicit stratifications were achieved at each of the lower administrative levels by sorting the sampling frame before sample selection according to administrative order and by using a probability proportional to size selection at the first sampling stage.

In the first stage, 1,400 EAs were selected with probability proportional to EA size. EA size is the number of households in the EA. A household listing operation were carried out in all selected EAs, and the resulting lists of households served as the sampling frame for selection of households in the second stage. In the second stage's selection, a fixed number of 30 households were selected in every cluster by an equal probability systematic sampling.

During the household listing operation, about 11 clusters were dropped; these clusters were found to be insecure or vacated due to high levels of insurgency. In addition, due to extreme security issues in Borno, 11 LGAs where about 39% of Borno households reside were dropped from the survey. Clusters selected from the dropped LGAs were replaced with other clusters from the remaining 16 LGAs in Borno. Consequently, provincial level estimates for Borno are not representative for the dropped LGAs.

Table A.3 shows the distribution of sample EAs by urban and rural residence for each state and for each of the six geographic zones. **Table A.4** shows the distribution of the expected number of completed interviews with women age 15-49 and men 15-49 by urban and rural residence for each state and for each of the six geographic zones.

Table A.3 Sample allocation of clusters and households by state

Sample allocation of clusters and households by state, according to residence, Nigeria 2018

	Allocation of clusters			Allocation of households		
Zone/state	Urban	Rural	Total	Urban	Rural	Total
North Central	92	160	252	2,760	4,800	7,560
FCT-Abuja	22	13	35	660	390	1,050
Benue	5	33	38	150	990	1,140
Kogi	12	24	36	360	720	1,080
Kwara	24	11	35	720	330	1,050
Nasarawa	9	26	35	270	780	1,050
Niger	10	28	38	300	840	1,140
Plateau	10	25	35	300	750	1,050
North East	52	165	217	1,560	4,950	6,510
Adamawa	10	25	35	300	750	1,050
Bauchi	6	33	39	180	990	1,170
Borno	13	25	38	390	750	1,140
Gombe	9	26	35	270	780	1,050
Taraba	6	29	35	180	870	1,050
Yobe	8	27	35	240	810	1,050
North West	77	208	285	2,310	6,240	8,550
Jigawa	5	34	39	150	1,020	1,170
Kaduna	20	23	43	600	690	1,290
Kano	22	31	53	660	930	1,590
Katsina	9	33	42	270	990	1,260
Kebbi	6	29	35	180	870	1,050
Sokoto	8	29	37	240	870	1,110
Zamfara	7	29	36	210	870	1,080
South East	113	73	186	3,390	2,190	5,580
Abia	8	28	36	240	840	1,080
Anambra	32	7	39	960	210	1,170
Ebonyi	30	6	36	900	180	1,080
Enugu	25	11	36	750	330	1,080
Imo	18	21	39	540	630	1,170
South South	75	146	221	2,250	4,380	6,630
Akwa Ibom	3	34	37	90	1,020	1,110
Bayelsa	9	26	35	270	780	1,050
Cross River	6	29	35	180	870	1,050
Delta	18	20	38	540	600	1,140
Edo	20	15	35	600	450	1,050
Rivers	19	22	41	570	660	1,230
South West	171	68	239	5,130	2,040	7,170
Ekiti	26	9	35	780	270	1,050
Lagos	50	3	53	1,500	90	1,590
Ogun	18	19	37	540	570	1,110
Ondo	17	19	36	510	570	1,080
Osun	27	9	36	810	270	1,080
Oyo	30	12	42	900	360	1,260
Nigeria	580	820	1,400	17,310	24,690	42,000

Table A.4 Sample allocation of expected completed interviews with women and men

Sample allocation of expected completed interviews with women and men by state, according to residence, Nigeria 2018

	Women			Men		
Zone/state	Urban	Rural	Total	Urban	Rural	Total
North Central	2,568	4,754	7,322	788	1,384	2,172
FCT-Abuja	615	386	1,001	188	112	300
Benue	139	981	1,120	43	286	329
Kogi	335	714	1,049	103	208	311
Kwara	670	327	997	205	95	300
Nasarawa	251	772	1,023	77	225	302
Niger	279	832	1,111	86	242	328
Plateau	279	742	1,021	86	216	302
North East	1,452	4,901	6,353	444	1,428	1,872
Adamawa	279	742	1,021	86	216	302
Bauchi	168	981	1,149	51	286	337
Borno	363	742	1,105	111	216	327
Gombe	251	772	1,023	77	225	302
Taraba	168	862	1,030	51	251	302
Yobe	223	802	1,025	68	234	302
North West	2,150	6,182	8,332	658	1,800	2,458
Jigawa	139	1,010	1,149	43	294	337
Kaduna	559	684	1,243	171	199	370
Kano	615	921	1,536	188	268	456
Katsina	251	981	1,232	77	286	363
Kebbi	168	862	1,030	51	251	302
Sokoto	223	862	1,085	68	251	319
Zamfara	195	862	1,057	60	251	311
South East	3,156	2,170	5,326	967	631	1,598
Abia	223	832	1,055	68	242	310
Anambra	894	208	1,102	274	60	334
Ebonyi	838	179	1,017	257	52	309
Enugu	698	327	1,025	214	95	309
Imo	503	624	1,127	154	182	336
South South	2,094	4,339	6,433	641	1,263	1,904
Akwa Ibom	83	1,010	1,093	26	294	320
Bayelsa	251	772	1,023	77	225	302
Cross River	168	862	1,030	51	251	302
Delta	503	595	1,098	154	173	327
Edo	559	446	1,005	171	130	301
Rivers	530	654	1,184	162	190	352
South West	4,692	2,109	6,801	1,438	614	2,052
Ekiti	726	267	993	223	78	301
Lagos	1,397	89	1,486	428	26	454
Ogun	503	565	1,068	154	164	318
Ondo	474	565	1,039	145	164	309
Osun	754	267	1,021	231	78	309
Oyo	838	356	1,194	257	104	361
Nigeria	16,112	24,455	40,567	4,936	7,120	12,056

The above sample allocation is calculated based on data obtained in the 2013 Nigeria Demographic and Health Survey (2013 NDHS): there are 1.007 and 1.056 women age 15-49 per household in urban and rural areas, respectively, and there are 0.953 and 0.942 men age 15-49 per household in urban and rural areas, respectively. The household completion rate is 95%; response rates are 97% for women and 95% for men.

Table A.5 and **Table A.6** present response rates for women and men, respectively, by urban and rural areas and by zones. The male subsample constituted one in three of the households selected for the women's sample.

Table A.5 Sample implementation: Women

Percent distribution of households and eligible women age 15-49 by results of the household and individual interviews, and household, eligible women, and overall women response rates, according to residence and zone (unweighted), Nigeria DHS 2018

	Residence		Zone						
Result	Urban	Rural	North Central	North East	North West	South East	South South	South West	Total
Selected households									
Completed (C)	97.1	97.0	97.3	97.9	97.8	96.7	93.4	98.7	97.0
Household present but no competent respondent at home (HP)	0.2	0.2	0.1	0.1	0.1	0.3	0.8	0.1	0.2
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.5	0.2	0.1	0.2	0.1	0.3	0.9	0.3	0.3
Dwelling not found (DNF)	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Household absent (HA)	1.4	1.5	1.5	0.8	1.1	1.7	3.5	0.4	1.5
Dwelling vacant/address not a dwelling (DV)	0.7	0.8	0.9	0.5	0.7	0.9	1.2	0.4	0.8
Dwelling destroyed (DD)	0.1	0.1	0.0	0.3	0.1	0.0	0.1	0.1	0.1
Other (O)	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	17,282	24,386	7,560	6,510	8,249	5,580	6,629	7,140	41,668
Household response rate (HRR)[1]	99.3	99.5	99.8	99.7	99.7	99.3	98.1	99.6	99.4
Eligible women									
Completed (EWC)	99.2	99.4	99.7	99.2	99.3	98.7	99.1	99.6	99.3
Not at home (EWNH)	0.2	0.2	0.1	0.3	0.2	0.4	0.3	0.1	0.2
Refused (EWR)	0.2	0.1	0.0	0.2	0.2	0.2	0.3	0.1	0.2
Incapacitated (EWI)	0.2	0.1	0.1	0.2	0.1	0.4	0.1	0.1	0.2
Other (EWO)	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	17,127	24,994	7,795	7,704	10,201	5,646	5,125	5,650	42,121
Eligible women response rate (EWRR)[2]	99.2	99.4	99.7	99.2	99.3	98.7	99.1	99.6	99.3
Overall women response rate (ORR)[3]	98.4	98.9	99.5	98.8	99.0	98.0	97.3	99.3	98.7

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible women response rate (EWRR) is equivalent to the percentage of interviews completed (EWC).
[3] The overall women response rate (OWRR) is calculated as:

$$OWRR = HRR * EWRR/100$$

Table A.6 Sample implementation: Men

Percent distribution of households and eligible men age 15-59 by results of the household and individual interviews, and household, eligible men, and overall men response rates, according to urban-rural residence and zone (unweighted), Nigeria DHS 2018

	Residence		Zone						
Result	Urban	Rural	North Central	North East	North West	South East	South South	South West	Total
Selected households									
Completed (C)	97.4	97.2	97.5	98.0	97.4	97.8	94.2	98.7	97.3
Household present but no competent respondent at home (HP)	0.3	0.3	0.1	0.1	0.2	0.2	1.0	0.1	0.3
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Refused (R)	0.5	0.2	0.1	0.1	0.1	0.2	1.2	0.3	0.3
Dwelling not found (DNF)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Household absent (HA)	1.2	1.6	1.5	1.2	1.5	1.2	2.5	0.6	1.4
Dwelling vacant/address not a dwelling (DV)	0.6	0.5	0.6	0.2	0.7	0.5	1.0	0.2	0.5
Dwelling destroyed (DD)	0.0	0.1	0.0	0.3	0.1	0.0	0.0	0.1	0.1
Other (O)	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	5,762	8,131	2,521	2,170	2,750	1,860	2,210	2,382	13,893
Household response rate (HRR)[1]	99.2	99.4	99.7	99.7	99.7	99.5	97.7	99.6	99.3
Eligible men									
Completed (EMC)	99.3	99.1	98.9	99.6	99.1	98.2	99.2	100.0	99.2
Not at home (EMNH)	0.3	0.4	0.2	0.2	0.4	1.0	0.4	0.0	0.3
Refused (EMR)	0.2	0.1	0.2	0.0	0.1	0.4	0.2	0.0	0.1
Partly completed (EMPC)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Incapacitated (EMI)	0.3	0.2	0.5	0.1	0.2	0.3	0.2	0.0	0.2
Other (EMO)	0.0	0.2	0.3	0.1	0.1	0.1	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	5,547	7,875	2,443	2,458	2,986	1,787	1,710	2,038	13,422
Eligible men response rate (EMRR)[2]	99.3	99.1	98.9	99.6	99.1	98.2	99.2	100.0	99.2
Overall men response rate (ORR)[3]	98.5	98.5	98.6	99.3	98.8	97.7	97.0	99.6	98.5

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible men response rate (EMRR) is equivalent to the percentage of interviews completed (EMC).
[3] The overall men response rate (OMRR) is calculated as:

$$OMRR = HRR * EMRR/100$$

A.4 Sample Probabilities and Sampling Weights

Due to the non-proportional allocation of the sample to the different states and the possible differences in response rates, sampling weights are required for any analysis using the 2018 NDHS data to ensure the actual representative of the survey results at the national level as well as the domain level. Since the 2018 NDHS sample is a two-stage stratified cluster sample selected from the sampling frame, sampling weights were calculated based on sampling probabilities separately for each sampling stage and for each cluster. The following notations were used:

P_{1hi}: first-stage sampling probability of the ith cluster in stratum h

P_{2hi}: second-stage sampling probability within the ith cluster (households)

Let a_h be the number of clusters selected in stratum h, M_{hi} the number of households according to the sampling frame in the ith cluster, and $\sum M_{hi}$ the total number of households in the stratum. The probability of selecting the ith cluster in the NDHS sample is calculated as follows:

$$\frac{a_h \, M_{hi}}{\sum M_{hi}}$$

Let b_{hi} be the proportion of households in the selected segment relative to the total number of households in EA i in stratum h if the EA is segmented; otherwise, $b_{hi} = 1$. Then the probability of selecting cluster i in the sample is:

$$P_{1hi} = \frac{a_h \, M_{hi}}{\sum M_{hi}} \times b_{hi}$$

Let L_{hi} be the number of households listed in the household listing operation in cluster i in stratum h, and let g_{hi} be the number of households selected in the cluster. The second stage's selection probability for each household in the cluster is calculated as follows:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster i of stratum h is therefore the product of the selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

The design weight for each household in cluster i of stratum h is the inverse of its overall selection probability:

$$W_{hi} = 1 / P_{hi}$$

The design weights were adjusted for household non-response and individual non-response to obtain the sampling weights for households and for women and men, respectively. Non-response is adjusted at the sampling stratum level. For the household sampling weight, the household design weight is multiplied by the inverse of the household response rate by stratum. For women's individual sampling weight, the household sampling weight is multiplied by the inverse of women's individual response rate by stratum. After adjusting for non-response, the sampling weights are normalized to obtain the final standard weights that appear in the data files. The normalization process is done to obtain a total number of unweighted cases equal to the total number of weighted cases at the national level for the total number of households, women, and men. Normalization is done by multiplying the sampling weight by the estimated sampling fraction obtained from the survey for the household weight and the individual women's and men's weights. The normalized weights are relative weights that are valid for estimating means, proportions, ratios, and rates but are not valid for estimating population totals or for pooled data. A special weight for domestic violence was calculated that accounts for the selection of one woman per household.

ESTIMATES OF SAMPLING ERRORS

Appendix B

The estimates from a sample survey are affected by two types of errors: nonsampling errors and sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2018 Nigeria Demographic and Health Survey (NDHS) to minimise this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2018 NDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability among all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95% of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2018 NDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulas. Sampling errors are computed in SAS, using programs developed by ICF. These programs use the Taylor linearisation method to estimate variances for survey estimates that are means, proportions, or ratios. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearisation method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1-f}{x^2}\sum_{h=1}^{H}\left[\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi} \text{ and } z_h = y_h - rx_h$$

where h represents the stratum, which varies from 1 to H;
m_h is the total number of clusters selected in the hth stratum;
y_{hi} is the sum of the weighted values of variable y in the ith cluster in the hth stratum;
x_{hi} is the sum of the weighted number of cases in the ith cluster in the hth stratum; and
f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample and calculates standard errors for these estimates using simple formulas. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2018 NDHS, there were 1,389 non-empty clusters. Hence, 1,389 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)}\sum_{i=1}^{k}(r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 1,389 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 1,388 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, the design effect (DEFT) for each estimate is calculated. The design effect is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. Relative standard errors and confidence limits for the estimates are also calculated.

Sampling errors for the 2018 NDHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, for each of the six zones, and for each of the 36 states and the Federal Capital Territory. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in **Table B.1**. **Tables B.2** through **B.47** present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95% confidence limits (R±2SE) for each selected variable. The DEFT is considered undefined when the standard error considering a simple random sample is zero (when the estimate is close to 0 or 1).

The confidence interval (e.g., as calculated for *ideal number of children*) can be interpreted as follows: the overall average from the national sample is 6.087, and its standard error is 0.042. Therefore, to obtain the 95% confidence limits, one adds and subtracts twice the standard error to the sample estimate, that is, 6.087 ± 2 × 0.042. There is a high probability (95%) that the true ideal number of children is between 6.003 and 6.171.

For the total sample, the value of the DEFT, averaged over all variables, is 1.8. This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.8 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Nigeria DHS 2018

Variable	Estimate	Base population
HOUSEHOLDS AND POPULATION		
Ownership of at least one ITN	Proportion	Households
De facto population with access to an ITN	Proportion	De facto household population
Household population that slept under an ITN last night	Proportion	De facto household population
WOMEN		
Urban residence	Proportion	Women 15-49
Literacy	Proportion	Women 15-49
No education	Proportion	Women 15-49
Secondary education or higher	Proportion	Women 15-49
Never married/never in union	Proportion	Women 15-49
Currently married/in union	Proportion	Women 15-49
Married before age 18	Proportion	Women 20-49
Had sexual intercourse before age 18	Proportion	Women 20-49
Currently pregnant	Proportion	Women 15-49
Know any contraceptive method	Proportion	Currently married women 15-49
Know a modern method	Proportion	Currently married women 15-49
Currently using any method	Proportion	Currently married women 15-49
Currently using a modern method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using male condoms	Proportion	Currently married women 15-49
Currently using injectables	Proportion	Currently married women 15-49
Currently using implants	Proportion	Currently married women 15-49
Currently using female sterilisation	Proportion	Currently married women 15-49
Currently using withdrawal	Proportion	Currently married women 15-49
Currently using rhythm	Proportion	Currently married women 15-49
Used public sector source	Proportion	Current users of modern method
Want no more children	Proportion	Currently married women 15-49
Want to delay next birth at least 2 years	Proportion	Currently married women 15-49
Ideal number of children	Mean	Women 15-49
Mothers protected against tetanus for last birth	Proportion	Women with a live birth in last 5 years
Births with skilled attendant at delivery	Proportion	Births occurring 1-59 months before survey
Received 3+ doses of SP/Fansidar	Proportion	Last birth of women 15-49 with live births in the last 2 years
Treated with ORS	Proportion	Children under 5 with diarrhoea in past 2 weeks
Sought medical treatment for diarrhoea	Proportion	Children under 5 with diarrhoea in past 2 weeks
Ever had vaccination card	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received birth dose HepB vaccination	Proportion	Children 12-23 months
Received DPT-HepB-Hib vaccination (3 doses)	Proportion	Children 12-23 months
Received birth dose polio 0 vaccination	Proportion	Children 12-23 months
Received polio vaccination (3 doses)	Proportion	Children 12-23 months
Received pneumococcal vaccination (3 doses)	Proportion	Children 12-23 months
Received measles 1 vaccination	Proportion	Children 12-23 months
Received all basic vaccinations (12-23 months)	Proportion	Children 12-23 months
Received all age-appropriate vaccinations (12-23 months)	Proportion	Children 12-23 months
Received measles 2 vaccination	Proportion	Children 24-35 months
Received all age-appropriate vaccinations (24-35 months)	Proportion	Children 24-35 months
Height-for-age (-2SD)	Proportion	Children under 5 who were measured
Weight-for-height (-2SD)	Proportion	Children under 5 who were measured
Weight-for-age (-2SD)	Proportion	Children under 5 who were measured
Body mass index (BMI) <18.5	Proportion	Women 15-49 who were measured
Body mass index (BMI) ≥25	Proportion	Women 15-49 who were measured
Prevalence of anaemia (children 6-59 months)	Proportion	Children 6-59 months who were tested
Prevalence of malaria (based on microscopy test)	Proportion	Children 6-59 months tested (on microscopy) for malaria
Prevalence of malaria (based on rapid test)	Proportion	Children 6-59 months tested (rapid test) for malaria
Prevalence of anaemia (women 15-49)	Proportion	Women 15-49 who were tested
Had 2+ sexual partners in past 12 months	Proportion	Women 15-49
Condom use at last sex	Proportion	Women 15-49 with non-marital, non-cohabiting partner in past 12 months
Abstinence among young people (never had sex)	Proportion	Never-married women 15-24
Discriminatory attitudes towards people with HIV	Proportion	Women who have heard of HIV/AIDS
Prevalence of sickle cell disease among children 6-59 months	Proportion	Children 6-59 months who were tested
Total fertility rate (3 years)	Rate	Women-years of exposure to childbearing
Neonatal mortality rate[1]	Rate	Children exposed to the risk of mortality
Postneonatal mortality rate[1]	Rate	Children exposed to the risk of mortality
Infant mortality rate[1]	Rate	Children exposed to the risk of mortality
Child mortality rate[1]	Rate	Children exposed to the risk of mortality
Under-5 mortality rate[1]	Rate	Children exposed to the risk of mortality
MEN		
Urban residence	Proportion	Men 15-49
Literacy	Proportion	Men 15-49
No education	Proportion	Men 15-49
Secondary education or higher	Proportion	Men 15-49
Never married/never in union	Proportion	Men 15-49
Currently married/in union	Proportion	Men 15-49
Had sexual intercourse before age 18	Proportion	Men 20-49
Know any contraceptive method	Proportion	Currently married men 15-49
Know a modern method	Proportion	Currently married men 15-49
Want no more children	Proportion	Currently married men 15-49
Want to delay next birth at least 2 years	Proportion	Currently married men 15-49
Ideal number of children	Mean	Men 15-49
Had 2+ sexual partners in past 12 months	Proportion	Men 15-49
Condom use at last sex	Proportion	Men 15-49 with non-marital, non-cohabiting partner in past 12 months
Abstinence among young people (never had sex)	Proportion	Never-married men 15-24
Paid for sexual intercourse in past 12 months	Proportion	Men 15-49
Discriminatory attitudes towards people with HIV	Proportion	Men who have heard of HIV/AIDS

[1] Mortality rates are calculated for the 5 years before the survey for the national, urban, and rural samples and for the 10 years before the survey for the regional samples.

Table B.2 Sampling errors: National sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.606	0.006	40,427	40,427	2.515	0.010	0.594	0.619
De facto population with access to an ITN	0.475	0.005	186,327	187,974	2.230	0.011	0.465	0.485
Household population that slept under an ITN last night	0.432	0.005	186,327	187,974	2.186	0.012	0.422	0.443
WOMEN								
Urban residence	0.458	0.009	41,821	41,821	3.774	0.020	0.440	0.477
Literacy	0.531	0.008	41,821	41,821	3.172	0.015	0.515	0.546
No education	0.349	0.008	41,821	41,821	3.473	0.023	0.333	0.365
Secondary or higher education	0.506	0.008	41,821	41,821	3.171	0.015	0.491	0.522
Never married (never in union)	0.252	0.005	41,821	41,821	2.172	0.018	0.243	0.262
Currently married (in union)	0.696	0.005	41,821	41,821	2.219	0.007	0.686	0.706
Married before age 18	0.431	0.007	33,398	33,373	2.595	0.016	0.417	0.445
Had sexual intercourse before age 18	0.571	0.006	33,398	33,373	2.284	0.011	0.558	0.583
Currently pregnant	0.101	0.002	41,821	41,821	1.417	0.021	0.097	0.105
Know any contraceptive method	0.945	0.003	28,888	29,090	2.313	0.003	0.939	0.952
Know a modern method	0.939	0.003	28,888	29,090	2.362	0.004	0.932	0.945
Currently using any method	0.166	0.005	28,888	29,090	2.342	0.031	0.156	0.177
Currently using a modern method	0.120	0.004	28,888	29,090	1.835	0.029	0.113	0.127
Currently using pill	0.014	0.001	28,888	29,090	1.705	0.085	0.011	0.016
Currently using male condoms	0.016	0.001	28,888	29,090	1.449	0.067	0.014	0.018
Currently using injectables	0.032	0.002	28,888	29,090	1.550	0.050	0.029	0.036
Currently using implants	0.034	0.002	28,888	29,090	1.602	0.050	0.030	0.037
Currently using female sterilisation	0.002	0.000	28,888	29,090	1.247	0.150	0.002	0.003
Currently using withdrawal	0.026	0.002	28,888	29,090	1.707	0.062	0.022	0.029
Currently using rhythm	0.014	0.001	28,888	29,090	1.421	0.069	0.012	0.016
Using public sector source	0.540	0.013	3,929	4,050	1.600	0.024	0.515	0.565
Want no more children	0.245	0.004	28,888	29,090	1.452	0.015	0.237	0.252
Want to delay next birth at least 2 years	0.300	0.004	28,888	29,090	1.569	0.014	0.291	0.308
Ideal number of children	6.087	0.042	40,670	40,621	2.879	0.007	6.003	6.171
Mothers protected against tetanus for last birth	0.617	0.008	21,792	21,911	2.410	0.013	0.601	0.632
Births with skilled attendant at delivery	0.434	0.008	33,924	34,193	2.496	0.019	0.417	0.451
Received 3+ doses of SP/Fansidar	0.166	0.005	12,818	12,935	1.508	0.030	0.156	0.176
Treated with ORS	0.400	0.012	3,956	3,950	1.495	0.031	0.376	0.425
Sought medical treatment for diarrhoea	0.676	0.010	3,956	3,950	1.346	0.015	0.655	0.696
Ever had vaccination card	0.682	0.010	6,059	6,143	1.720	0.015	0.661	0.702
Received BCG vaccination	0.667	0.011	6,059	6,143	1.778	0.016	0.645	0.688
Received birth dose HepB vaccination	0.524	0.011	6,059	6,143	1.685	0.021	0.503	0.546
Received DPT-HepB-Hib vaccination (3 doses)	0.501	0.011	6,059	6,143	1.750	0.023	0.478	0.523
Received birth dose polio 0 vaccination	0.545	0.011	6,059	6,143	1.680	0.020	0.524	0.567
Received polio vaccination (3 doses)	0.472	0.010	6,059	6,143	1.505	0.021	0.453	0.492
Received pneumococcal vaccination (3 doses)	0.473	0.011	6,059	6,143	1.725	0.023	0.451	0.496
Received measles 1 vaccination	0.540	0.010	6,059	6,143	1.632	0.019	0.519	0.561
Received all basic vaccinations (12-23 months)	0.313	0.009	6,059	6,143	1.490	0.029	0.295	0.331
Received all age-appropriate vaccinations (12-23 months)	0.228	0.008	6,059	6,143	1.495	0.036	0.212	0.245
Received measles 2 vaccination	0.156	0.007	5,834	5,835	1.392	0.043	0.142	0.169
Received all age-appropriate vaccinations (24-35 months)	0.049	0.004	5,834	5,835	1.397	0.082	0.041	0.057
Height-for-age (-2SD)	0.367	0.006	12,360	12,564	1.339	0.017	0.355	0.380
Weight-for-height (-2SD)	0.068	0.003	12,397	12,613	1.217	0.042	0.062	0.073
Weight-for-age (-2SD)	0.217	0.005	12,458	12,670	1.330	0.025	0.206	0.228
Body mass index (BMI) <18.5	0.121	0.004	12,904	12,728	1.432	0.034	0.113	0.129
Body mass index (BMI) ≥25	0.282	0.006	12,904	12,728	1.380	0.020	0.271	0.293
Prevalence of anaemia (children 6-59 months)	0.679	0.007	11,206	11,391	1.522	0.011	0.664	0.693
Prevalence of malaria (based on microscopy test)	0.226	0.007	8,127	8,298	1.408	0.033	0.211	0.241
Prevalence of malaria (based on rapid test)	0.362	0.008	11,173	11,351	1.539	0.022	0.346	0.378
Prevalence of anaemia (women 15-49)	0.578	0.006	14,750	14,617	1.434	0.010	0.566	0.590
Had 2+ sexual partners in past 12 months	0.013	0.001	41,821	41,821	1.585	0.067	0.011	0.015
Condom use at last sex	0.332	0.028	535	553	1.360	0.083	0.277	0.388
Abstinence among young people (never had sex)	0.734	0.007	8,886	8,763	1.479	0.009	0.720	0.748
Discriminatory attitudes towards people with HIV	0.594	0.006	39,257	39,433	2.470	0.010	0.582	0.607
Prevalence of sickle cell disease among children 6-59 months	0.013	0.002	11,206	11,391	1.470	0.125	0.010	0.017
Total fertility rate (last 3 years)	5.288	0.067	116,888	116,876	1.854	0.013	5.153	5.422
Neonatal mortality (last 0-4 years)	39.259	1.899	33,936	34,178	1.556	0.048	35.461	43.057
Postneonatal mortality (last 0-4 years)	28.032	1.213	33,949	34,187	1.263	0.043	25.606	30.459
Infant mortality (last 0-4 years)	67.291	2.289	34,013	34,255	1.454	0.034	62.714	71.869
Child mortality (last 0-4 years)	69.411	2.898	34,285	34,597	1.597	0.042	63.615	75.208
Under-5 mortality (last 0-4 years)	132.032	4.060	34,872	35,203	1.737	0.031	123.911	140.153
MEN								
Urban residence	0.464	0.009	11,845	11,868	1.961	0.019	0.446	0.482
Literacy	0.720	0.008	11,845	11,868	1.963	0.011	0.704	0.736
No education	0.215	0.008	11,845	11,868	2.151	0.038	0.199	0.232
Secondary or higher education	0.651	0.009	11,845	11,868	1.961	0.013	0.633	0.668
Never married (in union)	0.417	0.007	11,845	11,868	1.496	0.016	0.404	0.431
Currently married (in union)	0.572	0.007	11,845	11,868	1.494	0.012	0.558	0.585
Had first sexual intercourse before age 18	0.144	0.005	9,371	9,453	1.287	0.032	0.135	0.154
Knows any contraceptive method	0.982	0.002	6,611	6,786	1.301	0.002	0.977	0.986
Knows any modern contraceptive method	0.978	0.002	6,611	6,786	1.349	0.002	0.973	0.983
Want no more children	0.191	0.006	6,611	6,786	1.318	0.033	0.178	0.203
Want to delay birth at least 2 years	0.292	0.007	6,611	6,786	1.266	0.024	0.277	0.306
Ideal number of children	7.166	0.081	11,181	11,240	1.583	0.011	7.004	7.328
Had 2+ sexual partners in past 12 months	0.128	0.004	11,845	11,868	1.273	0.030	0.121	0.136
Condom use at last sex	0.227	0.013	1,490	1,524	1.199	0.057	0.201	0.253
Abstinence among young people (never had sex)	0.813	0.008	3,778	3,642	1.303	0.010	0.796	0.830
Had paid sex in past 12 months	0.027	0.002	11,845	11,868	1.251	0.069	0.023	0.030
Discriminatory attitudes towards people with HIV	0.581	0.007	11,191	11,275	1.526	0.012	0.567	0.596

Table B.3 Sampling errors: Urban sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.528	0.010	16,780	18,940	2.465	0.018	0.509	0.547
De facto population with access to an ITN	0.413	0.008	72,015	81,686	2.174	0.019	0.398	0.428
Household population that slept under an ITN last night	0.356	0.008	72,015	81,686	2.107	0.022	0.341	0.372
WOMEN								
Urban residence	1.000	0.000	16,984	19,163	0.000	0.000	1.000	1.000
Literacy	0.740	0.010	16,984	19,163	2.916	0.013	0.720	0.759
No education	0.156	0.008	16,984	19,163	3.032	0.054	0.139	0.173
Secondary or higher education	0.710	0.010	16,984	19,163	2.952	0.014	0.690	0.731
Never married (never in union)	0.322	0.007	16,984	19,163	1.895	0.021	0.309	0.336
Currently married (in union)	0.615	0.007	16,984	19,163	1.878	0.011	0.601	0.629
Married before age 18	0.268	0.009	13,608	15,349	2.422	0.034	0.250	0.286
Had sexual intercourse before age 18	0.416	0.009	13,608	15,349	2.145	0.022	0.398	0.434
Currently pregnant	0.079	0.003	16,984	19,163	1.389	0.036	0.073	0.085
Know any contraceptive method	0.979	0.003	10,403	11,790	2.122	0.003	0.973	0.985
Know a modern method	0.977	0.003	10,403	11,790	2.068	0.003	0.971	0.983
Currently using any method	0.264	0.009	10,403	11,790	2.102	0.034	0.245	0.282
Currently using a modern method	0.182	0.006	10,403	11,790	1.506	0.031	0.171	0.194
Currently using pill	0.023	0.003	10,403	11,790	1.739	0.112	0.017	0.028
Currently using male condoms	0.029	0.002	10,403	11,790	1.450	0.083	0.024	0.033
Currently using injectables	0.043	0.003	10,403	11,790	1.570	0.073	0.037	0.049
Currently using implants	0.048	0.003	10,403	11,790	1.398	0.061	0.042	0.054
Currently using female sterilisation	0.003	0.001	10,403	11,790	1.334	0.248	0.001	0.004
Currently using withdrawal	0.047	0.003	10,403	11,790	1.599	0.071	0.040	0.054
Currently using rhythm	0.025	0.002	10,403	11,790	1.389	0.084	0.021	0.030
Using public sector source	0.517	0.018	2,127	2,476	1.644	0.035	0.481	0.552
Want no more children	0.296	0.006	10,403	11,790	1.310	0.020	0.284	0.308
Want to delay next birth at least 2 years	0.279	0.007	10,403	11,790	1.601	0.025	0.265	0.293
Ideal number of children	5.191	0.054	16,546	18,594	2.801	0.010	5.084	5.298
Mothers protected against tetanus for last birth	0.774	0.010	7,710	8,712	2.008	0.012	0.755	0.793
Births with skilled attendant at delivery	0.662	0.013	11,699	13,170	2.470	0.020	0.635	0.689
Received 3+ doses of SP/Fansidar	0.207	0.008	4,363	4,979	1.335	0.039	0.191	0.223
Treated with ORS	0.500	0.020	1,098	1,171	1.197	0.039	0.461	0.539
Sought medical treatment for diarrhoea	0.702	0.016	1,098	1,171	1.052	0.022	0.671	0.734
Ever had vaccination card	0.832	0.014	2,100	2,428	1.682	0.016	0.805	0.859
Received BCG vaccination	0.833	0.014	2,100	2,428	1.713	0.017	0.805	0.860
Received birth dose HepB vaccination	0.724	0.015	2,100	2,428	1.589	0.021	0.693	0.755
Received DPT-HepB-Hib vaccination (3 doses)	0.679	0.017	2,100	2,428	1.673	0.025	0.645	0.713
Received birth dose polio 0 vaccination	0.744	0.015	2,100	2,428	1.602	0.020	0.714	0.775
Received polio vaccination (3 doses)	0.558	0.015	2,100	2,428	1.383	0.027	0.528	0.588
Received pneumococcal vaccination (3 doses)	0.654	0.017	2,100	2,428	1.657	0.026	0.620	0.688
Received measles 1 vaccination	0.691	0.016	2,100	2,428	1.596	0.023	0.659	0.723
Received all basic vaccinations (12-23 months)	0.444	0.015	2,100	2,428	1.428	0.035	0.413	0.475
Received all age-appropriate vaccinations (12-23 months)	0.361	0.015	2,100	2,428	1.462	0.042	0.330	0.391
Received measles 2 vaccination	0.207	0.013	2,159	2,398	1.426	0.062	0.181	0.232
Received all age-appropriate vaccinations (24-35 months)	0.083	0.008	2,159	2,398	1.361	0.100	0.066	0.100
Height-for-age (-2SD)	0.267	0.010	4,835	5,555	1.424	0.037	0.247	0.287
Weight-for-height (-2SD)	0.053	0.004	4,838	5,561	1.179	0.073	0.045	0.061
Weight-for-age (-2SD)	0.150	0.008	4,852	5,577	1.393	0.050	0.135	0.165
Body mass index (BMI) <18.5	0.096	0.006	5,450	6,051	1.377	0.058	0.085	0.107
Body mass index (BMI) ≥25	0.364	0.009	5,450	6,051	1.317	0.024	0.346	0.381
Prevalence of anaemia (children 6-59 months)	0.620	0.012	4,368	5,014	1.539	0.019	0.596	0.643
Prevalence of malaria (based on microscopy test)	0.129	0.009	3,419	3,936	1.386	0.068	0.112	0.147
Prevalence of malaria (based on rapid test)	0.223	0.011	4,358	5,004	1.540	0.049	0.201	0.245
Prevalence of anaemia (women 15-49)	0.536	0.009	6,084	6,786	1.404	0.017	0.518	0.554
Had 2+ sexual partners in past 12 months	0.016	0.002	16,984	19,163	1.617	0.098	0.013	0.019
Condom use at last sex	0.368	0.043	250	305	1.404	0.117	0.282	0.454
Abstinence among young people (never had sex)	0.736	0.009	4,418	4,970	1.422	0.013	0.717	0.755
Discriminatory attitudes towards people with HIV	0.574	0.010	16,437	18,539	2.606	0.018	0.554	0.594
Prevalence of sickle cell disease among children 6-59 months	0.015	0.003	4,368	5,014	1.660	0.212	0.009	0.021
Total fertility rate (last 3 years)	4.498	0.089	47,535	53,606	1.738	0.020	4.319	4.676
Neonatal mortality (last 0-4 years)	35.650	2.350	11,695	13,153	1.242	0.066	30.951	40.349
Postneonatal mortality (last 0-4 years)	20.537	1.805	11,715	13,186	1.297	0.088	16.928	24.147
Infant mortality (last 0-4 years)	56.188	2.751	11,717	13,181	1.191	0.049	50.686	61.689
Child mortality (last 0-4 years)	37.707	3.208	11,866	13,330	1.529	0.085	31.292	44.123
Under-5 mortality (last 0-4 years)	91.776	4.614	11,882	13,378	1.479	0.050	82.549	101.004
MEN								
Urban residence	1.000	0.000	4,900	5,512	0.000	0.000	1.000	1.000
Literacy	0.864	0.009	4,900	5,512	1.786	0.010	0.847	0.882
No education	0.080	0.008	4,900	5,512	2.010	0.098	0.064	0.095
Secondary or higher education	0.808	0.010	4,900	5,512	1.744	0.012	0.788	0.828
Never married (in union)	0.426	0.011	4,900	5,512	1.622	0.027	0.403	0.449
Currently married (in union)	0.567	0.011	4,900	5,512	1.610	0.020	0.544	0.589
Had first sexual intercourse before age 18	0.148	0.007	3,924	4,474	1.293	0.050	0.133	0.162
Knows any contraceptive method	0.992	0.002	2,642	3,122	1.070	0.002	0.989	0.996
Knows any modern contraceptive method	0.990	0.002	2,642	3,122	1.144	0.002	0.985	0.994
Want no more children	0.243	0.011	2,642	3,122	1.318	0.045	0.221	0.265
Want to delay birth at least 2 years	0.244	0.011	2,642	3,122	1.289	0.044	0.223	0.266
Ideal number of children	5.908	0.111	4,693	5,292	1.701	0.019	5.686	6.131
Had 2+ sexual partners in past 12 months	0.107	0.006	4,900	5,512	1.265	0.052	0.096	0.118
Condom use at last sex	0.338	0.025	527	590	1.214	0.074	0.287	0.388
Abstinence among young people (never had sex)	0.773	0.015	1,532	1,608	1.393	0.019	0.744	0.803
Had paid sex in past 12 months	0.031	0.003	4,900	5,512	1.270	0.101	0.025	0.037
Discriminatory attitudes towards people with HIV	0.571	0.011	4,733	5,355	1.470	0.019	0.550	0.592

Table B.4 Sampling errors: Rural sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.675	0.007	23,647	21,487	2.215	0.010	0.662	0.689
De facto population with access to an ITN	0.522	0.006	114,312	106,288	2.155	0.012	0.509	0.534
Household population that slept under an ITN last night	0.491	0.006	114,312	106,288	2.106	0.013	0.478	0.504
WOMEN								
Urban residence	0.000	0.000	24,837	22,658	0.000	0.000	0.000	0.000
Literacy	0.354	0.009	24,837	22,658	3.068	0.026	0.335	0.372
No education	0.512	0.011	24,837	22,658	3.395	0.021	0.491	0.534
Secondary or higher education	0.334	0.009	24,837	22,658	3.117	0.028	0.315	0.353
Never married (never in union)	0.193	0.005	24,837	22,658	2.024	0.026	0.183	0.203
Currently married (in union)	0.763	0.006	24,837	22,658	2.198	0.008	0.752	0.775
Married before age 18	0.570	0.008	19,790	18,024	2.216	0.014	0.554	0.585
Had sexual intercourse before age 18	0.702	0.007	19,790	18,024	2.050	0.009	0.689	0.715
Currently pregnant	0.120	0.003	24,837	22,658	1.343	0.023	0.115	0.126
Know any contraceptive method	0.922	0.005	18,485	17,299	2.388	0.005	0.913	0.932
Know a modern method	0.913	0.005	18,485	17,299	2.421	0.006	0.903	0.923
Currently using any method	0.100	0.004	18,485	17,299	1.854	0.041	0.092	0.108
Currently using a modern method	0.078	0.004	18,485	17,299	1.891	0.048	0.071	0.086
Currently using pill	0.008	0.001	18,485	17,299	1.177	0.097	0.006	0.009
Currently using male condoms	0.007	0.001	18,485	17,299	1.145	0.099	0.006	0.009
Currently using injectables	0.025	0.002	18,485	17,299	1.426	0.065	0.022	0.028
Currently using implants	0.024	0.002	18,485	17,299	1.796	0.084	0.020	0.028
Currently using female sterilisation	0.002	0.000	18,485	17,299	1.116	0.177	0.001	0.003
Currently using withdrawal	0.011	0.001	18,485	17,299	1.377	0.097	0.009	0.013
Currently using rhythm	0.007	0.001	18,485	17,299	1.109	0.098	0.006	0.008
Using public sector source	0.577	0.017	1,802	1,574	1.422	0.029	0.544	0.610
Want no more children	0.210	0.004	18,485	17,299	1.441	0.021	0.201	0.219
Want to delay next birth at least 2 years	0.314	0.005	18,485	17,299	1.489	0.016	0.303	0.324
Ideal number of children	6.843	0.052	24,124	22,027	2.577	0.008	6.740	6.947
Mothers protected against tetanus for last birth	0.513	0.010	14,082	13,199	2.459	0.020	0.492	0.533
Births with skilled attendant at delivery	0.291	0.009	22,225	21,023	2.352	0.030	0.274	0.309
Received 3+ doses of SP/Fansidar	0.140	0.006	8,455	7,956	1.590	0.042	0.128	0.152
Treated with ORS	0.358	0.015	2,858	2,779	1.682	0.043	0.327	0.389
Sought medical treatment for diarrhoea	0.664	0.013	2,858	2,779	1.490	0.020	0.638	0.691
Ever had vaccination card	0.584	0.013	3,959	3,715	1.704	0.023	0.557	0.610
Received BCG vaccination	0.558	0.014	3,959	3,715	1.771	0.025	0.530	0.586
Received birth dose HepB vaccination	0.394	0.013	3,959	3,715	1.616	0.032	0.369	0.419
Received DPT-HepB-Hib vaccination (3 doses)	0.384	0.013	3,959	3,715	1.685	0.034	0.358	0.410
Received birth dose polio 0 vaccination	0.415	0.012	3,959	3,715	1.566	0.030	0.391	0.440
Received polio vaccination (3 doses)	0.417	0.013	3,959	3,715	1.601	0.030	0.391	0.442
Received pneumococcal vaccination (3 doses)	0.355	0.012	3,959	3,715	1.634	0.035	0.330	0.380
Received measles 1 vaccination	0.442	0.012	3,959	3,715	1.528	0.027	0.418	0.466
Received all basic vaccinations (12-23 months)	0.227	0.010	3,959	3,715	1.490	0.044	0.207	0.247
Received all age-appropriate vaccinations (12-23 months)	0.142	0.008	3,959	3,715	1.374	0.054	0.127	0.158
Received measles 2 vaccination	0.120	0.007	3,675	3,437	1.253	0.056	0.107	0.134
Received all age-appropriate vaccinations (24-35 months)	0.026	0.003	3,675	3,437	1.251	0.126	0.019	0.032
Height-for-age (-2SD)	0.447	0.008	7,525	7,009	1.261	0.018	0.431	0.463
Weight-for-height (-2SD)	0.079	0.004	7,559	7,052	1.264	0.051	0.071	0.087
Weight-for-age (-2SD)	0.269	0.007	7,606	7,094	1.325	0.027	0.255	0.284
Body mass index (BMI) <18.5	0.144	0.006	7,454	6,677	1.471	0.042	0.132	0.156
Body mass index (BMI) ≥25	0.207	0.006	7,454	6,677	1.350	0.031	0.194	0.220
Prevalence of anaemia (children 6-59 months)	0.725	0.009	6,838	6,377	1.515	0.012	0.707	0.743
Prevalence of malaria (based on microscopy test)	0.314	0.011	4,708	4,362	1.395	0.034	0.293	0.335
Prevalence of malaria (based on rapid test)	0.472	0.010	6,815	6,347	1.494	0.022	0.452	0.492
Prevalence of anaemia (women 15-49)	0.615	0.007	8,666	7,831	1.405	0.012	0.600	0.629
Had 2+ sexual partners in past 12 months	0.011	0.001	24,837	22,658	1.435	0.087	0.009	0.013
Condom use at last sex	0.288	0.032	285	248	1.183	0.110	0.225	0.352
Abstinence among young people (never had sex)	0.731	0.010	4,468	3,793	1.537	0.014	0.710	0.751
Discriminatory attitudes towards people with HIV	0.612	0.008	22,820	20,894	2.359	0.012	0.597	0.628
Prevalence of sickle cell disease among children 6-59 months	0.012	0.002	6,838	6,377	1.156	0.132	0.009	0.015
Total fertility rate (last 3 years)	5.944	0.082	69,353	63,270	1.735	0.014	5.781	6.107
Neonatal mortality (last 0-4 years)	41.521	2.703	22,241	21,025	1.729	0.065	36.116	46.926
Postneonatal mortality (last 0-4 years)	32.756	1.571	22,234	21,001	1.257	0.048	29.614	35.898
Infant mortality (last 0-4 years)	74.277	3.214	22,296	21,074	1.583	0.043	67.850	80.705
Child mortality (last 0-4 years)	89.652	3.881	22,419	21,267	1.619	0.043	81.889	97.414
Under-5 mortality (last 0-4 years)	157.270	5.416	22,990	21,824	1.814	0.034	146.439	168.102
MEN								
Urban residence	0.000	0.000	6,945	6,356	0.000	0.000	0.000	0.000
Literacy	0.595	0.012	6,945	6,356	2.102	0.021	0.570	0.620
No education	0.333	0.013	6,945	6,356	2.234	0.038	0.308	0.358
Secondary or higher education	0.514	0.013	6,945	6,356	2.132	0.025	0.489	0.540
Never married (in union)	0.410	0.008	6,945	6,356	1.334	0.019	0.394	0.425
Currently married (in union)	0.576	0.008	6,945	6,356	1.345	0.014	0.560	0.592
Had first sexual intercourse before age 18	0.141	0.006	5,447	4,979	1.264	0.042	0.129	0.153
Knows any contraceptive method	0.972	0.004	3,969	3,663	1.397	0.004	0.965	0.980
Knows any modern contraceptive method	0.968	0.004	3,969	3,663	1.448	0.004	0.960	0.976
Want no more children	0.146	0.007	3,969	3,663	1.252	0.048	0.132	0.160
Want to delay birth at least 2 years	0.332	0.009	3,969	3,663	1.187	0.027	0.314	0.350
Ideal number of children	8.284	0.107	6,488	5,948	1.459	0.013	8.071	8.498
Had 2+ sexual partners in past 12 months	0.147	0.005	6,945	6,356	1.252	0.036	0.136	0.158
Condom use at last sex	0.156	0.013	963	934	1.132	0.085	0.130	0.183
Abstinence among young people (never had sex)	0.844	0.009	2,246	2,034	1.169	0.011	0.826	0.862
Had paid sex in past 12 months	0.023	0.002	6,945	6,356	1.187	0.093	0.019	0.027
Discriminatory attitudes towards people with HIV	0.591	0.010	6,458	5,921	1.573	0.016	0.572	0.610

Table B.5 Sampling errors: North Central sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.583	0.012	7,354	5,697	2.120	0.021	0.559	0.607
De facto population with access to an ITN	0.419	0.011	32,870	25,648	2.048	0.026	0.397	0.440
Household population that slept under an ITN last night	0.390	0.011	32,870	25,648	2.008	0.029	0.367	0.412
WOMEN								
Urban residence	0.337	0.016	7,772	5,891	2.956	0.047	0.306	0.369
Literacy	0.496	0.016	7,772	5,891	2.752	0.032	0.464	0.527
No education	0.318	0.016	7,772	5,891	2.951	0.049	0.286	0.349
Secondary or higher education	0.498	0.016	7,772	5,891	2.859	0.033	0.466	0.531
Never married (never in union)	0.253	0.008	7,772	5,891	1.590	0.031	0.237	0.268
Currently married (in union)	0.694	0.009	7,772	5,891	1.733	0.013	0.675	0.712
Married before age 18	0.402	0.012	6,175	4,708	1.873	0.029	0.378	0.425
Had sexual intercourse before age 18	0.553	0.012	6,175	4,708	1.950	0.022	0.528	0.577
Currently pregnant	0.106	0.005	7,772	5,891	1.382	0.046	0.096	0.115
Know any contraceptive method	0.909	0.010	5,268	4,086	2.634	0.012	0.888	0.930
Know a modern method	0.906	0.011	5,268	4,086	2.628	0.012	0.885	0.927
Currently using any method	0.162	0.008	5,268	4,086	1.590	0.050	0.146	0.178
Currently using a modern method	0.138	0.008	5,268	4,086	1.586	0.055	0.123	0.153
Currently using pill	0.013	0.002	5,268	4,086	1.185	0.141	0.009	0.017
Currently using male condoms	0.018	0.003	5,268	4,086	1.390	0.140	0.013	0.024
Currently using injectables	0.045	0.004	5,268	4,086	1.338	0.085	0.037	0.053
Currently using implants	0.047	0.004	5,268	4,086	1.354	0.084	0.039	0.055
Currently using female sterilisation	0.002	0.001	5,268	4,086	0.990	0.278	0.001	0.004
Currently using withdrawal	0.014	0.002	5,268	4,086	1.187	0.139	0.010	0.017
Currently using rhythm	0.005	0.001	5,268	4,086	1.122	0.209	0.003	0.008
Using public sector source	0.589	0.019	907	664	1.163	0.032	0.551	0.627
Want no more children	0.257	0.009	5,268	4,086	1.511	0.035	0.238	0.275
Want to delay next birth at least 2 years	0.313	0.009	5,268	4,086	1.404	0.029	0.295	0.331
Ideal number of children	5.698	0.067	7,520	5,715	2.382	0.012	5.565	5.832
Mothers protected against tetanus for last birth	0.579	0.016	3,875	3,031	2.007	0.027	0.548	0.611
Births with skilled attendant at delivery	0.538	0.017	5,875	4,619	2.180	0.032	0.504	0.572
Received 3+ doses of SP/Fansidar	0.148	0.010	2,254	1,787	1.338	0.066	0.128	0.167
Treated with ORS	0.383	0.033	554	486	1.630	0.085	0.317	0.448
Sought medical treatment for diarrhoea	0.572	0.031	554	486	1.519	0.055	0.509	0.634
Ever had vaccination card	0.741	0.025	1,061	864	1.878	0.033	0.692	0.791
Received BCG vaccination	0.744	0.026	1,061	864	1.955	0.034	0.693	0.795
Received birth dose HepB vaccination	0.596	0.024	1,061	864	1.610	0.040	0.549	0.644
Received DPT-HepB-Hib vaccination (3 doses)	0.544	0.029	1,061	864	1.966	0.054	0.485	0.603
Received birth dose polio 0 vaccination	0.574	0.025	1,061	864	1.665	0.043	0.524	0.623
Received polio vaccination (3 doses)	0.470	0.022	1,061	864	1.491	0.048	0.425	0.515
Received pneumococcal vaccination (3 doses)	0.511	0.028	1,061	864	1.886	0.055	0.454	0.568
Received measles 1 vaccination	0.542	0.031	1,061	864	2.100	0.058	0.479	0.605
Received all basic vaccinations (12-23 months)	0.310	0.024	1,061	864	1.700	0.077	0.262	0.357
Received all age-appropriate vaccinations (12-23 months)	0.215	0.018	1,061	864	1.474	0.085	0.179	0.252
Received measles 2 vaccination	0.159	0.014	1,021	788	1.184	0.086	0.132	0.186
Received all age-appropriate vaccinations (24-35 months)	0.038	0.007	1,021	788	1.122	0.175	0.025	0.052
Height-for-age (-2SD)	0.285	0.016	2,183	1,787	1.574	0.057	0.252	0.317
Weight-for-height (-2SD)	0.056	0.006	2,184	1,788	1.260	0.111	0.044	0.069
Weight-for-age (-2SD)	0.145	0.012	2,191	1,793	1.461	0.080	0.122	0.168
Body mass index (BMI) <18.5	0.092	0.007	2,416	1,823	1.231	0.079	0.077	0.106
Body mass index (BMI) ≥25	0.258	0.012	2,416	1,823	1.294	0.045	0.235	0.281
Prevalence of anaemia (children 6-59 months)	0.659	0.015	1,975	1,620	1.370	0.023	0.628	0.689
Prevalence of malaria (based on microscopy test)	0.212	0.017	1,417	1,162	1.425	0.078	0.179	0.245
Prevalence of malaria (based on rapid test)	0.370	0.020	1,973	1,618	1.644	0.054	0.330	0.410
Prevalence of anaemia (women 15-49)	0.552	0.013	2,749	2,093	1.418	0.024	0.525	0.579
Had 2+ sexual partners in past 12 months	0.013	0.002	7,772	5,891	1.751	0.175	0.008	0.017
Condom use at last sex	0.378	0.060	90	75	1.157	0.158	0.259	0.497
Abstinence among young people (never had sex)	0.672	0.014	1,822	1,314	1.284	0.021	0.644	0.700
Discriminatory attitudes towards people with HIV	0.557	0.012	6,805	5,046	1.947	0.021	0.534	0.581
Prevalence of sickle cell disease among children 6-59 months	0.013	0.003	1,975	1,620	1.096	0.214	0.007	0.019
Total fertility rate (last 3 years)	5.029	0.120	21,695	16,471	1.543	0.024	4.790	5.268
Neonatal mortality (last 0-9 years)	32.361	2.078	11,358	8,796	1.112	0.064	28.205	36.516
Postneonatal mortality (last 0-9 years)	25.783	2.076	11,368	8,799	1.296	0.081	21.631	29.936
Infant mortality (last 0-9 years)	58.144	2.840	11,371	8,807	1.133	0.049	52.464	63.824
Child mortality (last 0-9 years)	39.289	3.257	11,189	8,638	1.460	0.083	32.775	45.803
Under-5 mortality (last 0-9 years)	95.149	4.484	11,448	8,863	1.299	0.047	86.180	104.117
MEN								
Urban residence	0.367	0.019	2,186	1,704	1.841	0.052	0.329	0.405
Literacy	0.729	0.018	2,186	1,704	1.874	0.024	0.693	0.764
No education	0.186	0.017	2,186	1,704	2.040	0.091	0.152	0.220
Secondary or higher education	0.697	0.017	2,186	1,704	1.770	0.025	0.662	0.732
Never married (in union)	0.425	0.016	2,186	1,704	1.484	0.037	0.394	0.457
Currently married (in union)	0.568	0.015	2,186	1,704	1.460	0.027	0.537	0.599
Had first sexual intercourse before age 18	0.112	0.009	1,742	1,369	1.235	0.083	0.094	0.131
Knows any contraceptive method	0.979	0.006	1,222	968	1.567	0.007	0.966	0.992
Knows any modern contraceptive method	0.977	0.007	1,222	968	1.537	0.007	0.964	0.990
Want no more children	0.170	0.014	1,222	968	1.326	0.084	0.141	0.198
Want to delay birth at least 2 years	0.445	0.019	1,222	968	1.343	0.043	0.407	0.484
Ideal number of children	6.858	0.161	2,114	1,655	1.689	0.024	6.535	7.180
Had 2+ sexual partners in past 12 months	0.126	0.009	2,186	1,704	1.240	0.070	0.108	0.144
Condom use at last sex	0.156	0.023	261	215	1.026	0.148	0.109	0.202
Abstinence among young people (never had sex)	0.804	0.019	684	522	1.257	0.024	0.765	0.842
Had paid sex in past 12 months	0.028	0.004	2,186	1,704	1.173	0.147	0.020	0.037
Discriminatory attitudes towards people with HIV	0.595	0.016	1,939	1,499	1.440	0.027	0.563	0.627

Table B.6 Sampling errors: North East sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.673	0.014	6,374	5,694	2.300	0.020	0.646	0.701
De facto population with access to an ITN	0.464	0.012	36,640	32,436	2.290	0.027	0.439	0.489
Household population that slept under an ITN last night	0.432	0.013	36,640	32,436	2.368	0.030	0.406	0.459
WOMEN								
Urban residence	0.287	0.020	7,639	6,636	3.784	0.068	0.247	0.326
Literacy	0.318	0.017	7,639	6,636	3.277	0.055	0.283	0.353
No education	0.591	0.019	7,639	6,636	3.406	0.032	0.553	0.630
Secondary or higher education	0.282	0.017	7,639	6,636	3.299	0.060	0.248	0.316
Never married (never in union)	0.217	0.010	7,639	6,636	2.172	0.047	0.196	0.237
Currently married (in union)	0.729	0.014	7,639	6,636	2.663	0.019	0.702	0.757
Married before age 18	0.626	0.014	5,978	5,139	2.247	0.022	0.598	0.654
Had sexual intercourse before age 18	0.708	0.012	5,978	5,139	2.024	0.017	0.684	0.732
Currently pregnant	0.120	0.005	7,639	6,636	1.266	0.039	0.111	0.130
Know any contraceptive method	0.917	0.010	5,668	4,841	2.634	0.011	0.897	0.936
Know a modern method	0.904	0.011	5,668	4,841	2.758	0.012	0.883	0.926
Currently using any method	0.095	0.006	5,668	4,841	1.542	0.063	0.083	0.107
Currently using a modern method	0.078	0.005	5,668	4,841	1.535	0.070	0.067	0.089
Currently using pill	0.010	0.002	5,668	4,841	1.521	0.197	0.006	0.014
Currently using male condoms	0.002	0.001	5,668	4,841	1.913	0.522	0.000	0.005
Currently using injectables	0.023	0.003	5,668	4,841	1.411	0.121	0.018	0.029
Currently using implants	0.017	0.002	5,668	4,841	1.224	0.123	0.013	0.021
Currently using female sterilisation	0.005	0.001	5,668	4,841	1.209	0.236	0.002	0.007
Currently using withdrawal	0.004	0.001	5,668	4,841	1.375	0.294	0.002	0.006
Currently using rhythm	0.009	0.001	5,668	4,841	1.136	0.157	0.006	0.012
Using public sector source	0.705	0.032	441	364	1.491	0.046	0.640	0.770
Want no more children	0.160	0.007	5,668	4,841	1.350	0.041	0.147	0.173
Want to delay next birth at least 2 years	0.401	0.010	5,668	4,841	1.537	0.025	0.381	0.421
Ideal number of children	7.904	0.082	7,235	6,319	2.150	0.010	7.740	8.068
Mothers protected against tetanus for last birth	0.540	0.017	4,506	3,862	2.325	0.032	0.506	0.575
Births with skilled attendant at delivery	0.277	0.015	7,211	6,213	2.348	0.055	0.246	0.307
Received 3+ doses of SP/Fansidar	0.140	0.011	2,751	2,350	1.602	0.076	0.119	0.161
Treated with ORS	0.368	0.025	1,580	1,378	1.966	0.069	0.317	0.419
Sought medical treatment for diarrhoea	0.686	0.017	1,580	1,378	1.378	0.024	0.653	0.719
Ever had vaccination card	0.580	0.023	1,303	1,133	1.707	0.040	0.533	0.627
Received BCG vaccination	0.570	0.024	1,303	1,133	1.726	0.042	0.523	0.618
Received birth dose HepB vaccination	0.373	0.021	1,303	1,133	1.547	0.056	0.331	0.415
Received DPT-HepB-Hib vaccination (3 doses)	0.372	0.022	1,303	1,133	1.645	0.060	0.328	0.416
Received birth dose polio 0 vaccination	0.404	0.021	1,303	1,133	1.546	0.052	0.361	0.446
Received polio vaccination (3 doses)	0.433	0.018	1,303	1,133	1.319	0.042	0.396	0.469
Received pneumococcal vaccination (3 doses)	0.329	0.021	1,303	1,133	1.595	0.064	0.287	0.371
Received measles 1 vaccination	0.433	0.019	1,303	1,133	1.349	0.043	0.396	0.471
Received all basic vaccinations (12-23 months)	0.229	0.017	1,303	1,133	1.468	0.076	0.194	0.264
Received all age-appropriate vaccinations (12-23 months)	0.136	0.014	1,303	1,133	1.391	0.100	0.109	0.163
Received measles 2 vaccination	0.157	0.015	1,244	1,071	1.421	0.095	0.127	0.186
Received all age-appropriate vaccinations (24-35 months)	0.032	0.006	1,244	1,071	1.239	0.193	0.020	0.044
Height-for-age (-2SD)	0.491	0.014	2,213	1,958	1.259	0.029	0.462	0.519
Weight-for-height (-2SD)	0.095	0.007	2,230	1,975	1.105	0.076	0.081	0.110
Weight-for-age (-2SD)	0.298	0.013	2,247	1,988	1.238	0.043	0.272	0.323
Body mass index (BMI) <18.5	0.233	0.015	2,169	1,878	1.660	0.065	0.203	0.264
Body mass index (BMI) ≥25	0.151	0.010	2,169	1,878	1.260	0.064	0.131	0.170
Prevalence of anaemia (children 6-59 months)	0.704	0.014	2,034	1,807	1.339	0.020	0.675	0.732
Prevalence of malaria (based on microscopy test)	0.199	0.015	1,436	1,265	1.252	0.078	0.168	0.230
Prevalence of malaria (based on rapid test)	0.356	0.017	2,023	1,791	1.328	0.048	0.322	0.390
Prevalence of anaemia (women 15-49)	0.583	0.014	2,553	2,222	1.469	0.025	0.554	0.611
Had 2+ sexual partners in past 12 months	0.013	0.002	7,639	6,636	1.356	0.137	0.009	0.016
Condom use at last sex	0.402	0.062	112	83	1.324	0.154	0.279	0.526
Abstinence among young people (never had sex)	0.843	0.016	1,434	1,296	1.702	0.019	0.810	0.875
Discriminatory attitudes towards people with HIV	0.415	0.013	7,153	6,218	2.291	0.032	0.388	0.442
Prevalence of sickle cell disease among children 6-59 months	0.012	0.003	2,034	1,807	1.311	0.279	0.005	0.018
Total fertility rate (last 3 years)	6.057	0.149	21,147	18,341	1.787	0.025	5.759	6.354
Neonatal mortality (last 0-9 years)	36.839	2.430	14,047	12,193	1.357	0.066	31.979	41.700
Postneonatal mortality (last 0-9 years)	36.537	2.426	14,046	12,205	1.360	0.066	31.685	41.389
Infant mortality (last 0-9 years)	73.377	3.511	14,068	12,215	1.376	0.048	66.354	80.399
Child mortality (last 0-9 years)	65.117	4.522	14,043	12,212	1.570	0.069	56.073	74.161
Under-5 mortality (last 0-9 years)	133.716	6.380	14,211	12,333	1.704	0.048	120.955	146.476
MEN								
Urban residence	0.291	0.022	2,196	1,936	2.259	0.075	0.247	0.335
Literacy	0.505	0.024	2,196	1,936	2.209	0.047	0.458	0.552
No education	0.462	0.025	2,196	1,936	2.318	0.053	0.413	0.511
Secondary or higher education	0.443	0.024	2,196	1,936	2.254	0.054	0.396	0.491
Never married (in union)	0.456	0.015	2,196	1,936	1.379	0.032	0.427	0.485
Currently married (in union)	0.530	0.014	2,196	1,936	1.343	0.027	0.501	0.559
Had first sexual intercourse before age 18	0.099	0.009	1,685	1,483	1.282	0.094	0.080	0.117
Knows any contraceptive method	0.947	0.009	1,156	1,026	1.309	0.009	0.930	0.965
Knows any modern contraceptive method	0.941	0.009	1,156	1,026	1.358	0.010	0.922	0.959
Want no more children	0.104	0.014	1,156	1,026	1.597	0.138	0.076	0.133
Want to delay birth at least 2 years	0.375	0.019	1,156	1,026	1.357	0.052	0.336	0.413
Ideal number of children	10.409	0.206	2,057	1,832	1.455	0.020	9.997	10.822
Had 2+ sexual partners in past 12 months	0.132	0.010	2,196	1,936	1.335	0.073	0.113	0.152
Condom use at last sex	0.168	0.028	280	256	1.262	0.168	0.112	0.225
Abstinence among young people (never had sex)	0.878	0.014	801	685	1.217	0.016	0.850	0.906
Had paid sex in past 12 months	0.022	0.005	2,196	1,936	1.458	0.206	0.013	0.032
Discriminatory attitudes towards people with HIV	0.471	0.017	2,009	1,770	1.501	0.036	0.437	0.504

Table B.7 Sampling errors: North West sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.873	0.007	8,064	9,841	1.905	0.008	0.859	0.887
De facto population with access to an ITN	0.649	0.009	47,862	58,409	2.201	0.014	0.630	0.667
Household population that slept under an ITN last night	0.638	0.009	47,862	58,409	2.009	0.014	0.619	0.656
WOMEN								
Urban residence	0.307	0.015	10,129	12,225	3.290	0.049	0.277	0.337
Literacy	0.290	0.017	10,129	12,225	3.725	0.058	0.257	0.324
No education	0.638	0.018	10,129	12,225	3.753	0.028	0.602	0.674
Secondary or higher education	0.250	0.016	10,129	12,225	3.722	0.064	0.218	0.282
Never married (never in union)	0.166	0.008	10,129	12,225	2.291	0.051	0.149	0.183
Currently married (in union)	0.804	0.010	10,129	12,225	2.459	0.012	0.784	0.823
Married before age 18	0.723	0.012	7,876	9,488	2.401	0.017	0.698	0.747
Had sexual intercourse before age 18	0.771	0.012	7,876	9,488	2.566	0.016	0.747	0.795
Currently pregnant	0.136	0.004	10,129	12,225	1.304	0.033	0.127	0.145
Know any contraceptive method	0.936	0.006	8,115	9,826	2.157	0.006	0.925	0.948
Know a modern method	0.927	0.006	8,115	9,826	2.165	0.007	0.915	0.940
Currently using any method	0.068	0.006	8,115	9,826	2.262	0.093	0.055	0.080
Currently using a modern method	0.062	0.006	8,115	9,826	2.341	0.101	0.050	0.075
Currently using pill	0.007	0.001	8,115	9,826	1.272	0.166	0.005	0.010
Currently using male condoms	0.001	0.000	8,115	9,826	1.091	0.342	0.000	0.002
Currently using injectables	0.022	0.003	8,115	9,826	1.586	0.118	0.017	0.027
Currently using implants	0.026	0.004	8,115	9,826	2.056	0.140	0.019	0.033
Currently using female sterilisation	0.002	0.001	8,115	9,826	1.517	0.394	0.000	0.003
Currently using withdrawal	0.001	0.000	8,115	9,826	1.050	0.362	0.000	0.002
Currently using rhythm	0.001	0.000	8,115	9,826	1.002	0.326	0.000	0.002
Using public sector source	0.799	0.026	478	635	1.413	0.032	0.747	0.851
Want no more children	0.165	0.005	8,115	9,826	1.331	0.033	0.154	0.176
Want to delay next birth at least 2 years	0.317	0.008	8,115	9,826	1.565	0.026	0.300	0.333
Ideal number of children	7.525	0.087	10,026	12,063	2.711	0.012	7.352	7.699
Mothers protected against tetanus for last birth	0.457	0.015	6,309	7,644	2.371	0.032	0.428	0.487
Births with skilled attendant at delivery	0.190	0.011	10,305	12,558	2.373	0.059	0.168	0.213
Received 3+ doses of SP/Fansidar	0.108	0.008	3,824	4,649	1.518	0.070	0.093	0.123
Treated with ORS	0.412	0.018	1,234	1,505	1.234	0.044	0.376	0.448
Sought medical treatment for diarrhoea	0.717	0.018	1,234	1,505	1.338	0.025	0.682	0.752
Ever had vaccination card	0.507	0.019	1,697	2,036	1.582	0.038	0.468	0.546
Received BCG vaccination	0.450	0.020	1,697	2,036	1.631	0.044	0.410	0.490
Received birth dose HepB vaccination	0.326	0.018	1,697	2,036	1.569	0.055	0.290	0.362
Received DPT-HepB-Hib vaccination (3 doses)	0.291	0.018	1,697	2,036	1.585	0.061	0.255	0.326
Received birth dose polio 0 vaccination	0.354	0.018	1,697	2,036	1.532	0.051	0.318	0.390
Received polio vaccination (3 doses)	0.400	0.019	1,697	2,036	1.618	0.049	0.361	0.439
Received pneumococcal vaccination (3 doses)	0.274	0.017	1,697	2,036	1.580	0.063	0.239	0.309
Received measles 1 vaccination	0.391	0.017	1,697	2,036	1.395	0.043	0.358	0.424
Received all basic vaccinations (12-23 months)	0.199	0.014	1,697	2,036	1.454	0.072	0.170	0.228
Received all age-appropriate vaccinations (12-23 months)	0.131	0.011	1,697	2,036	1.373	0.087	0.108	0.154
Received measles 2 vaccination	0.093	0.011	1,644	2,013	1.489	0.117	0.071	0.114
Received all age-appropriate vaccinations (24-35 months)	0.035	0.006	1,644	2,013	1.303	0.171	0.023	0.047
Height-for-age (-2SD)	0.567	0.012	2,891	3,560	1.245	0.021	0.543	0.592
Weight-for-height (-2SD)	0.090	0.007	2,914	3,598	1.251	0.074	0.077	0.103
Weight-for-age (-2SD)	0.345	0.013	2,937	3,621	1.336	0.037	0.320	0.371
Body mass index (BMI) <18.5	0.169	0.009	2,692	3,238	1.282	0.055	0.151	0.188
Body mass index (BMI) ≥25	0.164	0.010	2,692	3,238	1.379	0.060	0.144	0.183
Prevalence of anaemia (children 6-59 months)	0.699	0.016	2,612	3,216	1.622	0.023	0.666	0.731
Prevalence of malaria (based on microscopy test)	0.338	0.017	1,876	2,313	1.323	0.050	0.304	0.372
Prevalence of malaria (based on rapid test)	0.495	0.017	2,605	3,209	1.541	0.035	0.460	0.530
Prevalence of anaemia (women 15-49)	0.588	0.013	3,229	3,906	1.463	0.022	0.563	0.614
Had 2+ sexual partners in past 12 months	0.002	0.001	10,129	12,225	1.763	0.376	0.001	0.004
Condom use at last sex	0.300	0.137	17	26	1.185	0.458	0.025	0.575
Abstinence among young people (never had sex)	0.956	0.010	1,618	1,929	1.961	0.010	0.937	0.976
Discriminatory attitudes towards people with HIV	0.582	0.012	9,632	11,742	2.422	0.021	0.558	0.607
Prevalence of sickle cell disease among children 6-59 months	0.012	0.002	2,612	3,216	1.043	0.202	0.007	0.016
Total fertility rate (last 3 years)	6.602	0.116	28,104	33,925	1.749	0.017	6.370	6.833
Neonatal mortality (last 0-9 years)	45.542	2.622	20,411	24,599	1.473	0.058	40.298	50.786
Postneonatal mortality (last 0-9 years)	34.705	1.853	20,466	24,635	1.290	0.053	30.999	38.411
Infant mortality (last 0-9 years)	80.247	3.384	20,453	24,647	1.450	0.042	73.479	87.015
Child mortality (last 0-9 years)	116.606	4.755	20,608	24,728	1.594	0.041	107.097	126.116
Under-5 mortality (last 0-9 years)	187.496	6.052	20,825	25,091	1.723	0.032	175.391	199.600
MEN								
Urban residence	0.318	0.016	2,622	3,195	1.769	0.051	0.286	0.350
Literacy	0.590	0.020	2,622	3,195	2.108	0.034	0.550	0.631
No education	0.376	0.020	2,622	3,195	2.156	0.054	0.335	0.417
Secondary or higher education	0.477	0.022	2,622	3,195	2.239	0.046	0.433	0.521
Never married (in union)	0.455	0.014	2,622	3,195	1.488	0.032	0.426	0.484
Currently married (in union)	0.533	0.015	2,622	3,195	1.494	0.027	0.504	0.562
Had first sexual intercourse before age 18	0.054	0.007	1,972	2,402	1.420	0.134	0.039	0.068
Knows any contraceptive method	0.976	0.005	1,386	1,703	1.269	0.005	0.966	0.987
Knows any modern contraceptive method	0.973	0.006	1,386	1,703	1.343	0.006	0.962	0.985
Want no more children	0.055	0.007	1,386	1,703	1.185	0.132	0.040	0.069
Want to delay birth at least 2 years	0.337	0.014	1,386	1,703	1.082	0.041	0.309	0.364
Ideal number of children	9.789	0.180	2,252	2,808	1.269	0.018	9.430	10.148
Had 2+ sexual partners in past 12 months	0.144	0.008	2,622	3,195	1.184	0.056	0.128	0.160
Condom use at last sex	0.045	0.012	360	460	1.072	0.262	0.021	0.068
Abstinence among young people (never had sex)	0.964	0.007	978	1,169	1.207	0.007	0.950	0.979
Had paid sex in past 12 months	0.017	0.003	2,622	3,195	1.249	0.185	0.011	0.023
Discriminatory attitudes towards people with HIV	0.554	0.016	2,501	3,060	1.627	0.029	0.522	0.587

Table B.8 Sampling errors: South East sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.479	0.013	5,398	4,752	1.903	0.027	0.453	0.505
De facto population with access to an ITN	0.373	0.013	23,042	20,484	2.040	0.033	0.348	0.398
Household population that slept under an ITN last night	0.295	0.013	23,042	20,484	2.055	0.043	0.269	0.320
WOMEN								
Urban residence	0.729	0.015	5,571	4,963	2.592	0.021	0.698	0.760
Literacy	0.793	0.014	5,571	4,963	2.539	0.017	0.765	0.820
No education	0.042	0.005	5,571	4,963	1.973	0.126	0.032	0.053
Secondary or higher education	0.772	0.014	5,571	4,963	2.554	0.019	0.744	0.801
Never married (never in union)	0.337	0.009	5,571	4,963	1.485	0.028	0.319	0.356
Currently married (in union)	0.583	0.010	5,571	4,963	1.560	0.018	0.562	0.604
Married before age 18	0.161	0.009	4,505	4,035	1.553	0.053	0.144	0.178
Had sexual intercourse before age 18	0.332	0.012	4,505	4,035	1.670	0.035	0.308	0.355
Currently pregnant	0.078	0.005	5,571	4,963	1.423	0.066	0.068	0.088
Know any contraceptive method	0.975	0.003	3,207	2,893	1.199	0.003	0.968	0.982
Know a modern method	0.971	0.004	3,207	2,893	1.196	0.004	0.963	0.978
Currently using any method	0.281	0.012	3,207	2,893	1.473	0.042	0.258	0.305
Currently using a modern method	0.129	0.008	3,207	2,893	1.306	0.060	0.113	0.144
Currently using pill	0.013	0.002	3,207	2,893	1.219	0.191	0.008	0.017
Currently using male condoms	0.028	0.003	3,207	2,893	1.120	0.117	0.021	0.034
Currently using injectables	0.021	0.003	3,207	2,893	1.257	0.151	0.015	0.028
Currently using implants	0.029	0.004	3,207	2,893	1.259	0.128	0.022	0.037
Currently using female sterilisation	0.001	0.000	3,207	2,893	0.763	0.457	0.000	0.002
Currently using withdrawal	0.078	0.006	3,207	2,893	1.212	0.073	0.067	0.090
Currently using rhythm	0.071	0.006	3,207	2,893	1.368	0.087	0.059	0.084
Using public sector source	0.370	0.027	494	453	1.250	0.074	0.315	0.424
Want no more children	0.358	0.010	3,207	2,893	1.177	0.028	0.338	0.378
Want to delay next birth at least 2 years	0.202	0.009	3,207	2,893	1.251	0.044	0.184	0.220
Ideal number of children	4.994	0.053	5,524	4,926	2.332	0.011	4.887	5.101
Mothers protected against tetanus for last birth	0.920	0.006	2,365	2,138	1.152	0.007	0.907	0.933
Births with skilled attendant at delivery	0.843	0.015	3,798	3,428	2.048	0.018	0.813	0.873
Received 3+ doses of SP/Fansidar	0.378	0.016	1,412	1,304	1.268	0.043	0.346	0.410
Treated with ORS	0.437	0.040	232	196	1.142	0.092	0.357	0.517
Sought medical treatment for diarrhoea	0.616	0.039	232	196	1.153	0.064	0.537	0.695
Ever had vaccination card	0.929	0.013	698	641	1.347	0.014	0.903	0.955
Received BCG vaccination	0.934	0.012	698	641	1.305	0.013	0.910	0.958
Received birth dose HepB vaccination	0.764	0.027	698	641	1.672	0.035	0.711	0.818
Received DPT-HepB-Hib vaccination (3 doses)	0.831	0.018	698	641	1.279	0.022	0.795	0.868
Received birth dose polio 0 vaccination	0.840	0.020	698	641	1.446	0.024	0.800	0.880
Received polio vaccination (3 doses)	0.688	0.022	698	641	1.232	0.032	0.645	0.732
Received pneumococcal vaccination (3 doses)	0.796	0.021	698	641	1.334	0.026	0.754	0.837
Received measles 1 vaccination	0.748	0.022	698	641	1.355	0.030	0.704	0.793
Received all basic vaccinations (12-23 months)	0.570	0.026	698	641	1.371	0.045	0.518	0.621
Received all age-appropriate vaccinations (12-23 months)	0.434	0.031	698	641	1.618	0.070	0.373	0.495
Received measles 2 vaccination	0.232	0.024	717	637	1.487	0.102	0.184	0.279
Received all age-appropriate vaccinations (24-35 months)	0.097	0.020	717	637	1.785	0.207	0.057	0.136
Height-for-age (-2SD)	0.184	0.013	1,840	1,665	1.330	0.068	0.159	0.209
Weight-for-height (-2SD)	0.045	0.005	1,840	1,667	1.000	0.112	0.035	0.055
Weight-for-age (-2SD)	0.104	0.009	1,842	1,668	1.206	0.088	0.086	0.123
Body mass index (BMI) <18.5	0.050	0.006	1,875	1,630	1.176	0.120	0.038	0.062
Body mass index (BMI) ≥25	0.395	0.014	1,875	1,630	1.263	0.037	0.366	0.424
Prevalence of anaemia (children 6-59 months)	0.699	0.019	1,670	1,496	1.542	0.026	0.662	0.736
Prevalence of malaria (based on microscopy test)	0.157	0.017	1,262	1,151	1.505	0.109	0.123	0.191
Prevalence of malaria (based on rapid test)	0.261	0.019	1,664	1,490	1.560	0.073	0.223	0.299
Prevalence of anaemia (women 15-49)	0.660	0.014	2,091	1,823	1.332	0.021	0.632	0.688
Had 2+ sexual partners in past 12 months	0.013	0.002	5,571	4,963	1.067	0.123	0.010	0.017
Condom use at last sex	0.244	0.051	78	66	1.046	0.210	0.142	0.347
Abstinence among young people (never had sex)	0.667	0.018	1,458	1,258	1.457	0.027	0.631	0.703
Discriminatory attitudes towards people with HIV	0.629	0.011	5,494	4,888	1.742	0.018	0.606	0.651
Prevalence of sickle cell disease among children 6-59 months	0.011	0.003	1,670	1,496	1.050	0.256	0.006	0.017
Total fertility rate (last 3 years)	4.718	0.118	15,590	13,926	1.390	0.025	4.483	4.954
Neonatal mortality (last 0-9 years)	26.567	2.476	7,311	6,530	1.142	0.093	21.614	31.519
Postneonatal mortality (last 0-9 years)	21.704	2.565	7,305	6,521	1.360	0.118	16.574	26.833
Infant mortality (last 0-9 years)	48.271	3.925	7,319	6,537	1.374	0.081	40.420	56.121
Child mortality (last 0-9 years)	28.592	3.221	7,177	6,376	1.397	0.113	22.149	35.035
Under-5 mortality (last 0-9 years)	75.482	6.148	7,352	6,565	1.663	0.081	63.186	87.779
MEN								
Urban residence	0.703	0.020	1,509	1,355	1.693	0.028	0.663	0.743
Literacy	0.867	0.010	1,509	1,355	1.143	0.012	0.847	0.887
No education	0.017	0.005	1,509	1,355	1.369	0.266	0.008	0.026
Secondary or higher education	0.784	0.015	1,509	1,355	1.447	0.020	0.754	0.815
Never married (in union)	0.408	0.020	1,509	1,355	1.574	0.049	0.368	0.448
Currently married (in union)	0.588	0.020	1,509	1,355	1.595	0.034	0.548	0.629
Had first sexual intercourse before age 18	0.156	0.014	1,206	1,100	1.363	0.091	0.128	0.185
Knows any contraceptive method	0.997	0.002	850	797	1.116	0.002	0.993	1.001
Knows any modern contraceptive method	0.997	0.002	850	797	1.116	0.002	0.993	1.001
Want no more children	0.240	0.019	850	797	1.268	0.077	0.203	0.277
Want to delay birth at least 2 years	0.252	0.019	850	797	1.254	0.074	0.215	0.290
Ideal number of children	4.749	0.074	1,489	1,336	1.360	0.016	4.602	4.897
Had 2+ sexual partners in past 12 months	0.096	0.010	1,509	1,355	1.361	0.107	0.076	0.117
Condom use at last sex	0.472	0.057	130	130	1.291	0.121	0.358	0.586
Abstinence among young people (never had sex)	0.681	0.024	441	368	1.090	0.036	0.633	0.729
Had paid sex in past 12 months	0.035	0.006	1,509	1,355	1.334	0.180	0.022	0.048
Discriminatory attitudes towards people with HIV	0.595	0.019	1,506	1,352	1.486	0.032	0.557	0.632

Table B.9 Sampling errors: South South sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.458	0.014	6,191	5,729	2.186	0.030	0.430	0.485
De facto population with access to an ITN	0.357	0.012	22,070	20,579	2.100	0.034	0.333	0.381
Household population that slept under an ITN last night	0.272	0.012	22,070	20,579	2.059	0.044	0.248	0.295
WOMEN								
Urban residence	0.417	0.021	5,080	4,840	3.009	0.050	0.375	0.458
Literacy	0.790	0.011	5,080	4,840	1.971	0.014	0.767	0.812
No education	0.047	0.004	5,080	4,840	1.485	0.094	0.038	0.055
Secondary or higher education	0.795	0.010	5,080	4,840	1.745	0.012	0.776	0.815
Never married (never in union)	0.348	0.009	5,080	4,840	1.294	0.025	0.331	0.365
Currently married (in union)	0.574	0.010	5,080	4,840	1.407	0.017	0.554	0.593
Married before age 18	0.209	0.008	4,151	3,952	1.324	0.040	0.192	0.225
Had sexual intercourse before age 18	0.511	0.014	4,151	3,952	1.760	0.027	0.484	0.538
Currently pregnant	0.065	0.004	5,080	4,840	1.191	0.063	0.057	0.073
Know any contraceptive method	0.974	0.003	2,962	2,777	1.148	0.003	0.967	0.981
Know a modern method	0.971	0.004	2,962	2,777	1.203	0.004	0.964	0.979
Currently using any method	0.217	0.010	2,962	2,777	1.286	0.045	0.198	0.237
Currently using a modern method	0.158	0.009	2,962	2,777	1.312	0.056	0.140	0.175
Currently using pill	0.022	0.003	2,962	2,777	1.130	0.139	0.016	0.028
Currently using male condoms	0.031	0.003	2,962	2,777	1.045	0.107	0.025	0.038
Currently using injectables	0.035	0.005	2,962	2,777	1.405	0.136	0.025	0.044
Currently using implants	0.046	0.006	2,962	2,777	1.453	0.122	0.035	0.057
Currently using female sterilisation	0.003	0.001	2,962	2,777	1.220	0.431	0.000	0.005
Currently using withdrawal	0.036	0.004	2,962	2,777	1.310	0.125	0.027	0.045
Currently using rhythm	0.018	0.004	2,962	2,777	1.467	0.197	0.011	0.026
Using public sector source	0.350	0.025	652	715	1.335	0.071	0.300	0.400
Want no more children	0.331	0.010	2,962	2,777	1.110	0.029	0.312	0.350
Want to delay next birth at least 2 years	0.233	0.010	2,962	2,777	1.350	0.045	0.212	0.254
Ideal number of children	4.586	0.038	5,028	4,795	1.657	0.008	4.510	4.662
Mothers protected against tetanus for last birth	0.757	0.013	2,174	2,019	1.441	0.018	0.730	0.783
Births with skilled attendant at delivery	0.604	0.018	3,202	2,968	1.711	0.031	0.567	0.641
Received 3+ doses of SP/Fansidar	0.237	0.015	1,249	1,160	1.240	0.063	0.207	0.267
Treated with ORS	0.433	0.042	162	170	1.076	0.097	0.349	0.517
Sought medical treatment for diarrhoea	0.692	0.040	162	170	1.165	0.058	0.611	0.773
Ever had vaccination card	0.830	0.019	637	596	1.279	0.023	0.792	0.868
Received BCG vaccination	0.839	0.020	637	596	1.341	0.023	0.800	0.878
Received birth dose HepB vaccination	0.661	0.024	637	596	1.258	0.036	0.614	0.709
Received DPT-HepB-Hib vaccination (3 doses)	0.696	0.023	637	596	1.267	0.033	0.650	0.743
Received birth dose polio 0 vaccination	0.675	0.025	637	596	1.336	0.037	0.625	0.725
Received polio vaccination (3 doses)	0.531	0.026	637	596	1.285	0.048	0.480	0.582
Received pneumococcal vaccination (3 doses)	0.683	0.023	637	596	1.227	0.033	0.638	0.729
Received measles 1 vaccination	0.711	0.021	637	596	1.179	0.030	0.668	0.754
Received all basic vaccinations (12-23 months)	0.418	0.024	637	596	1.220	0.057	0.371	0.466
Received all age-appropriate vaccinations (12-23 months)	0.309	0.023	637	596	1.238	0.074	0.264	0.355
Received measles 2 vaccination	0.183	0.017	552	514	1.036	0.095	0.149	0.218
Received all age-appropriate vaccinations (24-35 months)	0.044	0.011	552	514	1.243	0.246	0.022	0.066
Height-for-age (-2SD)	0.197	0.013	1,370	1,300	1.180	0.068	0.170	0.223
Weight-for-height (-2SD)	0.043	0.006	1,371	1,297	1.084	0.144	0.031	0.055
Weight-for-age (-2SD)	0.100	0.010	1,375	1,303	1.185	0.099	0.080	0.120
Body mass index (BMI) <18.5	0.057	0.008	1,745	1,655	1.366	0.133	0.042	0.073
Body mass index (BMI) ≥25	0.429	0.016	1,745	1,655	1.307	0.036	0.398	0.460
Prevalence of anaemia (children 6-59 months)	0.732	0.016	1,247	1,192	1.225	0.022	0.700	0.763
Prevalence of malaria (based on microscopy test)	0.156	0.019	898	861	1.395	0.120	0.119	0.194
Prevalence of malaria (based on rapid test)	0.254	0.019	1,246	1,191	1.404	0.075	0.216	0.292
Prevalence of anaemia (women 15-49)	0.601	0.016	1,915	1,813	1.458	0.027	0.568	0.634
Had 2+ sexual partners in past 12 months	0.038	0.005	5,080	4,840	1.701	0.120	0.029	0.047
Condom use at last sex	0.383	0.046	160	183	1.202	0.121	0.290	0.476
Abstinence among young people (never had sex)	0.525	0.019	1,261	1,224	1.323	0.035	0.488	0.563
Discriminatory attitudes towards people with HIV	0.629	0.013	4,852	4,685	1.924	0.021	0.602	0.655
Prevalence of sickle cell disease among children 6-59 months	0.003	0.001	1,247	1,192	0.887	0.435	0.000	0.006
Total fertility rate (last 3 years)	4.026	0.153	14,366	13,666	1.713	0.038	3.720	4.333
Neonatal mortality (last 0-9 years)	27.404	2.925	6,168	5,641	1.191	0.107	21.554	33.254
Postneonatal mortality (last 0-9 years)	21.155	1.986	6,169	5,639	1.027	0.094	17.184	25.127
Infant mortality (last 0-9 years)	48.559	3.857	6,173	5,644	1.226	0.079	40.845	56.273
Child mortality (last 0-9 years)	25.244	3.706	6,107	5,573	1.525	0.147	17.832	32.655
Under-5 mortality (last 0-9 years)	72.577	5.390	6,194	5,667	1.340	0.074	61.797	83.358
MEN								
Urban residence	0.408	0.022	1,520	1,438	1.774	0.055	0.364	0.453
Literacy	0.885	0.011	1,520	1,438	1.359	0.013	0.863	0.907
No education	0.018	0.004	1,520	1,438	1.094	0.206	0.011	0.026
Secondary or higher education	0.850	0.012	1,520	1,438	1.343	0.014	0.825	0.875
Never married (in union)	0.437	0.017	1,520	1,438	1.359	0.040	0.402	0.471
Currently married (in union)	0.544	0.018	1,520	1,438	1.377	0.032	0.508	0.579
Had first sexual intercourse before age 18	0.370	0.017	1,247	1,183	1.223	0.045	0.336	0.403
Knows any contraceptive method	0.999	0.001	814	782	0.737	0.001	0.998	1.001
Knows any modern contraceptive method	0.995	0.003	814	782	1.306	0.003	0.988	1.001
Want no more children	0.279	0.020	814	782	1.245	0.070	0.240	0.318
Want to delay birth at least 2 years	0.165	0.015	814	782	1.118	0.088	0.136	0.194
Ideal number of children	4.903	0.068	1,489	1,410	1.312	0.014	4.768	5.039
Had 2+ sexual partners in past 12 months	0.186	0.012	1,520	1,438	1.247	0.067	0.161	0.211
Condom use at last sex	0.451	0.039	275	267	1.292	0.086	0.373	0.529
Abstinence among young people (never had sex)	0.553	0.030	446	414	1.278	0.054	0.493	0.614
Had paid sex in past 12 months	0.058	0.007	1,520	1,438	1.228	0.126	0.044	0.073
Discriminatory attitudes towards people with HIV	0.561	0.017	1,490	1,414	1.338	0.031	0.527	0.595

Table B.10 Sampling errors: South West sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.444	0.015	7,046	8,714	2.512	0.034	0.414	0.474
De facto population with access to an ITN	0.346	0.011	23,843	30,418	2.143	0.033	0.323	0.369
Household population that slept under an ITN last night	0.276	0.010	23,843	30,418	1.863	0.037	0.255	0.296
WOMEN								
Urban residence	0.810	0.015	5,630	7,266	2.883	0.019	0.779	0.840
Literacy	0.806	0.013	5,630	7,266	2.405	0.016	0.781	0.831
No education	0.079	0.007	5,630	7,266	1.879	0.085	0.066	0.093
Secondary or higher education	0.775	0.014	5,630	7,266	2.588	0.019	0.746	0.804
Never married (never in union)	0.308	0.013	5,630	7,266	2.149	0.043	0.282	0.335
Currently married (in union)	0.642	0.011	5,630	7,266	1.797	0.018	0.619	0.665
Married before age 18	0.156	0.008	4,713	6,051	1.558	0.053	0.140	0.173
Had sexual intercourse before age 18	0.352	0.013	4,713	6,051	1.819	0.036	0.326	0.377
Currently pregnant	0.062	0.004	5,630	7,266	1.240	0.064	0.054	0.070
Know any contraceptive method	0.990	0.002	3,668	4,666	1.291	0.002	0.986	0.995
Know a modern method	0.989	0.002	3,668	4,666	1.361	0.002	0.984	0.994
Currently using any method	0.351	0.016	3,668	4,666	1.975	0.044	0.320	0.383
Currently using a modern method	0.244	0.009	3,668	4,666	1.221	0.036	0.226	0.261
Currently using pill	0.028	0.005	3,668	4,666	1.961	0.192	0.017	0.038
Currently using male condoms	0.042	0.005	3,668	4,666	1.577	0.125	0.031	0.052
Currently using injectables	0.059	0.006	3,668	4,666	1.616	0.107	0.046	0.071
Currently using implants	0.052	0.005	3,668	4,666	1.252	0.088	0.043	0.061
Currently using female sterilisation	0.002	0.001	3,668	4,666	0.979	0.354	0.001	0.004
Currently using withdrawal	0.071	0.007	3,668	4,666	1.571	0.094	0.058	0.084
Currently using rhythm	0.018	0.003	3,668	4,666	1.306	0.160	0.012	0.024
Using public sector source	0.504	0.028	957	1,220	1.747	0.056	0.448	0.561
Want no more children	0.370	0.008	3,668	4,666	1.044	0.023	0.353	0.386
Want to delay next birth at least 2 years	0.246	0.010	3,668	4,666	1.377	0.040	0.227	0.266
Ideal number of children	4.024	0.029	5,337	6,802	1.644	0.007	3.967	4.082
Mothers protected against tetanus for last birth	0.832	0.012	2,563	3,218	1.582	0.014	0.809	0.856
Births with skilled attendant at delivery	0.810	0.016	3,533	4,407	2.035	0.020	0.778	0.842
Received 3+ doses of SP/Fansidar	0.166	0.014	1,328	1,685	1.350	0.083	0.138	0.193
Treated with ORS	0.508	0.037	194	216	0.938	0.073	0.433	0.582
Sought medical treatment for diarrhoea	0.594	0.042	194	216	1.041	0.071	0.510	0.678
Ever had vaccination card	0.879	0.018	663	874	1.444	0.021	0.843	0.915
Received BCG vaccination	0.906	0.014	663	874	1.286	0.016	0.877	0.935
Received birth dose HepB vaccination	0.843	0.020	663	874	1.392	0.023	0.804	0.883
Received DPT-HepB-Hib vaccination (3 doses)	0.738	0.028	663	874	1.659	0.038	0.682	0.795
Received birth dose polio 0 vaccination	0.842	0.019	663	874	1.326	0.022	0.804	0.879
Received polio vaccination (3 doses)	0.497	0.026	663	874	1.333	0.052	0.445	0.548
Received pneumococcal vaccination (3 doses)	0.709	0.028	663	874	1.610	0.040	0.653	0.766
Received measles 1 vaccination	0.755	0.026	663	874	1.564	0.034	0.703	0.807
Received all basic vaccinations (12-23 months)	0.430	0.024	663	874	1.281	0.057	0.381	0.478
Received all age-appropriate vaccinations (12-23 months)	0.382	0.024	663	874	1.299	0.064	0.334	0.431
Received measles 2 vaccination	0.230	0.023	656	811	1.352	0.099	0.185	0.276
Received all age-appropriate vaccinations (24-35 months)	0.083	0.014	656	811	1.235	0.166	0.056	0.111
Height-for-age (-2SD)	0.247	0.014	1,863	2,294	1.338	0.059	0.218	0.275
Weight-for-height (-2SD)	0.049	0.007	1,858	2,287	1.293	0.136	0.036	0.063
Weight-for-age (-2SD)	0.148	0.012	1,866	2,297	1.413	0.083	0.124	0.173
Body mass index (BMI) <18.5	0.085	0.007	2,007	2,503	1.171	0.087	0.070	0.100
Body mass index (BMI) ≥25	0.378	0.014	2,007	2,503	1.227	0.036	0.351	0.405
Prevalence of anaemia (children 6-59 months)	0.596	0.020	1,668	2,060	1.603	0.033	0.557	0.635
Prevalence of malaria (based on microscopy test)	0.184	0.016	1,238	1,546	1.390	0.089	0.151	0.217
Prevalence of malaria (based on rapid test)	0.289	0.019	1,662	2,051	1.530	0.065	0.252	0.326
Prevalence of anaemia (women 15-49)	0.511	0.014	2,213	2,759	1.295	0.027	0.483	0.539
Had 2+ sexual partners in past 12 months	0.016	0.002	5,630	7,266	1.409	0.146	0.012	0.021
Condom use at last sex	0.234	0.068	78	119	1.393	0.289	0.098	0.369
Abstinence among young people (never had sex)	0.647	0.013	1,293	1,741	0.995	0.020	0.620	0.673
Discriminatory attitudes towards people with HIV	0.758	0.013	5,321	6,854	2.169	0.017	0.732	0.783
Prevalence of sickle cell disease among children 6-59 months	0.024	0.007	1,668	2,060	1.795	0.289	0.010	0.038
Total fertility rate (last 3 years)	3.857	0.115	15,987	20,547	1.485	0.030	3.627	4.087
Neonatal mortality (last 0-9 years)	30.692	2.392	6,879	8,572	1.007	0.078	25.908	35.476
Postneonatal mortality (last 0-9 years)	12.284	1.940	6,874	8,589	1.310	0.158	8.404	16.164
Infant mortality (last 0-9 years)	42.976	2.913	6,884	8,578	1.050	0.068	37.150	48.801
Child mortality (last 0-9 years)	20.165	2.336	6,825	8,516	1.234	0.116	15.493	24.838
Under-5 mortality (last 0-9 years)	62.274	3.566	6,909	8,606	1.039	0.057	55.142	69.407
MEN								
Urban residence	0.789	0.015	1,812	2,240	1.548	0.019	0.759	0.819
Literacy	0.890	0.012	1,812	2,240	1.611	0.013	0.867	0.914
No education	0.042	0.006	1,812	2,240	1.230	0.138	0.030	0.054
Secondary or higher education	0.833	0.013	1,812	2,240	1.503	0.016	0.807	0.859
Never married (in union)	0.317	0.015	1,812	2,240	1.386	0.048	0.286	0.347
Currently married (in union)	0.674	0.015	1,812	2,240	1.371	0.022	0.644	0.704
Had first sexual intercourse before age 18	0.169	0.011	1,519	1,916	1.190	0.068	0.146	0.192
Knows any contraceptive method	0.995	0.002	1,183	1,509	0.952	0.002	0.991	0.999
Knows any modern contraceptive method	0.991	0.003	1,183	1,509	1.171	0.003	0.984	0.997
Want no more children	0.344	0.018	1,183	1,509	1.335	0.054	0.307	0.381
Want to delay birth at least 2 years	0.172	0.012	1,183	1,509	1.109	0.071	0.147	0.196
Ideal number of children	4.264	0.072	1,780	2,198	1.393	0.017	4.121	4.408
Had 2+ sexual partners in past 12 months	0.087	0.008	1,812	2,240	1.205	0.092	0.071	0.103
Condom use at last sex	0.338	0.037	184	195	1.067	0.110	0.263	0.412
Abstinence among young people (never had sex)	0.688	0.034	428	484	1.497	0.049	0.620	0.755
Had paid sex in past 12 months	0.017	0.004	1,812	2,240	1.166	0.206	0.010	0.024
Discriminatory attitudes towards people with HIV	0.705	0.016	1,746	2,181	1.420	0.022	0.674	0.736

Table B.11 Sampling errors: FCT-Abuja sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.395	0.028	1,040	287	1.849	0.071	0.339	0.452
De facto population with access to an ITN	0.244	0.018	4,708	1,296	1.540	0.075	0.207	0.280
Household population that slept under an ITN last night	0.238	0.019	4,708	1,296	1.519	0.080	0.200	0.276
WOMEN								
Urban residence	0.675	0.046	1,186	319	3.355	0.068	0.584	0.767
Literacy	0.678	0.043	1,186	319	3.177	0.064	0.591	0.764
No education	0.186	0.034	1,186	319	2.978	0.182	0.118	0.253
Secondary or higher education	0.650	0.043	1,186	319	3.085	0.066	0.565	0.736
Never married (never in union)	0.311	0.023	1,186	319	1.689	0.073	0.265	0.356
Currently married (in union)	0.635	0.028	1,186	319	1.980	0.044	0.580	0.691
Married before age 18	0.271	0.030	947	255	2.105	0.112	0.210	0.332
Had sexual intercourse before age 18	0.475	0.029	947	255	1.762	0.060	0.418	0.533
Currently pregnant	0.062	0.007	1,186	319	1.056	0.119	0.048	0.077
Know any contraceptive method	0.956	0.012	753	202	1.568	0.012	0.933	0.980
Know a modern method	0.954	0.012	753	202	1.543	0.012	0.930	0.978
Currently using any method	0.239	0.032	753	202	2.037	0.133	0.175	0.302
Currently using a modern method	0.203	0.029	753	202	1.981	0.144	0.144	0.261
Currently using pill	0.032	0.011	753	202	1.747	0.352	0.009	0.054
Currently using male condoms	0.038	0.010	753	202	1.364	0.250	0.019	0.057
Currently using injectables	0.070	0.012	753	202	1.253	0.167	0.046	0.093
Currently using implants	0.043	0.009	753	202	1.173	0.202	0.026	0.060
Currently using female sterilisation	0.005	0.003	753	202	1.063	0.552	0.000	0.010
Currently using withdrawal	0.024	0.007	753	202	1.341	0.314	0.009	0.039
Currently using rhythm	0.005	0.002	753	202	0.922	0.461	0.000	0.010
Using public sector source	0.467	0.048	202	56	1.374	0.104	0.370	0.563
Want no more children	0.354	0.023	753	202	1.305	0.064	0.308	0.399
Want to delay next birth at least 2 years	0.118	0.012	753	202	0.985	0.098	0.095	0.141
Ideal number of children	4.732	0.099	1,115	300	1.964	0.021	4.535	4.930
Mothers protected against tetanus for last birth	0.708	0.032	538	148	1.637	0.045	0.645	0.772
Births with skilled attendant at delivery	0.717	0.052	803	225	2.727	0.073	0.612	0.822
Received 3+ doses of SP/Fansidar	0.270	0.050	311	87	2.015	0.184	0.171	0.369
Treated with ORS	0.414	0.071	60	17	1.150	0.172	0.272	0.556
Sought medical treatment for diarrhoea	0.875	0.051	60	17	1.232	0.058	0.773	0.976
Ever had vaccination card	0.811	0.048	141	41	1.519	0.060	0.714	0.907
Received BCG vaccination	0.877	0.032	141	41	1.216	0.037	0.812	0.942
Received birth dose HepB vaccination	0.830	0.036	141	41	1.178	0.043	0.759	0.902
Received DPT-HepB-Hib vaccination (3 doses)	0.735	0.033	141	41	0.916	0.045	0.670	0.801
Received birth dose polio 0 vaccination	0.770	0.038	141	41	1.117	0.049	0.694	0.847
Received polio vaccination (3 doses)	0.570	0.046	141	41	1.149	0.081	0.478	0.662
Received pneumococcal vaccination (3 doses)	0.731	0.033	141	41	0.915	0.045	0.665	0.796
Received measles 1 vaccination	0.739	0.037	141	41	1.041	0.050	0.665	0.813
Received all basic vaccinations (12-23 months)	0.496	0.049	141	41	1.216	0.099	0.397	0.594
Received all age-appropriate vaccinations (12-23 months)	0.431	0.054	141	41	1.351	0.126	0.323	0.540
Received measles 2 vaccination	0.191	0.044	143	40	1.355	0.228	0.104	0.278
Received all age-appropriate vaccinations (24-35 months)	0.092	0.035	143	40	1.486	0.382	0.022	0.162
Height-for-age (-2SD)	0.212	0.036	298	87	1.460	0.172	0.139	0.285
Weight-for-height (-2SD)	0.030	0.012	297	87	1.275	0.399	0.006	0.054
Weight-for-age (-2SD)	0.121	0.025	298	87	1.363	0.208	0.071	0.172
Body mass index (BMI) <18.5	0.094	0.024	384	105	1.593	0.251	0.047	0.141
Body mass index (BMI) ≥25	0.375	0.043	384	105	1.732	0.114	0.289	0.460
Prevalence of anaemia (children 6-59 months)	0.588	0.041	268	80	1.325	0.070	0.506	0.671
Prevalence of malaria (based on microscopy test)	0.201	0.035	199	59	1.133	0.174	0.131	0.270
Prevalence of malaria (based on rapid test)	0.313	0.047	269	80	1.487	0.150	0.219	0.407
Prevalence of anaemia (women 15-49)	0.503	0.026	405	112	1.043	0.051	0.452	0.555
Had 2+ sexual partners in past 12 months	0.023	0.011	1,186	319	2.498	0.479	0.001	0.044
Condom use at last sex	0.784	0.140	27	7	1.675	0.179	0.503	1.064
Abstinence among young people (never had sex)	0.742	0.039	301	81	1.556	0.053	0.664	0.821
Discriminatory attitudes towards people with HIV	0.486	0.020	1,134	304	1.354	0.041	0.446	0.526
Prevalence of sickle cell disease among children 6-59 months	0.000	0.000	268	80	0.000	0.000	0.000	0.000
Total fertility rate (last 3 years)	4.322	0.297	3,333	896	1.974	0.069	3.728	4.916
Neonatal mortality (last 0-9 years)	26.773	5.047	1,594	437	1.215	0.189	16.679	36.867
Postneonatal mortality (last 0-9 years)	19.511	5.913	1,597	438	1.458	0.303	7.684	31.338
Infant mortality (last 0-9 years)	46.284	7.903	1,594	437	1.340	0.171	30.477	62.090
Child mortality (last 0-9 years)	29.647	5.490	1,566	426	1.060	0.185	18.667	40.627
Under-5 mortality (last 0-9 years)	74.559	9.619	1,605	440	1.311	0.129	55.320	93.797
MEN								
Urban residence	0.682	0.042	353	96	1.680	0.061	0.599	0.766
Literacy	0.847	0.031	353	96	1.622	0.037	0.785	0.910
No education	0.086	0.028	353	96	1.861	0.323	0.031	0.142
Secondary or higher education	0.779	0.041	353	96	1.840	0.052	0.697	0.861
Never married (in union)	0.389	0.050	353	96	1.929	0.129	0.288	0.489
Currently married (in union)	0.602	0.047	353	96	1.797	0.078	0.508	0.696
Had first sexual intercourse before age 18	0.094	0.029	278	77	1.630	0.305	0.037	0.151
Knows any contraceptive method	1.000	0.000	199	58	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	199	58	0.000	0.000	1.000	1.000
Want no more children	0.388	0.042	199	58	1.220	0.109	0.304	0.473
Want to delay birth at least 2 years	0.297	0.033	199	58	1.019	0.112	0.230	0.363
Ideal number of children	5.080	0.229	348	94	1.839	0.045	4.621	5.539
Had 2+ sexual partners in past 12 months	0.066	0.015	353	96	1.134	0.228	0.036	0.096
Condom use at last sex	0.321	0.120	24	6	1.218	0.373	0.082	0.561
Abstinence among young people (never had sex)	0.936	0.023	108	27	0.971	0.025	0.890	0.982
Had paid sex in past 12 months	0.008	0.006	353	96	1.172	0.690	0.000	0.019
Discriminatory attitudes towards people with HIV	0.457	0.046	340	92	1.708	0.102	0.364	0.549

Table B.12 Sampling errors: Benue sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.641	0.025	1,140	1,230	1.785	0.040	0.591	0.692
De facto population with access to an ITN	0.484	0.026	4,917	5,263	1.987	0.053	0.433	0.535
Household population that slept under an ITN last night	0.520	0.028	4,917	5,263	1.998	0.055	0.463	0.577
WOMEN								
Urban residence	0.166	0.034	1,278	1,354	3.219	0.203	0.098	0.233
Literacy	0.558	0.024	1,278	1,354	1.703	0.042	0.510	0.605
No education	0.218	0.018	1,278	1,354	1.560	0.083	0.182	0.254
Secondary or higher education	0.546	0.027	1,278	1,354	1.958	0.050	0.492	0.601
Never married (never in union)	0.258	0.016	1,278	1,354	1.294	0.061	0.227	0.290
Currently married (in union)	0.647	0.020	1,278	1,354	1.479	0.031	0.607	0.686
Married before age 18	0.385	0.023	1,010	1,075	1.479	0.059	0.340	0.431
Had sexual intercourse before age 18	0.628	0.025	1,010	1,075	1.655	0.040	0.578	0.678
Currently pregnant	0.099	0.013	1,278	1,354	1.527	0.129	0.073	0.124
Know any contraceptive method	0.990	0.004	836	876	1.084	0.004	0.982	0.997
Know a modern method	0.990	0.004	836	876	1.084	0.004	0.982	0.997
Currently using any method	0.171	0.015	836	876	1.139	0.087	0.141	0.201
Currently using a modern method	0.155	0.015	836	876	1.206	0.097	0.125	0.185
Currently using pill	0.012	0.004	836	876	1.032	0.319	0.004	0.020
Currently using male condoms	0.028	0.009	836	876	1.562	0.316	0.010	0.046
Currently using injectables	0.031	0.009	836	876	1.491	0.288	0.013	0.049
Currently using implants	0.064	0.010	836	876	1.195	0.159	0.044	0.084
Currently using female sterilisation	0.005	0.002	836	876	0.946	0.453	0.000	0.010
Currently using withdrawal	0.006	0.003	836	876	1.048	0.457	0.001	0.012
Currently using rhythm	0.007	0.003	836	876	0.936	0.387	0.002	0.012
Using public sector source	0.520	0.040	138	152	0.936	0.077	0.440	0.600
Want no more children	0.308	0.023	836	876	1.448	0.075	0.262	0.355
Want to delay next birth at least 2 years	0.336	0.017	836	876	1.015	0.049	0.303	0.370
Ideal number of children	5.082	0.087	1,276	1,351	1.835	0.017	4.907	5.257
Mothers protected against tetanus for last birth	0.685	0.032	607	637	1.720	0.047	0.620	0.749
Births with skilled attendant at delivery	0.711	0.032	908	949	1.848	0.045	0.647	0.774
Received 3+ doses of SP/Fansidar	0.176	0.026	355	370	1.266	0.145	0.125	0.227
Treated with ORS	0.388	0.068	97	101	1.376	0.176	0.251	0.525
Sought medical treatment for diarrhoea	0.924	0.027	97	101	0.994	0.029	0.870	0.977
Ever had vaccination card	0.777	0.058	186	194	1.854	0.074	0.661	0.893
Received BCG vaccination	0.820	0.043	186	194	1.528	0.053	0.733	0.906
Received birth dose HepB vaccination	0.677	0.048	186	194	1.401	0.071	0.581	0.774
Received DPT-HepB-Hib vaccination (3 doses)	0.587	0.050	186	194	1.376	0.085	0.487	0.687
Received birth dose polio 0 vaccination	0.641	0.043	186	194	1.203	0.066	0.556	0.727
Received polio vaccination (3 doses)	0.400	0.050	186	194	1.367	0.124	0.300	0.499
Received pneumococcal vaccination (3 doses)	0.526	0.051	186	194	1.381	0.098	0.423	0.629
Received measles 1 vaccination	0.641	0.055	186	194	1.530	0.086	0.531	0.752
Received all basic vaccinations (12-23 months)	0.274	0.044	186	194	1.324	0.160	0.186	0.361
Received all age-appropriate vaccinations (12-23 months)	0.196	0.035	186	194	1.186	0.179	0.126	0.266
Received measles 2 vaccination	0.217	0.034	169	180	1.086	0.157	0.149	0.285
Received all age-appropriate vaccinations (24-35 months)	0.010	0.008	169	180	1.068	0.791	0.000	0.027
Height-for-age (-2SD)	0.205	0.023	373	414	1.036	0.113	0.159	0.252
Weight-for-height (-2SD)	0.090	0.017	376	415	1.107	0.189	0.056	0.123
Weight-for-age (-2SD)	0.123	0.017	379	419	1.040	0.139	0.089	0.157
Body mass index (BMI) <18.5	0.063	0.014	410	431	1.128	0.215	0.036	0.090
Body mass index (BMI) ≥25	0.223	0.025	410	431	1.203	0.111	0.173	0.273
Prevalence of anaemia (children 6-59 months)	0.620	0.025	340	377	0.923	0.041	0.569	0.671
Prevalence of malaria (based on microscopy test)	0.127	0.022	236	265	1.046	0.170	0.084	0.170
Prevalence of malaria (based on rapid test)	0.260	0.035	339	376	1.259	0.133	0.191	0.329
Prevalence of anaemia (women 15-49)	0.488	0.027	468	496	1.182	0.056	0.434	0.543
Had 2+ sexual partners in past 12 months	0.023	0.007	1,278	1,354	1.595	0.293	0.009	0.036
Condom use at last sex	0.478	0.090	27	31	0.922	0.188	0.298	0.658
Abstinence among young people (never had sex)	0.630	0.033	277	299	1.139	0.053	0.563	0.696
Discriminatory attitudes towards people with HIV	0.450	0.026	1,274	1,350	1.895	0.059	0.397	0.503
Prevalence of sickle cell disease among children 6-59 months	0.011	0.006	340	377	1.002	0.506	0.000	0.022
Total fertility rate (last 3 years)	4.524	0.231	3,554	3,770	1.103	0.051	4.063	4.986
Neonatal mortality (last 0-9 years)	25.047	3.976	1,674	1,702	0.898	0.159	17.094	32.999
Postneonatal mortality (last 0-9 years)	15.251	4.028	1,671	1,700	1.241	0.264	7.194	23.307
Infant mortality (last 0-9 years)	40.297	5.762	1,676	1,704	1.059	0.143	28.774	51.820
Child mortality (last 0-9 years)	19.396	4.221	1,627	1,651	1.116	0.218	10.954	27.838
Under-5 mortality (last 0-9 years)	58.911	7.400	1,684	1,713	1.129	0.126	44.112	73.711
MEN								
Urban residence	0.172	0.032	321	351	1.500	0.184	0.109	0.236
Literacy	0.809	0.033	321	351	1.489	0.041	0.743	0.874
No education	0.075	0.022	321	351	1.509	0.297	0.030	0.120
Secondary or higher education	0.795	0.030	321	351	1.324	0.038	0.735	0.855
Never married (in union)	0.373	0.029	321	351	1.071	0.078	0.315	0.431
Currently married (in union)	0.614	0.028	321	351	1.014	0.045	0.559	0.670
Had first sexual intercourse before age 18	0.081	0.019	261	289	1.097	0.229	0.044	0.118
Knows any contraceptive method	1.000	0.000	198	216	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	198	216	0.000	0.000	1.000	1.000
Want no more children	0.234	0.036	198	216	1.207	0.156	0.161	0.307
Want to delay birth at least 2 years	0.427	0.038	198	216	1.075	0.089	0.352	0.503
Ideal number of children	4.246	0.189	320	350	1.277	0.044	3.868	4.623
Had 2+ sexual partners in past 12 months	0.084	0.019	321	351	1.240	0.229	0.046	0.123
Condom use at last sex	0.251	0.083	27	30	0.982	0.333	0.084	0.417
Abstinence among young people (never had sex)	0.901	0.026	80	82	0.774	0.029	0.849	0.953
Had paid sex in past 12 months	0.011	0.005	321	351	0.931	0.492	0.000	0.022
Discriminatory attitudes towards people with HIV	0.206	0.026	274	301	1.083	0.129	0.153	0.259

Table B.13 Sampling errors: Kogi sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.685	0.031	988	707	2.103	0.045	0.623	0.747
De facto population with access to an ITN	0.555	0.031	3,577	2,596	2.017	0.056	0.493	0.618
Household population that slept under an ITN last night	0.482	0.033	3,577	2,596	2.043	0.069	0.415	0.548
WOMEN								
Urban residence	0.355	0.044	907	654	2.764	0.124	0.267	0.443
Literacy	0.577	0.044	907	654	2.700	0.077	0.488	0.666
No education	0.128	0.029	907	654	2.648	0.231	0.069	0.187
Secondary or higher education	0.611	0.036	907	654	2.227	0.059	0.539	0.683
Never married (never in union)	0.260	0.019	907	654	1.337	0.075	0.221	0.299
Currently married (in union)	0.653	0.019	907	654	1.196	0.029	0.616	0.691
Married before age 18	0.396	0.029	700	506	1.569	0.073	0.338	0.455
Had sexual intercourse before age 18	0.586	0.037	700	506	1.973	0.063	0.512	0.660
Currently pregnant	0.110	0.018	907	654	1.697	0.161	0.074	0.145
Know any contraceptive method	0.949	0.015	589	428	1.662	0.016	0.919	0.979
Know a modern method	0.946	0.015	589	428	1.626	0.016	0.916	0.976
Currently using any method	0.183	0.022	589	428	1.375	0.120	0.139	0.227
Currently using a modern method	0.118	0.020	589	428	1.533	0.173	0.078	0.159
Currently using pill	0.012	0.004	589	428	0.954	0.363	0.003	0.020
Currently using male condoms	0.034	0.008	589	428	1.057	0.234	0.018	0.049
Currently using injectables	0.029	0.008	589	428	1.217	0.292	0.012	0.046
Currently using implants	0.024	0.007	589	428	1.184	0.311	0.009	0.039
Currently using female sterilisation	0.004	0.003	589	428	0.941	0.588	0.000	0.009
Currently using withdrawal	0.041	0.006	589	428	0.768	0.154	0.028	0.053
Currently using rhythm	0.019	0.007	589	428	1.178	0.346	0.006	0.033
Using public sector source	0.269	0.038	102	78	0.861	0.141	0.193	0.344
Want no more children	0.308	0.020	589	428	1.047	0.065	0.268	0.347
Want to delay next birth at least 2 years	0.339	0.028	589	428	1.433	0.083	0.283	0.395
Ideal number of children	4.765	0.091	852	615	1.918	0.019	4.583	4.947
Mothers protected against tetanus for last birth	0.673	0.040	412	299	1.715	0.059	0.594	0.752
Births with skilled attendant at delivery	0.776	0.028	620	451	1.376	0.036	0.720	0.831
Received 3+ doses of SP/Fansidar	0.298	0.037	228	167	1.247	0.126	0.223	0.373
Treated with ORS	0.325	0.110	38	26	1.256	0.337	0.106	0.544
Sought medical treatment for diarrhoea	0.389	0.095	38	26	1.066	0.245	0.199	0.580
Ever had vaccination card	0.807	0.071	103	80	1.860	0.087	0.666	0.948
Received BCG vaccination	0.800	0.053	103	80	1.392	0.067	0.693	0.907
Received birth dose HepB vaccination	0.631	0.051	103	80	1.100	0.081	0.528	0.734
Received DPT-HepB-Hib vaccination (3 doses)	0.556	0.069	103	80	1.414	0.123	0.419	0.694
Received birth dose polio 0 vaccination	0.582	0.068	103	80	1.408	0.118	0.445	0.719
Received polio vaccination (3 doses)	0.434	0.066	103	80	1.346	0.151	0.303	0.565
Received pneumococcal vaccination (3 doses)	0.495	0.060	103	80	1.232	0.122	0.374	0.616
Received measles 1 vaccination	0.447	0.064	103	80	1.305	0.143	0.320	0.575
Received all basic vaccinations (12-23 months)	0.262	0.058	103	80	1.302	0.221	0.146	0.377
Received all age-appropriate vaccinations (12-23 months)	0.108	0.036	103	80	1.209	0.332	0.036	0.180
Received measles 2 vaccination	0.217	0.041	99	72	0.967	0.190	0.135	0.299
Received all age-appropriate vaccinations (24-35 months)	0.093	0.033	99	72	1.118	0.350	0.028	0.158
Height-for-age (-2SD)	0.200	0.030	214	159	1.008	0.148	0.141	0.259
Weight-for-height (-2SD)	0.039	0.013	213	158	1.071	0.338	0.013	0.065
Weight-for-age (-2SD)	0.102	0.021	214	159	0.866	0.211	0.059	0.145
Body mass index (BMI) <18.5	0.102	0.023	267	189	1.217	0.224	0.056	0.147
Body mass index (BMI) ≥25	0.267	0.032	267	189	1.175	0.120	0.203	0.331
Prevalence of anaemia (children 6-59 months)	0.636	0.047	194	143	1.333	0.074	0.541	0.730
Prevalence of malaria (based on microscopy test)	0.254	0.047	140	105	1.222	0.185	0.160	0.347
Prevalence of malaria (based on rapid test)	0.460	0.056	194	143	1.418	0.122	0.348	0.572
Prevalence of anaemia (women 15-49)	0.582	0.039	312	224	1.386	0.067	0.504	0.660
Had 2+ sexual partners in past 12 months	0.006	0.003	907	654	1.117	0.475	0.000	0.012
Condom use at last sex	0.198	0.214	5	4	1.057	1.078	0.000	0.626
Abstinence among young people (never had sex)	0.577	0.028	220	156	0.833	0.048	0.521	0.632
Discriminatory attitudes towards people with HIV	0.778	0.030	770	555	2.020	0.039	0.718	0.839
Prevalence of sickle cell disease among children 6-59 months	0.024	0.012	194	143	1.159	0.520	0.000	0.049
Total fertility rate (last 3 years)	4.756	0.277	2,517	1,819	1.194	0.058	4.201	5.310
Neonatal mortality (last 0-9 years)	50.338	7.162	1,236	889	0.990	0.142	36.014	64.663
Postneonatal mortality (last 0-9 years)	43.093	6.058	1,237	890	0.976	0.141	30.977	55.208
Infant mortality (last 0-9 years)	93.431	9.152	1,238	890	1.051	0.098	75.127	111.735
Child mortality (last 0-9 years)	60.061	10.360	1,224	880	1.173	0.172	39.341	80.781
Under-5 mortality (last 0-9 years)	147.881	14.195	1,250	898	1.145	0.096	119.491	176.270
MEN								
Urban residence	0.438	0.066	191	156	1.819	0.150	0.306	0.570
Literacy	0.759	0.034	191	156	1.104	0.045	0.691	0.828
No education	0.042	0.023	191	156	1.561	0.546	0.000	0.087
Secondary or higher education	0.858	0.032	191	156	1.267	0.037	0.794	0.922
Never married (in union)	0.450	0.051	191	156	1.416	0.114	0.348	0.553
Currently married (in union)	0.538	0.050	191	156	1.373	0.093	0.438	0.637
Had first sexual intercourse before age 18	0.356	0.032	156	127	0.829	0.089	0.292	0.419
Knows any contraceptive method	0.987	0.012	105	84	1.132	0.013	0.962	1.012
Knows any modern contraceptive method	0.987	0.012	105	84	1.132	0.013	0.962	1.012
Want no more children	0.191	0.036	105	84	0.924	0.186	0.120	0.262
Want to delay birth at least 2 years	0.407	0.050	105	84	1.039	0.123	0.307	0.507
Ideal number of children	5.472	0.268	183	149	1.353	0.049	4.935	6.008
Had 2+ sexual partners in past 12 months	0.172	0.028	191	156	1.022	0.163	0.116	0.227
Condom use at last sex	0.110	0.050	36	27	0.950	0.456	0.010	0.211
Abstinence among young people (never had sex)	0.423	0.091	60	52	1.399	0.214	0.242	0.605
Had paid sex in past 12 months	0.039	0.013	191	156	0.927	0.332	0.013	0.065
Discriminatory attitudes towards people with HIV	0.650	0.038	169	138	1.041	0.059	0.573	0.727

Table B.14 Sampling errors: Kwara sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.655	0.027	1,016	771	1.795	0.041	0.602	0.709
De facto population with access to an ITN	0.496	0.025	4,164	3,271	1.734	0.051	0.445	0.547
Household population that slept under an ITN last night	0.304	0.025	4,164	3,271	1.810	0.082	0.254	0.354
WOMEN								
Urban residence	0.752	0.033	906	684	2.294	0.044	0.686	0.818
Literacy	0.537	0.067	906	684	4.036	0.126	0.402	0.672
No education	0.319	0.071	906	684	4.560	0.224	0.176	0.462
Secondary or higher education	0.497	0.068	906	684	4.056	0.137	0.361	0.633
Never married (never in union)	0.263	0.024	906	684	1.671	0.093	0.214	0.312
Currently married (in union)	0.710	0.025	906	684	1.662	0.035	0.660	0.760
Married before age 18	0.287	0.042	713	543	2.464	0.146	0.204	0.371
Had sexual intercourse before age 18	0.431	0.047	713	543	2.498	0.108	0.338	0.524
Currently pregnant	0.100	0.011	906	684	1.091	0.109	0.079	0.122
Know any contraceptive method	0.907	0.047	636	486	4.043	0.052	0.813	1.002
Know a modern method	0.893	0.049	636	486	3.931	0.055	0.796	0.991
Currently using any method	0.224	0.029	636	486	1.730	0.128	0.167	0.282
Currently using a modern method	0.171	0.023	636	486	1.551	0.135	0.125	0.218
Currently using pill	0.025	0.007	636	486	1.164	0.287	0.011	0.040
Currently using male condoms	0.025	0.008	636	486	1.344	0.331	0.009	0.042
Currently using injectables	0.063	0.012	636	486	1.282	0.197	0.038	0.088
Currently using implants	0.038	0.010	636	486	1.324	0.264	0.018	0.058
Currently using female sterilisation	0.001	0.001	636	486	0.885	1.027	0.000	0.004
Currently using withdrawal	0.034	0.010	636	486	1.325	0.280	0.015	0.053
Currently using rhythm	0.008	0.004	636	486	1.047	0.478	0.000	0.015
Using public sector source	0.546	0.039	124	95	0.879	0.072	0.468	0.625
Want no more children	0.345	0.041	636	486	2.156	0.118	0.264	0.427
Want to delay next birth at least 2 years	0.241	0.026	636	486	1.518	0.107	0.189	0.292
Ideal number of children	5.008	0.144	855	635	2.868	0.029	4.719	5.296
Mothers protected against tetanus for last birth	0.659	0.071	467	360	3.202	0.107	0.518	0.801
Births with skilled attendant at delivery	0.580	0.067	694	533	2.822	0.115	0.447	0.713
Received 3+ doses of SP/Fansidar	0.146	0.023	268	211	1.098	0.160	0.099	0.193
Treated with ORS	0.353	0.084	45	41	1.246	0.239	0.184	0.522
Sought medical treatment for diarrhoea	0.641	0.059	45	41	0.893	0.092	0.523	0.759
Ever had vaccination card	0.618	0.088	130	105	2.107	0.143	0.441	0.794
Received BCG vaccination	0.635	0.091	130	105	2.201	0.144	0.452	0.818
Received birth dose HepB vaccination	0.545	0.071	130	105	1.644	0.130	0.404	0.687
Received DPT-HepB-Hib vaccination (3 doses)	0.545	0.073	130	105	1.696	0.134	0.399	0.691
Received birth dose polio 0 vaccination	0.615	0.090	130	105	2.154	0.147	0.434	0.795
Received polio vaccination (3 doses)	0.352	0.076	130	105	1.841	0.215	0.200	0.503
Received pneumococcal vaccination (3 doses)	0.553	0.073	130	105	1.712	0.133	0.406	0.699
Received measles 1 vaccination	0.505	0.095	130	105	2.199	0.188	0.315	0.695
Received all basic vaccinations (12-23 months)	0.293	0.060	130	105	1.529	0.204	0.173	0.412
Received all age-appropriate vaccinations (12-23 months)	0.269	0.051	130	105	1.332	0.189	0.168	0.371
Received measles 2 vaccination	0.228	0.053	117	85	1.283	0.235	0.121	0.334
Received all age-appropriate vaccinations (24-35 months)	0.028	0.014	117	85	0.887	0.500	0.000	0.055
Height-for-age (-2SD)	0.329	0.066	261	202	2.073	0.200	0.198	0.461
Weight-for-height (-2SD)	0.074	0.030	259	201	1.699	0.404	0.014	0.134
Weight-for-age (-2SD)	0.186	0.066	261	202	2.343	0.354	0.054	0.318
Body mass index (BMI) <18.5	0.111	0.023	297	226	1.254	0.206	0.065	0.156
Body mass index (BMI) ≥25	0.260	0.031	297	226	1.235	0.120	0.198	0.323
Prevalence of anaemia (children 6-59 months)	0.694	0.041	244	189	1.219	0.059	0.612	0.775
Prevalence of malaria (based on microscopy test)	0.202	0.041	181	147	1.283	0.200	0.121	0.283
Prevalence of malaria (based on rapid test)	0.437	0.070	244	189	1.988	0.160	0.297	0.577
Prevalence of anaemia (women 15-49)	0.549	0.035	339	256	1.300	0.064	0.479	0.619
Had 2+ sexual partners in past 12 months	0.003	0.001	906	684	0.844	0.530	0.000	0.006
Condom use at last sex	0.403	0.361	3	2	1.027	0.897	0.000	1.124
Abstinence among young people (never had sex)	0.704	0.040	228	167	1.305	0.056	0.625	0.783
Discriminatory attitudes towards people with HIV	0.748	0.038	819	618	2.471	0.050	0.673	0.823
Prevalence of sickle cell disease among children 6-59 months	0.020	0.010	244	189	1.018	0.515	0.000	0.041
Total fertility rate (last 3 years)	5.216	0.249	2,499	1,884	1.374	0.048	4.719	5.713
Neonatal mortality (last 0-9 years)	31.369	6.746	1,377	1,066	1.330	0.215	17.877	44.860
Postneonatal mortality (last 0-9 years)	20.413	6.475	1,385	1,072	1.433	0.317	7.463	33.363
Infant mortality (last 0-9 years)	51.782	10.014	1,378	1,067	1.397	0.193	31.755	71.809
Child mortality (last 0-9 years)	23.326	5.011	1,353	1,052	1.203	0.215	13.304	33.348
Under-5 mortality (last 0-9 years)	73.900	11.520	1,382	1,071	1.319	0.156	50.859	96.941
MEN								
Urban residence	0.792	0.043	259	208	1.709	0.055	0.705	0.878
Literacy	0.646	0.072	259	208	2.381	0.111	0.503	0.789
No education	0.196	0.063	259	208	2.525	0.322	0.070	0.322
Secondary or higher education	0.624	0.066	259	208	2.159	0.105	0.493	0.756
Never married (in union)	0.487	0.041	259	208	1.321	0.085	0.405	0.569
Currently married (in union)	0.509	0.041	259	208	1.312	0.080	0.427	0.591
Had first sexual intercourse before age 18	0.187	0.037	200	157	1.348	0.200	0.112	0.262
Knows any contraceptive method	0.953	0.026	140	106	1.410	0.027	0.901	1.004
Knows any modern contraceptive method	0.953	0.026	140	106	1.410	0.027	0.901	1.004
Want no more children	0.311	0.059	140	106	1.494	0.189	0.194	0.429
Want to delay birth at least 2 years	0.200	0.034	140	106	0.991	0.168	0.133	0.268
Ideal number of children	7.017	0.374	248	200	1.350	0.053	6.268	7.766
Had 2+ sexual partners in past 12 months	0.204	0.026	259	208	1.024	0.126	0.153	0.255
Condom use at last sex	0.225	0.055	50	42	0.920	0.244	0.115	0.335
Abstinence among young people (never had sex)	0.642	0.060	87	75	1.152	0.093	0.523	0.762
Had paid sex in past 12 months	0.085	0.020	259	208	1.147	0.235	0.045	0.124
Discriminatory attitudes towards people with HIV	0.778	0.025	228	185	0.919	0.033	0.728	0.829

Table B.15 Sampling errors: Nasarawa sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.766	0.041	998	591	3.076	0.054	0.683	0.849
De facto population with access to an ITN	0.591	0.040	4,802	2,865	2.672	0.068	0.510	0.671
Household population that slept under an ITN last night	0.512	0.033	4,802	2,865	2.065	0.064	0.447	0.578
WOMEN								
Urban residence	0.320	0.065	1,121	648	4.597	0.202	0.190	0.449
Literacy	0.602	0.045	1,121	648	3.083	0.075	0.511	0.692
No education	0.261	0.039	1,121	648	2.994	0.151	0.182	0.340
Secondary or higher education	0.579	0.050	1,121	648	3.404	0.087	0.478	0.680
Never married (never in union)	0.319	0.021	1,121	648	1.489	0.065	0.278	0.361
Currently married (in union)	0.643	0.026	1,121	648	1.821	0.041	0.590	0.695
Married before age 18	0.404	0.038	885	519	2.291	0.094	0.329	0.480
Had sexual intercourse before age 18	0.479	0.038	885	519	2.260	0.079	0.403	0.556
Currently pregnant	0.081	0.008	1,121	648	1.002	0.100	0.065	0.098
Know any contraceptive method	0.953	0.017	696	416	2.099	0.018	0.920	0.987
Know a modern method	0.950	0.017	696	416	2.104	0.018	0.916	0.985
Currently using any method	0.148	0.030	696	416	2.225	0.203	0.088	0.209
Currently using a modern method	0.143	0.027	696	416	2.031	0.189	0.089	0.197
Currently using pill	0.018	0.008	696	416	1.531	0.431	0.002	0.033
Currently using male condoms	0.009	0.004	696	416	1.191	0.482	0.000	0.017
Currently using injectables	0.030	0.008	696	416	1.319	0.287	0.013	0.047
Currently using implants	0.072	0.011	696	416	1.164	0.159	0.049	0.095
Currently using female sterilisation	0.001	0.001	696	416	0.685	1.027	0.000	0.002
Currently using withdrawal	0.004	0.004	696	416	1.552	0.957	0.000	0.011
Currently using rhythm	0.000	0.000	696	416	0.000	0.000	0.000	0.000
Using public sector source	0.831	0.058	101	68	1.524	0.069	0.716	0.946
Want no more children	0.274	0.020	696	416	1.169	0.072	0.234	0.313
Want to delay next birth at least 2 years	0.396	0.023	696	416	1.241	0.058	0.350	0.442
Ideal number of children	6.019	0.166	1,120	647	2.421	0.028	5.687	6.352
Mothers protected against tetanus for last birth	0.665	0.026	539	329	1.313	0.039	0.613	0.718
Births with skilled attendant at delivery	0.575	0.055	834	521	2.629	0.095	0.465	0.684
Received 3+ doses of SP/Fansidar	0.149	0.022	306	189	1.089	0.145	0.106	0.193
Treated with ORS	0.802	0.052	39	27	0.922	0.065	0.698	0.906
Sought medical treatment for diarrhoea	0.863	0.078	39	27	1.500	0.090	0.708	1.019
Ever had vaccination card	0.880	0.033	137	85	1.199	0.037	0.815	0.945
Received BCG vaccination	0.876	0.034	137	85	1.232	0.039	0.808	0.944
Received birth dose HepB vaccination	0.847	0.031	137	85	1.026	0.037	0.785	0.908
Received DPT-HepB-Hib vaccination (3 doses)	0.597	0.063	137	85	1.523	0.106	0.471	0.724
Received birth dose polio 0 vaccination	0.813	0.038	137	85	1.151	0.046	0.738	0.888
Received polio vaccination (3 doses)	0.516	0.049	137	85	1.163	0.096	0.417	0.615
Received pneumococcal vaccination (3 doses)	0.542	0.065	137	85	1.543	0.121	0.411	0.672
Received measles 1 vaccination	0.656	0.063	137	85	1.581	0.097	0.529	0.782
Received all basic vaccinations (12-23 months)	0.391	0.062	137	85	1.473	0.159	0.267	0.515
Received all age-appropriate vaccinations (12-23 months)	0.330	0.054	137	85	1.305	0.162	0.223	0.437
Received measles 2 vaccination	0.208	0.046	156	98	1.431	0.219	0.117	0.299
Received all age-appropriate vaccinations (24-35 months)	0.068	0.031	156	98	1.565	0.447	0.007	0.129
Height-for-age (-2SD)	0.312	0.032	299	194	1.156	0.102	0.249	0.376
Weight-for-height (-2SD)	0.056	0.012	299	194	1.022	0.221	0.031	0.080
Weight-for-age (-2SD)	0.202	0.030	299	194	1.286	0.149	0.142	0.263
Body mass index (BMI) <18.5	0.119	0.024	346	209	1.378	0.197	0.072	0.166
Body mass index (BMI) ≥25	0.288	0.027	346	209	1.126	0.093	0.234	0.341
Prevalence of anaemia (children 6-59 months)	0.679	0.046	266	172	1.541	0.067	0.588	0.771
Prevalence of malaria (based on microscopy test)	0.136	0.033	199	132	1.193	0.242	0.070	0.202
Prevalence of malaria (based on rapid test)	0.321	0.047	265	172	1.560	0.147	0.227	0.415
Prevalence of anaemia (women 15-49)	0.651	0.037	397	236	1.558	0.056	0.578	0.725
Had 2+ sexual partners in past 12 months	0.014	0.011	1,121	648	3.082	0.773	0.000	0.036
Condom use at last sex	0.239	0.074	6	9	0.418	0.309	0.091	0.387
Abstinence among young people (never had sex)	0.628	0.044	310	174	1.611	0.071	0.539	0.717
Discriminatory attitudes towards people with HIV	0.472	0.026	1,040	606	1.692	0.056	0.420	0.525
Prevalence of sickle cell disease among children 6-59 months	0.018	0.009	266	172	1.146	0.490	0.000	0.036
Total fertility rate (last 3 years)	5.285	0.382	3,129	1,816	1.800	0.072	4.521	6.050
Neonatal mortality (last 0-9 years)	35.715	7.677	1,602	990	1.195	0.215	20.362	51.069
Postneonatal mortality (last 0-9 years)	28.026	4.031	1,605	993	0.899	0.144	19.964	36.089
Infant mortality (last 0-9 years)	63.741	7.914	1,605	991	0.992	0.124	47.914	79.568
Child mortality (last 0-9 years)	60.315	9.684	1,602	985	1.371	0.161	40.947	79.683
Under-5 mortality (last 0-9 years)	120.212	8.314	1,620	999	0.831	0.069	103.585	136.839
MEN								
Urban residence	0.357	0.072	345	206	2.752	0.201	0.214	0.501
Literacy	0.720	0.062	345	206	2.541	0.086	0.597	0.844
No education	0.156	0.070	345	206	3.543	0.453	0.015	0.296
Secondary or higher education	0.715	0.063	345	206	2.584	0.089	0.588	0.842
Never married (in union)	0.520	0.036	345	206	1.334	0.069	0.448	0.592
Currently married (in union)	0.468	0.036	345	206	1.351	0.078	0.395	0.541
Had first sexual intercourse before age 18	0.095	0.036	270	159	2.011	0.381	0.022	0.167
Knows any contraceptive method	1.000	0.000	162	96	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	162	96	0.000	0.000	1.000	1.000
Want no more children	0.091	0.027	162	96	1.171	0.292	0.038	0.144
Want to delay birth at least 2 years	0.547	0.070	162	96	1.763	0.127	0.408	0.687
Ideal number of children	7.016	0.495	304	180	1.825	0.071	6.025	8.006
Had 2+ sexual partners in past 12 months	0.110	0.022	345	206	1.325	0.203	0.065	0.155
Condom use at last sex	0.193	0.079	34	23	1.138	0.407	0.036	0.350
Abstinence among young people (never had sex)	0.733	0.040	129	80	1.014	0.054	0.653	0.812
Had paid sex in past 12 months	0.051	0.015	345	206	1.267	0.295	0.021	0.081
Discriminatory attitudes towards people with HIV	0.512	0.060	335	200	2.190	0.118	0.391	0.632

Table B.16 Sampling errors: Niger sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.469	0.027	1,139	1,229	1.845	0.058	0.414	0.523
De facto population with access to an ITN	0.290	0.019	5,921	6,415	1.623	0.064	0.253	0.328
Household population that slept under an ITN last night	0.290	0.020	5,921	6,415	1.570	0.069	0.250	0.330
WOMEN								
Urban residence	0.252	0.024	1,292	1,357	2.014	0.097	0.203	0.300
Literacy	0.259	0.023	1,292	1,357	1.888	0.089	0.213	0.305
No education	0.651	0.029	1,292	1,357	2.160	0.044	0.594	0.709
Secondary or higher education	0.281	0.025	1,292	1,357	1.981	0.088	0.231	0.331
Never married (never in union)	0.168	0.015	1,292	1,357	1.396	0.087	0.139	0.197
Currently married (in union)	0.816	0.016	1,292	1,357	1.495	0.020	0.784	0.848
Married before age 18	0.544	0.019	1,056	1,115	1.270	0.036	0.505	0.583
Had sexual intercourse before age 18	0.623	0.021	1,056	1,115	1.426	0.034	0.580	0.665
Currently pregnant	0.123	0.009	1,292	1,357	1.017	0.076	0.104	0.141
Know any contraceptive method	0.767	0.025	1,040	1,108	1.919	0.033	0.717	0.817
Know a modern method	0.767	0.025	1,040	1,108	1.919	0.033	0.717	0.817
Currently using any method	0.076	0.013	1,040	1,108	1.525	0.166	0.051	0.101
Currently using a modern method	0.064	0.012	1,040	1,108	1.517	0.180	0.041	0.087
Currently using pill	0.004	0.002	1,040	1,108	1.079	0.565	0.000	0.007
Currently using male condoms	0.008	0.003	1,040	1,108	1.001	0.351	0.002	0.013
Currently using injectables	0.025	0.006	1,040	1,108	1.166	0.224	0.014	0.037
Currently using implants	0.023	0.006	1,040	1,108	1.209	0.243	0.012	0.035
Currently using female sterilisation	0.001	0.001	1,040	1,108	0.893	1.007	0.000	0.002
Currently using withdrawal	0.008	0.004	1,040	1,108	1.277	0.441	0.001	0.015
Currently using rhythm	0.000	0.000	1,040	1,108	0.000	0.000	0.000	0.000
Using public sector source	0.730	0.070	74	78	1.343	0.096	0.589	0.870
Want no more children	0.125	0.012	1,040	1,108	1.192	0.098	0.100	0.149
Want to delay next birth at least 2 years	0.316	0.019	1,040	1,108	1.346	0.061	0.277	0.355
Ideal number of children	7.392	0.127	1,237	1,304	1.460	0.017	7.139	7.645
Mothers protected against tetanus for last birth	0.398	0.030	791	844	1.704	0.074	0.339	0.457
Births with skilled attendant at delivery	0.306	0.027	1,219	1,312	1.740	0.089	0.251	0.361
Received 3+ doses of SP/Fansidar	0.049	0.014	496	535	1.450	0.285	0.021	0.077
Treated with ORS	0.420	0.064	179	197	1.690	0.153	0.292	0.548
Sought medical treatment for diarrhoea	0.344	0.048	179	197	1.298	0.138	0.249	0.440
Ever had vaccination card	0.644	0.048	230	256	1.556	0.075	0.548	0.741
Received BCG vaccination	0.620	0.061	230	256	1.937	0.099	0.497	0.742
Received birth dose HepB vaccination	0.417	0.052	230	256	1.639	0.125	0.313	0.522
Received DPT-HepB-Hib vaccination (3 doses)	0.388	0.070	230	256	2.225	0.180	0.248	0.528
Received birth dose polio 0 vaccination	0.389	0.052	230	256	1.643	0.133	0.286	0.493
Received polio vaccination (3 doses)	0.485	0.042	230	256	1.286	0.086	0.402	0.569
Received pneumococcal vaccination (3 doses)	0.369	0.066	230	256	2.115	0.179	0.237	0.500
Received measles 1 vaccination	0.405	0.072	230	256	2.262	0.177	0.262	0.548
Received all basic vaccinations (12-23 months)	0.233	0.053	230	256	1.930	0.227	0.127	0.339
Received all age-appropriate vaccinations (12-23 months)	0.139	0.033	230	256	1.463	0.235	0.073	0.204
Received measles 2 vaccination	0.040	0.013	187	193	0.927	0.334	0.013	0.067
Received all age-appropriate vaccinations (24-35 months)	0.009	0.006	187	193	0.903	0.700	0.000	0.022
Height-for-age (-2SD)	0.278	0.040	421	476	1.685	0.144	0.198	0.358
Weight-for-height (-2SD)	0.048	0.009	421	476	0.918	0.194	0.029	0.066
Weight-for-age (-2SD)	0.139	0.020	421	476	1.114	0.140	0.100	0.178
Body mass index (BMI) <18.5	0.111	0.018	392	412	1.102	0.157	0.076	0.146
Body mass index (BMI) ≥25	0.227	0.023	392	412	1.063	0.099	0.182	0.272
Prevalence of anaemia (children 6-59 months)	0.750	0.031	371	421	1.365	0.042	0.687	0.813
Prevalence of malaria (based on microscopy test)	0.316	0.046	256	289	1.499	0.147	0.223	0.408
Prevalence of malaria (based on rapid test)	0.438	0.040	371	421	1.423	0.092	0.357	0.518
Prevalence of anaemia (women 15-49)	0.642	0.032	447	468	1.423	0.050	0.577	0.707
Had 2+ sexual partners in past 12 months	0.005	0.003	1,292	1,357	1.292	0.507	0.000	0.010
Condom use at last sex	0.260	0.079	6	7	0.433	0.303	0.102	0.417
Abstinence among young people (never had sex)	0.796	0.034	210	208	1.222	0.043	0.727	0.864
Discriminatory attitudes towards people with HIV	0.595	0.026	797	816	1.510	0.044	0.543	0.648
Prevalence of sickle cell disease among children 6-59 months	0.010	0.005	371	421	0.946	0.468	0.001	0.020
Total fertility rate (last 3 years)	5.835	0.246	3,649	3,848	1.379	0.042	5.343	6.326
Neonatal mortality (last 0-9 years)	29.325	3.354	2,337	2,500	0.954	0.114	22.618	36.032
Postneonatal mortality (last 0-9 years)	27.394	4.780	2,332	2,494	1.351	0.174	17.834	36.954
Infant mortality (last 0-9 years)	56.719	5.028	2,340	2,504	0.982	0.089	46.663	66.775
Child mortality (last 0-9 years)	43.526	8.311	2,281	2,439	1.603	0.191	26.903	60.149
Under-5 mortality (last 0-9 years)	97.776	10.664	2,358	2,523	1.427	0.109	76.448	119.104
MEN								
Urban residence	0.257	0.032	420	442	1.490	0.124	0.194	0.321
Literacy	0.604	0.039	420	442	1.609	0.064	0.527	0.681
No education	0.427	0.040	420	442	1.641	0.093	0.347	0.506
Secondary or higher education	0.527	0.039	420	442	1.595	0.074	0.449	0.605
Never married (in union)	0.357	0.041	420	442	1.752	0.115	0.275	0.439
Currently married (in union)	0.643	0.041	420	442	1.752	0.064	0.561	0.725
Had first sexual intercourse before age 18	0.050	0.016	341	360	1.385	0.329	0.017	0.082
Knows any contraceptive method	0.954	0.019	266	284	1.485	0.020	0.916	0.993
Knows any modern contraceptive method	0.954	0.019	266	284	1.485	0.020	0.916	0.993
Want no more children	0.037	0.016	266	284	1.339	0.420	0.006	0.068
Want to delay birth at least 2 years	0.656	0.037	266	284	1.252	0.056	0.583	0.730
Ideal number of children	10.194	0.317	418	439	1.338	0.031	9.560	10.827
Had 2+ sexual partners in past 12 months	0.143	0.020	420	442	1.154	0.138	0.104	0.183
Condom use at last sex	0.049	0.029	58	63	0.997	0.581	0.000	0.106
Abstinence among young people (never had sex)	0.933	0.028	127	131	1.261	0.030	0.877	0.990
Had paid sex in past 12 months	0.016	0.006	420	442	1.031	0.399	0.003	0.028
Discriminatory attitudes towards people with HIV	0.892	0.019	406	427	1.228	0.021	0.854	0.930

Table B.17 Sampling errors: Plateau sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.455	0.031	1,033	883	2.003	0.068	0.392	0.517
De facto population with access to an ITN	0.318	0.028	4,781	3,943	2.139	0.089	0.261	0.374
Household population that slept under an ITN last night	0.350	0.032	4,781	3,943	2.211	0.092	0.286	0.414
WOMEN								
Urban residence	0.290	0.028	1,082	875	2.026	0.097	0.234	0.346
Literacy	0.529	0.044	1,082	875	2.891	0.083	0.441	0.617
No education	0.185	0.033	1,082	875	2.809	0.180	0.118	0.251
Secondary or higher education	0.564	0.046	1,082	875	3.053	0.082	0.472	0.657
Never married (never in union)	0.291	0.023	1,082	875	1.684	0.080	0.244	0.337
Currently married (in union)	0.652	0.023	1,082	875	1.614	0.036	0.605	0.699
Married before age 18	0.337	0.028	864	695	1.750	0.084	0.280	0.393
Had sexual intercourse before age 18	0.478	0.034	864	695	1.971	0.070	0.411	0.545
Currently pregnant	0.124	0.012	1,082	875	1.161	0.094	0.100	0.147
Know any contraceptive method	0.982	0.006	718	570	1.292	0.007	0.969	0.995
Know a modern method	0.977	0.007	718	570	1.322	0.008	0.962	0.992
Currently using any method	0.227	0.027	718	570	1.710	0.118	0.173	0.280
Currently using a modern method	0.214	0.026	718	570	1.676	0.120	0.162	0.265
Currently using pill	0.014	0.005	718	570	1.230	0.383	0.003	0.025
Currently using male condoms	0.007	0.003	718	570	0.919	0.422	0.001	0.012
Currently using injectables	0.103	0.014	718	570	1.220	0.134	0.076	0.131
Currently using implants	0.073	0.015	718	570	1.544	0.205	0.043	0.103
Currently using female sterilisation	0.001	0.001	718	570	0.962	1.008	0.000	0.004
Currently using withdrawal	0.002	0.002	718	570	0.943	0.742	0.000	0.006
Currently using rhythm	0.005	0.004	718	570	1.314	0.666	0.000	0.013
Using public sector source	0.728	0.038	166	136	1.089	0.052	0.653	0.803
Want no more children	0.273	0.022	718	570	1.307	0.080	0.230	0.317
Want to delay next birth at least 2 years	0.324	0.023	718	570	1.313	0.071	0.278	0.370
Ideal number of children	5.372	0.190	1,065	863	2.451	0.035	4.993	5.751
Mothers protected against tetanus for last birth	0.536	0.028	521	415	1.293	0.053	0.480	0.593
Births with skilled attendant at delivery	0.463	0.043	797	628	2.023	0.092	0.378	0.549
Received 3+ doses of SP/Fansidar	0.176	0.026	290	228	1.162	0.148	0.124	0.229
Treated with ORS	0.156	0.050	96	75	1.220	0.322	0.056	0.256
Sought medical treatment for diarrhoea	0.543	0.036	96	75	0.688	0.066	0.471	0.614
Ever had vaccination card	0.846	0.040	134	104	1.265	0.047	0.767	0.926
Received BCG vaccination	0.819	0.054	134	104	1.591	0.065	0.712	0.926
Received birth dose HepB vaccination	0.612	0.057	134	104	1.340	0.093	0.498	0.726
Received DPT-HepB-Hib vaccination (3 doses)	0.718	0.047	134	104	1.186	0.065	0.625	0.811
Received birth dose polio 0 vaccination	0.581	0.067	134	104	1.550	0.115	0.447	0.715
Received polio vaccination (3 doses)	0.633	0.046	134	104	1.082	0.072	0.542	0.724
Received pneumococcal vaccination (3 doses)	0.691	0.052	134	104	1.283	0.075	0.588	0.795
Received measles 1 vaccination	0.635	0.046	134	104	1.087	0.072	0.543	0.726
Received all basic vaccinations (12-23 months)	0.478	0.053	134	104	1.203	0.110	0.373	0.584
Received all age-appropriate vaccinations (12-23 months)	0.288	0.058	134	104	1.458	0.203	0.172	0.405
Received measles 2 vaccination	0.128	0.036	150	119	1.303	0.278	0.057	0.199
Received all age-appropriate vaccinations (24-35 months)	0.060	0.021	150	119	1.065	0.344	0.019	0.101
Height-for-age (-2SD)	0.446	0.034	317	256	1.151	0.077	0.377	0.515
Weight-for-height (-2SD)	0.024	0.009	319	257	0.916	0.363	0.007	0.041
Weight-for-age (-2SD)	0.152	0.020	319	257	0.909	0.135	0.111	0.192
Body mass index (BMI) <18.5	0.060	0.013	320	252	0.995	0.224	0.033	0.086
Body mass index (BMI) ≥25	0.287	0.035	320	252	1.382	0.124	0.216	0.357
Prevalence of anaemia (children 6-59 months)	0.553	0.044	292	238	1.379	0.079	0.465	0.640
Prevalence of malaria (based on microscopy test)	0.214	0.045	206	165	1.312	0.208	0.125	0.303
Prevalence of malaria (based on rapid test)	0.372	0.060	291	237	1.737	0.161	0.253	0.491
Prevalence of anaemia (women 15-49)	0.437	0.028	381	301	1.075	0.063	0.382	0.492
Had 2+ sexual partners in past 12 months	0.018	0.004	1,082	875	1.055	0.238	0.009	0.026
Condom use at last sex	0.168	0.114	16	16	1.171	0.681	0.000	0.397
Abstinence among young people (never had sex)	0.665	0.030	276	229	1.045	0.045	0.606	0.725
Discriminatory attitudes towards people with HIV	0.489	0.019	971	796	1.180	0.039	0.451	0.527
Prevalence of sickle cell disease among children 6-59 months	0.010	0.006	292	238	1.100	0.673	0.000	0.022
Total fertility rate (last 3 years)	4.706	0.433	3,015	2,438	1.960	0.092	3.841	5.571
Neonatal mortality (last 0-9 years)	35.829	6.376	1,538	1,212	1.168	0.178	23.077	48.582
Postneonatal mortality (last 0-9 years)	29.462	5.421	1,541	1,214	1.157	0.184	18.620	40.303
Infant mortality (last 0-9 years)	65.291	7.277	1,540	1,213	1.037	0.111	50.737	79.845
Child mortality (last 0-9 years)	43.856	6.470	1,536	1,207	0.998	0.148	30.917	56.796
Under-5 mortality (last 0-9 years)	106.284	8.842	1,549	1,220	1.024	0.083	88.600	123.968
MEN								
Urban residence	0.323	0.029	297	246	1.060	0.089	0.265	0.380
Literacy	0.850	0.041	297	246	1.984	0.049	0.767	0.933
No education	0.057	0.024	297	246	1.786	0.425	0.009	0.105
Secondary or higher education	0.775	0.031	297	246	1.271	0.040	0.713	0.837
Never married (in union)	0.490	0.030	297	246	1.031	0.061	0.430	0.550
Currently married (in union)	0.507	0.030	297	246	1.023	0.059	0.448	0.567
Had first sexual intercourse before age 18	0.077	0.021	236	200	1.191	0.269	0.036	0.119
Knows any contraceptive method	0.990	0.010	152	125	1.240	0.010	0.969	1.010
Knows any modern contraceptive method	0.977	0.013	152	125	1.106	0.014	0.951	1.004
Want no more children	0.187	0.037	152	125	1.154	0.196	0.114	0.260
Want to delay birth at least 2 years	0.220	0.034	152	125	1.019	0.156	0.151	0.289
Ideal number of children	5.877	0.206	293	242	1.301	0.035	5.465	6.289
Had 2+ sexual partners in past 12 months	0.097	0.020	297	246	1.135	0.202	0.058	0.136
Condom use at last sex	0.168	0.078	32	24	1.148	0.461	0.013	0.323
Abstinence among young people (never had sex)	0.922	0.032	93	75	1.125	0.034	0.859	0.985
Had paid sex in past 12 months	0.009	0.006	297	246	1.021	0.619	0.000	0.020
Discriminatory attitudes towards people with HIV	0.455	0.053	187	155	1.449	0.117	0.348	0.561

Table B.18 Sampling errors: Adamawa sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.477	0.016	1,009	908	1.023	0.034	0.445	0.509
De facto population with access to an ITN	0.452	0.018	4,727	4,101	1.063	0.039	0.416	0.487
Household population that slept under an ITN last night	0.426	0.020	4,727	4,101	1.187	0.047	0.386	0.466
WOMEN								
Urban residence	0.231	0.039	1,083	903	3.057	0.170	0.152	0.310
Literacy	0.399	0.044	1,083	903	2.969	0.111	0.311	0.488
No education	0.470	0.051	1,083	903	3.347	0.109	0.368	0.572
Secondary or higher education	0.405	0.051	1,083	903	3.419	0.126	0.303	0.508
Never married (never in union)	0.247	0.024	1,083	903	1.820	0.097	0.199	0.295
Currently married (in union)	0.690	0.032	1,083	903	2.303	0.047	0.626	0.755
Married before age 18	0.384	0.038	870	721	2.293	0.099	0.308	0.460
Had sexual intercourse before age 18	0.585	0.029	870	721	1.724	0.049	0.527	0.643
Currently pregnant	0.098	0.010	1,083	903	1.129	0.104	0.078	0.119
Know any contraceptive method	0.945	0.014	771	624	1.713	0.015	0.917	0.973
Know a modern method	0.940	0.016	771	624	1.816	0.017	0.909	0.971
Currently using any method	0.251	0.022	771	624	1.436	0.090	0.206	0.296
Currently using a modern method	0.182	0.021	771	624	1.481	0.113	0.141	0.223
Currently using pill	0.008	0.004	771	624	1.217	0.475	0.000	0.016
Currently using male condoms	0.002	0.002	771	624	1.136	0.995	0.000	0.005
Currently using injectables	0.060	0.013	771	624	1.482	0.211	0.035	0.085
Currently using implants	0.041	0.009	771	624	1.286	0.225	0.022	0.059
Currently using female sterilisation	0.001	0.001	771	624	0.845	1.006	0.000	0.003
Currently using withdrawal	0.001	0.001	771	624	1.038	1.002	0.000	0.004
Currently using rhythm	0.061	0.011	771	624	1.259	0.179	0.039	0.082
Using public sector source	0.672	0.073	130	117	1.742	0.108	0.527	0.817
Want no more children	0.195	0.020	771	624	1.375	0.101	0.156	0.235
Want to delay next birth at least 2 years	0.170	0.015	771	624	1.145	0.091	0.139	0.201
Ideal number of children	7.929	0.186	857	711	1.891	0.023	7.558	8.301
Mothers protected against tetanus for last birth	0.744	0.034	622	518	1.931	0.046	0.676	0.812
Births with skilled attendant at delivery	0.408	0.046	962	786	2.375	0.113	0.315	0.500
Received 3+ doses of SP/Fansidar	0.044	0.011	396	326	1.064	0.252	0.022	0.066
Treated with ORS	0.393	0.061	84	76	1.180	0.155	0.271	0.514
Sought medical treatment for diarrhoea	0.547	0.062	84	76	1.192	0.114	0.422	0.671
Ever had vaccination card	0.813	0.042	177	151	1.438	0.051	0.730	0.897
Received BCG vaccination	0.788	0.046	177	151	1.510	0.058	0.696	0.879
Received birth dose HepB vaccination	0.587	0.038	177	151	1.030	0.064	0.512	0.662
Received DPT-HepB-Hib vaccination (3 doses)	0.659	0.061	177	151	1.741	0.093	0.537	0.782
Received birth dose polio 0 vaccination	0.624	0.039	177	151	1.079	0.062	0.546	0.701
Received polio vaccination (3 doses)	0.457	0.059	177	151	1.590	0.129	0.339	0.575
Received pneumococcal vaccination (3 doses)	0.465	0.061	177	151	1.652	0.132	0.343	0.588
Received measles 1 vaccination	0.652	0.046	177	151	1.300	0.071	0.560	0.744
Received all basic vaccinations (12-23 months)	0.368	0.043	177	151	1.192	0.116	0.282	0.453
Received all age-appropriate vaccinations (12-23 months)	0.169	0.035	177	151	1.246	0.205	0.100	0.238
Received measles 2 vaccination	0.154	0.032	176	141	1.138	0.210	0.089	0.219
Received all age-appropriate vaccinations (24-35 months)	0.012	0.007	176	141	0.834	0.590	0.000	0.025
Height-for-age (-2SD)	0.399	0.036	314	278	1.177	0.090	0.328	0.471
Weight-for-height (-2SD)	0.038	0.012	312	276	1.126	0.320	0.014	0.062
Weight-for-age (-2SD)	0.188	0.023	314	278	0.974	0.121	0.142	0.233
Body mass index (BMI) <18.5	0.188	0.046	296	247	2.041	0.247	0.095	0.281
Body mass index (BMI) ≥25	0.204	0.023	296	247	0.977	0.112	0.158	0.250
Prevalence of anaemia (children 6-59 months)	0.560	0.045	283	252	1.361	0.081	0.469	0.651
Prevalence of malaria (based on microscopy test)	0.211	0.043	215	188	1.329	0.202	0.126	0.296
Prevalence of malaria (based on rapid test)	0.389	0.052	281	244	1.558	0.133	0.285	0.492
Prevalence of anaemia (women 15-49)	0.359	0.027	349	291	1.056	0.076	0.305	0.413
Had 2+ sexual partners in past 12 months	0.031	0.005	1,083	903	1.036	0.175	0.020	0.042
Condom use at last sex	0.672	0.099	31	28	1.146	0.147	0.475	0.870
Abstinence among young people (never had sex)	0.567	0.026	217	190	0.773	0.046	0.515	0.619
Discriminatory attitudes towards people with HIV	0.209	0.020	1,044	873	1.577	0.095	0.170	0.249
Prevalence of sickle cell disease among children 6-59 months	0.008	0.006	283	252	1.155	0.751	0.000	0.020
Total fertility rate (last 3 years)	6.087	0.373	3,044	2,539	1.675	0.061	5.342	6.832
Neonatal mortality (last 0-9 years)	32.124	5.039	1,802	1,464	1.110	0.157	22.046	42.202
Postneonatal mortality (last 0-9 years)	35.731	5.228	1,802	1,467	1.099	0.146	25.275	46.187
Infant mortality (last 0-9 years)	67.855	8.639	1,807	1,471	1.390	0.127	50.577	85.133
Child mortality (last 0-9 years)	38.666	5.473	1,757	1,429	1.017	0.142	27.720	49.612
Under-5 mortality (last 0-9 years)	103.898	10.024	1,817	1,480	1.248	0.096	83.850	123.945
MEN								
Urban residence	0.249	0.048	244	218	1.736	0.194	0.152	0.345
Literacy	0.611	0.045	244	218	1.442	0.074	0.520	0.701
No education	0.322	0.048	244	218	1.586	0.148	0.226	0.417
Secondary or higher education	0.632	0.052	244	218	1.682	0.083	0.528	0.737
Never married (in union)	0.383	0.048	244	218	1.549	0.127	0.286	0.479
Currently married (in union)	0.602	0.046	244	218	1.474	0.077	0.510	0.695
Had first sexual intercourse before age 18	0.258	0.031	208	185	1.026	0.121	0.196	0.321
Knows any contraceptive method	0.984	0.016	149	131	1.549	0.016	0.952	1.016
Knows any modern contraceptive method	0.984	0.016	149	131	1.549	0.016	0.952	1.016
Want no more children	0.341	0.053	149	131	1.357	0.156	0.235	0.447
Want to delay birth at least 2 years	0.180	0.027	149	131	0.863	0.151	0.126	0.235
Ideal number of children	6.697	0.196	244	218	1.005	0.029	6.305	7.088
Had 2+ sexual partners in past 12 months	0.176	0.030	244	218	1.236	0.172	0.116	0.236
Condom use at last sex	0.404	0.078	39	38	0.976	0.192	0.249	0.559
Abstinence among young people (never had sex)	0.509	0.064	67	61	1.039	0.126	0.381	0.637
Had paid sex in past 12 months	0.041	0.021	244	218	1.647	0.511	0.000	0.083
Discriminatory attitudes towards people with HIV	0.421	0.036	225	201	1.087	0.085	0.350	0.493

Table B.19 Sampling errors: Bauchi sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.843	0.030	1,151	1,146	2.771	0.035	0.784	0.903
De facto population with access to an ITN	0.555	0.029	7,091	7,189	2.763	0.052	0.496	0.613
Household population that slept under an ITN last night	0.487	0.024	7,091	7,189	2.240	0.049	0.439	0.534
WOMEN								
Urban residence	0.152	0.029	1,329	1,343	2.898	0.188	0.095	0.210
Literacy	0.264	0.034	1,329	1,343	2.840	0.131	0.195	0.333
No education	0.634	0.042	1,329	1,343	3.201	0.067	0.549	0.719
Secondary or higher education	0.184	0.028	1,329	1,343	2.640	0.153	0.128	0.240
Never married (never in union)	0.120	0.017	1,329	1,343	1.923	0.143	0.085	0.154
Currently married (in union)	0.844	0.022	1,329	1,343	2.227	0.026	0.800	0.889
Married before age 18	0.816	0.020	1,026	1,036	1.663	0.025	0.776	0.856
Had sexual intercourse before age 18	0.831	0.020	1,026	1,036	1.698	0.024	0.792	0.871
Currently pregnant	0.159	0.012	1,329	1,343	1.211	0.077	0.134	0.183
Know any contraceptive method	0.948	0.011	1,124	1,134	1.658	0.012	0.925	0.970
Know a modern method	0.937	0.012	1,124	1,134	1.684	0.013	0.912	0.961
Currently using any method	0.065	0.011	1,124	1,134	1.430	0.162	0.044	0.086
Currently using a modern method	0.052	0.009	1,124	1,134	1.401	0.179	0.033	0.070
Currently using pill	0.016	0.005	1,124	1,134	1.368	0.316	0.006	0.027
Currently using male condoms	0.001	0.001	1,124	1,134	0.921	1.003	0.000	0.002
Currently using injectables	0.019	0.005	1,124	1,134	1.145	0.246	0.010	0.028
Currently using implants	0.010	0.003	1,124	1,134	1.104	0.331	0.003	0.016
Currently using female sterilisation	0.002	0.002	1,124	1,134	1.142	0.704	0.000	0.006
Currently using withdrawal	0.003	0.002	1,124	1,134	1.024	0.593	0.000	0.006
Currently using rhythm	0.001	0.001	1,124	1,134	1.116	0.987	0.000	0.003
Using public sector source	0.877	0.045	57	56	1.036	0.052	0.786	0.968
Want no more children	0.193	0.013	1,124	1,134	1.071	0.065	0.168	0.218
Want to delay next birth at least 2 years	0.376	0.017	1,124	1,134	1.181	0.045	0.342	0.410
Ideal number of children	8.622	0.167	1,279	1,296	1.879	0.019	8.289	8.955
Mothers protected against tetanus for last birth	0.476	0.037	901	919	2.203	0.077	0.402	0.549
Births with skilled attendant at delivery	0.270	0.028	1,442	1,469	2.003	0.104	0.214	0.326
Received 3+ doses of SP/Fansidar	0.146	0.017	579	590	1.187	0.119	0.111	0.180
Treated with ORS	0.358	0.037	443	449	1.563	0.103	0.284	0.432
Sought medical treatment for diarrhoea	0.681	0.033	443	449	1.403	0.048	0.615	0.747
Ever had vaccination card	0.550	0.047	266	278	1.563	0.086	0.456	0.644
Received BCG vaccination	0.512	0.046	266	278	1.514	0.089	0.420	0.603
Received birth dose HepB vaccination	0.347	0.043	266	278	1.487	0.123	0.262	0.433
Received DPT-HepB-Hib vaccination (3 doses)	0.321	0.046	266	278	1.640	0.144	0.228	0.414
Received birth dose polio 0 vaccination	0.381	0.047	266	278	1.617	0.125	0.286	0.476
Received polio vaccination (3 doses)	0.472	0.039	266	278	1.289	0.082	0.394	0.550
Received pneumococcal vaccination (3 doses)	0.297	0.047	266	278	1.697	0.158	0.203	0.390
Received measles 1 vaccination	0.355	0.039	266	278	1.333	0.108	0.278	0.433
Received all basic vaccinations (12-23 months)	0.196	0.034	266	278	1.437	0.176	0.127	0.265
Received all age-appropriate vaccinations (12-23 months)	0.136	0.028	266	278	1.369	0.209	0.079	0.193
Received measles 2 vaccination	0.070	0.018	248	250	1.139	0.266	0.033	0.107
Received all age-appropriate vaccinations (24-35 months)	0.022	0.009	248	250	0.905	0.381	0.005	0.040
Height-for-age (-2SD)	0.547	0.031	440	445	1.227	0.056	0.486	0.609
Weight-for-height (-2SD)	0.082	0.011	442	447	0.832	0.135	0.060	0.105
Weight-for-age (-2SD)	0.319	0.024	443	448	1.029	0.076	0.270	0.367
Body mass index (BMI) <18.5	0.239	0.030	352	350	1.320	0.127	0.178	0.299
Body mass index (BMI) ≥25	0.142	0.021	352	350	1.138	0.150	0.099	0.185
Prevalence of anaemia (children 6-59 months)	0.757	0.025	393	400	1.130	0.032	0.708	0.806
Prevalence of malaria (based on microscopy test)	0.306	0.044	244	241	1.322	0.145	0.217	0.394
Prevalence of malaria (based on rapid test)	0.486	0.040	392	399	1.413	0.081	0.407	0.565
Prevalence of anaemia (women 15-49)	0.686	0.024	441	443	1.104	0.036	0.637	0.735
Had 2+ sexual partners in past 12 months	0.000	0.000	1,329	1,343	0.000	0.000	0.000	0.000
Condom use at last sex	0.000	0.000	0	0	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	1.000	0.000	154	156	0.000	0.000	1.000	1.000
Discriminatory attitudes towards people with HIV	0.689	0.031	1,248	1,267	2.391	0.046	0.626	0.752
Prevalence of sickle cell disease among children 6-59 months	0.008	0.005	393	400	1.063	0.580	0.000	0.018
Total fertility rate (last 3 years)	7.168	0.291	3,670	3,707	1.404	0.041	6.586	7.750
Neonatal mortality (last 0-9 years)	37.613	3.772	2,869	2,924	0.941	0.100	30.068	45.158
Postneonatal mortality (last 0-9 years)	31.414	3.048	2,863	2,922	0.876	0.097	25.318	37.510
Infant mortality (last 0-9 years)	69.027	5.427	2,872	2,927	1.024	0.079	58.173	79.882
Child mortality (last 0-9 years)	83.865	8.916	2,858	2,915	1.306	0.106	66.033	101.698
Under-5 mortality (last 0-9 years)	147.103	10.946	2,912	2,966	1.329	0.074	125.212	168.995
MEN								
Urban residence	0.145	0.027	419	420	1.538	0.183	0.092	0.198
Literacy	0.475	0.054	419	420	2.202	0.114	0.367	0.583
No education	0.438	0.057	419	420	2.342	0.131	0.324	0.552
Secondary or higher education	0.428	0.057	419	420	2.333	0.133	0.314	0.541
Never married (in union)	0.411	0.035	419	420	1.444	0.085	0.342	0.481
Currently married (in union)	0.566	0.034	419	420	1.414	0.061	0.497	0.634
Had first sexual intercourse before age 18	0.078	0.017	322	321	1.143	0.219	0.044	0.113
Knows any contraceptive method	0.929	0.025	236	238	1.489	0.027	0.879	0.979
Knows any modern contraceptive method	0.929	0.025	236	238	1.489	0.027	0.879	0.979
Want no more children	0.038	0.022	236	238	1.746	0.576	0.000	0.082
Want to delay birth at least 2 years	0.285	0.034	236	238	1.166	0.121	0.216	0.353
Ideal number of children	11.692	0.470	401	399	1.221	0.040	10.752	12.632
Had 2+ sexual partners in past 12 months	0.131	0.020	419	420	1.201	0.151	0.091	0.171
Condom use at last sex	0.179	0.079	57	55	1.532	0.445	0.020	0.337
Abstinence among young people (never had sex)	0.919	0.025	143	144	1.106	0.028	0.869	0.970
Had paid sex in past 12 months	0.011	0.005	419	420	0.984	0.448	0.001	0.022
Discriminatory attitudes towards people with HIV	0.734	0.043	381	386	1.905	0.059	0.647	0.821

Table B.20 Sampling errors: Borno sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.683	0.023	1,118	1,271	1.636	0.033	0.637	0.728
De facto population with access to an ITN	0.422	0.023	5,882	6,782	1.705	0.054	0.377	0.467
Household population that slept under an ITN last night	0.419	0.026	5,882	6,782	1.752	0.061	0.367	0.470
WOMEN								
Urban residence	0.577	0.046	1,269	1,469	3.302	0.080	0.485	0.669
Literacy	0.406	0.043	1,269	1,469	3.101	0.106	0.320	0.491
No education	0.585	0.042	1,269	1,469	3.012	0.071	0.502	0.669
Secondary or higher education	0.334	0.038	1,269	1,469	2.869	0.114	0.258	0.410
Never married (never in union)	0.271	0.020	1,269	1,469	1.640	0.076	0.230	0.312
Currently married (in union)	0.649	0.033	1,269	1,469	2.480	0.051	0.582	0.716
Married before age 18	0.548	0.025	983	1,112	1.552	0.045	0.499	0.598
Had sexual intercourse before age 18	0.550	0.023	983	1,112	1.442	0.042	0.504	0.596
Currently pregnant	0.120	0.011	1,269	1,469	1.166	0.089	0.098	0.141
Know any contraceptive method	0.863	0.021	903	953	1.846	0.025	0.821	0.905
Know a modern method	0.850	0.023	903	953	1.943	0.027	0.804	0.897
Currently using any method	0.062	0.014	903	953	1.702	0.221	0.035	0.089
Currently using a modern method	0.054	0.012	903	953	1.623	0.227	0.029	0.078
Currently using pill	0.012	0.007	903	953	1.913	0.580	0.000	0.026
Currently using male condoms	0.006	0.006	903	953	2.271	0.985	0.000	0.017
Currently using injectables	0.015	0.005	903	953	1.330	0.360	0.004	0.026
Currently using implants	0.006	0.004	903	953	1.601	0.664	0.000	0.015
Currently using female sterilisation	0.012	0.004	903	953	1.153	0.354	0.003	0.020
Currently using withdrawal	0.008	0.004	903	953	1.302	0.484	0.000	0.016
Currently using rhythm	0.000	0.000	903	953	0.000	0.000	0.000	0.000
Using public sector source	0.559	0.081	46	67	1.087	0.144	0.398	0.720
Want no more children	0.086	0.012	903	953	1.288	0.140	0.062	0.110
Want to delay next birth at least 2 years	0.578	0.024	903	953	1.432	0.041	0.531	0.626
Ideal number of children	7.588	0.206	1,263	1,463	2.175	0.027	7.176	7.999
Mothers protected against tetanus for last birth	0.420	0.041	670	732	2.132	0.097	0.338	0.502
Births with skilled attendant at delivery	0.295	0.037	1,099	1,219	2.123	0.125	0.221	0.370
Received 3+ doses of SP/Fansidar	0.091	0.025	381	418	1.669	0.271	0.042	0.140
Treated with ORS	0.773	0.043	77	101	0.972	0.056	0.686	0.859
Sought medical treatment for diarrhoea	0.804	0.047	77	101	1.073	0.058	0.710	0.897
Ever had vaccination card	0.573	0.051	203	221	1.451	0.089	0.471	0.675
Received BCG vaccination	0.625	0.048	203	221	1.383	0.076	0.530	0.720
Received birth dose HepB vaccination	0.491	0.046	203	221	1.291	0.094	0.399	0.583
Received DPT-HepB-Hib vaccination (3 doses)	0.360	0.044	203	221	1.277	0.121	0.273	0.447
Received birth dose polio 0 vaccination	0.462	0.048	203	221	1.346	0.104	0.366	0.558
Received polio vaccination (3 doses)	0.411	0.041	203	221	1.164	0.100	0.329	0.493
Received pneumococcal vaccination (3 doses)	0.346	0.045	203	221	1.343	0.131	0.255	0.436
Received measles 1 vaccination	0.460	0.044	203	221	1.249	0.096	0.372	0.549
Received all basic vaccinations (12-23 months)	0.219	0.048	203	221	1.640	0.220	0.123	0.315
Received all age-appropriate vaccinations (12-23 months)	0.144	0.036	203	221	1.430	0.246	0.073	0.216
Received measles 2 vaccination	0.244	0.046	211	236	1.569	0.189	0.152	0.337
Received all age-appropriate vaccinations (24-35 months)	0.066	0.021	211	236	1.241	0.320	0.024	0.107
Height-for-age (-2SD)	0.448	0.033	345	399	1.205	0.073	0.383	0.513
Weight-for-height (-2SD)	0.158	0.023	348	403	1.151	0.144	0.113	0.204
Weight-for-age (-2SD)	0.281	0.031	352	406	1.226	0.109	0.220	0.342
Body mass index (BMI) <18.5	0.231	0.031	381	445	1.422	0.132	0.170	0.293
Body mass index (BMI) ≥25	0.128	0.020	381	445	1.168	0.155	0.088	0.168
Prevalence of anaemia (children 6-59 months)	0.712	0.031	332	385	1.252	0.044	0.650	0.775
Prevalence of malaria (based on microscopy test)	0.100	0.023	238	287	1.074	0.229	0.054	0.146
Prevalence of malaria (based on rapid test)	0.162	0.029	330	382	1.156	0.177	0.104	0.219
Prevalence of anaemia (women 15-49)	0.539	0.030	444	516	1.291	0.057	0.478	0.600
Had 2+ sexual partners in past 12 months	0.011	0.004	1,269	1,469	1.276	0.341	0.003	0.018
Condom use at last sex	0.422	0.193	17	16	1.504	0.459	0.035	0.808
Abstinence among young people (never had sex)	0.930	0.014	272	372	0.906	0.015	0.901	0.958
Discriminatory attitudes towards people with HIV	0.236	0.022	1,132	1,335	1.728	0.093	0.192	0.279
Prevalence of sickle cell disease among children 6-59 months	0.010	0.008	332	385	1.361	0.727	0.000	0.025
Total fertility rate (last 3 years)	5.219	0.424	3,452	3,999	2.070	0.081	4.372	6.066
Neonatal mortality (last 0-9 years)	26.864	3.585	2,162	2,410	0.922	0.133	19.695	34.034
Postneonatal mortality (last 0-9 years)	25.493	6.620	2,170	2,429	1.808	0.260	12.253	38.732
Infant mortality (last 0-9 years)	52.357	6.456	2,163	2,411	1.221	0.123	39.446	65.268
Child mortality (last 0-9 years)	35.971	5.478	2,184	2,435	1.057	0.152	25.016	46.926
Under-5 mortality (last 0-9 years)	86.444	7.778	2,174	2,422	1.109	0.090	70.889	102.000
MEN								
Urban residence	0.592	0.048	339	398	1.788	0.081	0.496	0.688
Literacy	0.615	0.055	339	398	2.086	0.090	0.504	0.726
No education	0.412	0.055	339	398	2.029	0.132	0.303	0.521
Secondary or higher education	0.501	0.051	339	398	1.855	0.101	0.400	0.602
Never married (in union)	0.416	0.039	339	398	1.462	0.094	0.338	0.495
Currently married (in union)	0.576	0.038	339	398	1.411	0.066	0.500	0.652
Had first sexual intercourse before age 18	0.085	0.018	264	305	1.040	0.210	0.049	0.121
Knows any contraceptive method	0.968	0.013	203	229	1.092	0.014	0.942	0.995
Knows any modern contraceptive method	0.957	0.016	203	229	1.108	0.017	0.925	0.989
Want no more children	0.122	0.040	203	229	1.726	0.327	0.042	0.202
Want to delay birth at least 2 years	0.459	0.052	203	229	1.469	0.113	0.355	0.562
Ideal number of children	8.803	0.260	330	388	1.014	0.029	8.284	9.323
Had 2+ sexual partners in past 12 months	0.159	0.024	339	398	1.231	0.154	0.110	0.208
Condom use at last sex	0.193	0.054	53	63	0.982	0.278	0.086	0.301
Abstinence among young people (never had sex)	0.830	0.049	108	131	1.352	0.059	0.732	0.929
Had paid sex in past 12 months	0.046	0.015	339	398	1.323	0.327	0.016	0.077
Discriminatory attitudes towards people with HIV	0.339	0.027	309	368	0.991	0.079	0.286	0.393

Table B.21 Sampling errors: Gombe sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.742	0.030	1,041	550	2.204	0.040	0.682	0.802
De facto population with access to an ITN	0.483	0.030	6,631	3,610	2.353	0.062	0.423	0.542
Household population that slept under an ITN last night	0.409	0.025	6,631	3,610	2.139	0.061	0.359	0.459
WOMEN								
Urban residence	0.232	0.042	1,356	717	3.677	0.182	0.148	0.317
Literacy	0.321	0.058	1,356	717	4.541	0.181	0.205	0.437
No education	0.648	0.060	1,356	717	4.616	0.093	0.527	0.769
Secondary or higher education	0.256	0.051	1,356	717	4.250	0.198	0.155	0.358
Never married (never in union)	0.191	0.023	1,356	717	2.195	0.123	0.144	0.238
Currently married (in union)	0.772	0.027	1,356	717	2.332	0.035	0.719	0.825
Married before age 18	0.715	0.046	1,081	576	3.326	0.064	0.623	0.807
Had sexual intercourse before age 18	0.750	0.037	1,081	576	2.784	0.049	0.676	0.823
Currently pregnant	0.112	0.012	1,356	717	1.378	0.105	0.088	0.136
Know any contraceptive method	0.917	0.019	1,018	554	2.143	0.020	0.880	0.954
Know a modern method	0.914	0.018	1,018	554	2.071	0.020	0.877	0.950
Currently using any method	0.170	0.016	1,018	554	1.392	0.096	0.138	0.203
Currently using a modern method	0.162	0.017	1,018	554	1.446	0.103	0.129	0.196
Currently using pill	0.010	0.003	1,018	554	0.870	0.266	0.005	0.016
Currently using male condoms	0.002	0.002	1,018	554	1.317	1.012	0.000	0.005
Currently using injectables	0.030	0.009	1,018	554	1.629	0.292	0.012	0.047
Currently using implants	0.033	0.008	1,018	554	1.429	0.241	0.017	0.050
Currently using female sterilisation	0.002	0.002	1,018	554	1.241	0.783	0.000	0.006
Currently using withdrawal	0.004	0.003	1,018	554	1.314	0.667	0.000	0.009
Currently using rhythm	0.000	0.000	1,018	554	0.000	0.000	0.000	0.000
Using public sector source	0.896	0.034	105	49	1.137	0.038	0.828	0.964
Want no more children	0.180	0.017	1,018	554	1.401	0.094	0.146	0.214
Want to delay next birth at least 2 years	0.326	0.016	1,018	554	1.107	0.050	0.293	0.358
Ideal number of children	8.485	0.229	1,240	653	2.152	0.027	8.027	8.944
Mothers protected against tetanus for last birth	0.614	0.046	824	444	2.714	0.075	0.521	0.706
Births with skilled attendant at delivery	0.211	0.032	1,344	728	2.390	0.149	0.148	0.274
Received 3+ doses of SP/Fansidar	0.148	0.017	516	277	1.110	0.118	0.113	0.183
Treated with ORS	0.249	0.028	395	220	1.259	0.113	0.193	0.305
Sought medical treatment for diarrhoea	0.785	0.020	395	220	0.968	0.025	0.746	0.825
Ever had vaccination card	0.524	0.062	238	128	1.898	0.119	0.400	0.649
Received BCG vaccination	0.425	0.063	238	128	1.925	0.148	0.299	0.551
Received birth dose HepB vaccination	0.223	0.042	238	128	1.507	0.190	0.138	0.307
Received DPT-HepB-Hib vaccination (3 doses)	0.258	0.048	238	128	1.658	0.186	0.162	0.353
Received birth dose polio 0 vaccination	0.332	0.050	238	128	1.593	0.150	0.233	0.432
Received polio vaccination (3 doses)	0.392	0.057	238	128	1.765	0.145	0.278	0.505
Received pneumococcal vaccination (3 doses)	0.238	0.049	238	128	1.728	0.204	0.141	0.336
Received measles 1 vaccination	0.288	0.054	238	128	1.794	0.188	0.180	0.397
Received all basic vaccinations (12-23 months)	0.182	0.038	238	128	1.502	0.211	0.105	0.259
Received all age-appropriate vaccinations (12-23 months)	0.085	0.025	238	128	1.303	0.290	0.036	0.134
Received measles 2 vaccination	0.105	0.023	212	119	1.112	0.219	0.059	0.151
Received all age-appropriate vaccinations (24-35 months)	0.014	0.009	212	119	1.182	0.670	0.000	0.033
Height-for-age (-2SD)	0.510	0.036	399	220	1.334	0.071	0.437	0.583
Weight-for-height (-2SD)	0.077	0.017	406	225	1.195	0.226	0.042	0.111
Weight-for-age (-2SD)	0.302	0.028	411	227	1.154	0.092	0.246	0.357
Body mass index (BMI) <18.5	0.214	0.028	396	208	1.362	0.131	0.158	0.271
Body mass index (BMI) ≥25	0.169	0.025	396	208	1.343	0.150	0.118	0.219
Prevalence of anaemia (children 6-59 months)	0.773	0.029	373	205	1.244	0.037	0.716	0.831
Prevalence of malaria (based on microscopy test)	0.303	0.044	261	143	1.260	0.146	0.215	0.391
Prevalence of malaria (based on rapid test)	0.520	0.045	372	205	1.413	0.087	0.429	0.610
Prevalence of anaemia (women 15-49)	0.636	0.039	454	240	1.721	0.061	0.558	0.714
Had 2+ sexual partners in past 12 months	0.005	0.002	1,356	717	1.124	0.454	0.000	0.009
Condom use at last sex	0.332	0.167	7	3	0.884	0.503	0.000	0.666
Abstinence among young people (never had sex)	0.943	0.025	246	119	1.681	0.027	0.893	0.993
Discriminatory attitudes towards people with HIV	0.283	0.024	1,231	647	1.879	0.085	0.234	0.331
Prevalence of sickle cell disease among children 6-59 months	0.007	0.005	373	205	0.964	0.783	0.000	0.017
Total fertility rate (last 3 years)	6.635	0.285	3,712	1,963	1.469	0.043	6.065	7.206
Neonatal mortality (last 0-9 years)	44.505	5.824	2,596	1,412	1.223	0.131	32.856	56.154
Postneonatal mortality (last 0-9 years)	59.049	8.414	2,609	1,419	1.657	0.142	42.221	75.877
Infant mortality (last 0-9 years)	103.554	10.603	2,604	1,416	1.613	0.102	82.349	124.759
Child mortality (last 0-9 years)	94.906	9.620	2,597	1,415	1.384	0.101	75.665	114.146
Under-5 mortality (last 0-9 years)	188.632	14.610	2,639	1,436	1.644	0.077	159.412	217.851
MEN								
Urban residence	0.255	0.048	462	240	2.369	0.190	0.158	0.351
Literacy	0.545	0.057	462	240	2.454	0.105	0.430	0.659
No education	0.541	0.070	462	240	3.010	0.130	0.400	0.682
Secondary or higher education	0.387	0.064	462	240	2.819	0.167	0.258	0.515
Never married (in union)	0.534	0.031	462	240	1.354	0.059	0.471	0.597
Currently married (in union)	0.463	0.031	462	240	1.330	0.067	0.401	0.524
Had first sexual intercourse before age 18	0.045	0.016	337	173	1.429	0.360	0.013	0.077
Knows any contraceptive method	0.998	0.002	210	111	0.620	0.002	0.995	1.002
Knows any modern contraceptive method	0.998	0.002	210	111	0.620	0.002	0.995	1.002
Want no more children	0.040	0.015	210	111	1.132	0.386	0.009	0.070
Want to delay birth at least 2 years	0.188	0.029	210	111	1.084	0.156	0.129	0.246
Ideal number of children	12.559	0.713	385	196	1.792	0.057	11.132	13.985
Had 2+ sexual partners in past 12 months	0.087	0.015	462	240	1.132	0.171	0.057	0.116
Condom use at last sex	0.021	0.022	38	21	0.932	1.041	0.000	0.065
Abstinence among young people (never had sex)	0.958	0.021	204	107	1.519	0.022	0.915	1.001
Had paid sex in past 12 months	0.014	0.006	462	240	1.071	0.420	0.002	0.026
Discriminatory attitudes towards people with HIV	0.439	0.041	454	236	1.754	0.093	0.357	0.521

Table B.22 Sampling errors: Taraba sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.401	0.033	1,034	720	2.175	0.083	0.335	0.468
De facto population with access to an ITN	0.247	0.028	5,635	3,898	2.342	0.111	0.192	0.302
Household population that slept under an ITN last night	0.202	0.029	5,635	3,898	2.567	0.143	0.144	0.260
WOMEN								
Urban residence	0.202	0.023	1,284	877	2.056	0.114	0.156	0.248
Literacy	0.351	0.039	1,284	877	2.883	0.110	0.274	0.428
No education	0.367	0.047	1,284	877	3.501	0.129	0.272	0.462
Secondary or higher education	0.416	0.053	1,284	877	3.799	0.126	0.311	0.522
Never married (never in union)	0.278	0.034	1,284	877	2.697	0.122	0.211	0.346
Currently married (in union)	0.661	0.036	1,284	877	2.709	0.054	0.590	0.733
Married before age 18	0.505	0.041	1,004	688	2.583	0.081	0.423	0.587
Had sexual intercourse before age 18	0.760	0.023	1,004	688	1.724	0.031	0.714	0.807
Currently pregnant	0.107	0.014	1,284	877	1.588	0.128	0.079	0.134
Know any contraceptive method	0.967	0.010	837	580	1.667	0.011	0.946	0.988
Know a modern method	0.938	0.022	837	580	2.617	0.023	0.894	0.982
Currently using any method	0.103	0.020	837	580	1.907	0.195	0.063	0.143
Currently using a modern method	0.086	0.019	837	580	1.931	0.219	0.048	0.123
Currently using pill	0.008	0.004	837	580	1.210	0.456	0.001	0.016
Currently using male condoms	0.005	0.002	837	580	0.961	0.461	0.000	0.010
Currently using injectables	0.026	0.009	837	580	1.585	0.337	0.008	0.043
Currently using implants	0.032	0.007	837	580	1.218	0.231	0.017	0.047
Currently using female sterilisation	0.011	0.004	837	580	1.263	0.421	0.002	0.020
Currently using withdrawal	0.006	0.005	837	580	1.906	0.841	0.000	0.016
Currently using rhythm	0.009	0.004	837	580	1.102	0.395	0.002	0.017
Using public sector source	0.611	0.061	85	59	1.147	0.100	0.488	0.733
Want no more children	0.136	0.019	837	580	1.598	0.139	0.099	0.174
Want to delay next birth at least 2 years	0.253	0.016	837	580	1.096	0.065	0.220	0.286
Ideal number of children	6.854	0.223	1,280	873	2.809	0.033	6.408	7.300
Mothers protected against tetanus for last birth	0.496	0.035	722	495	1.904	0.072	0.425	0.567
Births with skilled attendant at delivery	0.373	0.035	1,112	758	2.004	0.093	0.304	0.443
Received 3+ doses of SP/Fansidar	0.074	0.013	441	299	1.040	0.177	0.048	0.100
Treated with ORS	0.093	0.019	233	158	0.916	0.201	0.056	0.131
Sought medical treatment for diarrhoea	0.369	0.035	233	158	1.069	0.096	0.298	0.440
Ever had vaccination card	0.691	0.051	203	134	1.518	0.074	0.589	0.793
Received BCG vaccination	0.699	0.049	203	134	1.455	0.070	0.602	0.797
Received birth dose HepB vaccination	0.358	0.054	203	134	1.528	0.150	0.251	0.466
Received DPT-HepB-Hib vaccination (3 doses)	0.417	0.057	203	134	1.591	0.138	0.303	0.532
Received birth dose polio 0 vaccination	0.397	0.056	203	134	1.561	0.141	0.285	0.509
Received polio vaccination (3 doses)	0.397	0.050	203	134	1.395	0.126	0.297	0.497
Received pneumococcal vaccination (3 doses)	0.415	0.056	203	134	1.550	0.135	0.303	0.527
Received measles 1 vaccination	0.408	0.040	203	134	1.110	0.097	0.329	0.488
Received all basic vaccinations (12-23 months)	0.241	0.036	203	134	1.154	0.151	0.168	0.314
Received all age-appropriate vaccinations (12-23 months)	0.128	0.028	203	134	1.112	0.220	0.072	0.185
Received measles 2 vaccination	0.173	0.040	169	116	1.378	0.232	0.093	0.254
Received all age-appropriate vaccinations (24-35 months)	0.058	0.020	169	116	1.096	0.340	0.019	0.098
Height-for-age (-2SD)	0.417	0.038	347	242	1.339	0.090	0.341	0.492
Weight-for-height (-2SD)	0.053	0.013	349	244	0.967	0.247	0.027	0.079
Weight-for-age (-2SD)	0.219	0.028	350	244	1.193	0.127	0.163	0.274
Body mass index (BMI) <18.5	0.092	0.021	374	254	1.429	0.233	0.049	0.135
Body mass index (BMI) ≥25	0.237	0.022	374	254	0.999	0.093	0.193	0.281
Prevalence of anaemia (children 6-59 months)	0.709	0.036	316	219	1.362	0.050	0.638	0.780
Prevalence of malaria (based on microscopy test)	0.208	0.030	230	159	1.029	0.143	0.149	0.268
Prevalence of malaria (based on rapid test)	0.352	0.035	311	216	1.201	0.101	0.281	0.423
Prevalence of anaemia (women 15-49)	0.540	0.034	431	294	1.431	0.064	0.471	0.608
Had 2+ sexual partners in past 12 months	0.041	0.009	1,284	877	1.652	0.223	0.023	0.059
Condom use at last sex	0.187	0.060	57	36	1.155	0.323	0.066	0.307
Abstinence among young people (never had sex)	0.557	0.054	298	201	1.851	0.096	0.450	0.664
Discriminatory attitudes towards people with HIV	0.482	0.033	1,229	842	2.283	0.068	0.417	0.548
Prevalence of sickle cell disease among children 6-59 months	0.022	0.009	316	219	1.027	0.426	0.003	0.041
Total fertility rate (last 3 years)	5.443	0.284	3,606	2,462	1.755	0.052	4.874	6.012
Neonatal mortality (last 0-9 years)	36.784	4.707	2,076	1,423	1.007	0.128	27.370	46.199
Postneonatal mortality (last 0-9 years)	26.583	3.393	2,074	1,422	0.865	0.128	19.798	33.368
Infant mortality (last 0-9 years)	63.367	6.532	2,076	1,423	1.080	0.103	50.302	76.432
Child mortality (last 0-9 years)	70.096	11.020	2,052	1,405	1.576	0.157	48.055	92.137
Under-5 mortality (last 0-9 years)	129.021	13.824	2,101	1,440	1.548	0.107	101.373	156.670
MEN								
Urban residence	0.211	0.031	268	187	1.225	0.145	0.150	0.273
Literacy	0.699	0.047	268	187	1.661	0.067	0.606	0.793
No education	0.162	0.030	268	187	1.311	0.183	0.103	0.221
Secondary or higher education	0.666	0.045	268	187	1.552	0.067	0.576	0.755
Never married (in union)	0.378	0.036	268	187	1.224	0.096	0.305	0.451
Currently married (in union)	0.612	0.037	268	187	1.241	0.061	0.538	0.686
Had first sexual intercourse before age 18	0.122	0.031	219	153	1.412	0.257	0.059	0.185
Knows any contraceptive method	0.982	0.012	163	115	1.167	0.012	0.958	1.006
Knows any modern contraceptive method	0.968	0.015	163	115	1.078	0.015	0.939	0.998
Want no more children	0.118	0.029	163	115	1.128	0.243	0.060	0.175
Want to delay birth at least 2 years	0.205	0.041	163	115	1.297	0.201	0.123	0.288
Ideal number of children	8.267	0.543	255	178	1.254	0.066	7.181	9.352
Had 2+ sexual partners in past 12 months	0.177	0.026	268	187	1.099	0.145	0.125	0.228
Condom use at last sex	0.115	0.059	45	33	1.209	0.507	0.000	0.233
Abstinence among young people (never had sex)	0.850	0.038	76	53	0.917	0.044	0.775	0.926
Had paid sex in past 12 months	0.022	0.013	268	187	1.416	0.583	0.000	0.047
Discriminatory attitudes towards people with HIV	0.248	0.036	253	177	1.333	0.146	0.176	0.321

Table B.23 Sampling errors: Yobe sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.792	0.034	1,021	1,100	2.651	0.043	0.724	0.859
De facto population with access to an ITN	0.532	0.032	6,674	6,856	2.391	0.060	0.469	0.596
Household population that slept under an ITN last night	0.537	0.037	6,674	6,856	2.603	0.068	0.464	0.610
WOMEN								
Urban residence	0.225	0.040	1,318	1,327	3.444	0.177	0.145	0.304
Literacy	0.195	0.030	1,318	1,327	2.775	0.156	0.135	0.256
No education	0.755	0.042	1,318	1,327	3.491	0.055	0.672	0.838
Secondary or higher education	0.163	0.031	1,318	1,327	3.060	0.192	0.100	0.225
Never married (never in union)	0.207	0.026	1,318	1,327	2.345	0.127	0.154	0.259
Currently married (in union)	0.751	0.031	1,318	1,327	2.562	0.041	0.690	0.812
Married before age 18	0.722	0.023	1,014	1,007	1.603	0.031	0.677	0.768
Had sexual intercourse before age 18	0.785	0.022	1,014	1,007	1.685	0.028	0.742	0.829
Currently pregnant	0.112	0.009	1,318	1,327	0.991	0.077	0.095	0.129
Know any contraceptive method	0.886	0.035	1,015	996	3.529	0.040	0.815	0.957
Know a modern method	0.871	0.039	1,015	996	3.697	0.045	0.793	0.949
Currently using any method	0.019	0.006	1,015	996	1.394	0.312	0.007	0.031
Currently using a modern method	0.017	0.006	1,015	996	1.433	0.346	0.005	0.028
Currently using pill	0.004	0.002	1,015	996	1.120	0.527	0.000	0.009
Currently using male condoms	0.000	0.000	1,015	996	0.000	0.000	0.000	0.000
Currently using injectables	0.008	0.004	1,015	996	1.433	0.499	0.000	0.016
Currently using implants	0.004	0.002	1,015	996	1.086	0.567	0.000	0.008
Currently using female sterilisation	0.001	0.001	1,015	996	0.754	1.017	0.000	0.002
Currently using withdrawal	0.001	0.001	1,015	996	0.917	0.751	0.000	0.004
Currently using rhythm	0.000	0.000	1,015	996	0.000	0.000	0.000	0.000
Using public sector source	0.705	0.138	18	17	1.229	0.196	0.428	0.981
Want no more children	0.173	0.015	1,015	996	1.281	0.088	0.143	0.204
Want to delay next birth at least 2 years	0.530	0.022	1,015	996	1.395	0.041	0.486	0.574
Ideal number of children	7.943	0.142	1,316	1,323	1.648	0.018	7.660	8.227
Mothers protected against tetanus for last birth	0.581	0.042	767	755	2.345	0.073	0.496	0.665
Births with skilled attendant at delivery	0.163	0.040	1,252	1,253	3.146	0.245	0.083	0.243
Received 3+ doses of SP/Fansidar	0.290	0.030	438	441	1.365	0.102	0.231	0.349
Treated with ORS	0.450	0.070	348	373	2.377	0.155	0.311	0.589
Sought medical treatment for diarrhoea	0.764	0.032	348	373	1.438	0.042	0.700	0.829
Ever had vaccination card	0.432	0.061	216	221	1.777	0.142	0.309	0.554
Received BCG vaccination	0.447	0.072	216	221	2.064	0.160	0.304	0.590
Received birth dose HepB vaccination	0.237	0.052	216	221	1.707	0.218	0.133	0.340
Received DPT-HepB-Hib vaccination (3 doses)	0.290	0.047	216	221	1.482	0.164	0.195	0.385
Received birth dose polio 0 vaccination	0.269	0.044	216	221	1.387	0.162	0.182	0.356
Received polio vaccination (3 doses)	0.434	0.034	216	221	0.982	0.078	0.366	0.501
Received pneumococcal vaccination (3 doses)	0.259	0.041	216	221	1.321	0.158	0.177	0.341
Received measles 1 vaccination	0.455	0.033	216	221	0.940	0.072	0.390	0.520
Received all basic vaccinations (12-23 months)	0.206	0.039	216	221	1.335	0.188	0.128	0.283
Received all age-appropriate vaccinations (12-23 months)	0.138	0.034	216	221	1.328	0.246	0.070	0.206
Received measles 2 vaccination	0.184	0.031	228	210	1.119	0.171	0.121	0.247
Received all age-appropriate vaccinations (24-35 months)	0.015	0.011	228	210	1.375	0.771	0.000	0.038
Height-for-age (-2SD)	0.573	0.039	368	374	1.463	0.068	0.494	0.651
Weight-for-height (-2SD)	0.124	0.018	373	381	0.950	0.142	0.089	0.159
Weight-for-age (-2SD)	0.418	0.036	377	384	1.375	0.087	0.345	0.490
Body mass index (BMI) <18.5	0.368	0.034	370	374	1.348	0.092	0.301	0.436
Body mass index (BMI) ≥25	0.081	0.029	370	374	2.029	0.356	0.023	0.138
Prevalence of anaemia (children 6-59 months)	0.691	0.038	337	346	1.417	0.055	0.616	0.767
Prevalence of malaria (based on microscopy test)	0.133	0.030	248	247	1.115	0.223	0.074	0.192
Prevalence of malaria (based on rapid test)	0.303	0.035	337	346	1.082	0.115	0.234	0.373
Prevalence of anaemia (women 15-49)	0.678	0.036	434	438	1.611	0.053	0.606	0.750
Had 2+ sexual partners in past 12 months	0.000	0.000	1,318	1,327	0.000	0.000	0.000	0.000
Condom use at last sex	0.000	0.000	0	0	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	1.000	0.000	247	260	0.000	0.000	1.000	1.000
Discriminatory attitudes towards people with HIV	0.497	0.032	1,269	1,255	2.262	0.064	0.433	0.560
Prevalence of sickle cell disease among children 6-59 months	0.016	0.011	337	346	1.587	0.677	0.000	0.039
Total fertility rate (last 3 years)	5.928	0.234	3,663	3,671	1.138	0.039	5.461	6.395
Neonatal mortality (last 0-9 years)	43.904	9.145	2,542	2,560	1.975	0.208	25.614	62.193
Postneonatal mortality (last 0-9 years)	46.518	6.674	2,528	2,546	1.454	0.143	33.171	59.866
Infant mortality (last 0-9 years)	90.422	11.151	2,546	2,568	1.703	0.123	68.120	112.724
Child mortality (last 0-9 years)	67.852	13.744	2,595	2,611	1.939	0.203	40.364	95.340
Under-5 mortality (last 0-9 years)	152.139	20.724	2,568	2,588	2.293	0.136	110.691	193.586
MEN								
Urban residence	0.237	0.050	464	472	2.502	0.210	0.137	0.336
Literacy	0.294	0.053	464	472	2.472	0.179	0.188	0.399
No education	0.670	0.054	464	472	2.468	0.081	0.561	0.778
Secondary or higher education	0.262	0.049	464	472	2.403	0.188	0.164	0.361
Never married (in union)	0.554	0.025	464	472	1.070	0.045	0.505	0.604
Currently married (in union)	0.428	0.024	464	472	1.061	0.057	0.379	0.477
Had first sexual intercourse before age 18	0.061	0.019	335	346	1.472	0.317	0.022	0.100
Knows any contraceptive method	0.874	0.024	195	202	1.025	0.028	0.825	0.923
Knows any modern contraceptive method	0.859	0.030	195	202	1.209	0.035	0.799	0.920
Want no more children	0.036	0.018	195	202	1.361	0.504	0.000	0.073
Want to delay birth at least 2 years	0.711	0.031	195	202	0.967	0.044	0.648	0.774
Ideal number of children	12.358	0.484	442	452	1.875	0.039	11.390	13.325
Had 2+ sexual partners in past 12 months	0.097	0.021	464	472	1.509	0.214	0.055	0.139
Condom use at last sex	0.028	0.022	48	46	0.904	0.769	0.000	0.072
Abstinence among young people (never had sex)	0.962	0.014	203	188	1.041	0.015	0.933	0.990
Had paid sex in past 12 months	0.008	0.005	464	472	1.266	0.660	0.000	0.018
Discriminatory attitudes towards people with HIV	0.480	0.044	387	402	1.740	0.092	0.391	0.569

Table B.24 Sampling errors: Jigawa sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.980	0.005	1,136	1,134	1.189	0.005	0.970	0.990
De facto population with access to an ITN	0.861	0.011	6,838	6,780	1.465	0.013	0.839	0.883
Household population that slept under an ITN last night	0.871	0.014	6,838	6,780	1.948	0.017	0.842	0.900
WOMEN								
Urban residence	0.128	0.017	1,405	1,382	1.921	0.134	0.094	0.163
Literacy	0.181	0.036	1,405	1,382	3.528	0.201	0.108	0.254
No education	0.749	0.039	1,405	1,382	3.344	0.052	0.671	0.827
Secondary or higher education	0.152	0.034	1,405	1,382	3.534	0.224	0.084	0.220
Never married (never in union)	0.134	0.018	1,405	1,382	1.929	0.131	0.099	0.169
Currently married (in union)	0.838	0.021	1,405	1,382	2.162	0.025	0.795	0.880
Married before age 18	0.827	0.022	1,105	1,089	1.947	0.027	0.782	0.871
Had sexual intercourse before age 18	0.829	0.022	1,105	1,089	1.904	0.026	0.786	0.872
Currently pregnant	0.152	0.012	1,405	1,382	1.207	0.076	0.129	0.175
Know any contraceptive method	0.994	0.003	1,165	1,158	1.140	0.003	0.989	0.999
Know a modern method	0.985	0.008	1,165	1,158	2.191	0.008	0.969	1.001
Currently using any method	0.040	0.009	1,165	1,158	1.645	0.237	0.021	0.059
Currently using a modern method	0.039	0.009	1,165	1,158	1.584	0.231	0.021	0.057
Currently using pill	0.005	0.002	1,165	1,158	0.932	0.392	0.001	0.009
Currently using male condoms	0.000	0.000	1,165	1,158	0.000	0.000	0.000	0.000
Currently using injectables	0.025	0.008	1,165	1,158	1.660	0.304	0.010	0.040
Currently using implants	0.008	0.003	1,165	1,158	1.193	0.387	0.002	0.014
Currently using female sterilisation	0.001	0.001	1,165	1,158	1.094	0.990	0.000	0.003
Currently using withdrawal	0.000	0.000	1,165	1,158	0.000	0.000	0.000	0.000
Currently using rhythm	0.001	0.001	1,165	1,158	0.977	0.994	0.000	0.002
Using public sector source	0.837	0.070	48	45	1.281	0.083	0.698	0.976
Want no more children	0.162	0.012	1,165	1,158	1.139	0.076	0.137	0.186
Want to delay next birth at least 2 years	0.440	0.018	1,165	1,158	1.252	0.041	0.404	0.477
Ideal number of children	8.714	0.107	1,405	1,382	1.655	0.012	8.500	8.928
Mothers protected against tetanus for last birth	0.578	0.035	901	898	2.112	0.060	0.508	0.647
Births with skilled attendant at delivery	0.213	0.031	1,502	1,497	2.436	0.143	0.152	0.274
Received 3+ doses of SP/Fansidar	0.229	0.021	553	552	1.160	0.090	0.188	0.270
Treated with ORS	0.639	0.033	239	243	1.036	0.052	0.572	0.706
Sought medical treatment for diarrhoea	0.823	0.033	239	243	1.290	0.040	0.758	0.889
Ever had vaccination card	0.583	0.048	250	246	1.515	0.083	0.486	0.679
Received BCG vaccination	0.532	0.041	250	246	1.264	0.077	0.450	0.613
Received birth dose HepB vaccination	0.407	0.054	250	246	1.672	0.132	0.300	0.514
Received DPT-HepB-Hib vaccination (3 doses)	0.357	0.048	250	246	1.526	0.133	0.262	0.452
Received birth dose polio 0 vaccination	0.451	0.048	250	246	1.480	0.106	0.356	0.547
Received polio vaccination (3 doses)	0.485	0.043	250	246	1.316	0.088	0.399	0.570
Received pneumococcal vaccination (3 doses)	0.310	0.045	250	246	1.487	0.145	0.220	0.399
Received measles 1 vaccination	0.557	0.039	250	246	1.205	0.070	0.479	0.634
Received all basic vaccinations (12-23 months)	0.238	0.036	250	246	1.279	0.151	0.166	0.309
Received all age-appropriate vaccinations (12-23 months)	0.179	0.032	250	246	1.271	0.179	0.115	0.243
Received measles 2 vaccination	0.147	0.027	232	233	1.182	0.186	0.092	0.202
Received all age-appropriate vaccinations (24-35 months)	0.025	0.010	232	233	0.955	0.390	0.005	0.044
Height-for-age (-2SD)	0.640	0.027	415	415	1.211	0.043	0.586	0.695
Weight-for-height (-2SD)	0.096	0.017	420	419	1.121	0.179	0.061	0.130
Weight-for-age (-2SD)	0.423	0.033	422	422	1.288	0.079	0.356	0.490
Body mass index (BMI) <18.5	0.304	0.026	375	366	1.104	0.087	0.251	0.357
Body mass index (BMI) ≥25	0.077	0.022	375	366	1.564	0.280	0.034	0.121
Prevalence of anaemia (children 6-59 months)	0.819	0.025	383	382	1.197	0.031	0.768	0.869
Prevalence of malaria (based on microscopy test)	0.357	0.034	287	291	1.178	0.096	0.289	0.426
Prevalence of malaria (based on rapid test)	0.494	0.033	380	379	1.236	0.067	0.428	0.560
Prevalence of anaemia (women 15-49)	0.654	0.031	453	447	1.368	0.047	0.593	0.715
Had 2+ sexual partners in past 12 months	0.000	0.000	1,405	1,382	0.000	0.000	0.000	0.000
Condom use at last sex	0.000	0.000	0	0	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	1.000	0.000	195	182	0.000	0.000	1.000	1.000
Discriminatory attitudes towards people with HIV	0.801	0.016	1,398	1,375	1.508	0.020	0.769	0.834
Prevalence of sickle cell disease among children 6-59 months	0.016	0.006	383	382	1.046	0.416	0.003	0.029
Total fertility rate (last 3 years)	7.133	0.211	3,891	3,828	1.275	0.030	6.711	7.556
Neonatal mortality (last 0-9 years)	46.802	4.707	3,072	3,045	1.105	0.101	37.387	56.217
Postneonatal mortality (last 0-9 years)	33.915	4.184	3,070	3,045	1.093	0.123	25.547	42.284
Infant mortality (last 0-9 years)	80.717	7.726	3,080	3,054	1.340	0.096	65.265	96.169
Child mortality (last 0-9 years)	144.152	11.595	3,098	3,071	1.339	0.080	120.962	167.342
Under-5 mortality (last 0-9 years)	213.234	13.096	3,143	3,118	1.247	0.061	187.041	239.426
MEN								
Urban residence	0.128	0.019	296	291	0.981	0.149	0.090	0.166
Literacy	0.584	0.048	296	291	1.669	0.082	0.487	0.680
No education	0.367	0.046	296	291	1.652	0.127	0.274	0.460
Secondary or higher education	0.431	0.055	296	291	1.899	0.127	0.321	0.541
Never married (in union)	0.381	0.025	296	291	0.879	0.065	0.331	0.430
Currently married (in union)	0.594	0.029	296	291	1.014	0.049	0.536	0.652
Had first sexual intercourse before age 18	0.077	0.021	227	222	1.165	0.269	0.035	0.118
Knows any contraceptive method	0.991	0.009	175	173	1.232	0.009	0.974	1.009
Knows any modern contraceptive method	0.991	0.009	175	173	1.232	0.009	0.974	1.009
Want no more children	0.035	0.014	175	173	1.014	0.402	0.007	0.064
Want to delay birth at least 2 years	0.376	0.037	175	173	1.008	0.098	0.302	0.450
Ideal number of children	11.308	0.404	296	291	0.978	0.036	10.501	12.116
Had 2+ sexual partners in past 12 months	0.128	0.017	296	291	0.878	0.133	0.094	0.163
Condom use at last sex	0.000	0.000	37	37	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	0.988	0.013	96	95	1.116	0.013	0.962	1.013
Had paid sex in past 12 months	0.008	0.008	296	291	1.574	1.012	0.000	0.025
Discriminatory attitudes towards people with HIV	0.718	0.035	294	290	1.332	0.049	0.648	0.788

Table B.25 Sampling errors: Kaduna sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.793	0.017	1,249	1,950	1.501	0.022	0.758	0.827
De facto population with access to an ITN	0.510	0.019	6,780	10,663	1.861	0.038	0.471	0.548
Household population that slept under an ITN last night	0.543	0.022	6,780	10,663	1.954	0.041	0.498	0.588
WOMEN								
Urban residence	0.425	0.051	1,610	2,493	4.099	0.119	0.324	0.527
Literacy	0.442	0.055	1,610	2,493	4.378	0.123	0.333	0.551
No education	0.470	0.063	1,610	2,493	4.993	0.133	0.344	0.595
Secondary or higher education	0.386	0.053	1,610	2,493	4.312	0.136	0.281	0.492
Never married (never in union)	0.181	0.026	1,610	2,493	2.700	0.144	0.129	0.233
Currently married (in union)	0.792	0.029	1,610	2,493	2.903	0.037	0.733	0.851
Married before age 18	0.610	0.039	1,262	1,971	2.851	0.064	0.532	0.689
Had sexual intercourse before age 18	0.738	0.035	1,262	1,971	2.792	0.047	0.669	0.808
Currently pregnant	0.113	0.010	1,610	2,493	1.252	0.087	0.093	0.133
Know any contraceptive method	0.992	0.004	1,242	1,975	1.393	0.004	0.985	0.999
Know a modern method	0.966	0.010	1,242	1,975	1.988	0.011	0.945	0.986
Currently using any method	0.149	0.027	1,242	1,975	2.646	0.180	0.095	0.203
Currently using a modern method	0.137	0.026	1,242	1,975	2.690	0.192	0.085	0.190
Currently using pill	0.008	0.002	1,242	1,975	0.920	0.287	0.004	0.013
Currently using male condoms	0.004	0.002	1,242	1,975	1.051	0.499	0.000	0.007
Currently using injectables	0.040	0.009	1,242	1,975	1.526	0.212	0.023	0.057
Currently using implants	0.070	0.016	1,242	1,975	2.250	0.233	0.038	0.103
Currently using female sterilisation	0.003	0.002	1,242	1,975	1.001	0.529	0.000	0.006
Currently using withdrawal	0.002	0.001	1,242	1,975	1.017	0.622	0.000	0.005
Currently using rhythm	0.005	0.002	1,242	1,975	0.969	0.392	0.001	0.009
Using public sector source	0.738	0.042	193	290	1.313	0.057	0.655	0.822
Want no more children	0.209	0.015	1,242	1,975	1.302	0.072	0.179	0.240
Want to delay next birth at least 2 years	0.318	0.020	1,242	1,975	1.534	0.064	0.278	0.359
Ideal number of children	7.177	0.269	1,606	2,486	3.574	0.038	6.639	7.715
Mothers protected against tetanus for last birth	0.509	0.047	898	1,453	2.824	0.092	0.416	0.603
Births with skilled attendant at delivery	0.233	0.036	1,451	2,402	2.519	0.154	0.161	0.305
Received 3+ doses of SP/Fansidar	0.092	0.020	541	885	1.614	0.215	0.052	0.131
Treated with ORS	0.047	0.018	155	241	1.059	0.390	0.010	0.083
Sought medical treatment for diarrhoea	0.487	0.064	155	241	1.519	0.132	0.359	0.615
Ever had vaccination card	0.559	0.061	227	362	1.846	0.109	0.438	0.681
Received BCG vaccination	0.518	0.067	227	362	2.028	0.130	0.383	0.652
Received birth dose HepB vaccination	0.449	0.064	227	362	1.926	0.142	0.322	0.576
Received DPT-HepB-Hib vaccination (3 doses)	0.319	0.049	227	362	1.585	0.154	0.221	0.417
Received birth dose polio 0 vaccination	0.452	0.057	227	362	1.726	0.126	0.338	0.566
Received polio vaccination (3 doses)	0.323	0.047	227	362	1.508	0.144	0.230	0.417
Received pneumococcal vaccination (3 doses)	0.317	0.047	227	362	1.512	0.147	0.224	0.410
Received measles 1 vaccination	0.424	0.047	227	362	1.428	0.110	0.331	0.518
Received all basic vaccinations (12-23 months)	0.218	0.036	227	362	1.313	0.165	0.146	0.290
Received all age-appropriate vaccinations (12-23 months)	0.166	0.032	227	362	1.299	0.193	0.102	0.230
Received measles 2 vaccination	0.131	0.039	230	376	1.792	0.301	0.052	0.209
Received all age-appropriate vaccinations (24-35 months)	0.054	0.019	230	376	1.313	0.359	0.015	0.092
Height-for-age (-2SD)	0.481	0.033	421	688	1.330	0.068	0.416	0.547
Weight-for-height (-2SD)	0.048	0.012	420	692	1.181	0.242	0.025	0.072
Weight-for-age (-2SD)	0.221	0.029	422	694	1.343	0.134	0.162	0.280
Body mass index (BMI) <18.5	0.109	0.018	459	694	1.202	0.162	0.074	0.145
Body mass index (BMI) ≥25	0.251	0.026	459	694	1.247	0.102	0.200	0.302
Prevalence of anaemia (children 6-59 months)	0.484	0.052	376	614	1.793	0.108	0.379	0.589
Prevalence of malaria (based on microscopy test)	0.330	0.043	280	454	1.272	0.130	0.244	0.416
Prevalence of malaria (based on rapid test)	0.343	0.040	376	614	1.384	0.116	0.264	0.422
Prevalence of anaemia (women 15-49)	0.440	0.032	550	850	1.532	0.074	0.375	0.505
Had 2+ sexual partners in past 12 months	0.007	0.004	1,610	2,493	1.733	0.510	0.000	0.014
Condom use at last sex	0.445	0.153	11	18	0.975	0.343	0.139	0.751
Abstinence among young people (never had sex)	0.812	0.044	293	413	1.912	0.054	0.725	0.900
Discriminatory attitudes towards people with HIV	0.254	0.024	1,590	2,464	2.180	0.094	0.206	0.301
Prevalence of sickle cell disease among children 6-59 months	0.000	0.000	376	614	0.000	0.000	0.000	0.000
Total fertility rate (last 3 years)	5.947	0.360	4,497	6,976	2.412	0.061	5.227	6.667
Neonatal mortality (last 0-9 years)	63.361	9.303	2,781	4,492	1.454	0.147	44.755	81.966
Postneonatal mortality (last 0-9 years)	33.830	5.322	2,779	4,489	1.393	0.157	23.186	44.474
Infant mortality (last 0-9 years)	97.190	10.232	2,786	4,499	1.354	0.105	76.727	117.654
Child mortality (last 0-9 years)	99.825	13.157	2,800	4,501	1.828	0.132	73.511	126.140
Under-5 mortality (last 0-9 years)	187.314	19.226	2,819	4,550	1.936	0.103	148.862	225.765
MEN								
Urban residence	0.427	0.043	426	636	1.799	0.101	0.340	0.513
Literacy	0.650	0.055	426	636	2.374	0.085	0.540	0.761
No education	0.291	0.056	426	636	2.521	0.192	0.179	0.403
Secondary or higher education	0.565	0.056	426	636	2.303	0.098	0.454	0.677
Never married (in union)	0.385	0.029	426	636	1.249	0.077	0.326	0.444
Currently married (in union)	0.605	0.030	426	636	1.279	0.050	0.545	0.666
Had first sexual intercourse before age 18	0.100	0.028	340	510	1.707	0.279	0.044	0.156
Knows any contraceptive method	1.000	0.000	245	385	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	245	385	0.000	0.000	1.000	1.000
Want no more children	0.103	0.022	245	385	1.115	0.211	0.060	0.146
Want to delay birth at least 2 years	0.284	0.033	245	385	1.155	0.117	0.218	0.351
Ideal number of children	8.060	0.470	426	636	1.567	0.058	7.120	9.001
Had 2+ sexual partners in past 12 months	0.196	0.021	426	636	1.107	0.109	0.153	0.239
Condom use at last sex	0.080	0.031	71	125	0.956	0.386	0.018	0.142
Abstinence among young people (never had sex)	0.867	0.036	138	192	1.237	0.041	0.795	0.939
Had paid sex in past 12 months	0.029	0.011	426	636	1.342	0.378	0.007	0.051
Discriminatory attitudes towards people with HIV	0.205	0.030	411	611	1.513	0.148	0.144	0.265

Table B.26 Sampling errors: Kano sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.852	0.016	1,566	2,153	1.794	0.019	0.820	0.884
De facto population with access to an ITN	0.633	0.017	9,664	13,328	1.775	0.027	0.599	0.667
Household population that slept under an ITN last night	0.651	0.018	9,664	13,328	1.844	0.028	0.614	0.688
WOMEN								
Urban residence	0.444	0.026	1,983	2,692	2.357	0.059	0.391	0.497
Literacy	0.378	0.040	1,983	2,692	3.635	0.105	0.299	0.458
No education	0.563	0.038	1,983	2,692	3.403	0.068	0.487	0.639
Secondary or higher education	0.321	0.039	1,983	2,692	3.727	0.122	0.242	0.399
Never married (never in union)	0.188	0.020	1,983	2,692	2.323	0.109	0.147	0.228
Currently married (in union)	0.775	0.024	1,983	2,692	2.558	0.031	0.726	0.823
Married before age 18	0.712	0.031	1,544	2,084	2.695	0.044	0.649	0.774
Had sexual intercourse before age 18	0.719	0.032	1,544	2,084	2.793	0.045	0.655	0.783
Currently pregnant	0.152	0.009	1,983	2,692	1.067	0.057	0.134	0.169
Know any contraceptive method	0.988	0.004	1,541	2,085	1.274	0.004	0.980	0.995
Know a modern method	0.984	0.003	1,541	2,085	1.076	0.004	0.977	0.991
Currently using any method	0.063	0.009	1,541	2,085	1.463	0.143	0.045	0.082
Currently using a modern method	0.056	0.008	1,541	2,085	1.445	0.151	0.039	0.073
Currently using pill	0.007	0.003	1,541	2,085	1.412	0.414	0.001	0.014
Currently using male condoms	0.001	0.001	1,541	2,085	0.871	0.705	0.000	0.002
Currently using injectables	0.015	0.004	1,541	2,085	1.121	0.229	0.008	0.022
Currently using implants	0.023	0.005	1,541	2,085	1.268	0.210	0.013	0.033
Currently using female sterilisation	0.001	0.001	1,541	2,085	0.958	0.729	0.000	0.003
Currently using withdrawal	0.002	0.001	1,541	2,085	0.989	0.560	0.000	0.004
Currently using rhythm	0.000	0.000	1,541	2,085	0.777	1.013	0.000	0.001
Using public sector source	0.788	0.042	88	120	0.969	0.054	0.703	0.873
Want no more children	0.164	0.014	1,541	2,085	1.468	0.085	0.136	0.191
Want to delay next birth at least 2 years	0.369	0.013	1,541	2,085	1.035	0.034	0.344	0.395
Ideal number of children	7.439	0.163	1,977	2,686	2.669	0.022	7.112	7.765
Mothers protected against tetanus for last birth	0.653	0.031	1,247	1,682	2.299	0.048	0.591	0.715
Births with skilled attendant at delivery	0.236	0.026	2,037	2,738	2.257	0.109	0.184	0.287
Received 3+ doses of SP/Fansidar	0.072	0.015	742	1,001	1.598	0.210	0.042	0.103
Treated with ORS	0.528	0.025	320	428	0.862	0.047	0.479	0.578
Sought medical treatment for diarrhoea	0.813	0.025	320	428	1.149	0.031	0.763	0.863
Ever had vaccination card	0.636	0.035	328	431	1.310	0.056	0.565	0.706
Received BCG vaccination	0.612	0.037	328	431	1.363	0.061	0.538	0.687
Received birth dose HepB vaccination	0.420	0.034	328	431	1.222	0.081	0.352	0.488
Received DPT-HepB-Hib vaccination (3 doses)	0.459	0.040	328	431	1.421	0.087	0.380	0.539
Received birth dose polio 0 vaccination	0.472	0.037	328	431	1.329	0.079	0.397	0.546
Received polio vaccination (3 doses)	0.668	0.037	328	431	1.393	0.055	0.594	0.741
Received pneumococcal vaccination (3 doses)	0.434	0.041	328	431	1.468	0.094	0.352	0.516
Received measles 1 vaccination	0.561	0.036	328	431	1.303	0.065	0.488	0.633
Received all basic vaccinations (12-23 months)	0.343	0.035	328	431	1.310	0.102	0.273	0.413
Received all age-appropriate vaccinations (12-23 months)	0.221	0.032	328	431	1.354	0.144	0.158	0.285
Received measles 2 vaccination	0.130	0.024	349	459	1.229	0.182	0.083	0.177
Received all age-appropriate vaccinations (24-35 months)	0.048	0.014	349	459	1.146	0.299	0.019	0.077
Height-for-age (-2SD)	0.567	0.023	560	752	1.032	0.041	0.521	0.614
Weight-for-height (-2SD)	0.063	0.011	566	760	1.083	0.175	0.041	0.085
Weight-for-age (-2SD)	0.305	0.023	567	761	1.108	0.074	0.260	0.350
Body mass index (BMI) <18.5	0.177	0.026	481	637	1.455	0.145	0.126	0.229
Body mass index (BMI) ≥25	0.166	0.024	481	637	1.424	0.148	0.117	0.215
Prevalence of anaemia (children 6-59 months)	0.729	0.025	510	682	1.199	0.034	0.680	0.779
Prevalence of malaria (based on microscopy test)	0.324	0.038	359	488	1.183	0.117	0.249	0.400
Prevalence of malaria (based on rapid test)	0.430	0.039	510	682	1.517	0.091	0.352	0.509
Prevalence of anaemia (women 15-49)	0.466	0.029	580	775	1.375	0.062	0.408	0.523
Had 2+ sexual partners in past 12 months	0.000	0.000	1,983	2,692	0.778	1.008	0.000	0.001
Condom use at last sex	0.000	0.000	1	1	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	0.988	0.007	351	484	1.280	0.008	0.973	1.003
Discriminatory attitudes towards people with HIV	0.622	0.022	1,964	2,666	2.007	0.035	0.578	0.666
Prevalence of sickle cell disease among children 6-59 months	0.024	0.007	510	682	0.992	0.310	0.009	0.039
Total fertility rate (last 3 years)	6.545	0.252	5,546	7,518	1.672	0.039	6.040	7.050
Neonatal mortality (last 0-9 years)	36.744	3.830	3,939	5,287	1.143	0.104	29.084	44.403
Postneonatal mortality (last 0-9 years)	25.513	3.199	3,942	5,291	1.231	0.125	19.116	31.910
Infant mortality (last 0-9 years)	62.257	5.866	3,945	5,295	1.318	0.094	50.525	73.989
Child mortality (last 0-9 years)	108.571	10.217	3,917	5,252	1.525	0.094	88.136	129.006
Under-5 mortality (last 0-9 years)	164.069	12.345	4,010	5,383	1.546	0.075	139.378	188.759
MEN								
Urban residence	0.476	0.037	483	676	1.631	0.078	0.402	0.551
Literacy	0.713	0.033	483	676	1.585	0.046	0.648	0.779
No education	0.257	0.035	483	676	1.776	0.138	0.186	0.328
Secondary or higher education	0.573	0.042	483	676	1.853	0.073	0.490	0.657
Never married (in union)	0.517	0.035	483	676	1.542	0.068	0.447	0.587
Currently married (in union)	0.460	0.034	483	676	1.516	0.075	0.391	0.529
Had first sexual intercourse before age 18	0.051	0.013	357	495	1.080	0.248	0.026	0.076
Knows any contraceptive method	0.929	0.021	225	311	1.196	0.022	0.888	0.970
Knows any modern contraceptive method	0.929	0.021	225	311	1.196	0.022	0.888	0.970
Want no more children	0.037	0.013	225	311	1.069	0.364	0.010	0.064
Want to delay birth at least 2 years	0.381	0.034	225	311	1.032	0.088	0.314	0.448
Ideal number of children	9.967	0.565	388	542	1.409	0.057	8.836	11.097
Had 2+ sexual partners in past 12 months	0.109	0.015	483	676	1.057	0.137	0.079	0.139
Condom use at last sex	0.000	0.000	53	74	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	0.985	0.008	192	267	0.948	0.008	0.969	1.002
Had paid sex in past 12 months	0.004	0.004	483	676	1.316	0.990	0.000	0.011
Discriminatory attitudes towards people with HIV	0.575	0.034	478	670	1.514	0.060	0.506	0.643

Table B.27 Sampling errors: Katsina sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.918	0.015	1,168	1,820	1.817	0.016	0.889	0.947
De facto population with access to an ITN	0.713	0.025	7,411	11,444	2.272	0.035	0.664	0.763
Household population that slept under an ITN last night	0.647	0.025	7,411	11,444	1.889	0.039	0.596	0.698
WOMEN								
Urban residence	0.234	0.022	1,494	2,283	2.004	0.094	0.190	0.278
Literacy	0.266	0.031	1,494	2,283	2.684	0.116	0.204	0.327
No education	0.589	0.035	1,494	2,283	2.760	0.060	0.519	0.659
Secondary or higher education	0.242	0.027	1,494	2,283	2.470	0.113	0.188	0.297
Never married (never in union)	0.195	0.017	1,494	2,283	1.672	0.088	0.160	0.229
Currently married (in union)	0.776	0.019	1,494	2,283	1.775	0.025	0.738	0.814
Married before age 18	0.788	0.023	1,105	1,698	1.897	0.030	0.742	0.835
Had sexual intercourse before age 18	0.820	0.023	1,105	1,698	1.994	0.028	0.773	0.866
Currently pregnant	0.124	0.013	1,494	2,283	1.552	0.107	0.097	0.150
Know any contraceptive method	0.920	0.020	1,132	1,772	2.498	0.022	0.880	0.961
Know a modern method	0.913	0.022	1,132	1,772	2.618	0.024	0.869	0.957
Currently using any method	0.034	0.007	1,132	1,772	1.370	0.218	0.019	0.049
Currently using a modern method	0.033	0.007	1,132	1,772	1.358	0.220	0.018	0.047
Currently using pill	0.007	0.003	1,132	1,772	1.200	0.430	0.001	0.013
Currently using male condoms	0.000	0.000	1,132	1,772	0.000	0.000	0.000	0.000
Currently using injectables	0.012	0.003	1,132	1,772	0.966	0.261	0.006	0.018
Currently using implants	0.013	0.004	1,132	1,772	1.116	0.292	0.005	0.020
Currently using female sterilisation	0.001	0.001	1,132	1,772	0.825	0.724	0.000	0.003
Currently using withdrawal	0.000	0.000	1,132	1,772	0.000	0.000	0.000	0.000
Currently using rhythm	0.000	0.000	1,132	1,772	0.000	0.000	0.000	0.000
Using public sector source	0.894	0.050	41	58	1.024	0.056	0.794	0.994
Want no more children	0.201	0.016	1,132	1,772	1.358	0.080	0.169	0.234
Want to delay next birth at least 2 years	0.415	0.018	1,132	1,772	1.223	0.043	0.379	0.451
Ideal number of children	6.630	0.205	1,407	2,141	1.875	0.031	6.220	7.041
Mothers protected against tetanus for last birth	0.425	0.034	932	1,440	2.116	0.081	0.356	0.494
Births with skilled attendant at delivery	0.191	0.027	1,555	2,428	2.179	0.142	0.137	0.245
Received 3+ doses of SP/Fansidar	0.063	0.014	571	876	1.335	0.216	0.036	0.091
Treated with ORS	0.398	0.045	188	294	1.228	0.114	0.307	0.488
Sought medical treatment for diarrhoea	0.699	0.034	188	294	0.990	0.049	0.631	0.767
Ever had vaccination card	0.462	0.055	257	392	1.707	0.118	0.352	0.571
Received BCG vaccination	0.464	0.054	257	392	1.699	0.117	0.355	0.572
Received birth dose HepB vaccination	0.281	0.046	257	392	1.630	0.165	0.188	0.374
Received DPT-HepB-Hib vaccination (3 doses)	0.337	0.050	257	392	1.634	0.147	0.238	0.436
Received birth dose polio 0 vaccination	0.346	0.049	257	392	1.607	0.141	0.248	0.443
Received polio vaccination (3 doses)	0.459	0.055	257	392	1.716	0.119	0.349	0.568
Received pneumococcal vaccination (3 doses)	0.335	0.050	257	392	1.641	0.148	0.235	0.434
Received measles 1 vaccination	0.346	0.046	257	392	1.512	0.133	0.254	0.438
Received all basic vaccinations (12-23 months)	0.212	0.041	257	392	1.530	0.191	0.131	0.293
Received all age-appropriate vaccinations (12-23 months)	0.122	0.025	257	392	1.217	0.205	0.072	0.172
Received measles 2 vaccination	0.090	0.020	271	434	1.155	0.220	0.050	0.129
Received all age-appropriate vaccinations (24-35 months)	0.053	0.016	271	434	1.171	0.296	0.022	0.084
Height-for-age (-2SD)	0.603	0.031	476	744	1.220	0.051	0.541	0.664
Weight-for-height (-2SD)	0.106	0.018	491	766	1.271	0.172	0.069	0.142
Weight-for-age (-2SD)	0.390	0.036	493	768	1.422	0.093	0.318	0.462
Body mass index (BMI) <18.5	0.127	0.021	431	660	1.299	0.164	0.085	0.168
Body mass index (BMI) ≥25	0.178	0.024	431	660	1.299	0.134	0.131	0.226
Prevalence of anaemia (children 6-59 months)	0.648	0.037	439	687	1.519	0.057	0.574	0.722
Prevalence of malaria (based on microscopy test)	0.255	0.036	305	475	1.261	0.140	0.183	0.326
Prevalence of malaria (based on rapid test)	0.554	0.040	439	687	1.508	0.073	0.473	0.635
Prevalence of anaemia (women 15-49)	0.712	0.030	509	780	1.495	0.042	0.652	0.772
Had 2+ sexual partners in past 12 months	0.002	0.002	1,494	2,283	1.405	0.746	0.000	0.006
Condom use at last sex	0.000	0.000	3	5	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	1.000	0.000	297	421	0.000	0.000	1.000	1.000
Discriminatory attitudes towards people with HIV	0.592	0.019	1,467	2,242	1.441	0.031	0.555	0.629
Prevalence of sickle cell disease among children 6-59 months	0.011	0.006	439	687	0.992	0.532	0.000	0.022
Total fertility rate (last 3 years)	7.250	0.238	4,076	6,239	1.263	0.033	6.774	7.727
Neonatal mortality (last 0-9 years)	37.625	4.688	3,118	4,838	1.191	0.125	28.249	47.002
Postneonatal mortality (last 0-9 years)	27.974	3.439	3,114	4,822	1.121	0.123	21.095	34.853
Infant mortality (last 0-9 years)	65.600	6.165	3,122	4,843	1.243	0.094	53.270	77.929
Child mortality (last 0-9 years)	131.238	10.577	3,133	4,852	1.394	0.081	110.083	152.393
Under-5 mortality (last 0-9 years)	188.228	11.600	3,197	4,963	1.374	0.062	165.028	211.429
MEN								
Urban residence	0.235	0.027	454	687	1.372	0.116	0.180	0.290
Literacy	0.686	0.051	454	687	2.328	0.074	0.584	0.788
No education	0.289	0.050	454	687	2.331	0.173	0.189	0.389
Secondary or higher education	0.525	0.057	454	687	2.405	0.108	0.412	0.638
Never married (in union)	0.523	0.033	454	687	1.385	0.062	0.458	0.589
Currently married (in union)	0.473	0.032	454	687	1.382	0.069	0.409	0.538
Had first sexual intercourse before age 18	0.014	0.008	325	489	1.165	0.545	0.000	0.029
Knows any contraceptive method	0.977	0.012	212	325	1.197	0.013	0.952	1.002
Knows any modern contraceptive method	0.977	0.012	212	325	1.197	0.013	0.952	1.002
Want no more children	0.067	0.014	212	325	0.831	0.213	0.038	0.095
Want to delay birth at least 2 years	0.167	0.021	212	325	0.823	0.127	0.124	0.209
Ideal number of children	9.537	0.208	454	687	1.018	0.022	9.122	9.952
Had 2+ sexual partners in past 12 months	0.134	0.017	454	687	1.056	0.126	0.100	0.168
Condom use at last sex	0.056	0.033	60	92	1.082	0.578	0.000	0.121
Abstinence among young people (never had sex)	0.997	0.003	191	286	0.808	0.003	0.990	1.003
Had paid sex in past 12 months	0.014	0.006	454	687	1.128	0.450	0.001	0.026
Discriminatory attitudes towards people with HIV	0.542	0.032	438	662	1.326	0.058	0.478	0.605

Table B.28 Sampling errors: Kebbi sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.981	0.006	1,034	910	1.343	0.006	0.970	0.993
De facto population with access to an ITN	0.776	0.011	5,959	5,232	1.347	0.015	0.753	0.798
Household population that slept under an ITN last night	0.816	0.012	5,959	5,232	1.568	0.015	0.792	0.840
WOMEN								
Urban residence	0.173	0.023	1,335	1,136	2.262	0.136	0.126	0.220
Literacy	0.153	0.028	1,335	1,136	2.788	0.180	0.098	0.208
No education	0.818	0.030	1,335	1,136	2.797	0.036	0.759	0.877
Secondary or higher education	0.110	0.023	1,335	1,136	2.732	0.214	0.063	0.156
Never married (never in union)	0.139	0.019	1,335	1,136	2.048	0.140	0.100	0.178
Currently married (in union)	0.832	0.024	1,335	1,136	2.300	0.028	0.785	0.879
Married before age 18	0.758	0.017	1,071	916	1.288	0.022	0.725	0.792
Had sexual intercourse before age 18	0.746	0.019	1,071	916	1.404	0.025	0.709	0.783
Currently pregnant	0.145	0.010	1,335	1,136	1.046	0.070	0.125	0.165
Know any contraceptive method	0.901	0.018	1,095	945	1.978	0.020	0.865	0.937
Know a modern method	0.897	0.019	1,095	945	2.059	0.021	0.859	0.935
Currently using any method	0.035	0.007	1,095	945	1.276	0.204	0.020	0.049
Currently using a modern method	0.032	0.007	1,095	945	1.392	0.232	0.017	0.047
Currently using pill	0.008	0.002	1,095	945	0.857	0.293	0.003	0.012
Currently using male condoms	0.001	0.001	1,095	945	0.846	0.716	0.000	0.003
Currently using injectables	0.016	0.006	1,095	945	1.552	0.368	0.004	0.028
Currently using implants	0.007	0.002	1,095	945	0.853	0.315	0.002	0.011
Currently using female sterilisation	0.000	0.000	1,095	945	0.000	0.000	0.000	0.000
Currently using withdrawal	0.000	0.000	1,095	945	0.000	0.000	0.000	0.000
Currently using rhythm	0.000	0.000	1,095	945	0.000	0.000	0.000	0.000
Using public sector source	0.857	0.059	37	31	1.003	0.068	0.740	0.974
Want no more children	0.091	0.008	1,095	945	0.886	0.085	0.076	0.106
Want to delay next birth at least 2 years	0.329	0.018	1,095	945	1.267	0.055	0.293	0.365
Ideal number of children	8.833	0.157	1,334	1,135	1.857	0.018	8.518	9.148
Mothers protected against tetanus for last birth	0.235	0.031	824	716	2.099	0.132	0.173	0.297
Births with skilled attendant at delivery	0.094	0.012	1,397	1,228	1.404	0.132	0.069	0.119
Received 3+ doses of SP/Fansidar	0.054	0.014	507	451	1.466	0.269	0.025	0.082
Treated with ORS	0.394	0.047	108	97	1.014	0.120	0.300	0.489
Sought medical treatment for diarrhoea	0.620	0.047	108	97	1.013	0.076	0.525	0.715
Ever had vaccination card	0.605	0.038	237	207	1.201	0.063	0.529	0.681
Received BCG vaccination	0.256	0.043	237	207	1.505	0.167	0.170	0.341
Received birth dose HepB vaccination	0.158	0.027	237	207	1.137	0.173	0.103	0.213
Received DPT-HepB-Hib vaccination (3 doses)	0.106	0.026	237	207	1.332	0.249	0.053	0.159
Received birth dose polio 0 vaccination	0.177	0.035	237	207	1.395	0.197	0.107	0.247
Received polio vaccination (3 doses)	0.265	0.037	237	207	1.311	0.140	0.191	0.339
Received pneumococcal vaccination (3 doses)	0.080	0.024	237	207	1.372	0.299	0.032	0.129
Received measles 1 vaccination	0.326	0.040	237	207	1.342	0.124	0.246	0.407
Received all basic vaccinations (12-23 months)	0.063	0.019	237	207	1.229	0.306	0.024	0.101
Received all age-appropriate vaccinations (12-23 months)	0.025	0.007	237	207	0.719	0.288	0.011	0.040
Received measles 2 vaccination	0.023	0.012	188	160	1.131	0.540	0.000	0.048
Received all age-appropriate vaccinations (24-35 months)	0.000	0.000	188	160	0.000	0.000	0.000	0.000
Height-for-age (-2SD)	0.660	0.029	359	323	1.080	0.044	0.603	0.718
Weight-for-height (-2SD)	0.123	0.021	355	320	1.314	0.171	0.081	0.165
Weight-for-age (-2SD)	0.463	0.033	358	322	1.181	0.071	0.398	0.529
Body mass index (BMI) <18.5	0.158	0.026	382	324	1.392	0.165	0.106	0.210
Body mass index (BMI) ≥25	0.137	0.021	382	324	1.218	0.157	0.094	0.180
Prevalence of anaemia (children 6-59 months)	0.808	0.030	319	285	1.255	0.037	0.749	0.867
Prevalence of malaria (based on microscopy test)	0.522	0.047	218	189	1.224	0.089	0.429	0.615
Prevalence of malaria (based on rapid test)	0.768	0.034	318	284	1.393	0.045	0.700	0.836
Prevalence of anaemia (women 15-49)	0.604	0.036	450	380	1.535	0.059	0.533	0.675
Had 2+ sexual partners in past 12 months	0.001	0.001	1,335	1,136	0.966	1.000	0.000	0.002
Condom use at last sex	0.000	0.000	1	1	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	1.000	0.000	191	154	0.000	0.000	1.000	1.000
Discriminatory attitudes towards people with HIV	0.886	0.013	1,098	922	1.306	0.014	0.860	0.911
Prevalence of sickle cell disease among children 6-59 months	0.012	0.007	319	285	1.174	0.588	0.000	0.027
Total fertility rate (last 3 years)	6.457	0.282	3,752	3,201	1.357	0.044	5.894	7.020
Neonatal mortality (last 0-9 years)	54.523	4.568	2,809	2,459	0.858	0.084	45.387	63.660
Postneonatal mortality (last 0-9 years)	57.658	5.795	2,836	2,485	1.209	0.101	46.069	69.248
Infant mortality (last 0-9 years)	112.181	7.921	2,820	2,469	1.186	0.071	96.340	128.023
Child mortality (last 0-9 years)	157.344	12.888	2,904	2,534	1.656	0.082	131.568	183.121
Under-5 mortality (last 0-9 years)	251.875	14.995	2,892	2,531	1.630	0.060	221.885	281.864
MEN								
Urban residence	0.203	0.034	342	291	1.559	0.168	0.135	0.271
Literacy	0.349	0.048	342	291	1.839	0.137	0.254	0.444
No education	0.588	0.053	342	291	1.979	0.090	0.482	0.694
Secondary or higher education	0.279	0.045	342	291	1.836	0.161	0.189	0.368
Never married (in union)	0.395	0.033	342	291	1.249	0.084	0.329	0.462
Currently married (in union)	0.587	0.032	342	291	1.184	0.054	0.524	0.650
Had first sexual intercourse before age 18	0.050	0.013	264	226	0.985	0.264	0.024	0.077
Knows any contraceptive method	0.993	0.007	195	171	1.191	0.007	0.978	1.007
Knows any modern contraceptive method	0.993	0.007	195	171	1.191	0.007	0.978	1.007
Want no more children	0.027	0.011	195	171	0.968	0.413	0.005	0.050
Want to delay birth at least 2 years	0.473	0.036	195	171	1.005	0.076	0.401	0.545
Ideal number of children	12.352	0.455	341	291	1.060	0.037	11.442	13.261
Had 2+ sexual partners in past 12 months	0.192	0.029	342	291	1.353	0.150	0.135	0.250
Condom use at last sex	0.000	0.000	62	56	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	0.994	0.006	115	94	0.827	0.006	0.983	1.006
Had paid sex in past 12 months	0.021	0.008	342	291	1.013	0.377	0.005	0.036
Discriminatory attitudes towards people with HIV	0.660	0.033	317	268	1.225	0.050	0.595	0.725

Table B.29 Sampling errors: Sokoto sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.866	0.024	964	843	2.205	0.028	0.817	0.914
De facto population with access to an ITN	0.610	0.019	5,309	4,581	1.621	0.031	0.572	0.648
Household population that slept under an ITN last night	0.526	0.020	5,309	4,581	1.687	0.038	0.486	0.565
WOMEN								
Urban residence	0.214	0.031	1,065	910	2.430	0.143	0.152	0.275
Literacy	0.106	0.020	1,065	910	2.143	0.191	0.066	0.147
No education	0.884	0.025	1,065	910	2.553	0.028	0.834	0.934
Secondary or higher education	0.077	0.020	1,065	910	2.429	0.258	0.037	0.117
Never married (never in union)	0.114	0.017	1,065	910	1.788	0.153	0.079	0.149
Currently married (in union)	0.854	0.018	1,065	910	1.680	0.021	0.817	0.890
Married before age 18	0.728	0.017	844	723	1.127	0.024	0.693	0.763
Had sexual intercourse before age 18	0.800	0.017	844	723	1.219	0.021	0.766	0.833
Currently pregnant	0.145	0.018	1,065	910	1.642	0.123	0.109	0.180
Know any contraceptive method	0.614	0.029	892	777	1.790	0.048	0.556	0.673
Know a modern method	0.609	0.031	892	777	1.904	0.051	0.546	0.671
Currently using any method	0.023	0.007	892	777	1.369	0.298	0.009	0.037
Currently using a modern method	0.021	0.006	892	777	1.318	0.301	0.008	0.034
Currently using pill	0.006	0.003	892	777	1.052	0.459	0.000	0.011
Currently using male condoms	0.000	0.000	892	777	0.000	0.000	0.000	0.000
Currently using injectables	0.008	0.004	892	777	1.182	0.430	0.001	0.016
Currently using implants	0.007	0.003	892	777	1.027	0.416	0.001	0.012
Currently using female sterilisation	0.000	0.000	892	777	0.000	0.000	0.000	0.000
Currently using withdrawal	0.000	0.000	892	777	0.000	0.000	0.000	0.000
Currently using rhythm	0.000	0.000	892	777	0.000	0.000	0.000	0.000
Using public sector source	0.751	0.096	23	17	1.041	0.128	0.559	0.943
Want no more children	0.148	0.018	892	777	1.512	0.122	0.112	0.184
Want to delay next birth at least 2 years	0.130	0.013	892	777	1.179	0.102	0.103	0.157
Ideal number of children	8.112	0.129	1,061	906	1.624	0.016	7.854	8.371
Mothers protected against tetanus for last birth	0.286	0.036	703	608	2.127	0.127	0.213	0.358
Births with skilled attendant at delivery	0.129	0.023	1,137	978	1.882	0.177	0.084	0.175
Received 3+ doses of SP/Fansidar	0.225	0.030	422	362	1.462	0.133	0.165	0.284
Treated with ORS	0.368	0.031	184	158	0.820	0.085	0.306	0.430
Sought medical treatment for diarrhoea	0.766	0.033	184	158	1.048	0.044	0.700	0.833
Ever had vaccination card	0.393	0.045	197	178	1.322	0.115	0.302	0.484
Received BCG vaccination	0.356	0.051	197	178	1.517	0.143	0.254	0.458
Received birth dose HepB vaccination	0.237	0.039	197	178	1.325	0.166	0.158	0.316
Received DPT-HepB-Hib vaccination (3 doses)	0.072	0.022	197	178	1.237	0.310	0.027	0.116
Received birth dose polio 0 vaccination	0.196	0.034	197	178	1.179	0.171	0.129	0.263
Received polio vaccination (3 doses)	0.122	0.030	197	178	1.319	0.247	0.062	0.183
Received pneumococcal vaccination (3 doses)	0.062	0.019	197	178	1.102	0.299	0.025	0.099
Received measles 1 vaccination	0.190	0.029	197	178	1.066	0.154	0.132	0.249
Received all basic vaccinations (12-23 months)	0.046	0.019	197	178	1.332	0.425	0.007	0.084
Received all age-appropriate vaccinations (12-23 months)	0.020	0.013	197	178	1.293	0.624	0.000	0.046
Received measles 2 vaccination	0.005	0.005	170	145	0.894	1.001	0.000	0.014
Received all age-appropriate vaccinations (24-35 months)	0.000	0.000	170	145	0.000	0.000	0.000	0.000
Height-for-age (-2SD)	0.548	0.037	299	263	1.253	0.068	0.473	0.622
Weight-for-height (-2SD)	0.179	0.033	297	260	1.432	0.186	0.113	0.246
Weight-for-age (-2SD)	0.428	0.043	302	265	1.406	0.101	0.341	0.515
Body mass index (BMI) <18.5	0.211	0.027	227	202	1.016	0.128	0.157	0.265
Body mass index (BMI) ≥25	0.072	0.019	227	202	1.129	0.264	0.034	0.110
Prevalence of anaemia (children 6-59 months)	0.796	0.036	260	227	1.282	0.045	0.725	0.867
Prevalence of malaria (based on microscopy test)	0.364	0.049	186	163	1.341	0.134	0.266	0.461
Prevalence of malaria (based on rapid test)	0.547	0.047	259	227	1.402	0.085	0.454	0.640
Prevalence of anaemia (women 15-49)	0.737	0.036	280	247	1.373	0.048	0.666	0.808
Had 2+ sexual partners in past 12 months	0.002	0.002	1,065	910	1.317	0.957	0.000	0.005
Condom use at last sex	0.000	0.000	1	2	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	0.993	0.007	134	97	0.984	0.007	0.979	1.007
Discriminatory attitudes towards people with HIV	0.675	0.025	881	748	1.555	0.036	0.626	0.724
Prevalence of sickle cell disease among children 6-59 months	0.010	0.005	260	227	0.856	0.516	0.000	0.021
Total fertility rate (last 3 years)	7.000	0.330	2,962	2,533	1.280	0.047	6.339	7.660
Neonatal mortality (last 0-9 years)	50.281	7.426	2,327	2,010	1.480	0.148	35.430	65.133
Postneonatal mortality (last 0-9 years)	51.707	6.382	2,347	2,029	1.300	0.123	38.943	64.472
Infant mortality (last 0-9 years)	101.989	11.041	2,328	2,011	1.627	0.108	79.906	124.071
Child mortality (last 0-9 years)	106.056	14.857	2,377	2,061	1.783	0.140	76.341	135.771
Under-5 mortality (last 0-9 years)	197.228	19.591	2,365	2,045	1.971	0.099	158.047	236.409
MEN								
Urban residence	0.242	0.040	258	218	1.476	0.164	0.163	0.321
Literacy	0.403	0.039	258	218	1.269	0.096	0.325	0.481
No education	0.585	0.054	258	218	1.738	0.092	0.478	0.692
Secondary or higher education	0.284	0.051	258	218	1.794	0.178	0.183	0.385
Never married (in union)	0.430	0.041	258	218	1.335	0.096	0.347	0.512
Currently married (in union)	0.568	0.041	258	218	1.333	0.073	0.486	0.651
Had first sexual intercourse before age 18	0.096	0.023	199	167	1.113	0.243	0.049	0.143
Knows any contraceptive method	0.942	0.028	141	124	1.427	0.030	0.885	0.999
Knows any modern contraceptive method	0.929	0.040	141	124	1.810	0.043	0.849	1.008
Want no more children	0.014	0.009	141	124	0.899	0.640	0.000	0.032
Want to delay birth at least 2 years	0.303	0.038	141	124	0.989	0.127	0.226	0.380
Ideal number of children	8.069	0.466	121	101	1.156	0.058	7.137	9.001
Had 2+ sexual partners in past 12 months	0.102	0.028	258	218	1.493	0.277	0.046	0.159
Condom use at last sex	0.137	0.075	23	22	1.021	0.547	0.000	0.287
Abstinence among young people (never had sex)	0.995	0.005	102	86	0.695	0.005	0.986	1.005
Had paid sex in past 12 months	0.000	0.000	258	218	0.000	0.000	0.000	0.000
Discriminatory attitudes towards people with HIV	0.629	0.032	212	175	0.976	0.052	0.564	0.694

Table B.30 Sampling errors: Zamfara sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.779	0.021	947	1,030	1.586	0.027	0.737	0.822
De facto population with access to an ITN	0.497	0.024	5,901	6,381	2.105	0.049	0.449	0.546
Household population that slept under an ITN last night	0.438	0.024	5,901	6,381	2.253	0.055	0.389	0.487
WOMEN								
Urban residence	0.299	0.070	1,237	1,328	5.320	0.234	0.159	0.439
Literacy	0.228	0.060	1,237	1,328	5.000	0.265	0.107	0.348
No education	0.750	0.064	1,237	1,328	5.169	0.086	0.621	0.878
Secondary or higher education	0.207	0.056	1,237	1,328	4.798	0.270	0.095	0.318
Never married (never in union)	0.135	0.023	1,237	1,328	2.375	0.172	0.088	0.181
Currently married (in union)	0.840	0.025	1,237	1,328	2.373	0.030	0.790	0.890
Married before age 18	0.706	0.035	945	1,006	2.334	0.049	0.636	0.775
Had sexual intercourse before age 18	0.798	0.045	945	1,006	3.422	0.056	0.708	0.888
Currently pregnant	0.137	0.012	1,237	1,328	1.250	0.089	0.112	0.161
Know any contraceptive method	0.963	0.008	1,048	1,116	1.457	0.009	0.946	0.980
Know a modern method	0.963	0.008	1,048	1,116	1.457	0.009	0.946	0.980
Currently using any method	0.073	0.028	1,048	1,116	3.477	0.386	0.017	0.129
Currently using a modern method	0.067	0.028	1,048	1,116	3.647	0.424	0.010	0.123
Currently using pill	0.008	0.005	1,048	1,116	1.857	0.646	0.000	0.018
Currently using male condoms	0.002	0.002	1,048	1,116	1.329	0.968	0.000	0.005
Currently using injectables	0.027	0.012	1,048	1,116	2.435	0.454	0.002	0.051
Currently using implants	0.022	0.012	1,048	1,116	2.737	0.564	0.000	0.047
Currently using female sterilisation	0.006	0.005	1,048	1,116	2.157	0.860	0.000	0.016
Currently using withdrawal	0.002	0.001	1,048	1,116	0.911	0.716	0.000	0.004
Currently using rhythm	0.000	0.000	1,048	1,116	0.000	0.000	0.000	0.000
Using public sector source	0.942	0.042	48	74	1.233	0.045	0.857	1.026
Want no more children	0.106	0.013	1,048	1,116	1.315	0.118	0.081	0.131
Want to delay next birth at least 2 years	0.051	0.009	1,048	1,116	1.300	0.174	0.033	0.068
Ideal number of children	7.040	0.234	1,236	1,328	2.494	0.033	6.572	7.509
Mothers protected against tetanus for last birth	0.219	0.045	804	848	3.076	0.206	0.129	0.309
Births with skilled attendant at delivery	0.124	0.041	1,226	1,287	3.585	0.331	0.042	0.207
Received 3+ doses of SP/Fansidar	0.119	0.025	488	521	1.685	0.207	0.070	0.168
Treated with ORS	0.323	0.101	40	45	1.378	0.311	0.122	0.524
Sought medical treatment for diarrhoea	0.619	0.057	40	45	0.777	0.091	0.506	0.732
Ever had vaccination card	0.167	0.045	201	220	1.745	0.271	0.077	0.258
Received BCG vaccination	0.162	0.041	201	220	1.605	0.254	0.080	0.244
Received birth dose HepB vaccination	0.157	0.040	201	220	1.592	0.256	0.077	0.238
Received DPT-HepB-Hib vaccination (3 doses)	0.108	0.031	201	220	1.451	0.289	0.046	0.171
Received birth dose polio 0 vaccination	0.160	0.047	201	220	1.845	0.295	0.066	0.254
Received polio vaccination (3 doses)	0.152	0.039	201	220	1.546	0.254	0.075	0.230
Received pneumococcal vaccination (3 doses)	0.094	0.028	201	220	1.404	0.303	0.037	0.151
Received measles 1 vaccination	0.122	0.035	201	220	1.540	0.288	0.052	0.192
Received all basic vaccinations (12-23 months)	0.074	0.027	201	220	1.495	0.369	0.019	0.128
Received all age-appropriate vaccinations (12-23 months)	0.048	0.021	201	220	1.386	0.430	0.007	0.089
Received measles 2 vaccination	0.000	0.000	204	206	0.000	0.000	0.000	0.000
Received all age-appropriate vaccinations (24-35 months)	0.000	0.000	204	206	0.000	0.000	0.000	0.000
Height-for-age (-2SD)	0.508	0.032	361	376	1.150	0.064	0.443	0.573
Weight-for-height (-2SD)	0.092	0.013	365	381	0.885	0.143	0.065	0.118
Weight-for-age (-2SD)	0.321	0.026	373	389	1.004	0.082	0.269	0.374
Body mass index (BMI) <18.5	0.198	0.024	337	355	1.109	0.123	0.149	0.246
Body mass index (BMI) ≥25	0.127	0.022	337	355	1.197	0.173	0.083	0.171
Prevalence of anaemia (children 6-59 months)	0.836	0.023	325	339	1.166	0.028	0.790	0.882
Prevalence of malaria (based on microscopy test)	0.357	0.062	241	254	1.640	0.172	0.234	0.480
Prevalence of malaria (based on rapid test)	0.518	0.057	323	337	1.686	0.110	0.404	0.632
Prevalence of anaemia (women 15-49)	0.713	0.028	407	428	1.223	0.039	0.657	0.768
Had 2+ sexual partners in past 12 months	0.000	0.000	1,237	1,328	0.000	0.000	0.000	0.000
Condom use at last sex	0.000	0.000	0	0	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	1.000	0.000	157	179	0.000	0.000	1.000	1.000
Discriminatory attitudes towards people with HIV	0.607	0.015	1,234	1,325	1.066	0.024	0.577	0.636
Prevalence of sickle cell disease among children 6-59 months	0.005	0.004	325	339	0.888	0.706	0.000	0.012
Total fertility rate (last 3 years)	6.378	0.251	3,379	3,629	1.058	0.039	5.877	6.880
Neonatal mortality (last 0-9 years)	33.059	4.374	2,365	2,468	1.069	0.132	24.311	41.808
Postneonatal mortality (last 0-9 years)	32.547	5.350	2,378	2,474	1.434	0.164	21.846	43.248
Infant mortality (last 0-9 years)	65.606	6.919	2,372	2,475	1.279	0.105	51.768	79.444
Child mortality (last 0-9 years)	68.984	9.672	2,379	2,456	1.471	0.140	49.640	88.327
Under-5 mortality (last 0-9 years)	130.064	12.690	2,399	2,501	1.659	0.098	104.685	155.443
MEN								
Urban residence	0.285	0.067	363	396	2.791	0.235	0.151	0.418
Literacy	0.400	0.068	363	396	2.604	0.169	0.265	0.536
No education	0.601	0.068	363	396	2.611	0.113	0.466	0.737
Secondary or higher education	0.374	0.069	363	396	2.689	0.184	0.236	0.512
Never married (in union)	0.456	0.048	363	396	1.834	0.106	0.360	0.553
Currently married (in union)	0.542	0.048	363	396	1.831	0.089	0.446	0.638
Had first sexual intercourse before age 18	0.006	0.005	260	293	0.964	0.744	0.000	0.016
Knows any contraceptive method	0.997	0.003	193	214	0.804	0.003	0.990	1.003
Knows any modern contraceptive method	0.982	0.013	193	214	1.333	0.013	0.956	1.007
Want no more children	0.036	0.024	193	214	1.806	0.683	0.000	0.084
Want to delay birth at least 2 years	0.504	0.061	193	214	1.681	0.121	0.382	0.625
Ideal number of children	10.410	0.534	226	261	1.023	0.051	9.341	11.479
Had 2+ sexual partners in past 12 months	0.135	0.020	363	396	1.090	0.145	0.096	0.174
Condom use at last sex	0.044	0.042	54	53	1.476	0.957	0.000	0.128
Abstinence among young people (never had sex)	0.936	0.020	144	149	0.982	0.021	0.896	0.977
Had paid sex in past 12 months	0.040	0.010	363	396	0.956	0.246	0.020	0.060
Discriminatory attitudes towards people with HIV	0.866	0.036	351	384	1.953	0.041	0.794	0.937

Table B.31 Sampling errors: Abia sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.454	0.021	1,047	664	1.372	0.047	0.412	0.496
De facto population with access to an ITN	0.322	0.017	4,090	2,676	1.304	0.053	0.287	0.356
Household population that slept under an ITN last night	0.227	0.021	4,090	2,676	1.573	0.092	0.185	0.269
WOMEN								
Urban residence	0.207	0.036	982	630	2.758	0.173	0.135	0.278
Literacy	0.880	0.017	982	630	1.659	0.020	0.846	0.914
No education	0.021	0.005	982	630	1.190	0.260	0.010	0.032
Secondary or higher education	0.842	0.019	982	630	1.672	0.023	0.803	0.881
Never married (never in union)	0.347	0.019	982	630	1.253	0.055	0.309	0.385
Currently married (in union)	0.596	0.018	982	630	1.138	0.030	0.560	0.632
Married before age 18	0.110	0.013	804	518	1.194	0.120	0.083	0.136
Had sexual intercourse before age 18	0.364	0.019	804	518	1.104	0.051	0.327	0.402
Currently pregnant	0.058	0.008	982	630	1.109	0.142	0.042	0.075
Know any contraceptive method	0.994	0.003	581	376	0.974	0.003	0.988	1.000
Know a modern method	0.994	0.003	581	376	0.974	0.003	0.988	1.000
Currently using any method	0.129	0.014	581	376	1.012	0.109	0.101	0.157
Currently using a modern method	0.108	0.015	581	376	1.159	0.139	0.078	0.138
Currently using pill	0.011	0.005	581	376	1.175	0.469	0.001	0.021
Currently using male condoms	0.016	0.006	581	376	1.119	0.368	0.004	0.027
Currently using injectables	0.050	0.011	581	376	1.257	0.228	0.027	0.072
Currently using implants	0.019	0.006	581	376	1.016	0.304	0.007	0.030
Currently using female sterilisation	0.005	0.003	581	376	0.898	0.526	0.000	0.010
Currently using withdrawal	0.020	0.009	581	376	1.603	0.472	0.001	0.038
Currently using rhythm	0.001	0.001	581	376	0.894	0.997	0.000	0.004
Using public sector source	0.432	0.069	72	43	1.171	0.160	0.294	0.571
Want no more children	0.367	0.027	581	376	1.329	0.073	0.314	0.420
Want to delay next birth at least 2 years	0.087	0.017	581	376	1.464	0.197	0.053	0.121
Ideal number of children	4.942	0.051	981	630	1.048	0.010	4.840	5.044
Mothers protected against tetanus for last birth	0.936	0.011	401	259	0.898	0.012	0.914	0.958
Births with skilled attendant at delivery	0.949	0.015	641	426	1.454	0.016	0.920	0.979
Received 3+ doses of SP/Fansidar	0.737	0.039	232	156	1.400	0.054	0.658	0.816
Treated with ORS	0.406	0.109	21	12	0.921	0.269	0.187	0.624
Sought medical treatment for diarrhoea	0.860	0.083	21	12	1.022	0.097	0.694	1.027
Ever had vaccination card	0.933	0.023	107	69	0.960	0.025	0.887	0.979
Received BCG vaccination	0.957	0.019	107	69	0.951	0.019	0.920	0.994
Received birth dose HepB vaccination	0.935	0.022	107	69	0.929	0.024	0.891	0.979
Received DPT-HepB-Hib vaccination (3 doses)	0.804	0.044	107	69	1.148	0.055	0.715	0.892
Received birth dose polio 0 vaccination	0.873	0.031	107	69	0.970	0.036	0.810	0.935
Received polio vaccination (3 doses)	0.491	0.046	107	69	0.921	0.094	0.398	0.584
Received pneumococcal vaccination (3 doses)	0.783	0.052	107	69	1.293	0.066	0.679	0.886
Received measles 1 vaccination	0.789	0.043	107	69	1.087	0.055	0.703	0.875
Received all basic vaccinations (12-23 months)	0.390	0.046	107	69	0.944	0.119	0.297	0.482
Received all age-appropriate vaccinations (12-23 months)	0.323	0.045	107	69	0.961	0.141	0.232	0.414
Received measles 2 vaccination	0.408	0.041	121	78	0.900	0.100	0.326	0.490
Received all age-appropriate vaccinations (24-35 months)	0.007	0.008	121	78	0.979	1.024	0.000	0.023
Height-for-age (-2SD)	0.222	0.038	286	187	1.505	0.169	0.147	0.298
Weight-for-height (-2SD)	0.090	0.019	287	188	1.183	0.217	0.051	0.129
Weight-for-age (-2SD)	0.146	0.029	287	188	1.350	0.196	0.088	0.203
Body mass index (BMI) <18.5	0.047	0.013	339	217	1.128	0.277	0.021	0.073
Body mass index (BMI) ≥25	0.349	0.029	339	217	1.106	0.082	0.291	0.406
Prevalence of anaemia (children 6-59 months)	0.671	0.034	265	173	1.091	0.050	0.603	0.739
Prevalence of malaria (based on microscopy test)	0.135	0.036	182	123	1.272	0.266	0.063	0.206
Prevalence of malaria (based on rapid test)	0.207	0.039	263	172	1.369	0.190	0.128	0.285
Prevalence of anaemia (women 15-49)	0.585	0.037	369	235	1.426	0.063	0.511	0.658
Had 2+ sexual partners in past 12 months	0.013	0.004	982	630	1.049	0.297	0.005	0.020
Condom use at last sex	0.399	0.167	13	8	1.163	0.418	0.065	0.733
Abstinence among young people (never had sex)	0.636	0.034	255	161	1.131	0.054	0.568	0.705
Discriminatory attitudes towards people with HIV	0.595	0.029	973	625	1.827	0.048	0.537	0.653
Prevalence of sickle cell disease among children 6-59 months	0.020	0.013	265	173	1.254	0.639	0.000	0.047
Total fertility rate (last 3 years)	4.873	0.262	2,769	1,780	1.271	0.054	4.348	5.397
Neonatal mortality (last 0-9 years)	39.228	7.769	1,203	785	1.030	0.198	23.689	54.766
Postneonatal mortality (last 0-9 years)	25.481	5.150	1,200	783	1.076	0.202	15.182	35.781
Infant mortality (last 0-9 years)	64.709	9.068	1,204	786	1.010	0.140	46.574	82.844
Child mortality (last 0-9 years)	23.138	5.308	1,154	746	1.082	0.229	12.523	33.753
Under-5 mortality (last 0-9 years)	86.349	7.062	1,209	789	0.766	0.082	72.226	100.473
MEN								
Urban residence	0.203	0.047	274	185	1.920	0.231	0.109	0.297
Literacy	0.899	0.029	274	185	1.603	0.033	0.840	0.957
No education	0.005	0.004	274	185	0.827	0.705	0.000	0.012
Secondary or higher education	0.840	0.026	274	185	1.152	0.030	0.789	0.891
Never married (in union)	0.491	0.039	274	185	1.282	0.079	0.414	0.569
Currently married (in union)	0.504	0.039	274	185	1.273	0.077	0.427	0.581
Had first sexual intercourse before age 18	0.194	0.032	227	156	1.197	0.162	0.131	0.258
Knows any contraceptive method	1.000	0.000	139	93	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	139	93	0.000	0.000	1.000	1.000
Want no more children	0.337	0.050	139	93	1.235	0.148	0.238	0.437
Want to delay birth at least 2 years	0.395	0.043	139	93	1.033	0.109	0.309	0.481
Ideal number of children	4.334	0.074	273	184	1.153	0.017	4.186	4.482
Had 2+ sexual partners in past 12 months	0.026	0.010	274	185	1.020	0.376	0.006	0.046
Condom use at last sex	0.549	0.235	7	5	1.128	0.427	0.080	1.018
Abstinence among young people (never had sex)	0.537	0.056	87	59	1.033	0.104	0.426	0.648
Had paid sex in past 12 months	0.035	0.010	274	185	0.856	0.272	0.016	0.054
Discriminatory attitudes towards people with HIV	0.378	0.041	273	184	1.407	0.110	0.295	0.461

Table B.32 Sampling errors: Anambra sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.328	0.026	1,152	1,391	1.901	0.080	0.276	0.381
De facto population with access to an ITN	0.250	0.021	4,886	5,858	1.820	0.085	0.207	0.292
Household population that slept under an ITN last night	0.182	0.017	4,886	5,858	1.483	0.091	0.149	0.215
WOMEN								
Urban residence	0.857	0.012	1,244	1,477	1.200	0.014	0.833	0.881
Literacy	0.870	0.023	1,244	1,477	2.433	0.027	0.824	0.917
No education	0.023	0.007	1,244	1,477	1.635	0.304	0.009	0.037
Secondary or higher education	0.811	0.025	1,244	1,477	2.242	0.031	0.761	0.861
Never married (never in union)	0.315	0.020	1,244	1,477	1.553	0.065	0.274	0.356
Currently married (in union)	0.613	0.024	1,244	1,477	1.717	0.039	0.565	0.660
Married before age 18	0.146	0.015	1,025	1,228	1.359	0.103	0.116	0.176
Had sexual intercourse before age 18	0.289	0.020	1,025	1,228	1.410	0.069	0.249	0.329
Currently pregnant	0.082	0.010	1,244	1,477	1.332	0.127	0.061	0.103
Know any contraceptive method	0.997	0.002	746	905	1.175	0.002	0.992	1.002
Know a modern method	0.996	0.003	746	905	1.440	0.003	0.989	1.003
Currently using any method	0.446	0.022	746	905	1.188	0.049	0.403	0.490
Currently using a modern method	0.172	0.016	746	905	1.155	0.093	0.140	0.204
Currently using pill	0.008	0.005	746	905	1.381	0.560	0.000	0.017
Currently using male condoms	0.050	0.007	746	905	0.896	0.143	0.035	0.064
Currently using injectables	0.019	0.007	746	905	1.424	0.380	0.004	0.033
Currently using implants	0.028	0.007	746	905	1.134	0.247	0.014	0.041
Currently using female sterilisation	0.000	0.000	746	905	0.000	0.000	0.000	0.000
Currently using withdrawal	0.123	0.012	746	905	0.991	0.097	0.099	0.147
Currently using rhythm	0.146	0.014	746	905	1.045	0.093	0.119	0.173
Using public sector source	0.391	0.052	138	165	1.236	0.132	0.288	0.494
Want no more children	0.355	0.017	746	905	0.994	0.049	0.320	0.390
Want to delay next birth at least 2 years	0.237	0.017	746	905	1.073	0.071	0.203	0.270
Ideal number of children	4.601	0.070	1,242	1,475	2.150	0.015	4.461	4.740
Mothers protected against tetanus for last birth	0.934	0.014	546	664	1.290	0.015	0.907	0.961
Births with skilled attendant at delivery	0.913	0.022	856	1,045	1.796	0.024	0.869	0.957
Received 3+ doses of SP/Fansidar	0.434	0.021	348	430	0.809	0.049	0.392	0.477
Treated with ORS	0.689	0.083	29	31	0.920	0.121	0.522	0.856
Sought medical treatment for diarrhoea	0.918	0.055	29	31	1.030	0.060	0.807	1.029
Ever had vaccination card	0.928	0.027	179	221	1.421	0.029	0.874	0.982
Received BCG vaccination	0.918	0.027	179	221	1.347	0.030	0.863	0.973
Received birth dose HepB vaccination	0.737	0.054	179	221	1.637	0.073	0.630	0.844
Received DPT-HepB-Hib vaccination (3 doses)	0.873	0.033	179	221	1.323	0.037	0.807	0.938
Received birth dose polio 0 vaccination	0.873	0.039	179	221	1.595	0.045	0.794	0.952
Received polio vaccination (3 doses)	0.844	0.035	179	221	1.307	0.042	0.774	0.914
Received pneumococcal vaccination (3 doses)	0.880	0.032	179	221	1.335	0.036	0.816	0.944
Received measles 1 vaccination	0.808	0.043	179	221	1.465	0.053	0.723	0.894
Received all basic vaccinations (12-23 months)	0.758	0.043	179	221	1.348	0.056	0.673	0.844
Received all age-appropriate vaccinations (12-23 months)	0.616	0.053	179	221	1.464	0.086	0.510	0.722
Received measles 2 vaccination	0.119	0.029	148	182	1.094	0.243	0.061	0.177
Received all age-appropriate vaccinations (24-35 months)	0.096	0.028	148	182	1.149	0.287	0.041	0.152
Height-for-age (-2SD)	0.141	0.019	445	537	1.101	0.134	0.103	0.179
Weight-for-height (-2SD)	0.023	0.007	446	540	0.932	0.288	0.010	0.036
Weight-for-age (-2SD)	0.066	0.015	446	540	1.185	0.226	0.036	0.095
Body mass index (BMI) <18.5	0.042	0.011	381	451	1.087	0.268	0.019	0.064
Body mass index (BMI) ≥25	0.531	0.033	381	451	1.306	0.063	0.464	0.598
Prevalence of anaemia (children 6-59 months)	0.752	0.027	395	473	1.149	0.036	0.698	0.805
Prevalence of malaria (based on microscopy test)	0.088	0.024	308	370	1.311	0.270	0.041	0.136
Prevalence of malaria (based on rapid test)	0.152	0.026	395	473	1.275	0.174	0.099	0.205
Prevalence of anaemia (women 15-49)	0.702	0.029	436	517	1.332	0.042	0.644	0.761
Had 2+ sexual partners in past 12 months	0.008	0.003	1,244	1,477	1.056	0.332	0.003	0.013
Condom use at last sex	0.128	0.106	11	12	1.005	0.829	0.000	0.341
Abstinence among young people (never had sex)	0.614	0.033	300	340	1.175	0.054	0.547	0.680
Discriminatory attitudes towards people with HIV	0.651	0.026	1,227	1,454	1.873	0.039	0.600	0.702
Prevalence of sickle cell disease among children 6-59 months	0.009	0.004	395	473	0.932	0.500	0.000	0.017
Total fertility rate (last 3 years)	4.712	0.221	3,509	4,188	1.334	0.047	4.270	5.155
Neonatal mortality (last 0-9 years)	17.214	4.041	1,621	1,956	1.169	0.235	9.132	25.295
Postneonatal mortality (last 0-9 years)	18.160	7.074	1,620	1,955	1.705	0.390	4.012	32.307
Infant mortality (last 0-9 years)	35.373	9.695	1,622	1,958	1.804	0.274	15.983	54.763
Child mortality (last 0-9 years)	23.775	8.857	1,573	1,892	1.668	0.373	6.061	41.488
Under-5 mortality (last 0-9 years)	58.307	17.434	1,628	1,966	2.191	0.299	23.438	93.175
MEN								
Urban residence	0.852	0.019	342	409	0.977	0.022	0.814	0.889
Literacy	0.891	0.014	342	409	0.851	0.016	0.863	0.920
No education	0.007	0.004	342	409	0.880	0.577	0.000	0.015
Secondary or higher education	0.736	0.027	342	409	1.141	0.037	0.681	0.790
Never married (in union)	0.322	0.034	342	409	1.339	0.105	0.254	0.390
Currently married (in union)	0.678	0.034	342	409	1.339	0.050	0.610	0.746
Had first sexual intercourse before age 18	0.134	0.030	292	352	1.477	0.220	0.075	0.194
Knows any contraceptive method	1.000	0.000	222	277	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	222	277	0.000	0.000	1.000	1.000
Want no more children	0.234	0.033	222	277	1.144	0.139	0.169	0.299
Want to delay birth at least 2 years	0.181	0.030	222	277	1.174	0.168	0.120	0.242
Ideal number of children	4.718	0.076	341	407	1.011	0.016	4.565	4.870
Had 2+ sexual partners in past 12 months	0.095	0.023	342	409	1.429	0.239	0.050	0.141
Condom use at last sex	0.531	0.115	29	39	1.209	0.216	0.301	0.761
Abstinence among young people (never had sex)	0.681	0.055	77	87	1.033	0.081	0.571	0.792
Had paid sex in past 12 months	0.048	0.016	342	409	1.346	0.325	0.017	0.079
Discriminatory attitudes towards people with HIV	0.768	0.035	342	409	1.533	0.046	0.697	0.838

Table B.33 Sampling errors: Ebonyi sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.757	0.023	1,064	852	1.741	0.030	0.711	0.802
De facto population with access to an ITN	0.583	0.024	5,292	4,268	1.890	0.042	0.534	0.631
Household population that slept under an ITN last night	0.616	0.027	5,292	4,268	1.926	0.044	0.562	0.670
WOMEN								
Urban residence	0.849	0.022	1,310	1,027	2.259	0.026	0.805	0.894
Literacy	0.537	0.035	1,310	1,027	2.570	0.066	0.466	0.608
No education	0.119	0.019	1,310	1,027	2.103	0.159	0.081	0.156
Secondary or higher education	0.537	0.038	1,310	1,027	2.726	0.070	0.461	0.612
Never married (never in union)	0.326	0.020	1,310	1,027	1.562	0.062	0.286	0.367
Currently married (in union)	0.584	0.023	1,310	1,027	1.704	0.040	0.538	0.631
Married before age 18	0.261	0.019	1,025	804	1.398	0.074	0.222	0.299
Had sexual intercourse before age 18	0.484	0.024	1,025	804	1.529	0.049	0.436	0.532
Currently pregnant	0.088	0.010	1,310	1,027	1.291	0.115	0.068	0.108
Know any contraceptive method	0.974	0.006	756	600	0.996	0.006	0.963	0.986
Know a modern method	0.966	0.007	756	600	1.010	0.007	0.952	0.979
Currently using any method	0.082	0.015	756	600	1.493	0.181	0.052	0.112
Currently using a modern method	0.059	0.011	756	600	1.228	0.178	0.038	0.081
Currently using pill	0.007	0.003	756	600	1.021	0.440	0.001	0.013
Currently using male condoms	0.007	0.003	756	600	1.089	0.458	0.001	0.014
Currently using injectables	0.016	0.005	756	600	1.136	0.326	0.006	0.026
Currently using implants	0.026	0.006	756	600	1.029	0.231	0.014	0.038
Currently using female sterilisation	0.000	0.000	756	600	0.000	0.000	0.000	0.000
Currently using withdrawal	0.016	0.006	756	600	1.236	0.350	0.005	0.028
Currently using rhythm	0.007	0.003	756	600	0.973	0.430	0.001	0.013
Using public sector source	0.647	0.083	55	41	1.269	0.128	0.481	0.813
Want no more children	0.311	0.020	756	600	1.170	0.063	0.271	0.350
Want to delay next birth at least 2 years	0.253	0.021	756	600	1.308	0.082	0.212	0.295
Ideal number of children	5.888	0.173	1,278	1,004	2.556	0.029	5.542	6.233
Mothers protected against tetanus for last birth	0.873	0.014	614	493	1.046	0.016	0.845	0.901
Births with skilled attendant at delivery	0.583	0.041	1,012	814	2.122	0.070	0.501	0.664
Received 3+ doses of SP/Fansidar	0.242	0.022	371	298	1.002	0.092	0.198	0.286
Treated with ORS	0.406	0.067	96	80	1.290	0.166	0.272	0.541
Sought medical treatment for diarrhoea	0.546	0.067	96	80	1.280	0.122	0.413	0.680
Ever had vaccination card	0.964	0.014	181	148	1.061	0.015	0.935	0.993
Received BCG vaccination	0.959	0.015	181	148	1.055	0.016	0.928	0.989
Received birth dose HepB vaccination	0.614	0.055	181	148	1.516	0.089	0.504	0.723
Received DPT-HepB-Hib vaccination (3 doses)	0.824	0.030	181	148	1.051	0.036	0.764	0.884
Received birth dose polio 0 vaccination	0.747	0.042	181	148	1.316	0.057	0.663	0.832
Received polio vaccination (3 doses)	0.664	0.035	181	148	0.998	0.053	0.594	0.734
Received pneumococcal vaccination (3 doses)	0.815	0.032	181	148	1.087	0.039	0.751	0.878
Received measles 1 vaccination	0.643	0.037	181	148	1.040	0.058	0.568	0.718
Received all basic vaccinations (12-23 months)	0.448	0.043	181	148	1.166	0.096	0.362	0.535
Received all age-appropriate vaccinations (12-23 months)	0.276	0.045	181	148	1.340	0.162	0.186	0.365
Received measles 2 vaccination	0.272	0.046	191	154	1.425	0.170	0.180	0.365
Received all age-appropriate vaccinations (24-35 months)	0.122	0.036	191	154	1.459	0.293	0.050	0.193
Height-for-age (-2SD)	0.252	0.024	488	392	1.165	0.097	0.203	0.301
Weight-for-height (-2SD)	0.045	0.009	487	391	0.871	0.199	0.027	0.064
Weight-for-age (-2SD)	0.158	0.018	488	392	1.002	0.117	0.121	0.195
Body mass index (BMI) <18.5	0.092	0.020	392	304	1.337	0.214	0.052	0.131
Body mass index (BMI) ≥25	0.207	0.028	392	304	1.349	0.134	0.152	0.263
Prevalence of anaemia (children 6-59 months)	0.793	0.025	444	356	1.234	0.031	0.744	0.843
Prevalence of malaria (based on microscopy test)	0.305	0.041	350	283	1.563	0.133	0.224	0.387
Prevalence of malaria (based on rapid test)	0.493	0.039	444	356	1.538	0.080	0.414	0.572
Prevalence of anaemia (women 15-49)	0.717	0.025	451	350	1.158	0.034	0.667	0.766
Had 2+ sexual partners in past 12 months	0.008	0.002	1,310	1,027	0.957	0.297	0.003	0.013
Condom use at last sex	0.070	0.068	13	8	0.922	0.965	0.000	0.205
Abstinence among young people (never had sex)	0.723	0.022	363	279	0.956	0.031	0.678	0.768
Discriminatory attitudes towards people with HIV	0.501	0.026	1,288	1,009	1.882	0.052	0.449	0.554
Prevalence of sickle cell disease among children 6-59 months	0.009	0.005	444	356	0.882	0.534	0.000	0.018
Total fertility rate (last 3 years)	5.410	0.262	3,586	2,816	1.622	0.048	4.886	5.935
Neonatal mortality (last 0-9 years)	34.907	5.557	1,978	1,586	1.212	0.159	23.793	46.020
Postneonatal mortality (last 0-9 years)	21.939	3.751	1,976	1,587	1.005	0.171	14.436	29.442
Infant mortality (last 0-9 years)	56.846	6.691	1,981	1,589	1.142	0.118	43.464	70.227
Child mortality (last 0-9 years)	36.242	5.388	1,955	1,569	1.186	0.149	25.466	47.019
Under-5 mortality (last 0-9 years)	91.028	9.238	1,991	1,597	1.238	0.101	72.552	109.504
MEN								
Urban residence	0.843	0.031	297	233	1.475	0.037	0.781	0.906
Literacy	0.824	0.024	297	233	1.088	0.029	0.776	0.872
No education	0.026	0.009	297	233	0.987	0.352	0.008	0.044
Secondary or higher education	0.674	0.039	297	233	1.430	0.058	0.596	0.752
Never married (in union)	0.336	0.041	297	233	1.476	0.121	0.255	0.418
Currently married (in union)	0.660	0.042	297	233	1.519	0.063	0.577	0.744
Had first sexual intercourse before age 18	0.301	0.035	220	174	1.122	0.116	0.231	0.371
Knows any contraceptive method	0.985	0.010	192	154	1.168	0.010	0.964	1.006
Knows any modern contraceptive method	0.985	0.010	192	154	1.168	0.010	0.964	1.006
Want no more children	0.131	0.027	192	154	1.103	0.205	0.077	0.185
Want to delay birth at least 2 years	0.553	0.025	192	154	0.694	0.045	0.503	0.603
Ideal number of children	6.510	0.218	295	231	1.181	0.033	6.074	6.946
Had 2+ sexual partners in past 12 months	0.091	0.019	297	233	1.137	0.209	0.053	0.129
Condom use at last sex	0.494	0.101	26	21	1.012	0.205	0.291	0.696
Abstinence among young people (never had sex)	0.743	0.039	86	65	0.828	0.053	0.665	0.822
Had paid sex in past 12 months	0.018	0.010	297	233	1.305	0.555	0.000	0.039
Discriminatory attitudes towards people with HIV	0.533	0.036	295	231	1.221	0.067	0.462	0.605

Table B.34 Sampling errors: Enugu sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.383	0.020	1,047	870	1.314	0.052	0.344	0.423
De facto population with access to an ITN	0.269	0.016	4,095	3,460	1.301	0.058	0.238	0.301
Household population that slept under an ITN last night	0.199	0.017	4,095	3,460	1.498	0.086	0.165	0.234
WOMEN								
Urban residence	0.798	0.027	1,038	880	2.128	0.033	0.745	0.851
Literacy	0.836	0.018	1,038	880	1.582	0.022	0.799	0.872
No education	0.042	0.011	1,038	880	1.790	0.266	0.020	0.064
Secondary or higher education	0.784	0.025	1,038	880	1.917	0.031	0.735	0.833
Never married (never in union)	0.383	0.019	1,038	880	1.246	0.049	0.345	0.420
Currently married (in union)	0.520	0.021	1,038	880	1.372	0.041	0.478	0.563
Married before age 18	0.199	0.023	830	714	1.686	0.118	0.152	0.246
Had sexual intercourse before age 18	0.266	0.024	830	714	1.564	0.090	0.218	0.314
Currently pregnant	0.066	0.009	1,038	880	1.168	0.137	0.048	0.084
Know any contraceptive method	0.887	0.017	534	458	1.247	0.019	0.852	0.921
Know a modern method	0.873	0.018	534	458	1.260	0.021	0.836	0.909
Currently using any method	0.309	0.022	534	458	1.084	0.070	0.266	0.353
Currently using a modern method	0.176	0.016	534	458	0.977	0.092	0.143	0.208
Currently using pill	0.024	0.008	534	458	1.192	0.329	0.008	0.040
Currently using male condoms	0.023	0.006	534	458	0.985	0.281	0.010	0.035
Currently using injectables	0.019	0.006	534	458	1.061	0.326	0.007	0.032
Currently using implants	0.063	0.014	534	458	1.313	0.220	0.035	0.090
Currently using female sterilisation	0.000	0.000	534	458	0.000	0.000	0.000	0.000
Currently using withdrawal	0.082	0.014	534	458	1.164	0.168	0.055	0.110
Currently using rhythm	0.050	0.011	534	458	1.209	0.227	0.027	0.073
Using public sector source	0.332	0.052	129	112	1.240	0.156	0.229	0.436
Want no more children	0.463	0.021	534	458	0.958	0.045	0.422	0.505
Want to delay next birth at least 2 years	0.088	0.014	534	458	1.141	0.159	0.060	0.116
Ideal number of children	5.010	0.072	1,035	876	1.842	0.014	4.866	5.155
Mothers protected against tetanus for last birth	0.890	0.014	363	317	0.835	0.015	0.863	0.917
Births with skilled attendant at delivery	0.899	0.031	561	486	2.035	0.034	0.838	0.961
Received 3+ doses of SP/Fansidar	0.239	0.038	205	183	1.295	0.159	0.163	0.315
Treated with ORS	0.261	0.068	21	18	0.710	0.262	0.125	0.398
Sought medical treatment for diarrhoea	0.643	0.118	21	18	1.050	0.183	0.408	0.878
Ever had vaccination card	0.890	0.044	97	87	1.404	0.049	0.803	0.978
Received BCG vaccination	0.925	0.035	97	87	1.328	0.038	0.855	0.995
Received birth dose HepB vaccination	0.869	0.058	97	87	1.706	0.066	0.754	0.984
Received DPT-HepB-Hib vaccination (3 doses)	0.809	0.048	97	87	1.216	0.059	0.713	0.905
Received birth dose polio 0 vaccination	0.866	0.046	97	87	1.338	0.053	0.775	0.957
Received polio vaccination (3 doses)	0.463	0.065	97	87	1.270	0.141	0.332	0.594
Received pneumococcal vaccination (3 doses)	0.602	0.061	97	87	1.216	0.102	0.479	0.725
Received measles 1 vaccination	0.792	0.062	97	87	1.432	0.078	0.669	0.915
Received all basic vaccinations (12-23 months)	0.364	0.075	97	87	1.502	0.205	0.215	0.514
Received all age-appropriate vaccinations (12-23 months)	0.199	0.044	97	87	1.097	0.221	0.111	0.287
Received measles 2 vaccination	0.270	0.050	129	106	1.250	0.185	0.170	0.370
Received all age-appropriate vaccinations (24-35 months)	0.036	0.017	129	106	1.020	0.478	0.002	0.070
Height-for-age (-2SD)	0.145	0.028	262	219	1.202	0.192	0.089	0.201
Weight-for-height (-2SD)	0.022	0.009	262	219	0.957	0.387	0.005	0.040
Weight-for-age (-2SD)	0.061	0.018	262	219	1.188	0.294	0.025	0.097
Body mass index (BMI) <18.5	0.038	0.011	370	302	1.040	0.278	0.017	0.059
Body mass index (BMI) ≥25	0.365	0.025	370	302	0.969	0.068	0.315	0.414
Prevalence of anaemia (children 6-59 months)	0.589	0.041	243	205	1.214	0.069	0.507	0.670
Prevalence of malaria (based on microscopy test)	0.174	0.045	187	162	1.443	0.256	0.085	0.263
Prevalence of malaria (based on rapid test)	0.302	0.050	243	205	1.500	0.167	0.201	0.402
Prevalence of anaemia (women 15-49)	0.602	0.024	399	324	0.941	0.039	0.555	0.650
Had 2+ sexual partners in past 12 months	0.012	0.004	1,038	880	1.187	0.329	0.004	0.021
Condom use at last sex	0.282	0.136	15	11	1.119	0.482	0.010	0.553
Abstinence among young people (never had sex)	0.664	0.034	304	247	1.247	0.051	0.596	0.732
Discriminatory attitudes towards people with HIV	0.593	0.020	1,021	862	1.296	0.034	0.554	0.633
Prevalence of sickle cell disease among children 6-59 months	0.012	0.008	243	205	1.203	0.704	0.000	0.028
Total fertility rate (last 3 years)	4.050	0.252	2,919	2,481	1.260	0.062	3.545	4.555
Neonatal mortality (last 0-9 years)	21.028	5.640	1,121	972	1.204	0.268	9.749	32.307
Postneonatal mortality (last 0-9 years)	19.362	4.584	1,124	974	1.214	0.237	10.194	28.531
Infant mortality (last 0-9 years)	40.390	7.529	1,122	974	1.234	0.186	25.331	55.448
Child mortality (last 0-9 years)	21.716	3.641	1,123	970	0.846	0.168	14.434	28.997
Under-5 mortality (last 0-9 years)	61.228	8.909	1,126	977	1.190	0.146	43.410	79.046
MEN								
Urban residence	0.799	0.042	224	192	1.557	0.052	0.715	0.883
Literacy	0.902	0.021	224	192	1.046	0.023	0.860	0.943
No education	0.025	0.011	224	192	1.059	0.440	0.003	0.048
Secondary or higher education	0.758	0.035	224	192	1.204	0.046	0.689	0.827
Never married (in union)	0.476	0.040	224	192	1.195	0.084	0.396	0.556
Currently married (in union)	0.524	0.040	224	192	1.195	0.076	0.444	0.604
Had first sexual intercourse before age 18	0.119	0.035	176	152	1.428	0.295	0.049	0.189
Knows any contraceptive method	1.000	0.000	118	101	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	118	101	0.000	0.000	1.000	1.000
Want no more children	0.260	0.055	118	101	1.356	0.212	0.150	0.371
Want to delay birth at least 2 years	0.046	0.028	118	101	1.432	0.606	0.000	0.102
Ideal number of children	4.777	0.104	220	189	1.080	0.022	4.569	4.986
Had 2+ sexual partners in past 12 months	0.042	0.015	224	192	1.120	0.360	0.012	0.072
Condom use at last sex	0.429	0.208	10	8	1.225	0.485	0.013	0.844
Abstinence among young people (never had sex)	0.681	0.051	74	61	0.936	0.075	0.578	0.783
Had paid sex in past 12 months	0.002	0.002	224	192	0.709	1.029	0.000	0.006
Discriminatory attitudes towards people with HIV	0.404	0.056	224	192	1.692	0.138	0.292	0.515

Table B.35 Sampling errors: Imo sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.554	0.028	1,088	974	1.841	0.050	0.499	0.610
De facto population with access to an ITN	0.451	0.036	4,679	4,222	2.383	0.080	0.379	0.524
Household population that slept under an ITN last night	0.248	0.049	4,679	4,222	3.735	0.197	0.150	0.346
WOMEN								
Urban residence	0.683	0.050	997	948	3.380	0.073	0.583	0.783
Literacy	0.852	0.027	997	948	2.372	0.031	0.798	0.905
No education	0.005	0.002	997	948	0.926	0.410	0.001	0.009
Secondary or higher education	0.912	0.014	997	948	1.555	0.015	0.884	0.940
Never married (never in union)	0.336	0.019	997	948	1.289	0.057	0.297	0.375
Currently married (in union)	0.585	0.016	997	948	1.013	0.027	0.553	0.616
Married before age 18	0.082	0.013	821	771	1.323	0.155	0.056	0.107
Had sexual intercourse before age 18	0.279	0.030	821	771	1.896	0.107	0.219	0.338
Currently pregnant	0.086	0.016	997	948	1.751	0.181	0.055	0.117
Know any contraceptive method	1.000	0.000	590	554	0.000	0.000	1.000	1.000
Know a modern method	1.000	0.000	590	554	0.000	0.000	1.000	1.000
Currently using any method	0.307	0.025	590	554	1.307	0.081	0.257	0.357
Currently using a modern method	0.109	0.019	590	554	1.458	0.172	0.072	0.147
Currently using pill	0.017	0.006	590	554	1.059	0.327	0.006	0.029
Currently using male condoms	0.026	0.009	590	554	1.304	0.330	0.009	0.043
Currently using injectables	0.013	0.005	590	554	0.990	0.354	0.004	0.022
Currently using implants	0.016	0.005	590	554	1.026	0.333	0.005	0.026
Currently using female sterilisation	0.001	0.001	590	554	0.833	1.019	0.000	0.003
Currently using withdrawal	0.108	0.012	590	554	0.949	0.112	0.084	0.133
Currently using rhythm	0.084	0.019	590	554	1.638	0.223	0.047	0.122
Using public sector source	0.224	0.047	100	92	1.121	0.210	0.130	0.318
Want no more children	0.321	0.024	590	554	1.256	0.075	0.273	0.370
Want to delay next birth at least 2 years	0.262	0.023	590	554	1.245	0.086	0.217	0.307
Ideal number of children	4.678	0.094	988	941	1.781	0.020	4.491	4.865
Mothers protected against tetanus for last birth	0.969	0.008	441	405	0.976	0.008	0.953	0.985
Births with skilled attendant at delivery	0.942	0.013	728	657	1.245	0.014	0.917	0.968
Received 3+ doses of SP/Fansidar	0.320	0.031	256	237	1.073	0.097	0.258	0.383
Treated with ORS	0.402	0.081	65	54	1.198	0.201	0.241	0.564
Sought medical treatment for diarrhoea	0.483	0.076	65	54	1.131	0.157	0.331	0.635
Ever had vaccination card	0.913	0.029	134	117	1.156	0.032	0.855	0.970
Received BCG vaccination	0.927	0.025	134	117	1.013	0.027	0.878	0.976
Received birth dose HepB vaccination	0.827	0.042	134	117	1.224	0.051	0.743	0.911
Received DPT-HepB-Hib vaccination (3 doses)	0.795	0.054	134	117	1.428	0.068	0.687	0.904
Received birth dose polio 0 vaccination	0.855	0.038	134	117	1.176	0.044	0.780	0.930
Received polio vaccination (3 doses)	0.709	0.059	134	117	1.419	0.084	0.590	0.828
Received pneumococcal vaccination (3 doses)	0.763	0.060	134	117	1.505	0.078	0.644	0.882
Received measles 1 vaccination	0.713	0.055	134	117	1.339	0.077	0.604	0.822
Received all basic vaccinations (12-23 months)	0.626	0.069	134	117	1.555	0.109	0.489	0.763
Received all age-appropriate vaccinations (12-23 months)	0.534	0.082	134	117	1.823	0.154	0.369	0.698
Received measles 2 vaccination	0.202	0.082	128	118	2.320	0.409	0.037	0.367
Received all age-appropriate vaccinations (24-35 months)	0.178	0.083	128	118	2.439	0.465	0.013	0.343
Height-for-age (-2SD)	0.176	0.034	359	330	1.594	0.192	0.108	0.243
Weight-for-height (-2SD)	0.069	0.013	358	329	0.911	0.187	0.043	0.095
Weight-for-age (-2SD)	0.109	0.025	359	330	1.388	0.231	0.059	0.159
Body mass index (BMI) <18.5	0.036	0.009	393	355	0.959	0.256	0.018	0.055
Body mass index (BMI) ≥25	0.439	0.026	393	355	0.994	0.058	0.388	0.490
Prevalence of anaemia (children 6-59 months)	0.592	0.058	323	289	1.944	0.097	0.477	0.707
Prevalence of malaria (based on microscopy test)	0.078	0.027	235	213	1.307	0.346	0.024	0.132
Prevalence of malaria (based on rapid test)	0.156	0.031	319	285	1.426	0.199	0.094	0.218
Prevalence of anaemia (women 15-49)	0.646	0.037	436	396	1.578	0.057	0.572	0.720
Had 2+ sexual partners in past 12 months	0.028	0.005	997	948	0.866	0.161	0.019	0.038
Condom use at last sex	0.287	0.096	26	27	1.054	0.333	0.096	0.478
Abstinence among young people (never had sex)	0.702	0.062	236	231	2.064	0.088	0.578	0.826
Discriminatory attitudes towards people with HIV	0.786	0.025	985	938	1.915	0.032	0.735	0.836
Prevalence of sickle cell disease among children 6-59 months	0.014	0.007	323	289	1.037	0.488	0.000	0.027
Total fertility rate (last 3 years)	4.535	0.232	2,807	2,662	1.022	0.051	4.072	4.998
Neonatal mortality (last 0-9 years)	26.993	4.815	1,388	1,230	1.027	0.178	17.363	36.624
Postneonatal mortality (last 0-9 years)	26.566	4.974	1,385	1,221	1.024	0.187	16.617	36.514
Infant mortality (last 0-9 years)	53.559	7.528	1,390	1,231	1.160	0.141	38.504	68.615
Child mortality (last 0-9 years)	35.347	5.861	1,372	1,198	1.018	0.166	23.626	47.069
Under-5 mortality (last 0-9 years)	87.013	11.615	1,398	1,237	1.404	0.133	63.784	110.242
MEN								
Urban residence	0.645	0.050	372	337	2.004	0.078	0.545	0.745
Literacy	0.830	0.027	372	337	1.357	0.032	0.777	0.883
No education	0.026	0.015	372	337	1.834	0.584	0.000	0.056
Secondary or higher education	0.904	0.028	372	337	1.836	0.031	0.848	0.961
Never married (in union)	0.477	0.048	372	337	1.856	0.101	0.380	0.573
Currently married (in union)	0.512	0.050	372	337	1.910	0.097	0.413	0.612
Had first sexual intercourse before age 18	0.089	0.020	291	266	1.198	0.225	0.049	0.129
Knows any contraceptive method	1.000	0.000	179	172	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	179	172	0.000	0.000	1.000	1.000
Want no more children	0.282	0.043	179	172	1.275	0.153	0.196	0.368
Want to delay birth at least 2 years	0.143	0.045	179	172	1.721	0.318	0.052	0.233
Ideal number of children	3.755	0.142	360	325	1.459	0.038	3.472	4.039
Had 2+ sexual partners in past 12 months	0.171	0.022	372	337	1.120	0.128	0.127	0.214
Condom use at last sex	0.423	0.089	58	57	1.351	0.210	0.245	0.601
Abstinence among young people (never had sex)	0.726	0.048	117	97	1.159	0.066	0.630	0.822
Had paid sex in past 12 months	0.050	0.014	372	337	1.208	0.274	0.022	0.077
Discriminatory attitudes towards people with HIV	0.653	0.031	372	337	1.262	0.048	0.591	0.716

Table B.36 Sampling errors: Akwa Ibom sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.558	0.047	1,078	1,048	3.095	0.084	0.464	0.652
De facto population with access to an ITN	0.480	0.043	3,990	3,891	2.943	0.090	0.393	0.566
Household population that slept under an ITN last night	0.259	0.027	3,990	3,891	2.099	0.105	0.205	0.313
WOMEN								
Urban residence	0.097	0.019	958	948	1.979	0.195	0.059	0.135
Literacy	0.806	0.022	958	948	1.736	0.028	0.761	0.850
No education	0.029	0.006	958	948	1.190	0.224	0.016	0.042
Secondary or higher education	0.768	0.021	958	948	1.563	0.028	0.726	0.811
Never married (never in union)	0.380	0.021	958	948	1.342	0.055	0.337	0.422
Currently married (in union)	0.517	0.019	958	948	1.177	0.037	0.479	0.555
Married before age 18	0.237	0.019	777	770	1.277	0.082	0.198	0.276
Had sexual intercourse before age 18	0.540	0.039	777	770	2.169	0.072	0.462	0.618
Currently pregnant	0.059	0.007	958	948	0.937	0.121	0.045	0.073
Know any contraceptive method	0.993	0.003	508	490	0.918	0.003	0.987	1.000
Know a modern method	0.993	0.003	508	490	0.918	0.003	0.987	1.000
Currently using any method	0.198	0.022	508	490	1.244	0.111	0.154	0.242
Currently using a modern method	0.157	0.019	508	490	1.187	0.122	0.119	0.196
Currently using pill	0.030	0.008	508	490	1.047	0.265	0.014	0.046
Currently using male condoms	0.041	0.010	508	490	1.101	0.237	0.021	0.060
Currently using injectables	0.038	0.010	508	490	1.163	0.259	0.018	0.058
Currently using implants	0.030	0.008	508	490	1.079	0.271	0.014	0.047
Currently using female sterilisation	0.000	0.000	508	490	0.000	0.000	0.000	0.000
Currently using withdrawal	0.009	0.004	508	490	1.057	0.491	0.000	0.018
Currently using rhythm	0.029	0.011	508	490	1.530	0.393	0.006	0.052
Using public sector source	0.276	0.043	119	125	1.049	0.156	0.190	0.362
Want no more children	0.360	0.023	508	490	1.077	0.064	0.314	0.406
Want to delay next birth at least 2 years	0.247	0.028	508	490	1.451	0.113	0.191	0.302
Ideal number of children	4.437	0.082	951	941	1.598	0.018	4.274	4.600
Mothers protected against tetanus for last birth	0.695	0.032	384	360	1.359	0.046	0.631	0.759
Births with skilled attendant at delivery	0.392	0.047	564	522	1.885	0.121	0.297	0.486
Received 3+ doses of SP/Fansidar	0.165	0.039	228	216	1.580	0.236	0.087	0.243
Treated with ORS	0.308	0.084	43	39	1.083	0.274	0.139	0.477
Sought medical treatment for diarrhoea	0.574	0.091	43	39	1.109	0.158	0.393	0.755
Ever had vaccination card	0.848	0.033	123	118	1.028	0.039	0.782	0.914
Received BCG vaccination	0.841	0.040	123	118	1.224	0.048	0.760	0.921
Received birth dose HepB vaccination	0.679	0.059	123	118	1.390	0.086	0.562	0.796
Received DPT-HepB-Hib vaccination (3 doses)	0.622	0.045	123	118	1.023	0.072	0.533	0.712
Received birth dose polio 0 vaccination	0.629	0.056	123	118	1.279	0.089	0.517	0.740
Received polio vaccination (3 doses)	0.585	0.047	123	118	1.057	0.080	0.491	0.679
Received pneumococcal vaccination (3 doses)	0.604	0.041	123	118	0.934	0.068	0.521	0.686
Received measles 1 vaccination	0.635	0.047	123	118	1.078	0.074	0.541	0.729
Received all basic vaccinations (12-23 months)	0.420	0.051	123	118	1.135	0.121	0.319	0.522
Received all age-appropriate vaccinations (12-23 months)	0.293	0.051	123	118	1.221	0.174	0.191	0.395
Received measles 2 vaccination	0.232	0.045	83	77	0.968	0.196	0.141	0.322
Received all age-appropriate vaccinations (24-35 months)	0.040	0.030	83	77	1.354	0.735	0.000	0.099
Height-for-age (-2SD)	0.196	0.028	254	236	1.052	0.146	0.139	0.252
Weight-for-height (-2SD)	0.042	0.012	254	236	0.845	0.287	0.018	0.067
Weight-for-age (-2SD)	0.089	0.018	254	236	0.958	0.207	0.052	0.126
Body mass index (BMI) <18.5	0.060	0.014	321	314	1.063	0.236	0.032	0.089
Body mass index (BMI) ≥25	0.420	0.032	321	314	1.152	0.076	0.356	0.484
Prevalence of anaemia (children 6-59 months)	0.747	0.035	233	216	1.205	0.047	0.677	0.816
Prevalence of malaria (based on microscopy test)	0.232	0.044	161	149	1.183	0.191	0.144	0.321
Prevalence of malaria (based on rapid test)	0.332	0.036	233	216	1.080	0.109	0.260	0.405
Prevalence of anaemia (women 15-49)	0.577	0.030	354	339	1.119	0.052	0.518	0.637
Had 2+ sexual partners in past 12 months	0.034	0.007	958	948	1.262	0.219	0.019	0.048
Condom use at last sex	0.128	0.064	29	32	1.012	0.500	0.000	0.256
Abstinence among young people (never had sex)	0.496	0.036	258	263	1.159	0.073	0.424	0.569
Discriminatory attitudes towards people with HIV	0.611	0.020	935	922	1.278	0.033	0.570	0.652
Prevalence of sickle cell disease among children 6-59 months	0.013	0.007	233	216	0.948	0.561	0.000	0.027
Total fertility rate (last 3 years)	3.550	0.270	2,732	2,707	1.508	0.076	3.011	4.089
Neonatal mortality (last 0-9 years)	36.843	6.882	1,055	974	1.047	0.187	23.079	50.607
Postneonatal mortality (last 0-9 years)	33.491	5.647	1,055	975	0.980	0.169	22.197	44.785
Infant mortality (last 0-9 years)	70.334	10.259	1,056	976	1.140	0.146	49.816	90.852
Child mortality (last 0-9 years)	30.229	5.701	1,051	970	0.993	0.189	18.826	41.631
Under-5 mortality (last 0-9 years)	98.437	13.151	1,062	982	1.276	0.134	72.134	124.739
MEN								
Urban residence	0.071	0.024	289	291	1.562	0.335	0.023	0.118
Literacy	0.755	0.041	289	291	1.609	0.054	0.673	0.837
No education	0.042	0.015	289	291	1.238	0.347	0.013	0.072
Secondary or higher education	0.802	0.033	289	291	1.418	0.042	0.735	0.869
Never married (in union)	0.478	0.036	289	291	1.236	0.076	0.405	0.551
Currently married (in union)	0.505	0.035	289	291	1.201	0.070	0.434	0.576
Had first sexual intercourse before age 18	0.132	0.029	235	243	1.318	0.221	0.074	0.191
Knows any contraceptive method	1.000	0.000	146	147	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	0.984	0.016	146	147	1.523	0.016	0.951	1.016
Want no more children	0.349	0.049	146	147	1.223	0.139	0.252	0.447
Want to delay birth at least 2 years	0.263	0.037	146	147	1.006	0.140	0.189	0.336
Ideal number of children	4.323	0.154	277	281	1.365	0.036	4.016	4.631
Had 2+ sexual partners in past 12 months	0.069	0.013	289	291	0.862	0.187	0.043	0.094
Condom use at last sex	0.656	0.124	20	20	1.131	0.189	0.408	0.905
Abstinence among young people (never had sex)	0.550	0.053	89	84	0.993	0.096	0.445	0.655
Had paid sex in past 12 months	0.018	0.008	289	291	0.965	0.419	0.003	0.033
Discriminatory attitudes towards people with HIV	0.382	0.037	285	289	1.298	0.098	0.307	0.457

Table B.37 Sampling errors: Bayelsa sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.472	0.029	1,004	404	1.854	0.062	0.413	0.530
De facto population with access to an ITN	0.324	0.024	3,766	1,507	1.768	0.074	0.276	0.372
Household population that slept under an ITN last night	0.292	0.026	3,766	1,507	1.813	0.091	0.239	0.345
WOMEN								
Urban residence	0.327	0.044	771	298	2.592	0.134	0.239	0.415
Literacy	0.752	0.020	771	298	1.290	0.027	0.712	0.792
No education	0.097	0.013	771	298	1.236	0.136	0.071	0.123
Secondary or higher education	0.736	0.025	771	298	1.557	0.034	0.687	0.786
Never married (never in union)	0.297	0.019	771	298	1.182	0.066	0.258	0.336
Currently married (in union)	0.652	0.022	771	298	1.303	0.034	0.607	0.697
Married before age 18	0.362	0.019	637	248	0.976	0.051	0.324	0.399
Had sexual intercourse before age 18	0.685	0.027	637	248	1.440	0.039	0.632	0.738
Currently pregnant	0.082	0.011	771	298	1.104	0.133	0.060	0.104
Know any contraceptive method	0.898	0.020	503	195	1.494	0.022	0.858	0.939
Know a modern method	0.887	0.020	503	195	1.432	0.023	0.847	0.928
Currently using any method	0.037	0.008	503	195	0.964	0.221	0.020	0.053
Currently using a modern method	0.033	0.008	503	195	1.027	0.247	0.017	0.050
Currently using pill	0.004	0.003	503	195	0.908	0.644	0.000	0.009
Currently using male condoms	0.009	0.004	503	195	0.986	0.471	0.001	0.017
Currently using injectables	0.002	0.002	503	195	0.887	0.994	0.000	0.005
Currently using implants	0.019	0.006	503	195	1.006	0.322	0.007	0.031
Currently using female sterilisation	0.000	0.000	503	195	0.000	0.000	0.000	0.000
Currently using withdrawal	0.003	0.003	503	195	1.266	0.976	0.000	0.010
Currently using rhythm	0.000	0.000	503	195	0.000	0.000	0.000	0.000
Using public sector source	0.384	0.129	24	9	1.257	0.336	0.126	0.642
Want no more children	0.310	0.022	503	195	1.074	0.071	0.266	0.355
Want to delay next birth at least 2 years	0.130	0.017	503	195	1.144	0.132	0.096	0.165
Ideal number of children	4.908	0.077	770	298	1.360	0.016	4.753	5.062
Mothers protected against tetanus for last birth	0.522	0.050	375	144	1.930	0.095	0.423	0.622
Births with skilled attendant at delivery	0.251	0.058	570	217	2.596	0.230	0.135	0.366
Received 3+ doses of SP/Fansidar	0.072	0.019	228	87	1.122	0.268	0.033	0.110
Treated with ORS	0.774	0.150	7	3	0.933	0.193	0.474	1.073
Sought medical treatment for diarrhoea	0.690	0.188	7	3	1.060	0.273	0.314	1.066
Ever had vaccination card	0.618	0.050	123	50	1.165	0.081	0.518	0.718
Received BCG vaccination	0.655	0.054	123	50	1.288	0.082	0.547	0.764
Received birth dose HepB vaccination	0.593	0.048	123	50	1.107	0.081	0.497	0.689
Received DPT-HepB-Hib vaccination (3 doses)	0.545	0.048	123	50	1.105	0.089	0.449	0.642
Received birth dose polio 0 vaccination	0.592	0.046	123	50	1.073	0.079	0.499	0.685
Received polio vaccination (3 doses)	0.257	0.040	123	50	1.034	0.154	0.178	0.337
Received pneumococcal vaccination (3 doses)	0.490	0.051	123	50	1.151	0.103	0.389	0.591
Received measles 1 vaccination	0.713	0.045	123	50	1.117	0.063	0.623	0.802
Received all basic vaccinations (12-23 months)	0.180	0.046	123	50	1.361	0.255	0.088	0.271
Received all age-appropriate vaccinations (12-23 months)	0.124	0.038	123	50	1.309	0.305	0.048	0.199
Received measles 2 vaccination	0.287	0.047	104	38	1.017	0.165	0.192	0.382
Received all age-appropriate vaccinations (24-35 months)	0.032	0.016	104	38	0.891	0.491	0.001	0.063
Height-for-age (-2SD)	0.249	0.029	282	105	1.022	0.117	0.191	0.307
Weight-for-height (-2SD)	0.013	0.007	286	106	1.081	0.570	0.000	0.028
Weight-for-age (-2SD)	0.134	0.023	286	106	1.037	0.174	0.087	0.181
Body mass index (BMI) <18.5	0.065	0.018	275	102	1.164	0.271	0.030	0.101
Body mass index (BMI) ≥25	0.362	0.041	275	102	1.381	0.113	0.281	0.444
Prevalence of anaemia (children 6-59 months)	0.674	0.033	260	98	1.051	0.049	0.608	0.740
Prevalence of malaria (based on microscopy test)	0.125	0.023	195	74	0.945	0.181	0.080	0.170
Prevalence of malaria (based on rapid test)	0.301	0.037	259	97	1.162	0.123	0.227	0.375
Prevalence of anaemia (women 15-49)	0.584	0.038	309	117	1.328	0.065	0.508	0.659
Had 2+ sexual partners in past 12 months	0.015	0.005	771	298	1.048	0.307	0.006	0.024
Condom use at last sex	0.000	0.000	12	4	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	0.605	0.043	164	63	1.132	0.072	0.518	0.692
Discriminatory attitudes towards people with HIV	0.127	0.015	677	267	1.154	0.117	0.097	0.156
Prevalence of sickle cell disease among children 6-59 months	0.011	0.006	260	98	0.894	0.545	0.000	0.023
Total fertility rate (last 3 years)	4.447	0.282	2,185	847	1.268	0.063	3.883	5.011
Neonatal mortality (last 0-9 years)	12.634	3.977	1,075	413	1.014	0.315	4.680	20.587
Postneonatal mortality (last 0-9 years)	9.877	3.223	1,077	413	0.921	0.326	3.431	16.323
Infant mortality (last 0-9 years)	22.510	4.968	1,077	414	0.880	0.221	12.574	32.447
Child mortality (last 0-9 years)	8.323	2.821	1,062	413	1.002	0.339	2.681	13.966
Under-5 mortality (last 0-9 years)	30.646	6.445	1,078	414	1.006	0.210	17.756	43.537
MEN								
Urban residence	0.314	0.060	273	109	2.113	0.190	0.195	0.434
Literacy	0.982	0.008	273	109	1.017	0.008	0.966	0.999
No education	0.020	0.010	273	109	1.136	0.481	0.001	0.039
Secondary or higher education	0.918	0.021	273	109	1.255	0.023	0.876	0.960
Never married (in union)	0.398	0.048	273	109	1.608	0.120	0.302	0.493
Currently married (in union)	0.550	0.045	273	109	1.499	0.082	0.459	0.640
Had first sexual intercourse before age 18	0.470	0.035	221	88	1.038	0.074	0.400	0.540
Knows any contraceptive method	1.000	0.000	155	60	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	155	60	0.000	0.000	1.000	1.000
Want no more children	0.208	0.035	155	60	1.071	0.168	0.138	0.278
Want to delay birth at least 2 years	0.330	0.043	155	60	1.123	0.129	0.245	0.415
Ideal number of children	6.236	0.216	271	108	1.528	0.035	5.804	6.669
Had 2+ sexual partners in past 12 months	0.203	0.020	273	109	0.818	0.098	0.163	0.243
Condom use at last sex	0.325	0.061	58	22	0.978	0.186	0.204	0.447
Abstinence among young people (never had sex)	0.478	0.053	79	31	0.938	0.111	0.372	0.584
Had paid sex in past 12 months	0.066	0.016	273	109	1.071	0.245	0.033	0.098
Discriminatory attitudes towards people with HIV	0.796	0.036	270	108	1.464	0.045	0.724	0.868

Table B.38 Sampling errors: Cross River sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.575	0.034	999	739	2.166	0.059	0.507	0.643
De facto population with access to an ITN	0.437	0.031	3,107	2,335	2.133	0.072	0.374	0.499
Household population that slept under an ITN last night	0.396	0.037	3,107	2,335	2.294	0.092	0.322	0.469
WOMEN								
Urban residence	0.211	0.044	748	574	2.960	0.210	0.122	0.300
Literacy	0.736	0.028	748	574	1.709	0.037	0.681	0.791
No education	0.060	0.010	748	574	1.199	0.174	0.039	0.080
Secondary or higher education	0.755	0.025	748	574	1.588	0.033	0.705	0.805
Never married (never in union)	0.354	0.024	748	574	1.371	0.068	0.306	0.402
Currently married (in union)	0.554	0.025	748	574	1.368	0.045	0.504	0.603
Married before age 18	0.243	0.024	616	471	1.373	0.098	0.195	0.290
Had sexual intercourse before age 18	0.551	0.036	616	471	1.787	0.065	0.479	0.623
Currently pregnant	0.043	0.007	748	574	0.938	0.162	0.029	0.057
Know any contraceptive method	1.000	0.000	422	318	0.000	0.000	1.000	1.000
Know a modern method	0.998	0.002	422	318	0.936	0.002	0.994	1.002
Currently using any method	0.200	0.027	422	318	1.391	0.136	0.146	0.255
Currently using a modern method	0.189	0.027	422	318	1.410	0.143	0.135	0.243
Currently using pill	0.019	0.008	422	318	1.214	0.431	0.003	0.034
Currently using male condoms	0.010	0.005	422	318	1.093	0.539	0.000	0.020
Currently using injectables	0.034	0.015	422	318	1.712	0.445	0.004	0.065
Currently using implants	0.115	0.022	422	318	1.382	0.187	0.072	0.159
Currently using female sterilisation	0.003	0.003	422	318	1.159	0.987	0.000	0.010
Currently using withdrawal	0.009	0.005	422	318	1.047	0.537	0.000	0.019
Currently using rhythm	0.003	0.002	422	318	0.770	0.736	0.000	0.006
Using public sector source	0.750	0.056	111	86	1.350	0.075	0.638	0.862
Want no more children	0.266	0.023	422	318	1.063	0.086	0.220	0.312
Want to delay next birth at least 2 years	0.131	0.015	422	318	0.931	0.117	0.100	0.161
Ideal number of children	4.505	0.075	715	549	1.342	0.017	4.354	4.655
Mothers protected against tetanus for last birth	0.713	0.038	312	231	1.461	0.053	0.638	0.789
Births with skilled attendant at delivery	0.562	0.055	428	318	1.872	0.098	0.452	0.672
Received 3+ doses of SP/Fansidar	0.326	0.040	159	117	1.061	0.122	0.247	0.406
Treated with ORS	0.598	0.120	17	13	1.040	0.201	0.358	0.839
Sought medical treatment for diarrhoea	0.881	0.074	17	13	0.964	0.083	0.734	1.028
Ever had vaccination card	0.903	0.042	75	53	1.198	0.047	0.819	0.987
Received BCG vaccination	0.888	0.050	75	53	1.326	0.056	0.789	0.988
Received birth dose HepB vaccination	0.600	0.073	75	53	1.244	0.122	0.454	0.746
Received DPT-HepB-Hib vaccination (3 doses)	0.641	0.071	75	53	1.255	0.110	0.499	0.782
Received birth dose polio 0 vaccination	0.548	0.098	75	53	1.671	0.178	0.353	0.744
Received polio vaccination (3 doses)	0.556	0.055	75	53	0.921	0.099	0.447	0.666
Received pneumococcal vaccination (3 doses)	0.637	0.076	75	53	1.318	0.119	0.485	0.788
Received measles 1 vaccination	0.641	0.076	75	53	1.322	0.118	0.489	0.792
Received all basic vaccinations (12-23 months)	0.460	0.062	75	53	1.065	0.135	0.335	0.584
Received all age-appropriate vaccinations (12-23 months)	0.244	0.062	75	53	1.219	0.256	0.119	0.369
Received measles 2 vaccination	0.159	0.041	87	67	1.067	0.260	0.076	0.242
Received all age-appropriate vaccinations (24-35 months)	0.033	0.019	87	67	1.007	0.574	0.000	0.072
Height-for-age (-2SD)	0.229	0.042	164	121	1.224	0.183	0.145	0.313
Weight-for-height (-2SD)	0.050	0.021	163	121	1.257	0.424	0.008	0.092
Weight-for-age (-2SD)	0.118	0.034	164	121	1.218	0.293	0.049	0.187
Body mass index (BMI) <18.5	0.053	0.020	271	212	1.497	0.382	0.013	0.093
Body mass index (BMI) ≥25	0.348	0.028	271	212	0.979	0.081	0.292	0.404
Prevalence of anaemia (children 6-59 months)	0.698	0.043	140	105	1.115	0.062	0.611	0.784
Prevalence of malaria (based on microscopy test)	0.195	0.064	97	71	1.384	0.328	0.067	0.322
Prevalence of malaria (based on rapid test)	0.264	0.058	140	105	1.495	0.219	0.148	0.380
Prevalence of anaemia (women 15-49)	0.461	0.038	291	227	1.308	0.082	0.385	0.537
Had 2+ sexual partners in past 12 months	0.018	0.006	748	574	1.206	0.330	0.006	0.029
Condom use at last sex	0.197	0.113	15	10	1.058	0.574	0.000	0.422
Abstinence among young people (never had sex)	0.450	0.038	191	152	1.061	0.085	0.373	0.526
Discriminatory attitudes towards people with HIV	0.288	0.021	736	565	1.285	0.075	0.245	0.331
Prevalence of sickle cell disease among children 6-59 months	0.000	0.000	140	105	0.000	0.000	0.000	0.000
Total fertility rate (last 3 years)	3.731	0.310	2,115	1,613	1.259	0.083	3.110	4.352
Neonatal mortality (last 0-9 years)	32.429	6.372	861	633	0.953	0.197	19.684	45.173
Postneonatal mortality (last 0-9 years)	27.247	4.839	859	632	0.819	0.178	17.569	36.924
Infant mortality (last 0-9 years)	59.675	7.666	861	633	0.877	0.128	44.344	75.006
Child mortality (last 0-9 years)	21.493	7.661	848	623	1.249	0.356	6.171	36.816
Under-5 mortality (last 0-9 years)	79.886	11.520	865	635	1.018	0.144	56.846	102.926
MEN								
Urban residence	0.203	0.046	182	137	1.529	0.226	0.111	0.295
Literacy	0.878	0.026	182	137	1.088	0.030	0.825	0.931
No education	0.041	0.014	182	137	0.916	0.327	0.014	0.069
Secondary or higher education	0.844	0.032	182	137	1.191	0.038	0.780	0.908
Never married (in union)	0.426	0.043	182	137	1.171	0.101	0.340	0.512
Currently married (in union)	0.534	0.045	182	137	1.219	0.085	0.443	0.624
Had first sexual intercourse before age 18	0.469	0.035	154	115	0.859	0.074	0.400	0.538
Knows any contraceptive method	0.993	0.007	97	73	0.850	0.007	0.978	1.007
Knows any modern contraceptive method	0.993	0.007	97	73	0.850	0.007	0.978	1.007
Want no more children	0.303	0.056	97	73	1.200	0.186	0.190	0.416
Want to delay birth at least 2 years	0.146	0.036	97	73	1.003	0.248	0.074	0.218
Ideal number of children	4.617	0.149	179	135	1.021	0.032	4.319	4.914
Had 2+ sexual partners in past 12 months	0.049	0.017	182	137	1.041	0.342	0.015	0.082
Condom use at last sex	0.565	0.192	9	7	1.083	0.340	0.181	0.949
Abstinence among young people (never had sex)	0.651	0.067	49	37	0.968	0.102	0.518	0.785
Had paid sex in past 12 months	0.032	0.013	182	137	0.984	0.401	0.006	0.058
Discriminatory attitudes towards people with HIV	0.404	0.041	166	124	1.080	0.102	0.321	0.486

Table B.39 Sampling errors: Delta sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.385	0.028	1,107	1,271	1.930	0.073	0.329	0.442
De facto population with access to an ITN	0.292	0.020	3,692	4,294	1.596	0.068	0.253	0.332
Household population that slept under an ITN last night	0.285	0.028	3,692	4,294	1.965	0.099	0.228	0.341
WOMEN								
Urban residence	0.583	0.045	815	931	2.583	0.077	0.493	0.672
Literacy	0.772	0.024	815	931	1.636	0.031	0.724	0.820
No education	0.078	0.013	815	931	1.340	0.161	0.053	0.104
Secondary or higher education	0.783	0.022	815	931	1.553	0.029	0.738	0.828
Never married (never in union)	0.346	0.021	815	931	1.260	0.061	0.304	0.388
Currently married (in union)	0.592	0.024	815	931	1.419	0.041	0.543	0.641
Married before age 18	0.199	0.023	655	748	1.444	0.113	0.154	0.244
Had sexual intercourse before age 18	0.520	0.028	655	748	1.419	0.053	0.465	0.576
Currently pregnant	0.088	0.012	815	931	1.233	0.139	0.063	0.112
Know any contraceptive method	0.945	0.012	470	551	1.150	0.013	0.921	0.970
Know a modern method	0.944	0.012	470	551	1.175	0.013	0.919	0.969
Currently using any method	0.165	0.028	470	551	1.640	0.171	0.109	0.221
Currently using a modern method	0.129	0.026	470	551	1.654	0.199	0.077	0.180
Currently using pill	0.021	0.008	470	551	1.230	0.384	0.005	0.038
Currently using male condoms	0.010	0.005	470	551	0.996	0.456	0.001	0.019
Currently using injectables	0.029	0.010	470	551	1.244	0.332	0.010	0.048
Currently using implants	0.030	0.017	470	551	2.148	0.564	0.000	0.064
Currently using female sterilisation	0.004	0.004	470	551	1.311	0.959	0.000	0.012
Currently using withdrawal	0.014	0.005	470	551	0.960	0.369	0.004	0.025
Currently using rhythm	0.013	0.006	470	551	1.049	0.415	0.002	0.025
Using public sector source	0.436	0.087	66	84	1.399	0.199	0.263	0.610
Want no more children	0.329	0.022	470	551	1.036	0.068	0.284	0.374
Want to delay next birth at least 2 years	0.200	0.022	470	551	1.182	0.109	0.157	0.244
Ideal number of children	4.962	0.104	814	930	1.685	0.021	4.754	5.170
Mothers protected against tetanus for last birth	0.763	0.030	348	408	1.336	0.040	0.703	0.824
Births with skilled attendant at delivery	0.634	0.040	508	595	1.516	0.063	0.555	0.713
Received 3+ doses of SP/Fansidar	0.151	0.022	203	239	0.886	0.145	0.107	0.195
Treated with ORS	0.592	0.162	16	22	1.432	0.273	0.268	0.916
Sought medical treatment for diarrhoea	0.614	0.136	16	22	1.215	0.221	0.343	0.886
Ever had vaccination card	0.837	0.050	102	127	1.423	0.060	0.737	0.937
Received BCG vaccination	0.825	0.045	102	127	1.252	0.055	0.734	0.915
Received birth dose HepB vaccination	0.679	0.054	102	127	1.208	0.079	0.572	0.787
Received DPT-HepB-Hib vaccination (3 doses)	0.717	0.049	102	127	1.143	0.068	0.619	0.815
Received birth dose polio 0 vaccination	0.669	0.061	102	127	1.369	0.092	0.546	0.792
Received polio vaccination (3 doses)	0.564	0.044	102	127	0.937	0.079	0.475	0.653
Received pneumococcal vaccination (3 doses)	0.708	0.050	102	127	1.150	0.070	0.609	0.808
Received measles 1 vaccination	0.733	0.038	102	127	0.909	0.052	0.656	0.809
Received all basic vaccinations (12-23 months)	0.444	0.038	102	127	0.794	0.085	0.369	0.520
Received all age-appropriate vaccinations (12-23 months)	0.322	0.039	102	127	0.858	0.120	0.245	0.399
Received measles 2 vaccination	0.116	0.040	84	95	1.133	0.343	0.036	0.196
Received all age-appropriate vaccinations (24-35 months)	0.047	0.031	84	95	1.335	0.659	0.000	0.109
Height-for-age (-2SD)	0.237	0.036	198	236	1.158	0.151	0.165	0.308
Weight-for-height (-2SD)	0.020	0.009	196	233	0.985	0.477	0.001	0.039
Weight-for-age (-2SD)	0.130	0.030	198	236	1.275	0.234	0.069	0.191
Body mass index (BMI) <18.5	0.080	0.021	252	277	1.231	0.268	0.037	0.123
Body mass index (BMI) ≥25	0.446	0.033	252	277	1.045	0.075	0.379	0.513
Prevalence of anaemia (children 6-59 months)	0.698	0.044	181	222	1.233	0.064	0.609	0.787
Prevalence of malaria (based on microscopy test)	0.170	0.053	133	170	1.391	0.313	0.064	0.277
Prevalence of malaria (based on rapid test)	0.249	0.052	181	222	1.405	0.210	0.145	0.354
Prevalence of anaemia (women 15-49)	0.641	0.026	283	312	0.880	0.040	0.590	0.693
Had 2+ sexual partners in past 12 months	0.022	0.005	815	931	1.059	0.246	0.011	0.033
Condom use at last sex	0.373	0.135	20	21	1.204	0.363	0.102	0.643
Abstinence among young people (never had sex)	0.566	0.039	215	246	1.145	0.069	0.488	0.644
Discriminatory attitudes towards people with HIV	0.895	0.014	739	866	1.237	0.016	0.867	0.923
Prevalence of sickle cell disease among children 6-59 months	0.000	0.000	181	222	0.000	0.000	0.000	0.000
Total fertility rate (last 3 years)	4.402	0.319	2,296	2,620	1.780	0.073	3.763	5.040
Neonatal mortality (last 0-9 years)	21.084	5.541	979	1,138	1.092	0.263	10.002	32.166
Postneonatal mortality (last 0-9 years)	10.538	2.992	979	1,135	0.932	0.284	4.555	16.522
Infant mortality (last 0-9 years)	31.622	5.596	979	1,138	0.906	0.177	20.430	42.815
Child mortality (last 0-9 years)	22.300	6.242	972	1,121	1.170	0.280	9.815	34.784
Under-5 mortality (last 0-9 years)	53.217	8.359	982	1,141	0.978	0.157	36.498	69.936
MEN								
Urban residence	0.563	0.051	280	326	1.727	0.091	0.460	0.666
Literacy	0.969	0.011	280	326	1.035	0.011	0.947	0.990
No education	0.007	0.004	280	326	0.803	0.586	0.000	0.014
Secondary or higher education	0.856	0.025	280	326	1.182	0.029	0.806	0.905
Never married (in union)	0.431	0.029	280	326	0.965	0.066	0.374	0.489
Currently married (in union)	0.569	0.029	280	326	0.965	0.050	0.511	0.626
Had first sexual intercourse before age 18	0.101	0.017	223	259	0.861	0.172	0.066	0.136
Knows any contraceptive method	1.000	0.000	158	185	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	158	185	0.000	0.000	1.000	1.000
Want no more children	0.183	0.035	158	185	1.125	0.190	0.113	0.252
Want to delay birth at least 2 years	0.117	0.028	158	185	1.080	0.237	0.062	0.173
Ideal number of children	5.502	0.170	276	320	1.273	0.031	5.163	5.842
Had 2+ sexual partners in past 12 months	0.124	0.019	280	326	0.983	0.156	0.085	0.163
Condom use at last sex	0.361	0.070	36	40	0.863	0.193	0.221	0.500
Abstinence among young people (never had sex)	0.787	0.051	86	100	1.138	0.064	0.686	0.888
Had paid sex in past 12 months	0.024	0.009	280	326	0.953	0.366	0.006	0.041
Discriminatory attitudes towards people with HIV	0.681	0.031	278	323	1.102	0.045	0.619	0.743

Table B.40 Sampling errors: Edo sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.570	0.037	874	710	2.199	0.065	0.496	0.643
De facto population with access to an ITN	0.477	0.036	3,257	2,713	2.152	0.075	0.405	0.549
Household population that slept under an ITN last night	0.277	0.035	3,257	2,713	2.248	0.127	0.207	0.348
WOMEN								
Urban residence	0.641	0.051	658	555	2.689	0.079	0.540	0.742
Literacy	0.728	0.035	658	555	1.988	0.047	0.659	0.798
No education	0.084	0.021	658	555	1.936	0.249	0.042	0.127
Secondary or higher education	0.726	0.036	658	555	2.090	0.050	0.653	0.799
Never married (never in union)	0.265	0.018	658	555	1.056	0.069	0.228	0.301
Currently married (in union)	0.666	0.022	658	555	1.210	0.033	0.622	0.711
Married before age 18	0.189	0.019	527	442	1.137	0.103	0.150	0.228
Had sexual intercourse before age 18	0.380	0.030	527	442	1.430	0.080	0.320	0.441
Currently pregnant	0.080	0.014	658	555	1.315	0.174	0.052	0.108
Know any contraceptive method	0.949	0.013	438	370	1.216	0.013	0.924	0.975
Know a modern method	0.942	0.016	438	370	1.397	0.017	0.911	0.973
Currently using any method	0.194	0.025	438	370	1.316	0.129	0.144	0.244
Currently using a modern method	0.150	0.021	438	370	1.248	0.142	0.108	0.193
Currently using pill	0.035	0.009	438	370	1.019	0.255	0.017	0.053
Currently using male condoms	0.014	0.006	438	370	1.006	0.397	0.003	0.026
Currently using injectables	0.051	0.018	438	370	1.746	0.361	0.014	0.088
Currently using implants	0.036	0.011	438	370	1.203	0.299	0.014	0.057
Currently using female sterilisation	0.002	0.002	438	370	0.838	1.010	0.000	0.005
Currently using withdrawal	0.027	0.009	438	370	1.185	0.337	0.009	0.046
Currently using rhythm	0.016	0.008	438	370	1.261	0.473	0.001	0.031
Using public sector source	0.406	0.061	78	64	1.089	0.150	0.284	0.528
Want no more children	0.413	0.027	438	370	1.153	0.066	0.359	0.468
Want to delay next birth at least 2 years	0.277	0.029	438	370	1.355	0.105	0.219	0.335
Ideal number of children	4.546	0.079	649	544	1.210	0.017	4.388	4.705
Mothers protected against tetanus for last birth	0.821	0.029	308	270	1.368	0.036	0.762	0.879
Births with skilled attendant at delivery	0.897	0.027	465	411	1.610	0.030	0.844	0.951
Received 3+ doses of SP/Fansidar	0.471	0.040	175	150	1.077	0.086	0.390	0.552
Treated with ORS	0.407	0.095	20	17	0.834	0.232	0.218	0.596
Sought medical treatment for diarrhoea	0.813	0.104	20	17	1.175	0.128	0.606	1.021
Ever had vaccination card	0.863	0.057	90	75	1.561	0.066	0.749	0.978
Received BCG vaccination	0.950	0.034	90	75	1.465	0.036	0.883	1.018
Received birth dose HepB vaccination	0.819	0.054	90	75	1.309	0.066	0.711	0.927
Received DPT-HepB-Hib vaccination (3 doses)	0.807	0.053	90	75	1.259	0.066	0.701	0.913
Received birth dose polio 0 vaccination	0.848	0.050	90	75	1.308	0.059	0.748	0.948
Received polio vaccination (3 doses)	0.676	0.074	90	75	1.481	0.110	0.527	0.825
Received pneumococcal vaccination (3 doses)	0.826	0.039	90	75	0.959	0.047	0.748	0.903
Received measles 1 vaccination	0.806	0.053	90	75	1.165	0.066	0.700	0.913
Received all basic vaccinations (12-23 months)	0.563	0.070	90	75	1.295	0.125	0.423	0.703
Received all age-appropriate vaccinations (12-23 months)	0.482	0.070	90	75	1.285	0.144	0.343	0.621
Received measles 2 vaccination	0.164	0.048	77	72	1.194	0.292	0.068	0.260
Received all age-appropriate vaccinations (24-35 months)	0.051	0.024	77	72	0.989	0.461	0.004	0.099
Height-for-age (-2SD)	0.160	0.035	160	151	1.133	0.220	0.089	0.230
Weight-for-height (-2SD)	0.034	0.015	159	149	1.070	0.458	0.003	0.065
Weight-for-age (-2SD)	0.107	0.024	160	151	1.054	0.224	0.059	0.154
Body mass index (BMI) <18.5	0.063	0.026	192	159	1.450	0.408	0.012	0.114
Body mass index (BMI) ≥25	0.386	0.048	192	159	1.355	0.124	0.290	0.482
Prevalence of anaemia (children 6-59 months)	0.659	0.058	146	139	1.432	0.088	0.543	0.774
Prevalence of malaria (based on microscopy test)	0.147	0.039	104	96	1.247	0.268	0.069	0.226
Prevalence of malaria (based on rapid test)	0.191	0.044	146	139	1.225	0.229	0.103	0.278
Prevalence of anaemia (women 15-49)	0.552	0.048	211	181	1.413	0.087	0.456	0.648
Had 2+ sexual partners in past 12 months	0.006	0.003	658	555	1.121	0.545	0.000	0.013
Condom use at last sex	0.348	0.214	4	4	0.819	0.614	0.000	0.776
Abstinence among young people (never had sex)	0.633	0.053	158	135	1.374	0.084	0.527	0.739
Discriminatory attitudes towards people with HIV	0.710	0.023	644	544	1.283	0.032	0.664	0.756
Prevalence of sickle cell disease among children 6-59 months	0.000	0.000	146	139	0.000	0.000	0.000	0.000
Total fertility rate (last 3 years)	4.824	0.331	1,840	1,544	1.289	0.069	4.162	5.487
Neonatal mortality (last 0-9 years)	28.541	12.904	925	797	1.623	0.452	2.733	54.350
Postneonatal mortality (last 0-9 years)	23.112	6.782	926	799	1.381	0.293	9.548	36.677
Infant mortality (last 0-9 years)	51.654	16.025	925	797	1.720	0.310	19.604	83.703
Child mortality (last 0-9 years)	19.998	5.303	922	792	1.027	0.265	9.393	30.603
Under-5 mortality (last 0-9 years)	70.619	16.069	927	798	1.612	0.228	38.480	102.758
MEN								
Urban residence	0.590	0.053	167	140	1.394	0.090	0.483	0.696
Literacy	0.682	0.043	167	140	1.198	0.064	0.595	0.768
No education	0.021	0.012	167	140	1.081	0.574	0.000	0.045
Secondary or higher education	0.805	0.035	167	140	1.127	0.043	0.736	0.875
Never married (in union)	0.510	0.049	167	140	1.253	0.095	0.413	0.608
Currently married (in union)	0.461	0.049	167	140	1.266	0.106	0.363	0.559
Had first sexual intercourse before age 18	0.333	0.044	137	114	1.089	0.132	0.245	0.421
Knows any contraceptive method	1.000	0.000	76	65	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	0.979	0.015	76	65	0.920	0.016	0.948	1.009
Want no more children	0.320	0.071	76	65	1.313	0.222	0.178	0.463
Want to delay birth at least 2 years	0.366	0.077	76	65	1.369	0.209	0.213	0.520
Ideal number of children	4.916	0.202	157	131	1.051	0.041	4.513	5.319
Had 2+ sexual partners in past 12 months	0.182	0.031	167	140	1.032	0.170	0.120	0.244
Condom use at last sex	0.503	0.152	25	25	1.455	0.302	0.199	0.807
Abstinence among young people (never had sex)	0.671	0.074	53	46	1.135	0.111	0.522	0.819
Had paid sex in past 12 months	0.063	0.037	167	140	1.926	0.582	0.000	0.136
Discriminatory attitudes towards people with HIV	0.638	0.053	164	138	1.397	0.083	0.532	0.743

Table B.41 Sampling errors: Rivers sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.339	0.023	1,129	1,556	1.656	0.069	0.292	0.385
De facto population with access to an ITN	0.244	0.019	4,258	5,840	1.636	0.078	0.206	0.282
Household population that slept under an ITN last night	0.213	0.020	4,258	5,840	1.631	0.095	0.173	0.254
WOMEN								
Urban residence	0.526	0.041	1,130	1,534	2.778	0.079	0.443	0.609
Literacy	0.840	0.023	1,130	1,534	2.140	0.028	0.793	0.886
No education	0.010	0.004	1,130	1,534	1.486	0.446	0.001	0.018
Secondary or higher education	0.872	0.017	1,130	1,534	1.688	0.019	0.838	0.905
Never married (never in union)	0.367	0.016	1,130	1,534	1.085	0.042	0.336	0.398
Currently married (in union)	0.557	0.019	1,130	1,534	1.260	0.033	0.520	0.594
Married before age 18	0.161	0.014	939	1,272	1.206	0.090	0.132	0.190
Had sexual intercourse before age 18	0.484	0.026	939	1,272	1.587	0.054	0.432	0.536
Currently pregnant	0.055	0.006	1,130	1,534	0.953	0.118	0.042	0.068
Know any contraceptive method	0.999	0.001	621	855	0.684	0.001	0.998	1.001
Know a modern method	0.997	0.002	621	855	0.976	0.002	0.993	1.001
Currently using any method	0.320	0.016	621	855	0.869	0.051	0.287	0.352
Currently using a modern method	0.196	0.016	621	855	0.999	0.081	0.164	0.228
Currently using pill	0.017	0.005	621	855	0.934	0.284	0.007	0.027
Currently using male condoms	0.060	0.007	621	855	0.771	0.122	0.045	0.075
Currently using injectables	0.037	0.008	621	855	1.077	0.220	0.021	0.054
Currently using implants	0.049	0.010	621	855	1.127	0.200	0.029	0.068
Currently using female sterilisation	0.004	0.002	621	855	0.948	0.578	0.000	0.009
Currently using withdrawal	0.086	0.012	621	855	1.044	0.137	0.062	0.109
Currently using rhythm	0.027	0.008	621	855	1.257	0.306	0.010	0.043
Using public sector source	0.246	0.031	254	347	1.152	0.127	0.183	0.308
Want no more children	0.309	0.019	621	855	1.050	0.063	0.270	0.348
Want to delay next birth at least 2 years	0.289	0.024	621	855	1.290	0.081	0.242	0.336
Ideal number of children	4.430	0.063	1,129	1,532	1.343	0.014	4.304	4.556
Mothers protected against tetanus for last birth	0.832	0.023	447	606	1.330	0.028	0.786	0.879
Births with skilled attendant at delivery	0.672	0.032	667	906	1.453	0.048	0.608	0.737
Received 3+ doses of SP/Fansidar	0.252	0.027	256	350	0.991	0.106	0.198	0.305
Treated with ORS	0.417	0.059	59	77	0.812	0.141	0.299	0.534
Sought medical treatment for diarrhoea	0.715	0.057	59	77	0.965	0.080	0.600	0.830
Ever had vaccination card	0.837	0.038	124	172	1.167	0.045	0.761	0.914
Received BCG vaccination	0.838	0.044	124	172	1.325	0.053	0.749	0.927
Received birth dose HepB vaccination	0.606	0.043	124	172	0.988	0.071	0.520	0.692
Received DPT-HepB-Hib vaccination (3 doses)	0.745	0.054	124	172	1.389	0.073	0.636	0.854
Received birth dose polio 0 vaccination	0.699	0.044	124	172	1.070	0.063	0.611	0.787
Received polio vaccination (3 doses)	0.478	0.059	124	172	1.326	0.123	0.360	0.595
Received pneumococcal vaccination (3 doses)	0.728	0.053	124	172	1.333	0.073	0.621	0.834
Received measles 1 vaccination	0.728	0.049	124	172	1.214	0.067	0.631	0.825
Received all basic vaccinations (12-23 months)	0.392	0.056	124	172	1.298	0.144	0.279	0.504
Received all age-appropriate vaccinations (12-23 months)	0.310	0.049	124	172	1.184	0.157	0.213	0.407
Received measles 2 vaccination	0.193	0.032	117	164	0.873	0.167	0.129	0.258
Received all age-appropriate vaccinations (24-35 months)	0.048	0.021	117	164	1.111	0.449	0.005	0.091
Height-for-age (-2SD)	0.168	0.024	312	451	1.082	0.140	0.121	0.215
Weight-for-height (-2SD)	0.064	0.013	313	452	0.939	0.211	0.037	0.090
Weight-for-age (-2SD)	0.074	0.016	313	452	1.066	0.213	0.043	0.106
Body mass index (BMI) <18.5	0.044	0.014	434	592	1.383	0.309	0.017	0.071
Body mass index (BMI) ≥25	0.477	0.031	434	592	1.287	0.065	0.416	0.539
Prevalence of anaemia (children 6-59 months)	0.789	0.024	287	412	0.961	0.030	0.741	0.836
Prevalence of malaria (based on microscopy test)	0.112	0.032	208	301	1.336	0.289	0.047	0.176
Prevalence of malaria (based on rapid test)	0.223	0.038	287	412	1.379	0.170	0.147	0.300
Prevalence of anaemia (women 15-49)	0.661	0.036	467	638	1.656	0.055	0.589	0.733
Had 2+ sexual partners in past 12 months	0.073	0.012	1,130	1,534	1.484	0.157	0.050	0.096
Condom use at last sex	0.490	0.051	80	112	0.916	0.105	0.387	0.593
Abstinence among young people (never had sex)	0.497	0.042	275	367	1.375	0.084	0.414	0.580
Discriminatory attitudes towards people with HIV	0.674	0.026	1,121	1,521	1.870	0.039	0.621	0.726
Prevalence of sickle cell disease among children 6-59 months	0.000	0.000	287	412	0.000	0.000	0.000	0.000
Total fertility rate (last 3 years)	3.849	0.352	3,197	4,335	1.679	0.091	3.145	4.553
Neonatal mortality (last 0-9 years)	27.409	5.417	1,273	1,686	1.003	0.198	16.576	38.242
Postneonatal mortality (last 0-9 years)	20.740	3.562	1,273	1,685	0.878	0.172	13.616	27.864
Infant mortality (last 0-9 years)	48.148	7.315	1,275	1,687	1.138	0.152	33.519	62.778
Child mortality (last 0-9 years)	32.791	10.589	1,252	1,654	1.588	0.323	11.613	53.968
Under-5 mortality (last 0-9 years)	79.360	12.690	1,280	1,698	1.307	0.160	53.981	104.739
MEN								
Urban residence	0.548	0.040	329	435	1.469	0.074	0.468	0.629
Literacy	0.952	0.014	329	435	1.206	0.015	0.924	0.981
No education	0.002	0.002	329	435	0.783	1.013	0.000	0.006
Secondary or higher education	0.877	0.025	329	435	1.380	0.029	0.827	0.927
Never married (in union)	0.402	0.039	329	435	1.430	0.096	0.325	0.480
Currently married (in union)	0.579	0.040	329	435	1.476	0.070	0.498	0.660
Had first sexual intercourse before age 18	0.676	0.041	277	364	1.439	0.060	0.594	0.757
Knows any contraceptive method	1.000	0.000	182	252	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	182	252	0.000	0.000	1.000	1.000
Want no more children	0.307	0.041	182	252	1.191	0.133	0.226	0.389
Want to delay birth at least 2 years	0.058	0.017	182	252	0.998	0.299	0.023	0.093
Ideal number of children	4.591	0.091	329	435	1.235	0.020	4.409	4.772
Had 2+ sexual partners in past 12 months	0.350	0.036	329	435	1.369	0.103	0.278	0.423
Condom use at last sex	0.453	0.056	127	152	1.256	0.123	0.341	0.565
Abstinence among young people (never had sex)	0.299	0.076	90	116	1.555	0.255	0.147	0.451
Had paid sex in past 12 months	0.117	0.019	329	435	1.076	0.164	0.078	0.155
Discriminatory attitudes towards people with HIV	0.553	0.030	327	433	1.097	0.055	0.492	0.613

Table B.42 Sampling errors: Ekiti sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.453	0.029	1,042	629	1.897	0.065	0.394	0.511
De facto population with access to an ITN	0.314	0.017	3,347	2,106	1.308	0.055	0.279	0.349
Household population that slept under an ITN last night	0.222	0.018	3,347	2,106	1.445	0.081	0.186	0.257
WOMEN								
Urban residence	0.813	0.042	774	475	2.990	0.052	0.729	0.898
Literacy	0.805	0.042	774	475	2.941	0.052	0.721	0.889
No education	0.051	0.017	774	475	2.086	0.324	0.018	0.084
Secondary or higher education	0.803	0.032	774	475	2.258	0.040	0.738	0.867
Never married (never in union)	0.260	0.030	774	475	1.869	0.114	0.201	0.319
Currently married (in union)	0.687	0.032	774	475	1.940	0.047	0.622	0.751
Married before age 18	0.249	0.025	628	392	1.475	0.102	0.198	0.300
Had sexual intercourse before age 18	0.374	0.022	628	392	1.138	0.059	0.330	0.418
Currently pregnant	0.065	0.008	774	475	0.950	0.130	0.048	0.082
Know any contraceptive method	0.989	0.007	505	326	1.543	0.007	0.974	1.003
Know a modern method	0.989	0.007	505	326	1.543	0.007	0.974	1.003
Currently using any method	0.385	0.034	505	326	1.578	0.089	0.316	0.453
Currently using a modern method	0.254	0.039	505	326	2.025	0.155	0.175	0.332
Currently using pill	0.034	0.009	505	326	1.177	0.280	0.015	0.053
Currently using male condoms	0.062	0.016	505	326	1.483	0.258	0.030	0.094
Currently using injectables	0.041	0.012	505	326	1.368	0.295	0.017	0.065
Currently using implants	0.055	0.010	505	326	1.026	0.190	0.034	0.076
Currently using female sterilisation	0.004	0.003	505	326	0.885	0.614	0.000	0.009
Currently using withdrawal	0.090	0.017	505	326	1.370	0.194	0.055	0.125
Currently using rhythm	0.033	0.010	505	326	1.316	0.317	0.012	0.054
Using public sector source	0.431	0.056	180	106	1.506	0.130	0.319	0.543
Want no more children	0.486	0.024	505	326	1.057	0.048	0.439	0.533
Want to delay next birth at least 2 years	0.238	0.020	505	326	1.030	0.082	0.199	0.277
Ideal number of children	4.291	0.162	770	472	3.117	0.038	3.968	4.615
Mothers protected against tetanus for last birth	0.882	0.033	353	226	1.937	0.038	0.815	0.949
Births with skilled attendant at delivery	0.790	0.024	522	329	1.169	0.031	0.741	0.838
Received 3+ doses of SP/Fansidar	0.240	0.031	195	128	1.028	0.129	0.178	0.302
Treated with ORS	0.327	0.056	40	28	0.780	0.172	0.214	0.440
Sought medical treatment for diarrhoea	0.413	0.073	40	28	0.960	0.178	0.266	0.559
Ever had vaccination card	0.941	0.035	100	68	1.524	0.037	0.872	1.011
Received BCG vaccination	0.948	0.027	100	68	1.277	0.029	0.894	1.003
Received birth dose HepB vaccination	0.913	0.034	100	68	1.263	0.038	0.844	0.982
Received DPT-HepB-Hib vaccination (3 doses)	0.930	0.037	100	68	1.504	0.040	0.855	1.004
Received birth dose polio 0 vaccination	0.921	0.031	100	68	1.183	0.034	0.859	0.983
Received polio vaccination (3 doses)	0.494	0.095	100	68	1.950	0.192	0.304	0.683
Received pneumococcal vaccination (3 doses)	0.918	0.039	100	68	1.465	0.042	0.840	0.996
Received measles 1 vaccination	0.864	0.045	100	68	1.356	0.052	0.774	0.954
Received all basic vaccinations (12-23 months)	0.411	0.082	100	68	1.722	0.200	0.246	0.575
Received all age-appropriate vaccinations (12-23 months)	0.383	0.078	100	68	1.659	0.205	0.226	0.540
Received measles 2 vaccination	0.114	0.050	88	52	1.401	0.433	0.015	0.214
Received all age-appropriate vaccinations (24-35 months)	0.035	0.021	88	52	1.010	0.588	0.000	0.076
Height-for-age (-2SD)	0.221	0.033	287	166	1.264	0.148	0.156	0.287
Weight-for-height (-2SD)	0.033	0.010	287	166	0.919	0.295	0.013	0.052
Weight-for-age (-2SD)	0.111	0.025	288	166	1.201	0.224	0.061	0.160
Body mass index (BMI) <18.5	0.072	0.019	304	176	1.235	0.262	0.034	0.110
Body mass index (BMI) ≥25	0.317	0.026	304	176	0.943	0.082	0.265	0.369
Prevalence of anaemia (children 6-59 months)	0.719	0.040	254	145	1.400	0.055	0.640	0.798
Prevalence of malaria (based on microscopy test)	0.323	0.048	186	108	1.277	0.147	0.228	0.418
Prevalence of malaria (based on rapid test)	0.463	0.050	254	145	1.384	0.108	0.363	0.564
Prevalence of anaemia (women 15-49)	0.505	0.036	336	198	1.280	0.071	0.434	0.577
Had 2+ sexual partners in past 12 months	0.016	0.005	774	475	1.183	0.329	0.006	0.027
Condom use at last sex	0.196	0.109	15	8	1.024	0.555	0.000	0.413
Abstinence among young people (never had sex)	0.631	0.038	186	104	1.066	0.060	0.555	0.706
Discriminatory attitudes towards people with HIV	0.878	0.015	757	464	1.232	0.017	0.849	0.907
Prevalence of sickle cell disease among children 6-59 months	0.018	0.009	254	145	0.916	0.514	0.000	0.036
Total fertility rate (last 3 years)	4.640	0.380	2,180	1,348	1.270	0.082	3.881	5.399
Neonatal mortality (last 0-9 years)	41.962	7.437	987	637	1.064	0.177	27.088	56.836
Postneonatal mortality (last 0-9 years)	15.390	5.100	983	630	1.193	0.331	5.189	25.591
Infant mortality (last 0-9 years)	57.352	10.439	988	637	1.275	0.182	36.474	78.230
Child mortality (last 0-9 years)	39.755	8.769	993	644	1.187	0.221	22.218	57.293
Under-5 mortality (last 0-9 years)	94.827	6.651	992	641	0.737	0.070	81.526	108.128
MEN								
Urban residence	0.808	0.050	226	139	1.906	0.062	0.708	0.909
Literacy	0.893	0.026	226	139	1.262	0.029	0.841	0.945
No education	0.015	0.008	226	139	1.020	0.560	0.000	0.031
Secondary or higher education	0.889	0.031	226	139	1.460	0.035	0.827	0.950
Never married (in union)	0.310	0.039	226	139	1.277	0.127	0.231	0.389
Currently married (in union)	0.688	0.039	226	139	1.274	0.057	0.609	0.767
Had first sexual intercourse before age 18	0.297	0.028	188	116	0.834	0.094	0.241	0.352
Knows any contraceptive method	1.000	0.000	151	95	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	0.974	0.022	151	95	1.688	0.023	0.930	1.018
Want no more children	0.456	0.039	151	95	0.963	0.086	0.377	0.534
Want to delay birth at least 2 years	0.165	0.025	151	95	0.816	0.150	0.116	0.214
Ideal number of children	4.346	0.169	223	135	0.980	0.039	4.008	4.684
Had 2+ sexual partners in past 12 months	0.117	0.015	226	139	0.720	0.131	0.087	0.148
Condom use at last sex	0.398	0.112	26	16	1.134	0.280	0.175	0.622
Abstinence among young people (never had sex)	0.589	0.074	59	34	1.140	0.125	0.441	0.736
Had paid sex in past 12 months	0.039	0.016	226	139	1.231	0.408	0.007	0.071
Discriminatory attitudes towards people with HIV	0.604	0.054	194	118	1.520	0.089	0.497	0.711

Table B.43 Sampling errors: Lagos sample, Nigeria DHS 2018

Variable	Value	Standard error	Number of cases Un-weighted	Number of cases Weighted	Design effect	Relative error	Confidence limits Lower	Confidence limits Upper
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.293	0.021	1,526	2,971	1.782	0.071	0.251	0.335
De facto population with access to an ITN	0.209	0.016	5,691	11,162	1.672	0.075	0.178	0.240
Household population that slept under an ITN last night	0.128	0.017	5,691	11,162	1.934	0.132	0.094	0.162
WOMEN								
Urban residence	0.977	0.005	1,445	2,891	1.391	0.006	0.966	0.988
Literacy	0.853	0.029	1,445	2,891	3.119	0.034	0.795	0.911
No education	0.054	0.013	1,445	2,891	2.161	0.239	0.028	0.079
Secondary or higher education	0.838	0.036	1,445	2,891	3.652	0.042	0.767	0.909
Never married (never in union)	0.377	0.021	1,445	2,891	1.616	0.055	0.336	0.418
Currently married (in union)	0.569	0.016	1,445	2,891	1.201	0.028	0.538	0.600
Married before age 18	0.089	0.010	1,210	2,347	1.205	0.111	0.069	0.108
Had sexual intercourse before age 18	0.280	0.032	1,210	2,347	2.506	0.116	0.215	0.345
Currently pregnant	0.057	0.007	1,445	2,891	1.203	0.128	0.043	0.072
Know any contraceptive method	0.999	0.001	836	1,645	0.948	0.001	0.997	1.001
Know a modern method	0.998	0.001	836	1,645	0.881	0.001	0.996	1.001
Currently using any method	0.494	0.024	836	1,645	1.360	0.048	0.447	0.541
Currently using a modern method	0.291	0.014	836	1,645	0.860	0.046	0.264	0.318
Currently using pill	0.049	0.012	836	1,645	1.611	0.246	0.025	0.073
Currently using male condoms	0.069	0.014	836	1,645	1.583	0.202	0.041	0.096
Currently using injectables	0.031	0.008	836	1,645	1.258	0.244	0.016	0.046
Currently using implants	0.045	0.009	836	1,645	1.251	0.199	0.027	0.063
Currently using female sterilisation	0.000	0.000	836	1,645	0.000	0.000	0.000	0.000
Currently using withdrawal	0.122	0.013	836	1,645	1.129	0.105	0.097	0.148
Currently using rhythm	0.038	0.006	836	1,645	0.932	0.162	0.026	0.051
Using public sector source	0.335	0.043	251	479	1.425	0.127	0.250	0.420
Want no more children	0.340	0.014	836	1,645	0.853	0.041	0.312	0.368
Want to delay next birth at least 2 years	0.196	0.016	836	1,645	1.131	0.079	0.165	0.227
Ideal number of children	3.860	0.041	1,334	2,612	1.281	0.011	3.779	3.942
Mothers protected against tetanus for last birth	0.841	0.018	598	1,142	1.198	0.022	0.804	0.877
Births with skilled attendant at delivery	0.801	0.031	807	1,545	1.864	0.039	0.738	0.864
Received 3+ doses of SP/Fansidar	0.200	0.026	295	599	1.141	0.131	0.148	0.252
Treated with ORS	0.652	0.083	37	57	0.882	0.127	0.486	0.817
Sought medical treatment for diarrhoea	0.694	0.078	37	57	0.853	0.113	0.537	0.850
Ever had vaccination card	0.983	0.010	155	329	1.007	0.010	0.963	1.003
Received BCG vaccination	0.973	0.015	155	329	1.157	0.015	0.944	1.002
Received birth dose HepB vaccination	0.920	0.024	155	329	1.161	0.027	0.871	0.969
Received DPT-HepB-Hib vaccination (3 doses)	0.908	0.028	155	329	1.245	0.031	0.852	0.964
Received birth dose polio 0 vaccination	0.951	0.019	155	329	1.120	0.020	0.913	0.988
Received polio vaccination (3 doses)	0.673	0.043	155	329	1.185	0.064	0.586	0.759
Received pneumococcal vaccination (3 doses)	0.900	0.029	155	329	1.246	0.032	0.842	0.958
Received measles 1 vaccination	0.895	0.029	155	329	1.233	0.033	0.836	0.954
Received all basic vaccinations (12-23 months)	0.624	0.040	155	329	1.050	0.063	0.545	0.703
Received all age-appropriate vaccinations (12-23 months)	0.611	0.039	155	329	1.031	0.064	0.533	0.690
Received measles 2 vaccination	0.228	0.047	161	283	1.311	0.206	0.135	0.322
Received all age-appropriate vaccinations (24-35 months)	0.106	0.027	161	283	1.004	0.255	0.052	0.160
Height-for-age (-2SD)	0.172	0.032	355	684	1.550	0.189	0.107	0.237
Weight-for-height (-2SD)	0.064	0.017	354	682	1.327	0.269	0.030	0.099
Weight-for-age (-2SD)	0.133	0.032	355	684	1.786	0.244	0.068	0.197
Body mass index (BMI) <18.5	0.065	0.012	467	903	1.011	0.181	0.042	0.089
Body mass index (BMI) ≥25	0.494	0.026	467	903	1.098	0.052	0.442	0.545
Prevalence of anaemia (children 6-59 months)	0.518	0.053	320	613	1.823	0.101	0.413	0.623
Prevalence of malaria (based on microscopy test)	0.018	0.008	252	485	1.006	0.476	0.001	0.034
Prevalence of malaria (based on rapid test)	0.034	0.011	321	614	1.048	0.312	0.013	0.056
Prevalence of anaemia (women 15-49)	0.495	0.028	513	1,002	1.251	0.056	0.440	0.551
Had 2+ sexual partners in past 12 months	0.026	0.005	1,445	2,891	1.117	0.182	0.016	0.035
Condom use at last sex	0.215	0.098	31	74	1.296	0.457	0.019	0.412
Abstinence among young people (never had sex)	0.690	0.018	348	783	0.738	0.027	0.653	0.726
Discriminatory attitudes towards people with HIV	0.669	0.032	1,403	2,782	2.512	0.047	0.606	0.732
Prevalence of sickle cell disease among children 6-59 months	0.027	0.021	320	613	2.260	0.771	0.000	0.068
Total fertility rate (last 3 years)	3.401	0.195	4,103	8,095	1.216	0.057	3.011	3.790
Neonatal mortality (last 0-9 years)	34.872	4.225	1,546	2,977	0.834	0.121	26.422	43.322
Postneonatal mortality (last 0-9 years)	12.483	4.228	1,549	2,999	1.450	0.339	4.026	20.940
Infant mortality (last 0-9 years)	47.355	5.225	1,548	2,981	0.909	0.110	36.905	57.805
Child mortality (last 0-9 years)	12.619	4.589	1,537	2,952	1.448	0.364	3.440	21.797
Under-5 mortality (last 0-9 years)	59.376	6.591	1,549	2,982	0.954	0.111	46.193	72.559
MEN								
Urban residence	0.973	0.006	471	845	0.758	0.006	0.961	0.984
Literacy	0.930	0.026	471	845	2.240	0.028	0.877	0.983
No education	0.015	0.006	471	845	1.018	0.382	0.004	0.026
Secondary or higher education	0.883	0.024	471	845	1.601	0.027	0.835	0.930
Never married (in union)	0.326	0.029	471	845	1.341	0.089	0.268	0.384
Currently married (in union)	0.666	0.029	471	845	1.317	0.043	0.608	0.723
Had first sexual intercourse before age 18	0.138	0.018	403	748	1.071	0.133	0.101	0.175
Knows any contraceptive method	0.998	0.002	297	562	0.787	0.002	0.994	1.002
Knows any modern contraceptive method	0.998	0.002	297	562	0.787	0.002	0.994	1.002
Want no more children	0.301	0.031	297	562	1.176	0.104	0.238	0.364
Want to delay birth at least 2 years	0.180	0.024	297	562	1.086	0.135	0.131	0.228
Ideal number of children	3.722	0.064	470	843	1.147	0.017	3.595	3.850
Had 2+ sexual partners in past 12 months	0.059	0.013	471	845	1.174	0.217	0.033	0.084
Condom use at last sex	0.411	0.090	34	50	1.047	0.219	0.231	0.591
Abstinence among young people (never had sex)	0.644	0.075	103	164	1.579	0.117	0.493	0.795
Had paid sex in past 12 months	0.012	0.006	471	845	1.187	0.505	0.000	0.023
Discriminatory attitudes towards people with HIV	0.653	0.025	462	831	1.116	0.038	0.604	0.703

Table B.44 Sampling errors: Ogun sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.479	0.038	1,079	1,251	2.472	0.079	0.403	0.554
De facto population with access to an ITN	0.442	0.032	3,390	3,980	2.126	0.072	0.378	0.505
Household population that slept under an ITN last night	0.359	0.033	3,390	3,980	2.195	0.092	0.293	0.426
WOMEN								
Urban residence	0.500	0.041	798	927	2.336	0.083	0.417	0.583
Literacy	0.867	0.030	798	927	2.515	0.035	0.806	0.927
No education	0.103	0.024	798	927	2.180	0.228	0.056	0.151
Secondary or higher education	0.677	0.039	798	927	2.367	0.058	0.599	0.756
Never married (never in union)	0.251	0.027	798	927	1.767	0.108	0.196	0.305
Currently married (in union)	0.674	0.026	798	927	1.593	0.039	0.621	0.727
Married before age 18	0.168	0.020	698	809	1.422	0.120	0.128	0.209
Had sexual intercourse before age 18	0.337	0.026	698	809	1.478	0.079	0.284	0.390
Currently pregnant	0.063	0.008	798	927	0.964	0.132	0.046	0.079
Know any contraceptive method	0.993	0.003	534	624	0.918	0.003	0.986	0.999
Know a modern method	0.991	0.004	534	624	0.926	0.004	0.984	0.999
Currently using any method	0.321	0.031	534	624	1.542	0.097	0.259	0.384
Currently using a modern method	0.166	0.022	534	624	1.370	0.133	0.122	0.210
Currently using pill	0.016	0.006	534	624	1.076	0.363	0.004	0.028
Currently using male condoms	0.038	0.009	534	624	1.117	0.243	0.020	0.057
Currently using injectables	0.073	0.013	534	624	1.162	0.179	0.047	0.100
Currently using implants	0.023	0.006	534	624	0.922	0.262	0.011	0.035
Currently using female sterilisation	0.005	0.004	534	624	1.171	0.712	0.000	0.012
Currently using withdrawal	0.133	0.021	534	624	1.459	0.162	0.090	0.176
Currently using rhythm	0.002	0.002	534	624	1.078	0.984	0.000	0.007
Using public sector source	0.406	0.055	119	136	1.207	0.135	0.297	0.515
Want no more children	0.353	0.025	534	624	1.188	0.070	0.303	0.402
Want to delay next birth at least 2 years	0.181	0.023	534	624	1.389	0.128	0.134	0.227
Ideal number of children	3.970	0.074	797	925	1.851	0.019	3.822	4.117
Mothers protected against tetanus for last birth	0.832	0.030	370	423	1.555	0.037	0.771	0.893
Births with skilled attendant at delivery	0.770	0.050	508	586	2.121	0.064	0.671	0.869
Received 3+ doses of SP/Fansidar	0.212	0.032	197	220	1.066	0.149	0.149	0.276
Treated with ORS	0.807	0.195	4	5	1.026	0.241	0.417	1.197
Sought medical treatment for diarrhoea	1.000	0.000	4	5	0.000	0.000	1.000	1.000
Ever had vaccination card	0.703	0.057	105	121	1.250	0.081	0.589	0.817
Received BCG vaccination	0.741	0.043	105	121	0.992	0.058	0.655	0.828
Received birth dose HepB vaccination	0.683	0.052	105	121	1.093	0.076	0.580	0.787
Received DPT-HepB-Hib vaccination (3 doses)	0.503	0.059	105	121	1.157	0.117	0.385	0.621
Received birth dose polio 0 vaccination	0.676	0.048	105	121	1.000	0.071	0.580	0.771
Received polio vaccination (3 doses)	0.325	0.057	105	121	1.184	0.175	0.211	0.439
Received pneumococcal vaccination (3 doses)	0.488	0.054	105	121	1.061	0.111	0.380	0.596
Received measles 1 vaccination	0.519	0.067	105	121	1.321	0.129	0.385	0.653
Received all basic vaccinations (12-23 months)	0.231	0.055	105	121	1.262	0.236	0.122	0.340
Received all age-appropriate vaccinations (12-23 months)	0.215	0.051	105	121	1.210	0.238	0.113	0.317
Received measles 2 vaccination	0.130	0.044	91	109	1.281	0.342	0.041	0.219
Received all age-appropriate vaccinations (24-35 months)	0.024	0.013	91	109	0.844	0.554	0.000	0.051
Height-for-age (-2SD)	0.266	0.033	309	357	1.222	0.125	0.199	0.332
Weight-for-height (-2SD)	0.057	0.014	309	357	0.978	0.237	0.030	0.084
Weight-for-age (-2SD)	0.163	0.024	309	357	0.970	0.146	0.115	0.210
Body mass index (BMI) <18.5	0.086	0.017	293	333	1.004	0.193	0.053	0.120
Body mass index (BMI) ≥25	0.357	0.033	293	333	1.182	0.094	0.290	0.424
Prevalence of anaemia (children 6-59 months)	0.595	0.041	280	330	1.325	0.068	0.514	0.676
Prevalence of malaria (based on microscopy test)	0.216	0.038	202	236	1.208	0.175	0.140	0.292
Prevalence of malaria (based on rapid test)	0.322	0.048	278	327	1.499	0.151	0.225	0.419
Prevalence of anaemia (women 15-49)	0.490	0.028	320	363	0.976	0.056	0.435	0.545
Had 2+ sexual partners in past 12 months	0.009	0.005	798	927	1.444	0.535	0.000	0.019
Condom use at last sex	0.566	0.138	6	8	0.659	0.244	0.289	0.843
Abstinence among young people (never had sex)	0.587	0.050	154	182	1.245	0.085	0.487	0.686
Discriminatory attitudes towards people with HIV	0.932	0.014	783	908	1.569	0.015	0.904	0.960
Prevalence of sickle cell disease among children 6-59 months	0.017	0.009	280	330	0.977	0.535	0.000	0.035
Total fertility rate (last 3 years)	3.801	0.302	2,281	2,640	1.481	0.079	3.197	4.404
Neonatal mortality (last 0-9 years)	14.731	5.975	1,014	1,174	1.238	0.406	2.782	26.681
Postneonatal mortality (last 0-9 years)	4.410	2.105	1,012	1,174	1.019	0.477	0.201	8.619
Infant mortality (last 0-9 years)	19.141	6.143	1,014	1,174	1.168	0.321	6.856	31.426
Child mortality (last 0-9 years)	11.040	3.685	999	1,166	0.935	0.334	3.669	18.411
Under-5 mortality (last 0-9 years)	29.970	6.556	1,015	1,175	1.025	0.219	16.857	43.082
MEN								
Urban residence	0.477	0.048	261	309	1.531	0.100	0.382	0.572
Literacy	0.847	0.027	261	309	1.209	0.032	0.793	0.901
No education	0.054	0.015	261	309	1.050	0.271	0.025	0.084
Secondary or higher education	0.748	0.047	261	309	1.738	0.063	0.654	0.842
Never married (in union)	0.223	0.024	261	309	0.916	0.106	0.176	0.270
Currently married (in union)	0.765	0.024	261	309	0.902	0.031	0.718	0.813
Had first sexual intercourse before age 18	0.144	0.029	228	265	1.229	0.199	0.087	0.201
Knows any contraceptive method	1.000	0.000	199	236	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	199	236	0.000	0.000	1.000	1.000
Want no more children	0.435	0.040	199	236	1.141	0.092	0.355	0.516
Want to delay birth at least 2 years	0.222	0.027	199	236	0.924	0.123	0.168	0.277
Ideal number of children	4.828	0.171	261	309	1.208	0.035	4.487	5.169
Had 2+ sexual partners in past 12 months	0.089	0.018	261	309	1.025	0.203	0.053	0.125
Condom use at last sex	0.311	0.122	20	28	1.141	0.392	0.067	0.555
Abstinence among young people (never had sex)	0.889	0.058	42	53	1.182	0.065	0.773	1.006
Had paid sex in past 12 months	0.011	0.006	261	309	0.976	0.587	0.000	0.023
Discriminatory attitudes towards people with HIV	0.794	0.036	261	309	1.434	0.045	0.722	0.866

Table B.45 Sampling errors: Ondo sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.798	0.013	1,070	844	1.042	0.016	0.773	0.824
De facto population with access to an ITN	0.685	0.017	3,774	2,978	1.319	0.025	0.650	0.719
Household population that slept under an ITN last night	0.531	0.030	3,774	2,978	1.867	0.056	0.472	0.591
WOMEN								
Urban residence	0.566	0.046	863	683	2.718	0.081	0.474	0.658
Literacy	0.724	0.024	863	683	1.561	0.033	0.677	0.772
No education	0.079	0.013	863	683	1.367	0.159	0.054	0.104
Secondary or higher education	0.738	0.023	863	683	1.550	0.031	0.691	0.784
Never married (never in union)	0.315	0.023	863	683	1.455	0.073	0.269	0.361
Currently married (in union)	0.616	0.025	863	683	1.481	0.040	0.567	0.665
Married before age 18	0.204	0.025	696	554	1.662	0.125	0.153	0.255
Had sexual intercourse before age 18	0.457	0.028	696	554	1.465	0.061	0.402	0.512
Currently pregnant	0.077	0.010	863	683	1.102	0.130	0.057	0.097
Know any contraceptive method	0.989	0.005	552	421	1.205	0.005	0.978	1.000
Know a modern method	0.989	0.005	552	421	1.205	0.005	0.978	1.000
Currently using any method	0.201	0.028	552	421	1.626	0.138	0.146	0.257
Currently using a modern method	0.177	0.026	552	421	1.584	0.145	0.126	0.229
Currently using pill	0.015	0.006	552	421	1.177	0.410	0.003	0.027
Currently using male condoms	0.014	0.011	552	421	2.172	0.766	0.000	0.037
Currently using injectables	0.037	0.009	552	421	1.094	0.239	0.019	0.054
Currently using implants	0.078	0.013	552	421	1.160	0.170	0.052	0.105
Currently using female sterilisation	0.004	0.003	552	421	1.005	0.718	0.000	0.009
Currently using withdrawal	0.011	0.004	552	421	1.001	0.408	0.002	0.020
Currently using rhythm	0.010	0.006	552	421	1.401	0.599	0.000	0.022
Using public sector source	0.720	0.055	109	86	1.278	0.077	0.609	0.831
Want no more children	0.362	0.030	552	421	1.444	0.082	0.303	0.421
Want to delay next birth at least 2 years	0.145	0.018	552	421	1.177	0.122	0.110	0.180
Ideal number of children	4.544	0.111	774	620	1.720	0.024	4.322	4.767
Mothers protected against tetanus for last birth	0.820	0.030	402	312	1.591	0.037	0.760	0.881
Births with skilled attendant at delivery	0.828	0.036	542	423	1.833	0.043	0.756	0.900
Received 3+ doses of SP/Fansidar	0.267	0.033	206	157	1.057	0.123	0.201	0.332
Treated with ORS	0.343	0.074	42	27	0.910	0.216	0.195	0.491
Sought medical treatment for diarrhoea	0.423	0.098	42	27	1.143	0.231	0.227	0.619
Ever had vaccination card	0.854	0.051	94	75	1.325	0.060	0.752	0.956
Received BCG vaccination	0.837	0.046	94	75	1.143	0.055	0.745	0.928
Received birth dose HepB vaccination	0.744	0.066	94	75	1.440	0.089	0.611	0.877
Received DPT-HepB-Hib vaccination (3 doses)	0.770	0.057	94	75	1.281	0.074	0.656	0.885
Received birth dose polio 0 vaccination	0.768	0.066	94	75	1.470	0.086	0.636	0.900
Received polio vaccination (3 doses)	0.535	0.060	94	75	1.154	0.113	0.414	0.655
Received pneumococcal vaccination (3 doses)	0.704	0.058	94	75	1.214	0.083	0.588	0.821
Received measles 1 vaccination	0.735	0.057	94	75	1.216	0.077	0.622	0.849
Received all basic vaccinations (12-23 months)	0.505	0.061	94	75	1.159	0.120	0.384	0.626
Received all age-appropriate vaccinations (12-23 months)	0.397	0.063	94	75	1.222	0.158	0.272	0.523
Received measles 2 vaccination	0.186	0.045	96	77	1.158	0.243	0.095	0.276
Received all age-appropriate vaccinations (24-35 months)	0.111	0.034	96	77	1.073	0.304	0.044	0.179
Height-for-age (-2SD)	0.204	0.029	235	177	1.017	0.141	0.147	0.262
Weight-for-height (-2SD)	0.033	0.015	234	176	1.281	0.463	0.002	0.063
Weight-for-age (-2SD)	0.119	0.023	235	177	1.016	0.194	0.073	0.165
Body mass index (BMI) <18.5	0.077	0.022	290	225	1.378	0.282	0.034	0.121
Body mass index (BMI) ≥25	0.280	0.035	290	225	1.329	0.126	0.209	0.351
Prevalence of anaemia (children 6-59 months)	0.642	0.035	210	159	1.021	0.055	0.571	0.713
Prevalence of malaria (based on microscopy test)	0.335	0.048	156	117	1.272	0.144	0.239	0.431
Prevalence of malaria (based on rapid test)	0.416	0.063	209	158	1.676	0.152	0.290	0.542
Prevalence of anaemia (women 15-49)	0.552	0.032	331	253	1.161	0.059	0.487	0.616
Had 2+ sexual partners in past 12 months	0.012	0.004	863	683	1.088	0.331	0.004	0.021
Condom use at last sex	0.290	0.237	10	8	1.464	0.818	0.000	0.763
Abstinence among young people (never had sex)	0.548	0.028	216	178	0.832	0.051	0.492	0.605
Discriminatory attitudes towards people with HIV	0.760	0.038	837	666	2.580	0.050	0.684	0.837
Prevalence of sickle cell disease among children 6-59 months	0.018	0.010	210	159	1.031	0.540	0.000	0.037
Total fertility rate (last 3 years)	4.103	0.303	2,431	1,931	1.287	0.074	3.497	4.709
Neonatal mortality (last 0-9 years)	30.370	5.984	1,068	827	0.973	0.197	18.401	42.339
Postneonatal mortality (last 0-9 years)	18.738	8.758	1,069	831	1.394	0.467	1.222	36.254
Infant mortality (last 0-9 years)	49.108	8.424	1,069	828	0.969	0.172	32.260	65.956
Child mortality (last 0-9 years)	31.581	9.176	1,047	821	1.625	0.291	13.229	49.934
Under-5 mortality (last 0-9 years)	79.139	10.265	1,077	835	1.014	0.130	58.608	99.669
MEN								
Urban residence	0.498	0.052	320	247	1.843	0.104	0.395	0.602
Literacy	0.787	0.033	320	247	1.459	0.043	0.720	0.854
No education	0.036	0.013	320	247	1.272	0.371	0.009	0.062
Secondary or higher education	0.818	0.034	320	247	1.565	0.041	0.750	0.886
Never married (in union)	0.473	0.034	320	247	1.227	0.073	0.404	0.541
Currently married (in union)	0.509	0.031	320	247	1.104	0.061	0.447	0.570
Had first sexual intercourse before age 18	0.379	0.029	243	191	0.942	0.078	0.320	0.438
Knows any contraceptive method	1.000	0.000	165	126	0.000	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	165	126	0.000	0.000	1.000	1.000
Want no more children	0.335	0.030	165	126	0.806	0.089	0.276	0.394
Want to delay birth at least 2 years	0.422	0.044	165	126	1.134	0.104	0.335	0.510
Ideal number of children	5.098	0.214	319	247	1.244	0.042	4.670	5.526
Had 2+ sexual partners in past 12 months	0.185	0.036	320	247	1.638	0.193	0.114	0.256
Condom use at last sex	0.411	0.062	63	46	0.997	0.151	0.287	0.536
Abstinence among young people (never had sex)	0.466	0.055	112	82	1.151	0.117	0.357	0.575
Had paid sex in past 12 months	0.044	0.013	320	247	1.142	0.299	0.018	0.070
Discriminatory attitudes towards people with HIV	0.815	0.042	313	240	1.884	0.051	0.732	0.898

Table B.46 Sampling errors: Osun sample, Nigeria DHS 2018

Variable	Value	Standard error	Number of cases Un-weighted	Number of cases Weighted	Design effect	Relative error	Confidence limits Lower	Confidence limits Upper
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.421	0.036	1,076	1,219	2.391	0.086	0.349	0.494
De facto population with access to an ITN	0.327	0.025	3,501	4,020	1.964	0.077	0.277	0.377
Household population that slept under an ITN last night	0.268	0.018	3,501	4,020	1.299	0.066	0.232	0.303
WOMEN								
Urban residence	0.762	0.029	832	938	1.960	0.038	0.704	0.820
Literacy	0.799	0.027	832	938	1.955	0.034	0.745	0.854
No education	0.064	0.012	832	938	1.375	0.183	0.040	0.087
Secondary or higher education	0.766	0.031	832	938	2.121	0.041	0.704	0.829
Never married (never in union)	0.301	0.020	832	938	1.274	0.067	0.260	0.341
Currently married (in union)	0.667	0.020	832	938	1.231	0.030	0.626	0.707
Married before age 18	0.164	0.021	681	766	1.487	0.129	0.122	0.206
Had sexual intercourse before age 18	0.363	0.025	681	766	1.381	0.070	0.312	0.414
Currently pregnant	0.054	0.008	832	938	1.062	0.154	0.037	0.071
Know any contraceptive method	0.989	0.005	558	625	1.080	0.005	0.979	0.998
Know a modern method	0.989	0.005	558	625	1.080	0.005	0.979	0.998
Currently using any method	0.294	0.019	558	625	0.991	0.065	0.256	0.333
Currently using a modern method	0.270	0.017	558	625	0.906	0.063	0.236	0.304
Currently using pill	0.016	0.006	558	625	1.076	0.352	0.005	0.028
Currently using male condoms	0.038	0.008	558	625	1.017	0.216	0.022	0.055
Currently using injectables	0.071	0.014	558	625	1.323	0.203	0.042	0.100
Currently using implants	0.067	0.013	558	625	1.210	0.191	0.042	0.093
Currently using female sterilisation	0.006	0.003	558	625	1.072	0.588	0.000	0.013
Currently using withdrawal	0.018	0.006	558	625	1.033	0.326	0.006	0.029
Currently using rhythm	0.006	0.004	558	625	1.058	0.558	0.000	0.014
Using public sector source	0.623	0.047	151	180	1.176	0.075	0.530	0.716
Want no more children	0.385	0.024	558	625	1.140	0.061	0.338	0.432
Want to delay next birth at least 2 years	0.326	0.024	558	625	1.233	0.075	0.277	0.375
Ideal number of children	3.932	0.063	825	931	1.351	0.016	3.805	4.058
Mothers protected against tetanus for last birth	0.809	0.026	372	409	1.272	0.032	0.757	0.862
Births with skilled attendant at delivery	0.947	0.012	498	549	1.063	0.013	0.923	0.972
Received 3+ doses of SP/Fansidar	0.117	0.030	180	198	1.227	0.254	0.058	0.177
Treated with ORS	0.472	0.071	41	46	0.915	0.152	0.329	0.615
Sought medical treatment for diarrhoea	0.359	0.086	41	46	1.082	0.239	0.187	0.531
Ever had vaccination card	0.853	0.037	92	102	0.990	0.043	0.780	0.926
Received BCG vaccination	0.943	0.027	92	102	1.130	0.029	0.889	0.998
Received birth dose HepB vaccination	0.840	0.035	92	102	0.908	0.041	0.771	0.910
Received DPT-HepB-Hib vaccination (3 doses)	0.835	0.039	92	102	0.992	0.046	0.758	0.912
Received birth dose polio 0 vaccination	0.704	0.052	92	102	1.085	0.074	0.601	0.808
Received polio vaccination (3 doses)	0.384	0.047	92	102	0.923	0.122	0.290	0.478
Received pneumococcal vaccination (3 doses)	0.779	0.037	92	102	0.847	0.047	0.705	0.852
Received measles 1 vaccination	0.766	0.044	92	102	0.985	0.057	0.679	0.853
Received all basic vaccinations (12-23 months)	0.338	0.045	92	102	0.915	0.134	0.247	0.429
Received all age-appropriate vaccinations (12-23 months)	0.172	0.041	92	102	1.036	0.238	0.090	0.254
Received measles 2 vaccination	0.281	0.044	102	116	0.995	0.159	0.192	0.369
Received all age-appropriate vaccinations (24-35 months)	0.000	0.000	102	116	0.000	0.000	0.000	0.000
Height-for-age (-2SD)	0.237	0.035	278	314	1.223	0.148	0.167	0.307
Weight-for-height (-2SD)	0.045	0.013	278	315	0.970	0.288	0.019	0.071
Weight-for-age (-2SD)	0.144	0.026	279	315	1.177	0.179	0.092	0.195
Body mass index (BMI) <18.5	0.095	0.021	296	335	1.214	0.217	0.054	0.137
Body mass index (BMI) ≥25	0.280	0.032	296	335	1.224	0.114	0.216	0.344
Prevalence of anaemia (children 6-59 months)	0.576	0.047	252	286	1.456	0.081	0.483	0.669
Prevalence of malaria (based on microscopy test)	0.277	0.036	178	201	1.034	0.130	0.206	0.349
Prevalence of malaria (based on rapid test)	0.549	0.043	251	285	1.288	0.079	0.463	0.636
Prevalence of anaemia (women 15-49)	0.572	0.027	319	358	0.954	0.046	0.519	0.625
Had 2+ sexual partners in past 12 months	0.015	0.005	832	938	1.233	0.344	0.005	0.026
Condom use at last sex	0.000	0.000	11	14	0.000	0.000	0.000	0.000
Abstinence among young people (never had sex)	0.654	0.034	212	244	1.025	0.051	0.587	0.721
Discriminatory attitudes towards people with HIV	0.789	0.024	722	820	1.607	0.031	0.740	0.838
Prevalence of sickle cell disease among children 6-59 months	0.026	0.010	252	286	1.028	0.397	0.005	0.046
Total fertility rate (last 3 years)	3.813	0.302	2,367	2,668	1.543	0.079	3.208	4.418
Neonatal mortality (last 0-9 years)	32.030	5.727	1,008	1,124	0.920	0.179	20.577	43.484
Postneonatal mortality (last 0-9 years)	14.925	3.782	1,008	1,125	0.922	0.253	7.361	22.490
Infant mortality (last 0-9 years)	46.956	6.607	1,008	1,124	0.933	0.141	33.743	60.169
Child mortality (last 0-9 years)	24.492	5.971	1,020	1,140	1.026	0.244	12.550	36.433
Under-5 mortality (last 0-9 years)	70.298	8.192	1,014	1,130	0.915	0.117	53.913	86.682
MEN								
Urban residence	0.765	0.031	242	269	1.135	0.040	0.703	0.827
Literacy	0.890	0.025	242	269	1.216	0.028	0.840	0.939
No education	0.041	0.016	242	269	1.225	0.382	0.010	0.072
Secondary or higher education	0.878	0.023	242	269	1.069	0.026	0.833	0.923
Never married (in union)	0.283	0.036	242	269	1.235	0.127	0.211	0.355
Currently married (in union)	0.700	0.037	242	269	1.265	0.053	0.626	0.775
Had first sexual intercourse before age 18	0.230	0.042	206	231	1.440	0.185	0.145	0.314
Knows any contraceptive method	0.975	0.012	166	188	1.029	0.013	0.950	1.000
Knows any modern contraceptive method	0.957	0.020	166	188	1.247	0.021	0.917	0.996
Want no more children	0.325	0.033	166	188	0.895	0.100	0.260	0.390
Want to delay birth at least 2 years	0.166	0.026	166	188	0.893	0.156	0.114	0.218
Ideal number of children	3.790	0.089	223	248	1.125	0.023	3.613	3.968
Had 2+ sexual partners in past 12 months	0.092	0.019	242	269	1.043	0.212	0.053	0.130
Condom use at last sex	0.357	0.084	22	25	0.807	0.234	0.190	0.525
Abstinence among young people (never had sex)	0.652	0.062	57	60	0.981	0.096	0.528	0.777
Had paid sex in past 12 months	0.012	0.007	242	269	1.004	0.582	0.000	0.026
Discriminatory attitudes towards people with HIV	0.888	0.035	226	253	1.666	0.040	0.818	0.959

Table B.47 Sampling errors: Oyo sample, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits Lower (R-2SE)	Confidence limits Upper (R+2SE)
HOUSEHOLDS AND POPULATION								
Ownership of at least one ITN	0.514	0.025	1,253	1,801	1.782	0.049	0.464	0.565
De facto population with access to an ITN	0.390	0.023	4,140	6,173	1.776	0.060	0.344	0.437
Household population that slept under an ITN last night	0.389	0.020	4,140	6,173	1.454	0.052	0.348	0.429
WOMEN								
Urban residence	0.818	0.029	918	1,352	2.298	0.036	0.760	0.877
Literacy	0.711	0.024	918	1,352	1.592	0.034	0.663	0.758
No education	0.138	0.022	918	1,352	1.943	0.161	0.094	0.182
Secondary or higher education	0.721	0.027	918	1,352	1.819	0.037	0.668	0.775
Never married (never in union)	0.221	0.018	918	1,352	1.324	0.082	0.184	0.257
Currently married (in union)	0.757	0.021	918	1,352	1.469	0.027	0.716	0.799
Married before age 18	0.224	0.022	800	1,184	1.467	0.097	0.180	0.267
Had sexual intercourse before age 18	0.440	0.018	800	1,184	1.008	0.040	0.405	0.476
Currently pregnant	0.070	0.010	918	1,352	1.140	0.137	0.051	0.089
Know any contraceptive method	0.978	0.008	683	1,024	1.396	0.008	0.962	0.994
Know a modern method	0.972	0.009	683	1,024	1.463	0.009	0.954	0.991
Currently using any method	0.226	0.022	683	1,024	1.375	0.097	0.182	0.270
Currently using a modern method	0.222	0.023	683	1,024	1.416	0.101	0.177	0.268
Currently using pill	0.011	0.004	683	1,024	0.984	0.356	0.003	0.019
Currently using male condoms	0.008	0.005	683	1,024	1.495	0.643	0.000	0.018
Currently using injectables	0.101	0.016	683	1,024	1.420	0.162	0.069	0.134
Currently using implants	0.060	0.009	683	1,024	0.943	0.143	0.043	0.077
Currently using female sterilisation	0.000	0.000	683	1,024	0.000	0.000	0.000	0.000
Currently using withdrawal	0.002	0.002	683	1,024	1.233	0.979	0.000	0.007
Currently using rhythm	0.000	0.000	683	1,024	0.000	0.000	0.000	0.000
Using public sector source	0.773	0.054	147	232	1.563	0.070	0.664	0.882
Want no more children	0.384	0.019	683	1,024	1.024	0.050	0.345	0.422
Want to delay next birth at least 2 years	0.364	0.020	683	1,024	1.106	0.056	0.323	0.405
Ideal number of children	4.119	0.052	837	1,243	1.385	0.013	4.015	4.222
Mothers protected against tetanus for last birth	0.823	0.033	468	706	1.864	0.040	0.757	0.888
Births with skilled attendant at delivery	0.768	0.036	656	976	1.892	0.047	0.696	0.840
Received 3+ doses of SP/Fansidar	0.044	0.016	255	383	1.228	0.358	0.012	0.075
Treated with ORS	0.533	0.067	30	53	0.750	0.126	0.399	0.668
Sought medical treatment for diarrhoea	0.836	0.063	30	53	1.000	0.076	0.709	0.963
Ever had vaccination card	0.807	0.048	117	179	1.326	0.059	0.711	0.903
Received BCG vaccination	0.886	0.039	117	179	1.330	0.044	0.809	0.964
Received birth dose HepB vaccination	0.827	0.050	117	179	1.447	0.061	0.727	0.927
Received DPT-HepB-Hib vaccination (3 doses)	0.443	0.054	117	179	1.189	0.122	0.335	0.552
Received birth dose polio 0 vaccination	0.834	0.041	117	179	1.206	0.049	0.752	0.916
Received polio vaccination (3 doses)	0.339	0.065	117	179	1.497	0.192	0.209	0.469
Received pneumococcal vaccination (3 doses)	0.392	0.046	117	179	1.032	0.118	0.299	0.484
Received measles 1 vaccination	0.616	0.060	117	179	1.348	0.098	0.496	0.736
Received all basic vaccinations (12-23 months)	0.233	0.049	117	179	1.277	0.212	0.135	0.332
Received all age-appropriate vaccinations (12-23 months)	0.189	0.045	117	179	1.266	0.240	0.098	0.279
Received measles 2 vaccination	0.317	0.052	118	173	1.190	0.163	0.214	0.421
Received all age-appropriate vaccinations (24-35 months)	0.141	0.042	118	173	1.298	0.299	0.057	0.226
Height-for-age (-2SD)	0.345	0.027	399	596	1.055	0.078	0.292	0.399
Weight-for-height (-2SD)	0.039	0.010	396	592	0.932	0.246	0.020	0.058
Weight-for-age (-2SD)	0.180	0.020	400	597	1.020	0.110	0.140	0.220
Body mass index (BMI) <18.5	0.118	0.021	357	531	1.238	0.178	0.076	0.161
Body mass index (BMI) ≥25	0.320	0.025	357	531	1.035	0.080	0.269	0.370
Prevalence of anaemia (children 6-59 months)	0.650	0.031	352	528	1.270	0.048	0.588	0.713
Prevalence of malaria (based on microscopy test)	0.238	0.046	264	399	1.632	0.192	0.147	0.329
Prevalence of malaria (based on rapid test)	0.339	0.039	349	522	1.535	0.114	0.262	0.416
Prevalence of anaemia (women 15-49)	0.497	0.035	394	585	1.374	0.069	0.427	0.566
Had 2+ sexual partners in past 12 months	0.005	0.002	918	1,352	0.963	0.463	0.000	0.009
Condom use at last sex	0.503	0.266	5	6	1.051	0.530	0.000	1.035
Abstinence among young people (never had sex)	0.627	0.030	177	250	0.832	0.048	0.567	0.688
Discriminatory attitudes towards people with HIV	0.763	0.024	819	1,215	1.620	0.032	0.715	0.811
Prevalence of sickle cell disease among children 6-59 months	0.028	0.009	352	528	1.029	0.311	0.011	0.046
Total fertility rate (last 3 years)	4.507	0.228	2,626	3,865	1.331	0.051	4.051	4.964
Neonatal mortality (last 0-9 years)	29.533	6.146	1,256	1,834	1.088	0.208	17.241	41.826
Postneonatal mortality (last 0-9 years)	11.394	3.643	1,253	1,830	1.055	0.320	4.107	18.681
Infant mortality (last 0-9 years)	40.928	7.417	1,257	1,835	1.142	0.181	26.094	55.761
Child mortality (last 0-9 years)	23.798	5.143	1,229	1,794	1.086	0.216	13.512	34.085
Under-5 mortality (last 0-9 years)	63.752	8.933	1,262	1,842	1.098	0.140	45.886	81.618
MEN								
Urban residence	0.827	0.025	292	432	1.112	0.030	0.778	0.877
Literacy	0.902	0.025	292	432	1.426	0.028	0.852	0.952
No education	0.099	0.022	292	432	1.273	0.225	0.054	0.143
Secondary or higher education	0.760	0.033	292	432	1.306	0.043	0.695	0.826
Never married (in union)	0.298	0.039	292	432	1.449	0.131	0.220	0.375
Currently married (in union)	0.698	0.039	292	432	1.448	0.056	0.619	0.776
Had first sexual intercourse before age 18	0.062	0.018	251	366	1.202	0.296	0.025	0.099
Knows any contraceptive method	0.993	0.004	205	302	0.796	0.005	0.985	1.002
Knows any modern contraceptive method	0.993	0.004	205	302	0.796	0.005	0.985	1.002
Want no more children	0.333	0.052	205	302	1.573	0.156	0.229	0.437
Want to delay birth at least 2 years	0.017	0.012	205	302	1.274	0.679	0.000	0.040
Ideal number of children	4.706	0.279	284	417	1.667	0.059	4.148	5.265
Had 2+ sexual partners in past 12 months	0.074	0.014	292	432	0.930	0.193	0.045	0.102
Condom use at last sex	0.095	0.072	19	32	1.032	0.750	0.000	0.239
Abstinence among young people (never had sex)	0.913	0.041	55	89	1.076	0.045	0.831	0.996
Had paid sex in past 12 months	0.015	0.009	292	432	1.219	0.589	0.000	0.032
Discriminatory attitudes towards people with HIV	0.598	0.040	290	430	1.390	0.067	0.517	0.678

Table B.48 Sampling errors for adult and maternal mortality rates, Nigeria DHS 2018

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
WOMEN								
Adult mortality rates								
15-19	1.588	0.146	89,648	89,203	1.068	0.092	1.296	1.880
20-24	2.393	0.213	99,055	97,777	1.346	0.089	1.967	2.819
25-29	2.525	0.192	94,011	93,464	1.172	0.076	2.141	2.909
30-34	3.249	0.265	80,516	80,364	1.294	0.082	2.719	3.779
35-39	4.014	0.286	61,237	60,748	1.107	0.071	3.441	4.587
40-44	5.349	0.455	38,014	37,201	1.182	0.085	4.439	6.259
45-49	5.856	0.581	21,888	21,625	1.122	0.099	4.694	7.017
15-49 (age adjusted)	3.176	0.108	484,368	480,382	1.173	0.034	2.961	3.391
Adult mortality probabilities								
${}_{35}q_{15}$	117.438	4.059	484,368	480,382	1.394	0.035	109.320	125.556
Maternal mortality rates								
15-19	0.630	0.091	89,648	89,203	1.067	0.144	0.448	0.812
20-24	0.981	0.159	99,055	97,777	1.583	0.162	0.663	1.298
25-29	0.946	0.114	94,011	93,464	1.137	0.121	0.717	1.175
30-34	1.099	0.137	80,516	80,364	1.173	0.125	0.825	1.373
35-39	1.298	0.164	61,237	60,748	1.124	0.126	0.970	1.626
40-44	0.756	0.150	38,014	37,201	1.052	0.198	0.457	1.056
45-49	0.692	0.227	21,888	21,625	1.268	0.328	0.238	1.147
15-49 (age adjusted)	0.916	0.060	484,368	480,382	1.211	0.066	0.795	1.037
Maternal mortality ratio	512.217	32.845	484,368	480,382	1.211	0.064	446.527	577.906
Pregnancy-related mortality rates								
15-19	0.648	0.093	89,648	89,203	1.072	0.143	0.462	0.833
20-24	1.023	0.161	99,055	97,777	1.575	0.158	0.700	1.346
25-29	1.099	0.124	94,011	93,464	1.146	0.113	0.850	1.347
30-34	1.338	0.210	80,516	80,364	1.636	0.157	0.917	1.758
35-39	1.327	0.165	61,237	60,748	1.116	0.124	0.997	1.656
40-44	0.790	0.151	38,014	37,201	1.039	0.191	0.488	1.093
45-49	0.692	0.227	21,888	21,625	1.268	0.328	0.238	1.147
15-49 (age adjusted)	0.995	0.065	484,368	480,382	1.296	0.065	0.865	1.125
Pregnancy-related mortality ratio	556.461	36.063	484,368	480,382	1.296	0.065	484.336	628.586
MEN								
Adult mortality rates								
15-19	1.994	0.192	92,493	92,441	1.263	0.096	1.610	2.377
20-24	2.151	0.163	104,004	103,300	1.109	0.076	1.824	2.478
25-29	2.308	0.174	98,157	97,194	1.110	0.075	1.960	2.655
30-34	3.143	0.237	85,277	84,669	1.199	0.075	2.669	3.617
35-39	3.443	0.277	66,790	66,201	1.207	0.081	2.888	3.998
40-44	5.911	0.463	42,430	42,406	1.220	0.078	4.984	6.837
45-49	7.037	0.679	23,878	23,629	1.210	0.097	5.679	8.396
15-49 (age adjusted)	3.248	0.122	513,029	509,841	1.200	0.038	3.005	3.492
Adult mortality probabilities								
${}_{35}q_{15}$	121.898	4.669	513,029	509,841	1.409	0.038	112.560	131.236

Note: All rates are calculated for the period 0-6 years before the survey.

DATA QUALITY TABLES

Appendix C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Nigeria DHS 2018

	Women		Men			Women		Men	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	2,848	3.0	2,952	3.2	37	808	0.8	859	0.9
1	2,856	3.0	3,134	3.4	38	1,136	1.2	1,108	1.2
2	3,085	3.2	3,091	3.3	39	556	0.6	556	0.6
3	3,395	3.6	3,541	3.8	40	1,852	1.9	1,883	2.0
4	3,463	3.6	3,587	3.9	41	424	0.4	539	0.6
5	3,350	3.5	3,406	3.7	42	758	0.8	893	1.0
6	3,352	3.5	3,337	3.6	43	577	0.6	661	0.7
7	3,219	3.4	3,429	3.7	44	307	0.3	373	0.4
8	3,236	3.4	3,397	3.7	45	1,329	1.4	1,590	1.7
9	2,250	2.4	2,366	2.6	46	437	0.5	528	0.6
10	3,269	3.4	3,208	3.5	47	400	0.4	431	0.5
11	1,743	1.8	1,819	2.0	48	680	0.7	637	0.7
12	2,672	2.8	2,648	2.9	49	444	0.5	313	0.3
13	2,272	2.4	2,160	2.3	50	754	0.8	1,173	1.3
14	1,512	1.6	1,825	2.0	51	438	0.5	281	0.3
15	2,099	2.2	2,218	2.4	52	811	0.9	573	0.6
16	1,603	1.7	1,513	1.6	53	584	0.6	356	0.4
17	1,628	1.7	1,562	1.7	54	509	0.5	332	0.4
18	2,113	2.2	1,894	2.0	55	843	0.9	765	0.8
19	1,276	1.3	1,001	1.1	56	434	0.5	410	0.4
20	2,533	2.7	1,822	2.0	57	264	0.3	300	0.3
21	1,014	1.1	727	0.8	58	439	0.5	395	0.4
22	1,487	1.6	1,112	1.2	59	152	0.2	221	0.2
23	1,181	1.2	861	0.9	60	745	0.8	831	0.9
24	924	1.0	718	0.8	61	158	0.2	256	0.3
25	2,882	3.0	1,814	2.0	62	273	0.3	457	0.5
26	1,131	1.2	887	1.0	63	213	0.2	336	0.4
27	1,393	1.5	965	1.0	64	181	0.2	311	0.3
28	1,569	1.6	1,125	1.2	65	556	0.6	698	0.8
29	823	0.9	610	0.7	66	104	0.1	161	0.2
30	2,798	2.9	2,176	2.3	67	174	0.2	250	0.3
31	700	0.7	628	0.7	68	247	0.3	289	0.3
32	1,287	1.4	1,160	1.3	69	101	0.1	126	0.1
33	844	0.9	785	0.8	70+	1,940	2.0	2,717	2.9
34	775	0.8	711	0.8	Don't know	12	0.0	11	0.0
35	2,339	2.5	2,042	2.2					
36	744	0.8	820	0.9	Total	95,304	100.0	92,670	100.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, number and percent distribution of interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), by 5-year age groups, Nigeria DHS 2018

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percentage	
10-14	11,468	na	na	na
15-19	8,719	8,662	20.4	99.4
20-24	7,139	7,095	16.7	99.4
25-29	7,798	7,747	18.2	99.4
30-34	6,403	6,350	14.9	99.2
35-39	5,584	5,548	13.0	99.4
40-44	3,918	3,882	9.1	99.1
45-49	3,290	3,251	7.6	98.8
50-54	3,096	na	na	na
15-49	42,850	42,535	100.0	99.3

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both the household population of women and interviewed women are household weights. Age is based on the Household Questionnaire.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-64, interviewed men age 15-59, and number and percent distribution of eligible men who were interviewed (weighted), by 5-year age groups, Nigeria DHS 2018

Age group	Household population of men age 10-64	Interviewed men age 15-59		Percentage of eligible men interviewed
		Number	Percentage	
10-14	4,385	na	na	na
15-19	2,460	2,436	18.2	99.0
20-24	1,504	1,490	11.1	99.1
25-29	1,624	1,615	12.0	99.4
30-34	1,808	1,792	13.3	99.1
35-39	1,859	1,850	13.8	99.5
40-44	1,602	1,583	11.8	98.8
45-49	1,206	1,198	8.9	99.3
50-54	845	840	6.3	99.5
55-59	627	619	4.6	98.8
60-64	833	na	na	na
15-59	13,535	13,423	100.0	99.2

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both the household population of men and interviewed men are household weights. Age is based on the Household Questionnaire.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Nigeria DHS 2018

Subject	Reference group	Percentage with information missing	Number of cases
Birth date	Births in the 15 years preceding the survey		
Day only		1.20	91,112
Month only		0.52	91,112
Month and year		0.09	91,112
Age at death	Deceased children born in the 15 years preceding the survey	0.00	11,331
Age/date at first union[1]	Ever-married women age 15-49	0.62	31,271
	Ever-married men age 15-59	1.45	8,348
Respondent's education	All women age 15-49	0.00	41,821
	All men age 15-59	0.00	13,311
Diarrhoea in last 2 weeks	Living children age 0-59 months	0.35	30,881
Anthropometry of children	Living children age 0-59 months (from the Biomarker Questionnaire)		
Height		2.09	12,996
Weight		2.08	12,996
Height or weight		2.09	12,996
Anthropometry of women	Women age 15-49 (from the Biomarker Questionnaire)		
Height		2.93	15,481
Weight		2.92	15,481
Height or weight		2.93	15,481
Anaemia in children	Living children age 6-59 months (from the Biomarker Questionnaire)	3.52	11,803
Anaemia in women	All women (from the Biomarker Questionnaire)	3.71	15,481

[1] Both year and age missing

Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living, dead, and total children (weighted), Nigeria DHS 2018

	Number of births			Percentage with year and month of birth given			Sex ratio at birth[1]			Calendar year ratio[2]		
Calendar year	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
2018	5,322	292	5,614	100.0	100.0	100.0	100.5	115.9	101.3	na	na	na
2017	6,332	493	6,825	100.0	99.7	100.0	109.2	116.4	109.7	na	na	na
2016	5,934	729	6,663	100.0	99.4	99.9	104.4	111.7	105.2	95.0	108.7	96.4
2015	6,157	848	7,006	99.9	99.6	99.9	102.5	113.1	103.7	100.9	104.8	101.4
2014	6,270	891	7,160	99.8	99.6	99.8	101.7	106.2	102.2	102.9	111.2	103.9
2013	6,024	753	6,777	99.8	99.5	99.8	99.4	111.6	100.7	97.6	78.7	95.1
2012	6,074	1,023	7,097	98.7	97.1	98.5	102.0	118.6	104.2	104.5	127.3	107.3
2011	5,599	853	6,452	99.3	97.6	99.1	103.2	114.8	104.7	93.1	85.9	92.0
2010	5,959	964	6,923	99.3	97.6	99.1	102.1	111.4	103.4	118.4	123.6	119.1
2009	4,465	705	5,171	99.5	99.1	99.4	110.9	130.2	113.3	77.4	75.8	77.2
2014-2018	30,016	3,252	33,268	99.9	99.6	99.9	103.7	111.6	104.5	na	na	na
2009-2013	28,121	4,298	32,420	99.3	98.1	99.2	103.1	116.7	104.8	na	na	na
2004-2008	21,237	3,719	24,956	99.2	98.2	99.1	103.7	115.9	105.4	na	na	na
1999-2003	14,561	3,223	17,784	98.8	96.8	98.4	103.1	125.1	106.7	na	na	na
Before 1999	14,131	3,979	18,111	98.3	97.6	98.1	105.0	113.3	106.7	na	na	na
All	108,066	18,472	126,538	99.3	98.1	99.1	103.6	116.3	105.4	na	na	na

na = Not applicable
[1] (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively
[2] [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under age 1 month by age at death in days and percentage of neonatal deaths reported to occur at age 0-6 days, for 5-year periods preceding the survey (weighted), Nigeria DHS 2018

	Number of years preceding the survey				
Age at death (days)	0-4	5-9	10-14	15-19	Total 0-19
<1	559	472	278	219	1,528
1	235	140	111	104	589
2	114	103	78	49	345
3	94	85	54	58	292
4	37	34	34	16	121
5	40	40	27	21	127
6	30	28	28	26	112
7	50	43	62	32	187
8	16	24	17	13	69
9	11	13	12	9	45
10	29	13	11	23	77
11	7	2	3	2	15
12	6	9	9	4	28
13	6	4	9	5	23
14	34	29	26	23	112
15	6	9	10	11	35
16	4	3	2	4	13
17	5	3	0	2	11
18	8	1	0	0	8
19	4	0	1	1	6
20	7	8	13	8	37
21	20	15	9	14	58
22	3	0	3	1	7
23	4	1	3	0	8
24	4	1	2	5	12
25	5	8	2	2	17
26	1	4	0	1	6
27	1	0	1	0	3
28	1	5	1	0	7
29	0	1	0	0	1
30	9	12	3	8	32
Total 0-30	1,349	1,111	809	661	3,930
Percentage early neonatal[1]	82.2	81.3	75.3	74.5	79.2

[1] 0-6 days/0-30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under age 2 by age at death in months and percentage of infant deaths reported to occur under age 1 month, for 5-year periods preceding the survey (weighted), Nigeria DHS 2018

	Number of years preceding the survey				
Age at death (months)	0-4	5-9	10-14	15-19	Total 0-19
<1[a]	1,349	1,111	809	661	3,930
1	106	99	96	72	373
2	97	93	78	75	343
3	88	90	76	67	322
4	53	53	63	41	210
5	62	68	39	39	208
6	64	110	60	62	296
7	107	83	58	76	324
8	73	85	68	55	280
9	82	93	73	61	309
10	68	64	60	48	240
11	52	87	94	62	295
12	107	151	139	106	503
13	92	75	72	70	308
14	56	71	70	60	257
15	62	70	60	45	237
16	32	35	39	39	145
17	43	48	44	51	186
18	59	78	84	74	294
19	28	37	33	30	128
20	42	41	23	27	133
21	25	26	13	13	78
22	18	20	20	13	72
23	20	19	13	8	61
Total 0-11	2,201	2,035	1,574	1,319	7,129
Percentage neonatal[1]	61.3	54.6	51.4	50.1	55.1

[a] Includes deaths under 1 month reported in days
[1] Under 1 month/under 1 year

Table C.7 Standardisation exercise results from anthropometry training

Trainees' precision and accuracy for height measurements from the anthropometry training, Nigeria DHS 2018

	Standardisation exercise[1]		Re-standardisation exercise[1]	
Trainee	Trainees' precision[2]	Trainees' accuracy[2]	Trainees' precision[2]	Trainees' accuracy[2]
Trainee 1	0.46	0.57	-	-
Trainee 2	1.09	1.16	0.39	0.40
Trainee 3	0.37	0.52	-	-
Trainee 4	0.18	0.67	-	-
Trainee 5	0.27	0.46	-	-
Trainee 6	0.10	0.79	-	-
Trainee 7	0.38	0.33	-	-
Trainee 8	0.39	0.67	-	-
Trainee 9	0.65	0.49	0.26	0.30
Trainee 10	0.23	0.55	-	-
Trainee 11	0.42	4.47	0.40	0.48
Trainee 12	0.33	0.60	-	-
Trainee 13	0.52	0.53	-	-
Trainee 14	0.60	0.61	0.32	0.46
Trainee 15	0.18	0.43	-	-
Trainee 16	0.37	0.41	-	-
Trainee 17	0.19	0.35	-	-
Trainee 18	0.29	0.40	-	-
Trainee 19	6.59	4.46	0.22	0.45
Trainee 20	0.57	0.66	-	-
Trainee 21	0.31	0.68	-	-
Trainee 22	0.32	0.54	-	-
Trainee 23	0.35	0.42	-	-
Trainee 24	0.15	0.82	0.30	0.40
Trainee 25	0.15	0.55	-	-
Trainee 26	0.32	0.47	-	-
Trainee 27	0.06	0.59	-	-
Trainee 28	0.35	0.54	-	-
Trainee 29	0.13	0.36	-	-
Trainee 30	0.13	0.71	-	-
Trainee 31	0.22	0.37	-	-
Trainee 32	0.36	0.52	-	-
Trainee 33	0.63	0.73	0.42	0.98
Trainee 34	0.37	0.36	-	-
Trainee 35	0.20	0.61	-	-
Trainee 36	0.32	0.58	-	-
Trainee 37	0.23	0.51	-	-
Average	0.51	0.77	0.33	0.50

[1] Ten children were measured twice for each standardisation and re-standardisation exercise.
[2] Trainees' precision and accuracy are defined as technical error of measurement (TEM), which is calculated as $\sqrt{(\sum D^2)/2N}$, where D is the difference in height and N is the number of repeat measurements. An acceptable TEM according to WHO-UNICEF is a TEM of <0.6 cm for precision and <0.8 cm for accuracy.

Table C.8 Height and weight data completeness and quality for children

Among children under age 5 (age 0-59 months) who were eligible for anthropometry, percentage with incomplete or missing height and/or weight measurements and/or date of birth; percentage with out-of-range height-for-age, and/or weight-for-height, and/or weight-for-age data; and percentage with valid data, according to background characteristics (unweighted), Nigeria DHS 2018

	Percentage with data missing or incomplete:				Percentage with implausible data for:						Percentage with valid data for[8]:			
Background characteristic	Height[1]	Weight[2]	Month and/or year[3]	Number of children	Height-for-age[4]	Number of children with complete height and age[5]	Weight-for-height[6]	Number of children with complete weight and height	Weight-for-age[7]	Number of children with complete weight and age[5]	Height-for-age	Weight-for-height	Weight-for-age	Number of children
Age in months														
<6	2.9	2.9	0.0	1,270	2.0	1,233	2.4	1,233	0.8	1,233	95.1	94.8	96.3	1,270
6-8	2.4	2.4	0.1	695	1.2	678	0.9	678	0.0	678	96.4	96.7	97.6	695
9-11	1.8	1.8	0.0	595	1.0	584	0.3	584	0.2	584	97.1	97.8	98.0	595
12-17	1.6	1.6	0.1	1,443	1.3	1,420	0.9	1,420	0.2	1,420	97.1	97.5	98.2	1,443
18-23	1.7	1.7	0.2	1,144	0.8	1,124	0.4	1,124	0.3	1,125	97.5	97.8	98.1	1,144
24-35	2.5	2.4	0.4	2,481	0.7	2,416	0.3	2,420	0.1	2,417	96.7	97.2	97.3	2,481
36-47	2.2	2.2	0.3	2,556	0.8	2,497	0.1	2,499	0.0	2,496	96.9	97.7	97.6	2,556
48-59	2.6	2.6	0.6	2,622	0.5	2,546	0.5	2,555	0.0	2,546	96.6	96.9	97.1	2,622
Sex														
Male	2.3	2.3	0.3	6,480	1.1	6,324	0.6	6,332	0.2	6,324	96.5	97.1	97.4	6,480
Female	2.3	2.3	0.3	6,326	0.7	6,174	0.7	6,181	0.1	6,175	96.9	97.1	97.5	6,326
Mother's interview status														
Interviewed	1.9	1.9	0.1	11,695	0.9	11,467	0.6	11,472	0.2	11,468	97.1	97.5	97.9	11,695
Not interviewed but in household	15.2	15.2	2.7	224	1.6	190	0.5	190	0.0	190	83.5	84.4	84.8	224
Not interviewed and not in the household[9]	4.1	4.1	2.5	887	0.8	841	0.8	851	0.2	841	94.0	95.2	94.6	887
Zone														
North Central	1.2	1.2	0.4	2,233	0.5	2,198	0.4	2,206	0.1	2,198	98.0	98.4	98.3	2,233
North East	3.4	3.4	0.4	2,340	1.7	2,257	0.9	2,261	0.2	2,257	94.8	95.7	96.2	2,340
North West	2.5	2.4	0.1	3,030	1.9	2,955	1.1	2,954	0.4	2,956	95.6	96.4	97.2	3,030
South East	1.5	1.5	0.0	1,875	0.2	1,847	0.2	1,847	0.1	1,847	98.3	98.3	98.4	1,875
South South	3.6	3.6	0.9	1,428	0.4	1,375	0.3	1,377	0.0	1,375	95.9	96.1	96.3	1,428
South West	1.7	1.7	0.1	1,900	0.2	1,866	0.4	1,868	0.0	1,866	98.1	97.9	98.2	1,900
State														
North Central														
FCT-Abuja	2.9	2.9	1.3	312	0.3	299	0.7	303	0.3	299	95.5	96.5	95.5	312
Benue	0.0	0.0	0.0	380	1.6	380	0.8	380	0.0	380	98.4	99.2	100.0	380
Kogi	2.3	2.3	0.9	221	0.0	214	0.5	216	0.0	214	96.8	97.3	96.8	221
Kwara	0.0	0.0	0.8	263	0.0	261	0.8	263	0.0	261	99.2	99.2	99.2	263
Nasarawa	3.2	3.2	0.0	311	0.3	301	0.3	301	0.3	301	96.5	96.5	96.5	311
Niger	0.7	0.7	0.0	426	0.0	423	0.0	423	0.0	423	99.3	99.3	99.3	426
Plateau	0.0	0.0	0.0	320	0.6	320	0.0	320	0.0	320	99.4	100.0	100.0	320
North East														
Adamawa	1.6	1.6	0.0	321	0.3	316	0.9	316	0.3	316	98.1	97.5	98.1	321
Bauchi	1.1	1.1	0.0	450	0.7	445	0.2	445	0.0	445	98.2	98.7	98.9	450
Borno	4.6	4.6	0.0	373	2.5	356	1.7	356	0.6	356	93.0	93.8	94.9	373
Gombe	2.6	2.6	1.6	428	3.1	413	1.4	417	0.2	413	93.5	96.0	96.3	428
Taraba	4.1	4.1	0.5	366	0.9	351	0.3	351	0.3	351	95.1	95.6	95.6	366
Yobe	6.5	6.5	0.0	402	2.4	376	1.1	376	0.0	376	91.3	92.5	93.5	402

Continued...

Table C.8—*Continued*

Background characteristic	Percentage with data missing or incomplete:				Percentage with implausible data for:						Percentage with valid data for[8]:			
	Height[1]	Weight[2]	Month and/or year[3]	Number of children	Height-for-age[4]	Number of children with complete height and age[5]	Weight-for-height[6]	Number of children with complete weight and height	Weight-for-age[7]	Number of children with complete weight and age[5]	Height-for-age	Weight-for-height	Weight-for-age	Number of children
North West														
Jigawa	0.5	0.5	0.0	424	1.7	422	0.5	422	0.0	422	97.9	99.1	99.5	424
Kaduna	2.1	2.1	0.5	431	0.2	422	0.5	422	0.0	422	97.7	97.4	97.9	431
Kano	2.9	2.7	0.3	586	1.2	569	0.0	569	0.2	570	95.9	97.1	97.1	586
Katsina	0.4	0.4	0.0	503	4.6	501	1.6	501	1.2	501	95.0	98.0	98.4	503
Kebbi	1.6	1.9	0.0	367	0.3	361	1.1	360	0.3	360	98.1	97.0	97.8	367
Sokoto	11.2	10.9	0.0	340	1.0	302	1.7	302	0.3	303	87.9	87.4	88.8	340
Zamfara	0.3	0.3	0.0	379	4.0	378	3.2	378	0.8	378	95.8	96.6	98.9	379
South East														
Abia	1.0	1.0	0.0	292	1.0	289	0.7	289	0.7	289	97.9	98.3	98.3	292
Anambra	0.7	0.7	0.0	451	0.2	448	0.0	448	0.0	448	99.1	99.3	99.3	451
Ebonyi	0.4	0.4	0.0	490	0.0	488	0.2	488	0.0	488	99.6	99.4	99.6	490
Enugu	5.1	5.1	0.0	277	0.0	263	0.0	263	0.0	263	94.9	94.9	94.9	277
Imo	1.6	1.6	0.0	365	0.0	359	0.3	359	0.0	359	98.4	98.1	98.4	365
South South														
Akwa Ibom	2.7	2.7	0.8	261	0.0	254	0.0	254	0.0	254	97.3	97.3	97.3	261
Bayelsa	1.4	1.4	0.0	290	1.4	286	0.0	286	0.0	286	97.2	98.6	98.6	290
Cross River	5.7	5.7	3.4	174	0.0	164	0.6	164	0.0	164	94.3	93.7	94.3	174
Delta	6.6	6.6	0.9	212	0.0	198	1.0	198	0.0	198	93.4	92.5	93.4	212
Edo	8.0	8.0	1.7	176	0.0	160	0.6	162	0.0	160	90.9	91.5	90.9	176
Rivers	0.6	0.6	0.0	315	0.3	313	0.0	313	0.0	313	99.0	99.4	99.4	315
South West														
Ekiti	0.0	0.0	0.0	288	0.3	288	0.3	288	0.0	288	99.7	99.7	100.0	288
Lagos	4.6	4.6	0.0	372	0.0	355	0.3	355	0.0	355	95.4	95.2	95.4	372
Ogun	1.9	1.9	0.0	315	0.0	309	0.0	309	0.0	309	98.1	98.1	98.1	315
Ondo	0.0	0.0	0.0	235	0.0	235	0.4	235	0.0	235	100.0	99.6	100.0	235
Osun	3.1	3.1	0.0	288	0.4	279	0.4	279	0.0	279	96.5	96.5	96.9	288
Oyo	0.0	0.0	0.5	402	0.3	400	1.0	402	0.0	400	99.3	99.0	99.5	402
Mother's education														
No education	2.7	2.6	0.2	4,591	1.8	4,465	1.1	4,467	0.4	4,466	95.5	96.3	96.9	4,591
Primary	1.3	1.3	0.3	1,996	0.6	1,968	0.4	1,970	0.1	1,968	98.0	98.3	98.5	1,996
Secondary	1.8	1.8	0.0	4,245	0.4	4,169	0.3	4,169	0.0	4,169	97.8	97.9	98.2	4,245
More than secondary	2.9	2.9	0.2	1,087	0.0	1,055	0.3	1,056	0.0	1,055	97.1	96.9	97.1	1,087
Total	2.3	2.3	0.3	12,806	0.9	12,498	0.6	12,513	0.2	12,499	96.7	97.1	97.4	12,806

[1] Child's height in centimetres is missing, child was not present, child refused, and "other" result codes
[2] Child's weight in kilograms is missing, child was not present, child refused, and "other" result codes
[3] Incomplete date of birth; a complete date of birth is month/day/year or month/year.
[4] Implausible cases for height-for-age are defined as more than 6 standard deviations (SD) above or below the standard population median (Z-scores) based on the WHO Child Growth Standards among children with complete height and month/year of birth data.
[5] Complete age is calculated from month and year of birth.
[6] Implausible cases for weight-for-height are defined as more than 5 SD above or below the standard population median (Z-scores) based on the WHO Child Growth Standards among children with complete weight and height data.
[7] Implausible cases for weight-for-age are defined as more than 6 SD below or 5 SD above the standard population median (Z-scores) based on the WHO Child Growth Standards among children with complete weight and month/year of birth data.
[8] No missing data, incomplete data, or implausible data
[9] Includes children whose mothers are deceased

Table C.9 Height measurements from random subsample of measured children

Differences in first height measurement and second height measurement among children under age 5 (0-59 months) randomly selected and remeasured, according to zone and measurer (unweighted), Nigeria DHS 2018

Zone and measurer	Median difference in height measurements[1]	Maximum difference in height measurements	Percentage of height measurements with a difference >1 cm	Measurers' precision[2]	Number of children randomly selected and remeasured
Zone					
North Central	0.1	5.7	1.6	0.3	380
North East	0.1	36.0	3.0	1.9	367
North West	0.1	27.1	2.0	1.6	449
South East	0.1	20.0	1.2	0.9	252
South South	0.2	19.9	3.3	0.9	307
South West	0.0	10.0	1.1	0.4	282
Measurer					
Measurer 1	0.0	1.0	0.0	0.1	57
Measurer 2	0.0	0.0	0.0	0.0	50
Measurer 3	0.3	0.9	0.0	0.3	7
Measurer 4	0.2	1.0	0.0	0.2	48
Measurer 5	0.2	1.0	0.0	0.2	49
Measurer 6	0.2	2.7	3.6	0.4	56
Measurer 7	0.2	4.0	1.8	0.4	55
Measurer 8	0.0	5.7	5.1	0.6	59
Measurer 9	0.0	5.7	1.7	0.5	60
Measurer 10	0.1	2.8	1.8	0.3	57
Measurer 11	0.0	30.1	3.4	3.4	59
Measurer 12	0.3	5.9	3.7	0.8	54
Measurer 13	0.1	36.0	1.7	3.3	59
Measurer 14	0.1	1.2	4.5	0.2	67
Measurer 15	0.2	4.0	10.0	0.9	10
Measurer 16	0.0	0.0	0.0	0.0	1
Measurer 17	0.1	20.9	7.5	2.7	67
Measurer 18	0.1	0.4	0.0	0.1	66
Measurer 19	0.2	0.8	0.0	0.2	81
Measurer 20	0.0	1.4	1.6	0.1	62
Measurer 21	0.3	27.1	2.8	3.1	72
Measurer 22	0.0	0.2	0.0	0.0	47
Measurer 23	0.1	1.1	1.9	0.1	54
Measurer 24	0.0	1.0	0.0	0.2	59
Measurer 25	0.0	5.0	2.7	0.6	37
Measurer 26	0.1	0.7	0.0	0.1	14
Measurer 27	0.4	0.6	0.0	0.2	42
Measurer 28	0.1	20.0	3.6	1.9	55
Measurer 29	0.0	0.5	0.0	0.1	45
Measurer 30	0.2	0.3	0.0	0.1	48
Measurer 31	0.4	0.6	0.0	0.3	4
Measurer 32	0.2	2.4	10.8	0.5	37
Measurer 33	0.1	0.4	0.0	0.1	59
Measurer 34	0.2	0.5	0.0	0.2	51
Measurer 35	0.0	19.9	6.7	2.1	45
Measurer 36	0.1	8.1	5.3	1.3	19
Measurer 37	0.2	3.9	4.7	0.5	43
Total	0.1	36.0	2.1	1.2	2,037

[1] Median absolute difference between measurers' first and second height measurements
[2] Measurers' precision is defined as technical error of measurement, which is calculated as $\sqrt{(\sum D^2)/2N}$, where D is the difference in height and N is the number of repeat measurements.

Table C.10 Sibship size and sex ratio of siblings

Mean sibship size and sex ratio of siblings at birth, Nigeria DHS 2018

Age of respondents	Mean sibship size[1]	Sex ratio of siblings at birth[2]
15-19	6.3	103.9
20-24	6.4	105.7
25-29	6.3	106.4
30-34	6.2	106.6
35-39	6.2	107.4
40-44	6.1	109.0
45-49	5.8	105.5
Total	6.2	106.1

[1] Includes the respondent
[2] Excludes the respondent

Table C.11 Pregnancy-related mortality trends

Direct estimates of pregnancy-related mortality rates for the 7 years preceding each survey, by 5-year age groups, Nigeria DHS

	Pregnancy-related mortality rates[1,2]		
Age	NDHS 2018 (2011-2018)	NDHS 2013 (2006-2013)	NDHS 2008 (2001-2008)
15-19	0.65	0.71	0.82
20-24	1.02	1.25	1.04
25-29	1.10	1.11	0.98
30-34	1.34	1.00	1.59
35-39	1.33	1.62	1.15
40-44	0.79	1.10	0.98
45-49	0.69	0.59	0.34
Total 15-49	1.00[a]	1.05[a]	1.00[a]
Total fertility rate (TFR)	5.74	5.86	5.95
General fertility rate (GFR)[3]	0.179[a]	0.183[a]	0.186[a]
Pregnancy-related mortality ratio (PRMR)[4]	556 (CI: 484-629)	576 (CI: 500-652)	545 (CI: 475-615)
Lifetime risk of pregnancy-related death[5]	0.032	0.033	0.032

CI: Confidence interval
[1] Pregnancy-related mortality is defined as the death of a woman while pregnant or within 2 months of termination of pregnancy from any cause, including accidents or violence.
[2] Expressed per 1,000 woman-years of exposure
[3] Age-adjusted rate expressed per 1,000 women age 15-49
[4] Expressed per 100,000 live births; calculated as the age-adjusted pregnancy-related mortality rate times 100 divided by the age-adjusted general fertility rate
[5] Calculated as $1-(1-PRMR)^{TFR}$, where TFR represents the total fertility rate for the 7 years preceding the survey
[a] Age-adjusted rate

Table C.12 Data collection period

Number of enumeration areas completed by month, according to zone and state, Nigeria DHS 2018

	Month					
	August	September	October	November	December	Total
Zone						
North Central	18	79	62	60	33	252
North East	11	61	50	47	48	217
North West	15	72	60	54	74	275
South East	10	54	45	40	37	186
South South	15	65	59	53	29	221
South West	19	69	66	53	31	238
State						
North Central						
FCT-Abuja	4	10	8	8	5	35
Benue	2	14	9	7	5	37
Kogi	2	9	11	9	5	36
Kwara	2	12	8	6	7	35
Nasarawa	4	8	12	6	5	35
Niger	3	13	5	16	1	38
Plateau	1	12	9	8	5	35
North East						
Adamawa	1	15	7	7	5	35
Bauchi	6	7	9	9	8	39
Borno	1	11	11	8	7	38
Gombe	1	11	6	6	11	35
Taraba	1	10	8	10	6	35
Yobe	1	8	9	6	11	35
North West						
Jigawa	1	10	7	9	12	39
Kaduna	1	8	7	7	19	42
Kano	7	10	8	9	19	53
Katsina	3	10	10	8	9	40
Kebbi	1	10	9	6	9	35
Sokoto	1	11	10	7	5	34
Zamfara	1	12	9	9	1	32
South East						
Abia	2	11	9	6	8	36
Anambra	1	11	9	11	7	39
Ebonyi	5	9	7	7	8	36
Enugu	1	13	8	8	6	36
Imo	1	11	12	8	7	39
South South						
Akwa Ibom	7	10	9	7	4	37
Bayelsa	1	12	8	5	9	35
Cross River	2	11	7	10	5	35
Delta	2	10	10	11	5	38
Edo	2	11	11	7	4	35
Rivers	1	11	13	13	3	41
South West						
Ekiti	2	9	14	6	4	35
Lagos	9	13	13	9	8	52
Ogun	2	14	11	9	1	37
Ondo	2	12	11	9	2	36
Osun	2	11	10	6	7	36
Oyo	2	10	8	14	9	43
Percent	6.3	28.8	24.6	22.1	18.1	100.0
Total	88	400	342	307	252	1,389

Note: Enumeration areas are classified by month according to the date by which the last Biomarker Questionnaire in the enumeration area was completed.

Table C.13 Malaria prevalence according to rapid diagnostic test (RDT)

Percentage of children age 6-59 months classified as having malaria according to RDT by month, according to zone and state, Nigeria DHS 2018

	Month					
	August	September	October	November	December	Total
Zone						
North Central	29.1	37.8	41.4	33.8	39.2	37.0
North East	37.1	30.2	38.9	45.2	28.6	35.6
North West	28.0	55.6	57.7	53.8	40.9	49.5
South East	29.3	32.5	19.6	24.6	26.4	26.1
South South	20.7	28.7	25.1	23.6	24.8	25.4
South West	16.7	32.5	30.1	28.1	30.3	28.9
State						
North Central						
FCT-Abuja	(24.7)	46.0	11.2	23.6	(67.6)	31.3
Benue	*	13.9	37.1	36.3	(24.6)	26.0
Kogi	*	42.2	56.4	54.6	(26.6)	46.0
Kwara	*	26.8	42.4	(40.8)	(74.3)	43.7
Nasarawa	(18.3)	41.7	44.8	29.4	(26.6)	32.1
Niger	(21.7)	50.4	64.6	33.2	*	43.8
Plateau	*	56.1	22.0	17.3	*	37.2
North East						
Adamawa	*	21.9	53.7	47.7	(39.0)	38.9
Bauchi	53.2	61.5	44.7	55.6	18.3	48.6
Borno	*	4.8	32.4	29.3	10.0	16.2
Gombe	*	35.8	67.4	62.2	54.1	52.0
Taraba	*	44.9	30.5	34.5	(35.6)	35.2
Yobe	*	36.1	18.3	40.2	24.3	30.3
North West						
Jigawa	*	53.3	53.1	54.9	43.0	49.4
Kaduna	*	28.3	52.8	40.6	30.4	34.3
Kano	40.3	40.6	39.3	44.7	46.6	43.0
Katsina	*	65.7	73.0	50.0	38.0	55.4
Kebbi	*	79.2	72.2	82.7	79.1	76.8
Sokoto	*	57.9	58.4	(58.5)	(36.9)	54.7
Zamfara	*	55.2	51.9	64.9	*	51.8
South East						
Abia	*	29.9	14.3	21.4	(17.2)	20.7
Anambra	*	17.0	11.5	10.3	15.3	15.2
Ebonyi	35.7	62.5	47.5	40.7	46.6	49.3
Enugu	*	30.2	14.9	43.8	(4.7)	30.2
Imo	*	14.0	14.2	23.9	20.7	15.6
South South						
Akwa Ibom	(43.8)	(32.2)	25.8	(38.4)	(29.7)	33.2
Bayelsa	*	28.3	33.3	15.5	39.4	30.1
Cross River	*	(46.1)	*	(11.7)	*	26.4
Delta	*	(33.5)	22.5	(19.1)	*	24.9
Edo	*	(13.4)	(20.7)	(33.4)	*	19.1
Rivers	*	24.9	28.9	20.5	*	22.3
South West						
Ekiti	*	44.2	44.2	(71.6)	(55.3)	46.3
Lagos	3.1	0.7	2.9	5.7	3.6	3.4
Ogun	*	35.5	41.6	22.8	*	32.2
Ondo	*	30.1	62.6	(31.1)	*	41.6
Osun	*	50.9	52.5	(50.5)	(64.9)	54.9
Oyo	*	35.9	23.3	47.0	36.2	33.9
Total	26.2	38.3	37.6	36.8	35.0	36.2

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases or that there were no children measured for malaria in the province for the month.

PERSONS INVOLVED IN THE 2018 NIGERIA DEMOGRAPHIC AND HEALTH SURVEY

Appendix **D**

TECHNICAL AND ADMINISTRATIVE STAFF

Director Planning and Research
Adenike Ogunlewe

Project Director
Ezenwa Nwamaka L. (April 2017 – June 2019)
Osifo Tellson Ojogun (from July 2019)

Project Coordinator
Inuwa B. Jalingo

Zonal Coordinators

Fasiku Adekunle David
Bolaji Akinsulie
Bintu Ibrahim
Osifo Tellson Ojogun
Slyvester Unogu

State Coordinators - NPC

Datsu Kalep Harris
Yemisi Ogunmola Daomi
Makinwa O. Martin
Ahmed Abubakar Kumo
Ologun Raphael
Vitaleen Nnadi
Lukuman Esuola
Onuminya Ojobi
Abubakar Afegbua
Chike Moronu
Oduniake George
Nwachukwu Nwakaego
Margaret Akpan
Amakwe Helen O.
Musa Shekarah
Fatima B. Kaita
Adepoju Emmanuel
Elibe Ekwutosi
Halima Yusuf
Bala Mairuwa Idris

National Coordinators - NMEP

Dr. Perpetua Uhomoibhi
Festus Okoh
Dr. Ibrahim Maikore
Dr. Aishatu Bintu Gubio
Tim Obot

BIOMARKER QUALITY CONTROL STAFF

Col. Felix Adeoye rtd.
Dr. Chimere Agomo
Gloria Odachi
Margaret Lediju
Nkechi Ogbulafor
Dr. Oladosu Oladipo
Dr. Tunde Oyebami
Dr. Yetunde Obazee
Stelle Arubi

DATA PROCESSING STAFF

Ms. Amarachukwu Onwuzurumba
Bakare Oluwasegun Stephen
Adam Adam Muhammad
Micheal Adesina

SUPPORT STAFF

Adams Adams
Aboho Mannessah
Anthony Adike
Danbazau Abudulahi
Egbejime Moses
Fred Ebhonu
Micheal Adesina
Moses Edward
Ngozi Uchechukwu
Ogunyemi Olufunke
Veronica Mordi

Household Listing Staff

Supervisors

Afam Ugochukwu
Akunna Oparah
Arinechi Arinze
Binta Akilu
Charles Egbu
Chibuzor Igboanusi
Chikaodi Onyenwe
Doma Ahmed Yahaya
Dr. Adenuga Olayinka
Elizabeth B. Idoko
Elizabeth Mbagwo
Emmanuel Edem
Evelyn Olanipekun
Fasiku Adekunle David
Hussaini Isiyaku
Ifeoma P. Nwajiagu
Jude Ezeoke
Kolapo Usman
Lanre Anifowose
Makinde Augustine
Martina Uchenna Obi
Maiakwai Ladan
Mohammed Kassim D.
Ngozi Arukwue
Ngozi Okakpu Nwagbo
Nfom Nwachukwu
Opaleke Demilade Samuel
Osifo Tellson Ojogun
Obike Nwohu
Ogunshina Joseph
Onyero Nneka
Sule Abdulganiyu
Sadiku Bamidele
Soji Adewale
Suleiman Bello
Ulasi Joachim
Winifred Ittah

Household listers and mappers

Anyakora Chinonye
Abam, Uket O.
Abdul Ismaila Bolokale
Abdullahi Abubakar
Abdullahi B. Danwaire
Abdulmalik Abdulkadir
Abdul Idris Mohammed
Abdulateef Egigogo
Abubakar Haruna
Adetayo Adedoyin
Adieze Igwebuike
Ado Usman
Arumuna Ariwera
Aliyu Ibrahim Suleiman
Adelabu Paul Adedoyin
Adedeji Agboola
Adetokunbo Adetutu
Ahmed Danjauro
Aisha Abu Adamu
Aisha Gademma
Ajayi Oluwaseun
Ajao Hameed Amode
Akudo Eze
Alfa Micheal
Aliyu Ibrahim Suleiman
Agbalaya Sekinat
Alliu Olufunmilayo
Akinlabi Daniel
Anuforo Vitus N.
Afuye Olakunle
Akhidenor Ekeleoseye
Awulor Rita I.
Akoko Tubotamuno
Aule Bem Daniel
Awal Sani Suleiman
Bashar Yakubu
Bassey I. Edet
Bello Abdullahi
Bilya Ilu
Biyama Zubema
Bobadoye Martins Dele
Bright Chidozie Ananti
Chikodili Okafor
Christopher Anyanwu
Dahiru Bello Ribadu
Dare Samuel Akinbami
Echezona Onwufor
Ekeoba Saturday
Ekoh Florence N.
Elendu Chibuihe
Elvis Aibuedefe
Emmanuel Agada Moses
Emmanuel Uche Nwachukwu
Ernestine Bassey
Fatima Baba Dauda
Fero Gbadu Tsaku
Fioyo Umoren
Guembe Ebikare
Habib Ibbi Ibrahim
Hamza Yusuf Anka
Hassan Isyaka Sule
Hussaini Bello Bobbo
Idongesit Ekpo
Ibrahim Maje Tijjani
Ibrahim Mohammed M.
Ibrahim Onuchi Saidu
Ibrahim Ubani
Ifayefunmi Aduke Rita
Igbinaduwa Jeffery
Ikechukwu Onyekwere
Inuwa A. Jatau
Isyaku Mohammad Yakubu
Ja'afar Ibrahim Maibanga
James Lynda
James Ibipiriene D.
Jeremia Faransa
Job Susugye Doris
John Adamu
Kabiru Ahmed Abubakar
Kabiru Ibrahim
Kasimu Lawal
Kaura Kyauta Bala
Kenneth Okpara
Kuye R. A.
Labaran Ibrahim Usman
Lawal M. Daura
Lawrence Ayeni Ajose
Ma'aruf Muhammad Ma'aruf
Madu Edozie
Maduagwuna Chinyere
Magaji Aliyu Kardi
Mahmud Ismail
Maigida Sanusi
Mezue Oliver Emeka
Muhammed Bashir Yau
Mohammed Musa
Mohd Alhaji Mustapha
Mohammed Faruk Bello
Monye A, Paul
Muhammed Jahbi Maradun
Musa Danladi Chungson
Nasir Ilu Ahmed
Nasir Ohiani Isah
Nwachukwu N. Chidiogo
Nwachukwu Chimmobi
Obiakonwa Okagwu
Odebunmi O. I.
Ogbodo Cyprain
Ogbogo Paul O.
Ogbonna Raphael C.
Ogbujih Chibuzor Ukazur

Ogunbayo F. Fedeke
Okeke Onyekwelu
Okunade A. 0.
Okochi John I
Okpaireh Priscillia
Okwara Theodore U.
Olugbeyokun C. Olakunle
Olunlade O. Bawale
Oluwole Femi
Onigbogi O. Hakeem
Onuigbo Chibuzor Obi
Pam Joshua Wang
Paul U. Damian
Paul V. Zawaya
Peresine M. Amakirisou
Salako H. Olusola
Sallu Godiya Dodos
Sani Ladan Dogon Daji
Selema Ayibia
Shinngu Billy
Sualim A. E
Stella Azubuine
Thersa Ngozi Okpara
Thlama Ndirmbula
Uchenna Ezenwa
Udo Okon Udo
Ugochukwu J. Okpara
Ugwu C. Chukwuwike
Ugwuanyi Charles
Uju Lilian Madukairo
Ukpai, Kanu E.
Umar Muhd Argungu
Usman Jibrin
Uzoigwe Cordelia Ugochi
Uzoma O. Uzoamaka
Uzungwe Henry
Victoria Gaiya
Victor Kehinde Ajayi
Yaba Zakari-Yau
Yahaya Yanusa Kigo
Yahya M. Yakasai
Yakubu Karimu Fwashan

Reserve listers

Ezinne Nwandu
Harrison Ezekwe
Isa Rabi
Jennifer Spiff
Jicolia Tenung
Kenneth Nwachukwu
Nkoyo Nwakusor
Nnagbo Rita Ogochukwu

Field Supervisors

Abubakar Aliyu Sambawa
Ado Mamman
Ahijo Sabuda Adamu
Akinrinola Tunde Olutosin
Babatunde Salami Nuhu
Chibuzor Igboanusi
Dede Ibrahim Adamu
Ejike Daniel Chukwuma
Fagbamigbe Peter Ilelabayo
Fasugba Olufunso
Habib Isah Abdullahi
Hamza Mohammed
Idris Musa
Iliya Augustine
Isemin Edet Isemin
Isreal Ilori Olusegun
John Manuagwu I.
Kusimo Mobolaji Charles
Lucky Isa Bada
Madu Mohammed Maidugu
Makama Ali Yahuza
Martins Udeh Uche
Nasir Ohiani Isah
Obike Nwohu Cyprian
Odey Isaac Oko
Ogunbanjo Festus Jide
Onwunka Patrick
Oparah Kenneth Ifeanyi
Saleh Adamu Sinbad
Saleh Garba
Salisu Bisallah Kangiwa
Sodipo Babatunde James
Tadafe Daniel Onoma
Umar Mahmud Jingino
Yunusa Yahuza
Zidafamor Timi Arede
Zubema Biyama

CAPI Editors

Adaora O. Ebenebe
Adedayo Oluwatosin Sola
Adeyeye Olayanju
Ahambeh Rose
Aisha Abubakar Ciroma
Akinsibo Lydia Olayinka
Amina Mani Yangora
Aremu Khadijat
Balogun Titilayo Mary
Chioma Mezue
Daso Oluwafunmilayo Helen
Emmanuel Victoria Shallangwa
Felicia Ezekiel Dahiru
Gloria Ogu
Habiba Bulama
Helen David
Hennang Makama
Igboke Amaka Immaculata
Linda James Mshelia
Kadiri Joyce E.
Kucheli Hassan
Nabila Kabir Dambazau
Obinauju Okezie
Odela Joan Ame
Ododo-Osagie Benedicta
Ogbujih Veronica
Ojesanmi Caroline Modupe
Ojo Victoria Tayo
Omiloli, Elia Ernest
Oparah Julianne Ahunna
Oyinkolade Damilola Morenike
Roseline Shokoro Danladi
Talatu Jonathan
Ukanwa Juliet
Uzoigwe Calista Chinedu
Zainab Ayobame Bello
Zainab Halilu Anka

INTERVIEWERS

Abubakar Idris Evuti
Abubakar Madaki
Abubakar Mohammed Dange
Abuduljalil Mohammed
Adam Abudullahi Sani
Adamu Muhammad Hadi
Adeniyi Busayo Comfort
Aderotoye Oluwunmi Funmilola
Adisa Funmilayo Cecilia
Aduloju Olaoluwa Peter
Agbalibe Nonyelum Martina
Agnes Rahila Finangchi
Ahmed Wudini
Aisha .A. Adamu
Aisha Musa
Aisha Usman Kaoje
Ajah Friday Ernest
Ajayi Kehinde Victor
Ajulo Ayodele Afusat
Akhidenor P. Ekeleoseye
Akinwarere Helen
Akinware Opeyemi Oluwabunmi
Akpa Esther Ogbonne
Akudo Eze
Al- Ameen Usman Muhammad
Amina G. Jibrin
Amina Umar
Aminu Aliyu Muri
Amos Onyebuchi
Ananti Henry Onyeka
Aniso Morufat Olabisi
Anshondo Angela
Anyanwu Chris
Aretolu Idowu
Arochukwu Agatha
Atibi Jumbo
Ausi Adesina Stephen
Auwal Sani Suleiman
Balogun Damilola Idayat
Bashar Hamisu
Basheer Muhammad Danbazau
Bello Isa
Blessing Adamu
Blessing Olasupo Abesin
Bose Christiana Otaru
Chika Okafor Christian
Chikodili Okafor
Chimezie Uzoma Mbagwu
Damilola Farombi
Dasplang Philemon Sunday
David Benjamin Avoh
Dibia N. Ifeoma Onyenmeli
Disu Surajat Oluwakemi
Dorathy Philip
Duru Samuel Obinna
Ebong Naomi Ubong
Edime John Agenyi
Ejiga Rose
Ekeh Aqueen Obianuju
Ekwutosi Chinonso Linda
Emmanuel Agada Moses
Enaifoghe Dorcas
Eni Ekama
Ernestine Bassey
Esther A. Gagara
Eunice Kusi Ittah
Eze Angela Ndidiamaka
Ezeanyaso Stella
Ezenwa Uchenna Okechukwu
Falnyi Nathaniel Yakubu
Falmata Bukar Gajiram
Fashiku Ayodeji Emmanuel
Fati Yusuf Mirnga
Fatima Umar
Fatima Yerima
Fatime Wakil Ibrahim
Folashade O. Akomolafe
Folashade Rasheedat
Gamu Daniel
Gbenga Akerele Emmanuel
Gboshe, Angela
Glory Charles
Goodluck Nwogu
Hadiza Abdulkarim
Hadiza Baba Liman
Hadiza Ibrahim
Hadiza Sadiq Abubakar
Hafsatu Tinau
Hajara Muazu
Hamza Alhaji
Hassan Jummai Kaku
Hauwa Abba Yidi
Hauwa M. Musa
Hauwa Usman Degri
Hauwa'u Usman
Ifeoma Ufondu
Ijale Caroline
Iraoya Celestina
Isah Sani Mohammed
Ismaila Farouq
Jaiyeola Adebakin
James Alami Joy
James Gbenga Timiothy
Jemide Oritsenojor Osas
Jimoh Salihu
Juliana Sani
Khadija Bilal
Kurogha Clara
Lydia Maikudi
Madu Edozie
Majidda Baba Gimba
Mariya Bishir
Mary Akinola
Maryam Dunoma
Maryam Hanza Maina
Mfon Micheal Ebieme
Micheal Alfa
Mohammed Adamu
Mohammed Abdulhamid
Mohammed Isa Liti
Muhammed Tahir Zainab
Muhammad Umar Kangiwa
Murtala Mohammed Lau
Musaddiq Ismail Musa
Musa Vincent Ogaji
Nafisa Aliyu
Nana Eunice Uhunoma
Nnaji Nwanneka Doris
Nwogbo Daniel
Obajuluwa O. Joshua
Obembe Kolawole Michael
Ogar J. Oru
Ogunshina Owolabi Victor
Ojo Oluwatoyin Rolake
Okeke Onyekwelu
Okere Chijioke Bruno
Okide Nkiru
Okoronkwo Elizabeth N.
Okwu Sunday Ogah
Olorunda Etanamibu Ilashe
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Onafowope Oyinkansola Omobolaji
Onipede Titilayo Yemisi
Orimaye Damilola
Onwuchekwa Odochi Faith
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Onyenwe Ezinne Maureen
Oseyemi Mark Babatunde
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Patience Atabo
Patrick Salami
Patricia Megwalu C.
Praise Elizabeth Chidera
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Rabi Sani Marshall
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Raymond-Sen Jinteno
Richard Dzarma
Rukayya Muhammad
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Sanusi Aliyu Mafindi
Saratu Wakili
Sesan Olukayode

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Shinngu Billy
Stanley Nwosu Onyeka
Sunday Obirija Jacob
Sunday Yusuf
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Uche Emeka Paul
Uloh Okon William
Umaima Jibrin Isah
Umar Abba
Umoh Ekaumoh Sylvanus
Unogu Chioma
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Zittas Nannyi Datyem

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Abdul Rufai
Agnes Iduma Ikpeghe
Ezeilo Adaeze
Idowu Olusola Ojuolape
Omitogun O. Motunrayo
Orika Ijeoma Chika
Perebi Alaibe
Ulasi Justina O.
Usman Sani Akoyi

Laboratory Scientists

Aaron Samuel Ayodele
Abang Cecilia Okon
Abdulkadir Sani
Abdullahi Habibu Etsugaie
Abdul Rahaman Danjuma
Abubakar Abba Mallam
Adeosun Oluwasegun
Adetola .A. Adeyemi
Akazi Ugochukwu
Akinlolu Ayodeji Felix
Anyebe Ameh Boniface
Auwal Ibrahim
Babangida Garba
Bilkisu Yusuf
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Kafidipe Ebenezar Oladele
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Magdaline Ngozi Umahi
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Moses Yilsu Dimlong
Nwaekpa, Chinenye Nkem
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Olabiyi Kazeem Olajide
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Theodore Pwakutti Garba
Usman Kabiru
Usman Mohammad
Yusuf Mohammed Jajere

Nurses

Adara Deborah Oluwaseun
Adeleke Elizabeth Ebelechukwu
Adilue Adaeze Florencemary
Aishatu Jibrin
Ajiboye Omowumi Omolayo
Aransiola Abosede Modupe
Auwal Muhammad Mabera
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Mairo Y.A Mohammed
Maria Paul Ogar
Mohammed Bukar
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Ramatu Usman
Rejoice Bulus Lokoja
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Sampou Woyengitari Daniel
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QUESTIONNAIRES

Appendix E

FORMATTING DATE: 16 Mar 2017
ENGLISH LANGUAGE: 26 May 2018

NIGERIA DEMOGRAPHIC AND HEALTH SURVEYS 2018
HOUSEHOLD QUESTIONNAIRE

NIGERIA
NATIONAL POPULATION COMMISSION

IDENTIFICATION

STATE _____

LOCAL GOVT. AREA _____

LOCALITY _____

ENUMERATION AREA _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

HOUSEHOLD SELECTED FOR MAN'S SURVEY? (1=YES, 2=NO) . . . . . .

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY / MONTH / YEAR
INTERVIEWER'S NAME				INT. NO.
RESULT*				RESULT*
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN

TOTAL ELIGIBLE MEN

LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE

LANGUAGE OF QUESTIONNAIRE** 0 1

LANGUAGE OF INTERVIEW**

NATIVE LANGUAGE OF RESPONDENT**

TRANSLATOR USED (YES = 1, NO = 2)

LANGUAGE OF QUESTIONNAIRE** ENGLISH

**LANGUAGE CODES:
01 ENGLISH
02 HAUSA
03 YORUBA
04 IGBO

SUPERVISOR		FIELD EDITOR	
NAME	NUMBER	NAME	NUMBER

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INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with National Population Commission. We are conducting a survey about health and other topics all over Nigeria. The information we collect will help the government to plan health services. Your household was selected for the survey. I would like to ask you some questions about your household. The questions usually take about 20 to 30 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time. In case you need more information about the survey, you may contact the person listed on this card.

GIVE CARD WITH CONTACT INFORMATION

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER _____ DATE _____

RESPONDENT AGREES TO BE INTERVIEWED . . 1 ↓

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . 2 → END

100	RECORD THE TIME.	HOURS . . . . . [ ][ ] MINUTES . . . . . [ ][ ]

HOUSEHOLD SCHEDULE

							IF AGE 15 OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY		
1	2	3	4	5	6	7	8	9	10	11
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-20 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'.	What is (NAME)'s current marital status? 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	IF HOUSE-HOLD SELEC-TED FOR MAN'S SURVEY CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
			M F	Y N	Y N	IN YEARS				
01			1 2	1 2	1 2			01	01	01
02			1 2	1 2	1 2			02	02	02
03			1 2	1 2	1 2			03	03	03
04			1 2	1 2	1 2			04	04	04
05			1 2	1 2	1 2			05	05	05
06			1 2	1 2	1 2			06	06	06
07			1 2	1 2	1 2			07	07	07
08			1 2	1 2	1 2			08	08	08
09			1 2	1 2	1 2			09	09	09
10			1 2	1 2	1 2			10	10	10

2A)	Just to make sure that I have a complete listing: are there any other people such as small children or infants that we have not listed?	YES ☐ →	ADD TO TABLE	NO ☐
2B)	Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here?	YES ☐ →	ADD TO TABLE	NO ☐
2C)	Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed?	YES ☐ →	ADD TO TABLE	NO ☐

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = BROTHER-IN-LAW/SISTER IN-LAW
10 = NIECE/NEPHEW BY BLOOD
11 = NIECE/NEPHEW BY MARRIAGE
12 = OTHER RELATIVE
13 = ADOPTED/FOSTER/ STEPCHILD
14 = NOT RELATED
15 = CO-WIFE
98 = DON'T KNOW

HOUSEHOLD SCHEDULE

							IF AGE 15 OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY		
1	2	3	4	5	6	7	8	9	10	11
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-20 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'.	What is (NAME)'s current marital status? 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	IF HOUSE-HOLD SELEC-TED FOR MAN'S SURVEY CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
11			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		11	11	11
12			1 2	1 2	1 2			12	12	12
13			1 2	1 2	1 2			13	13	13
14			1 2	1 2	1 2			14	14	14
15			1 2	1 2	1 2			15	15	15
16			1 2	1 2	1 2			16	16	16
17			1 2	1 2	1 2			17	17	17
18			1 2	1 2	1 2			18	18	18
19			1 2	1 2	1 2			19	19	19
20			1 2	1 2	1 2			20	20	20

TICK HERE IF CONTINUATION SHEET USED ☐

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = BROTHER-IN-LAW/SISTER IN-LAW
10 = NIECE/NEPHEW BY BLOOD
11 = NIECE/NEPHEW BY MARRIAGE
12 = OTHER RELATIVE
13 = ADOPTED/FOSTER/ STEPCHILD
14 = NOT RELATED
15 = CO-WIFE
98 = DON'T KNOW

HOUSEHOLD SCHEDULE

	IF AGE 0-17 YEARS				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 0-4 YEARS		
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		BIRTH REGISTRATION		
	12	13	14	15	16	17	18	19	20A	20B	20C
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? What is the highest class/year (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2017-2018 (2018-2019) school year?	During [this/that] school year, what level and class/year [is/was] (NAME) attending? SEE CODES BELOW.	Was (NAME'S) birth registered?	With which authority was (NAME'S) birth registered? 1 = NPOPC 2 = LGA 3 = PRIVATE CLINIC/ HOSPITAL 4 = OTHER	May I see (NAME'S) birth certificate? 1 = SEEN 2 = NOT SEEN
01	Y N DK 1 2 8 GO TO 14		Y N DK 1 2 8 GO TO 16		Y N 1 2 GO TO 21	LEVEL CLASS/YEAR	Y N 1 2 GO TO 21	LEVEL CLASS/YEAR	Y N DK 1 2 8 NEXT LINE		
02	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
03	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
04	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
05	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
06	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
07	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
08	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
09	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
10	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		

CODES FOR Qs. 17 AND 19: EDUCATION

LEVEL
0 = PRESCHOOL
1 = PRIMARY
2 = SECONDARY
3 = HIGHER
8 = DON'T KNOW

EDUCATION YEAR
01-03 = YEARS AT PRE-PRIMARY/KINDERGARTEN
01-06 = YEARS 1-6 AT PRIMARY LEVEL
01-06 = YEARS 1-6 AT SECONDARY LEVEL
01 - TOTAL NUMBER OF YEARS AT HIGHER LEVEL*
00 = LESS THAN 1 YEAR COMPLETED
(USE '00' FOR Q. 17 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 19.)
98 = DON'T KNOW

***FOR `HIGHER' TOTAL THE NUMBER OF YEARS AT THE POST-SECONDARY LEVEL**

HOUSEHOLD SCHEDULE

	IF AGE 0-17 YEARS				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 0-4 YEARS		
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		BIRTH REGISTRATION		
	12	13	14	15	16	17	18	19	20A	20B	20C
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? What is the highest class/year (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2017-2018 (2018-2019) school year?	During [this/that] school year, what level and class/year [is/was] (NAME) attending? SEE CODES BELOW.	Was (NAME'S) birth registered?	With which authority was (NAME'S) birth registered? 1 = NPOPC 2 = LGA 3 = PRIVATE CLINIC/ HOSPITAL 4 = OTHER	May I see (NAME'S) birth certificate? 1 = SEEN 2 = NOT SEEN
11	Y N DK 1 2 8 GO TO 14		Y N DK 1 2 8 GO TO 16		Y N 1 2 GO TO 21	LEVEL CLASS/YEAR	Y N 1 2 GO TO 21	LEVEL CLASS/YEAR	Y N DK 1 2 8 NEXT LINE		
12	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
13	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
14	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
15	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
16	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
17	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
18	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
19	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		
20	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 21		1 2 GO TO 21		1 2 8 NEXT LINE		

CODES FOR Qs. 17 AND 19: EDUCATION

LEVEL	EDUCATION YEAR
0 = PRESCHOOL	01-03 = YEARS AT PRE-PRIMARY/KINDERGARTEN
1 = PRIMARY	01-06 = YEARS 1-6 AT PRIMARY LEVEL
2 = SECONDARY	01-06 = YEARS 1-6 AT SECONDARY LEVEL
3 = HIGHER	01 - TOTAL NUMBER OF YEARS AT HIGHER LEVEL*
8 = DON'T KNOW	00 = LESS THAN 1 YEAR COMPLETED (USE '00' FOR Q. 17 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 19.)
	98 = DON'T KNOW

***FOR `HIGHER' TOTAL THE NUMBER OF YEARS AT THE POST-SECONDARY LEVEL**

HOUSEHOLD NOT SELECTED FOR MAN'S SURVEY ↓ | HOUSEHOLD SELECTED FOR MAN'S SURVEY → 101

IF AGE 5 YEARS OR OLDER

SEEING DIFFICULTY			HEARING DIFFICULTY			OTHER FUNCTIONAL DIFFICULTIES			
21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
Does (NAME) wear glasses or contact lenses to help them see?	I would like to know if (NAME) has difficulty seeing even when wearing glasses or contact lenses. Would you say that (NAME) has no difficulty seeing, some difficulty, a lot of difficulty, or cannot see at all? 1 = NO DIFFICULTY SEEING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT SEE AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty seeing. Would you say that (NAME) has no difficulty seeing, some difficulty, a lot of difficulty, or cannot see at all? 1 = NO DIFFICULTY SEEING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT SEE AT ALL 8 = DON'T KNOW	Does (NAME) wear a hearing aid?	I would like to know if (NAME) has difficulty hearing even when using a hearing aid. Would you say that (NAME) has no difficulty hearing, some difficulty, a lot of difficulty, or cannot hear at all? 1 = NO DIFFICULTY HEARING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT HEAR AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty hearing. Would you say that (NAME) has no difficulty hearing, some difficulty, a lot of difficulty, or cannot hear at all? 1 = NO DIFFICULTY HEARING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT HEAR AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty communicating when using his/her usual language. Would you say that (NAME) has no difficulty understanding or being understood, some difficulty, a lot 1 = NO DIFFICULTY COMMUNICATING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT COMMUNICATE AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty remembering or concentrating. Would you say that (NAME) has no difficulty remembering or concentrating, some difficulty, a lot of difficulty, or cannot remember or concentrate at all? 1 = NO DIFFICULTY REMEMBERING/ CONCENTRATING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT REMEMBER/ CONCENTRATE AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty walking or climbing steps. Would you say that (NAME) has no difficulty walking or climbing steps, some difficulty, a lot of difficulty, or cannot walk or climb steps at all? 1 = NO DIFFICULTY WALKING OR CLIMBING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT WALK OR CLIMB AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty washing all over or dressing. Would you say that (NAME) has no difficulty washing all over or dressing, some difficulty, a lot of difficulty, or cannot wash all over or dress at all? 1 = NO DIFFICULTY WASHING OR DRESSING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT WASH OR DRESS AT ALL 8 = DON'T KNOW
Y N DK 1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	Y N DK 1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8

HOUSEHOLD NOT SELECTED FOR MAN'S SURVEY ↓ | HOUSEHOLD SELECTED FOR MAN'S SURVEY → 101

IF AGE 5 YEARS OR OLDER

SEEING DIFFICULTY			HEARING DIFFICULTY			OTHER FUNCTIONAL DIFFICULTIES			
21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
Does (NAME) wear glasses or contact lenses to help them see?	I would like to know if (NAME) has difficulty seeing even when wearing glasses or contact lenses. Would you say that (NAME) has no difficulty seeing, some difficulty, a lot of difficulty, or cannot see at all? 1 = NO DIFFICULTY SEEING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT SEE AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty seeing. Would you say that (NAME) has no difficulty seeing, some difficulty, a lot of difficulty, or cannot see at all? 1 = NO DIFFICULTY SEEING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT SEE AT ALL 8 = DON'T KNOW	Does (NAME) wear a hearing aid?	I would like to know if (NAME) has difficulty hearing even when using a hearing aid. Would you say that (NAME) has no difficulty hearing, some difficulty, a lot of difficulty, or cannot hear at all? 1 = NO DIFFICULTY HEARING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT HEAR AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty hearing. Would you say that (NAME) has no difficulty hearing, some difficulty, a lot of difficulty, or cannot hear at all? 1 = NO DIFFICULTY HEARING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT HEAR AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty communicating when using his/her usual language. Would you say that (NAME) has no difficulty understanding or being understood, some difficulty, a lot 1 = NO DIFFICULTY COMMUNICATING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT COMMUNICATE AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty remembering or concentrating. Would you say that (NAME) has no difficulty remembering or concentrating, some difficulty, a lot of difficulty, or cannot remember or concentrate at all? 1 = NO DIFFICULTY REMEMBERING/ CONCENTRATING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT REMEMBER/ CONCENTRATE AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty walking or climbing steps. Would you say that (NAME) has no difficulty walking or climbing steps, some difficulty, a lot of difficulty, or cannot walk or climb steps at all? 1 = NO DIFFICULTY WALKING OR CLIMBING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT WALK OR CLIMB AT ALL 8 = DON'T KNOW	I would like to know if (NAME) has difficulty washing all over or dressing. Would you say that (NAME) has no difficulty washing all over or dressing, some difficulty, a lot of difficulty, or cannot wash all over or dress at all? 1 = NO DIFFICULTY WASHING OR DRESSING 2 = SOME DIFFICULTY 3 = A LOT OF DIFFICULTY 4 = CANNOT WASH OR DRESS AT ALL 8 = DON'T KNOW
Y N DK 1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	Y N DK 1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8
1 2 8 GO TO 23	1 2 3 4 8 (GO TO 24)	1 2 3 4 8	1 2 8 GO TO 26	1 2 3 4 8 (GO TO 27)	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8	1 2 3 4 8

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	What is the main source of drinking water for members of your household?	**PIPED WATER** PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PIPED TO NEIGHBOR . . . . . 13 PUBLIC TAP/STANDPIPE . . . . . 14 TUBE WELL OR BOREHOLE . . . . . 21 **DUG WELL** PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 **WATER FROM SPRING** PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 81 BOTTLED WATER . . . . . 91 SACHET WATER . . . . . 92 OTHER _____ 96 (SPECIFY)	106 103 103
102	What is the main source of water used by your household for other purposes such as cooking and handwashing?	**PIPED WATER** PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PIPED TO NEIGHBOR . . . . . 13 PUBLIC TAP/STANDPIPE . . . . . 14 TUBE WELL OR BOREHOLE . . . . . 21 **DUG WELL** PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 **WATER FROM SPRING** PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 81 OTHER _____ 96 (SPECIFY)	106
103	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	105
104	How long does it take to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] DON'T KNOW 998	
105	CHECK 101 AND 102: CODE '14' OR '21' CIRCLED? YES [ ] ↓ NO [ ]		107

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
106	In the past two weeks, was the water from this source not available for at least one full day?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
107	Do you do anything to the water to make it safer to drink?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 109
108	What do you usually do to make the water safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL . . . . . A ADD BLEACH/CHLORINE . . . . . B STRAIN THROUGH A CLOTH . . . . . C USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC) . . . . . D SOLAR DISINFECTION . . . . . E LET IT STAND AND SETTLE . . . . . F ALUM . . . . . G OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
109	What kind of toilet facility do members of your household usually use? IF NOT POSSIBLE TO DETERMINE, ASK PERMISSION TO OBSERVE THE FACILITY.	**FLUSH OR POUR FLUSH TOILET** FLUSH TO PIPED SEWER SYSTEM . . . . . 11 FLUSH TO SEPTIC TANK . . . . . 12 FLUSH TO PIT LATRINE . . . . . 13 FLUSH TO SOMEWHERE ELSE . . . . . 14 FLUSH, DON'T KNOW WHERE . . . . . 15 **PIT LATRINE** VENTILATED IMPROVED PIT LATRINE . . . . . 21 PIT LATRINE WITH SLAB . . . . . 22 PIT LATRINE WITHOUT SLAB/OPEN PIT . . . . . 23 COMPOSTING TOILET . . . . . 31 BUCKET TOILET . . . . . 41 HANGING TOILET/HANGING LATRINE . . . . . 51 NO FACILITY/BUSH/FIELD . . . . . 61 OTHER _____ 96 (SPECIFY)	→ 113
110	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	→ 112
111	Including your own household, how many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . [0][ ] 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	
112	Where is this toilet facility located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
113	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 LPG . . . . . 02 NATURAL GAS . . . . . 03 BIOGAS . . . . . 04 KEROSENE . . . . . 05 COAL, LIGNITE . . . . . 06 CHARCOAL . . . . . 07 WOOD . . . . . 08 STRAW/SHRUBS/GRASS . . . . . 09 AGRICULTURAL CROP . . . . . 10 ANIMAL DUNG . . . . . 11 NO FOOD COOKED IN HOUSEHOLD . . . . . 95 OTHER _____ 96 (SPECIFY)	→ 116
114	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE . . . . . 1 IN A SEPARATE BUILDING . . . . . 2 OUTDOORS . . . . . 3 OTHER _____ 6 (SPECIFY)	→ 116
115	Do you have a separate room which is used as a kitchen?	YES . . . . . 1 NO 2	
116	How many rooms in this household are used for sleeping?	ROOMS . . . . . [ ][ ]	
117	Does this household own any livestock, herds, other farm animals, or poultry?	YES . . . . . 1 NO 2	→ 119
118	How many of the following animals does this household own? IF NONE, RECORD '00'. IF 95 OR MORE, RECORD '95'. IF UNKNOWN, RECORD '98'. a) Milk cows or bulls? b) Other cattle? c) Horses, donkeys, or mules? d) Goats? e) Sheep? f) Chickens or other poultry? g) Pigs? h) Camels?	a) COWS/BULLS . . . . . [ ][ ] b) OTHER CATTLE . . . . . [ ][ ] c) HORSES/DONKEYS/MULES . . . . . [ ][ ] d) GOATS . . . . . [ ][ ] e) SHEEP . . . . . [ ][ ] f) CHICKENS/POULTRY . . . . . [ ][ ] f) PIGS . . . . . [ ][ ] f) CAMEL . . . . . [ ][ ]	
119	Does any member of this household own any agricultural land?	YES . . . . . 1 NO 2	→ 121
120	How many plot/acres/hectares of agricultural land do members of this household own? IF 95 OR MORE, CIRCLE '9950'.	PLOT . . . . . 1 [ ][ ] . [ ] ACRES . . . . . 2 [ ][ ] . [ ] HECTARES . . . . . 3 [ ][ ] . [ ] 95 OR MORE PLOT/ACRES/HECTARES . . 9950 DON'T KNOW 9998	

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			SKIP
121	Does your household have:		YES	NO	
	a) Electricity?	a) ELECTRICITY	1	2	
	b) A radio?	b) RADIO	1	2	
	c) A television?	c) TELEVISION	1	2	
	d) A non-mobile telephone?	d) NON-MOBILE TELEPHONE	1	2	
	e) A computer?	e) COMPUTER	1	2	
	f) A refrigerator?	f) REFRIGERATOR	1	2	
	g) A table?	g) TABLE	1	2	
	h) A chair?	h) CHAIR	1	2	
	i) A bed?	i) BED	1	2	
	j) A sofa?	j) SOFA	1	2	
	k) A cupboard?	k) CUPBOARD	1	2	
	l) An air conditioner?	l) AIR CONDITIONER	1	2	
	m) An electric iron?	m) ELECTRIC IRON	1	2	
	n) A generator?	n) GENERATOR	1	2	
	o) A fan?	o) FAN	1	2	
122	Does any member of this household own:		YES	NO	
	a) A watch?	a) WATCH	1	2	
	b) A mobile phone?	b) MOBILE PHONE	1	2	
	c) A bicycle?	c) BICYCLE	1	2	
	d) A motorcycle or motor scooter?	d) MOTORCYCLE/SCOOTER	1	2	
	e) An animal-drawn cart?	e) ANIMAL-DRAWN CART	1	2	
	f) A car or truck?	f) CAR/TRUCK	1	2	
	g) A boat with a motor?	g) BOAT WITH MOTOR	1	2	
	h) A canoe?	h) CANOE	1	2	
	i) A Keke Napep?	i) KEKE - NAPEP	1	2	
123	Does any member of this household have a bank account?	YES		1	
		NO		2	
124	How often does anyone smoke inside your house? Would you say daily, weekly, monthly, less often than once a month, or never?	DAILY		1	
		WEEKLY		2	
		MONTHLY		3	
		LESS OFTEN THAN ONCE A MONTH		4	
		NEVER		5	
127	Does your household have any mosquito nets?	YES		1	
		NO		2	→ 139
128	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS		[ ]	

MOSQUITO NETS

		NET #1	NET #2	NET #3
129	ASK THE RESPONDENT TO SHOW YOU ALL THE NETS IN THE HOUSEHOLD. IF MORE THAN 3 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED, HANGING . . 1 OBSERVED, NOT HANGING . . . . . 2 NOT OBSERVED 3	OBSERVED, HANGING . . 1 OBSERVED, NOT HANGING . . . . . 2 NOT OBSERVED 3	OBSERVED, HANGING . . 1 OBSERVED, NOT HANGING . . . . . 2 NOT OBSERVED 3
130	How many months ago did your household get the mosquito net? IF LESS THAN ONE MONTH AGO, RECORD '00'.	MONTHS AGO . . . . . [ ][ ] MORE THAN 36 MONTHS AGO . . . . . 95 NOT SURE 98	MONTHS AGO . . . . . [ ][ ] MORE THAN 36 MONTHS AGO . . . . . 95 NOT SURE 98	MONTHS AGO . . . . . [ ][ ] MORE THAN 36 MONTHS AGO . . . . . 95 NOT SURE 98
131	OBSERVE OR ASK BRAND/TYPE OF MOSQUITO NET. IF BRAND IS UNKNOWN AND YOU CANNOT OBSERVE THE NET, SHOW PICTURES OF TYPICAL NET TYPES/BRANDS TO RESPONDENT.	**LONG-LASTING INSECTICIDE-TREATED NET (LLIN)** PERMANET . . . . . 11 OLYSET . . . . . 12 ICONLIFE . . . . . 13 DURANET . . . . . 14 NETPROTEC . . . . . 15 BASF INTERCEPTC . . 17 YORKOOL . . . . . 18 OTHER/DON'T KNOW BRAND . . . . . 16 OTHER TYPE . . . . . 96 DON'T KNOW TYPE . . 98	**LONG-LASTING INSECTICIDE-TREATED NET (LLIN)** PERMANET . . . . . 11 OLYSET . . . . . 12 ICONLIFE . . . . . 13 DURANET . . . . . 14 NETPROTEC . . . . . 15 BASF INTERCEPTC . . 17 YORKOOL . . . . . 18 OTHER/DON'T KNOW BRAND . . . . . 16 OTHER TYPE . . . . . 96 DON'T KNOW TYPE . . 98	**LONG-LASTING INSECTICIDE-TREATED NET (LLIN)** PERMANET . . . . . 11 OLYSET . . . . . 12 ICONLIFE . . . . . 13 DURANET . . . . . 14 NETPROTEC . . . . . 15 BASF INTERCEPTC . . 17 YORKOOL . . . . . 18 OTHER/DON'T KNOW BRAND . . . . . 16 OTHER TYPE . . . . . 96 DON'T KNOW TYPE . . 98
134	Did you get the net through a net mass distribution campaign, during an antenatal care visit, or during an immunization visit?	YES, DISTRIBUTION CAMPAIGN . . . . . 1 YES, ANC . . . . . 2 YES, IMMUNIZATION VISIT . . . . . 3 (SKIP TO 136) NO 4	YES, DISTRIBUTION CAMPAIGN . . . . . 1 YES, ANC . . . . . 2 YES, IMMUNIZATION VISIT . . . . . 3 (SKIP TO 136) NO 4	YES, DISTRIBUTION CAMPAIGN . . . . . 1 YES, ANC . . . . . 2 YES, IMMUNIZATION VISIT . . . . . 3 (SKIP TO 136) NO 4
135	Where did you get the net?	GOVT. HEALTH FACILITY . . . . . 01 PRIVATE HEALTH FACILITY . . . . . 02 PHARMACY . . . . . 03 SHOP/MARKET . . . . . 04 COMMUNITY HEALTH WORKER . . . . . 05 RELIGIOUS INSTITUTION . . . . . 06 SCHOOL . . . . . 07 OTHER . . . . . 96 DON'T KNOW 98	GOVT. HEALTH FACILITY . . . . . 01 PRIVATE HEALTH FACILITY . . . . . 02 PHARMACY . . . . . 03 SHOP/MARKET . . . . . 04 COMMUNITY HEALTH WORKER . . . . . 05 RELIGIOUS INSTITUTION . . . . . 06 SCHOOL . . . . . 07 OTHER . . . . . 96 DON'T KNOW 98	GOVT. HEALTH FACILITY . . . . . 01 PRIVATE HEALTH FACILITY . . . . . 02 PHARMACY . . . . . 03 SHOP/MARKET . . . . . 04 COMMUNITY HEALTH WORKER . . . . . 05 RELIGIOUS INSTITUTION . . . . . 06 SCHOOL . . . . . 07 OTHER . . . . . 96 DON'T KNOW 98

MOSQUITO NETS

		NET #1	NET #2	NET #3
136	Did anyone sleep inside this mosquito net last night?	YES . . . . . 1 (SKIP TO 137) NO . . . . . 2 NOT SURE . . . . . 8 (SKIP TO 138)	YES . . . . . 1 (SKIP TO 137) NO . . . . . 2 NOT SURE . . . . . 8 (SKIP TO 138)	YES . . . . . 1 (SKIP TO 137) NO . . . . . 2 NOT SURE . . . . . 8 (SKIP TO 138)
136A	Why did not anyone sleep inside this net?	NO MOSQUITOES . . . . . 01 NO MALARIA . . . . . 02 TOO HOT . . . . . 03 DIFFICULT TO HANG . . 04 DON'T LIKE SMELL . . . . . 05 FEEL `CLOSED IN' OR CONSTRAINED . . 06 NET TOO OLD/TORN . . 07 NET TOO DIRTY . . . . . 08 NET NOT AVAILABLE LAST NIGHT (WASHING) . . 09 FEEL ITN CHEMICALS ARE UNSAFE . . . . . 10 ITN PROVOKES COUGH 11 USERS DID NOT SLEEP HERE LAST NIGHT . . 12 NET NOT NEEDED LAST NIGHT . . . . . 13 NO SPACE TO HANG . . 14 OTHER _____ 96 (SPECIFY) DON'T KNOW . . . . . 98 (SKIP TO 138)	NO MOSQUITOES . . . . . 01 NO MALARIA . . . . . 02 TOO HOT . . . . . 03 DIFFICULT TO HANG . . 04 DON'T LIKE SMELL . . . . . 05 FEEL `CLOSED IN' OR CONSTRAINED . . 06 NET TOO OLD/TORN . . 07 NET TOO DIRTY . . . . . 08 NET NOT AVAILABLE LAST NIGHT (WASHING) . . 09 FEEL ITN CHEMICALS ARE UNSAFE . . . . . 10 ITN PROVOKES COUGH 11 USERS DID NOT SLEEP HERE LAST NIGHT . . 12 NET NOT NEEDED LAST NIGHT . . . . . 13 NO SPACE TO HANG . . 14 OTHER _____ 96 (SPECIFY) DON'T KNOW . . . . . 98 (SKIP TO 138)	NO MOSQUITOES . . . . . 01 NO MALARIA . . . . . 02 TOO HOT . . . . . 03 DIFFICULT TO HANG . . 04 DON'T LIKE SMELL . . . . . 05 FEEL `CLOSED IN' OR CONSTRAINED . . 06 NET TOO OLD/TORN . . 07 NET TOO DIRTY . . . . . 08 NET NOT AVAILABLE LAST NIGHT (WASHING) . . 09 FEEL ITN CHEMICALS ARE UNSAFE . . . . . 10 ITN PROVOKES COUGH 11 USERS DID NOT SLEEP HERE LAST NIGHT . . 12 NET NOT NEEDED LAST NIGHT . . . . . 13 NO SPACE TO HANG . . 14 OTHER _____ 96 (SPECIFY) DON'T KNOW . . . . . 98 (SKIP TO 138)
137	Who slept inside this mosquito net last night? RECORD THE PERSON'S NAME AND LINE NUMBER FROM HOUSEHOLD SCHEDULE.	NAME _____ LINE NO. . . . . [ ][ ] NAME _____ LINE NO. . . . . [ ][ ] NAME _____ LINE NO. . . . . [ ][ ] NAME _____ LINE NO. . . . . [ ][ ]	NAME _____ LINE NO. . . . . [ ][ ] NAME _____ LINE NO. . . . . [ ][ ] NAME _____ LINE NO. . . . . [ ][ ] NAME _____ LINE NO. . . . . [ ][ ]	NAME _____ LINE NO. . . . . [ ][ ] NAME _____ LINE NO. . . . . [ ][ ] NAME _____ LINE NO. . . . . [ ][ ] NAME _____ LINE NO. . . . . [ ][ ]
138		GO BACK TO 129 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 139.	GO BACK TO 129 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 139.	GO TO 129 IN FIRST COLUMN OF A NEW QUESTIONNAIRE; OR, IF NO MORE NETS, GO TO 139.

ADDITIONAL HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
139	We would like to learn about the places that households use to wash their hands. Can you please show me where members of your household most often wash their hands?	OBSERVED, FIXED PLACE . . . . . 1 OBSERVED, MOBILE . . . . . 2 NOT OBSERVED, NOT IN DWELLING/YARD/PLOT . . . . . 3 NOT OBSERVED, NO PERMISSION TO SEE . . . . . 4 NOT OBSERVED, OTHER REASON 5	→ 142
140	OBSERVE PRESENCE OF WATER AT THE PLACE FOR HANDWASHING. RECORD OBSERVATION.	WATER IS AVAILABLE . . . . . 1 WATER IS NOT AVAILABLE 2	
141	OBSERVE PRESENCE OF SOAP, DETERGENT, OR OTHER CLEANSING AGENT AT THE PLACE FOR HANDWASHING. RECORD OBSERVATION.	SOAP OR DETERGENT (BAR, LIQUID, POWDER, PASTE) . . . . . A ASH, MUD, SAND . . . . . B NONE . . . . . Y	
142	OBSERVE MAIN MATERIAL OF THE FLOOR OF THE DWELLING. RECORD OBSERVATION.	**NATURAL FLOOR** EARTH/SAND . . . . . 11 DUNG . . . . . 12 **RUDIMENTARY FLOOR** WOOD PLANKS . . . . . 21 PALM/BAMBOO . . . . . 22 **FINISHED FLOOR** PARQUET OR POLISHED WOOD . . . . . 31 VINYL OR ASPHALT STRIPS . . . . . 32 CERAMIC TILES . . . . . 33 CEMENT . . . . . 34 CARPET/RUG . . . . . 35 OTHER _____ 96 (SPECIFY)	
143	OBSERVE MAIN MATERIAL OF THE ROOF OF THE DWELLING. RECORD OBSERVATION.	**NATURAL ROOFING** NO ROOF . . . . . 11 THATCH/PALM LEAF . . . . . 12 **RUDIMENTARY ROOFING** RUSTIC MAT . . . . . 21 PALM/BAMBOO . . . . . 22 WOOD PLANKS . . . . . 23 CARDBOARD . . . . . 24 **FINISHED ROOFING** METAL/ZINC . . . . . 31 WOOD . . . . . 32 CALAMINE/CEMENT FIBER . . . . . 33 CERAMIC TILES . . . . . 34 CEMENT . . . . . 35 ROOFING SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	

ADDITIONAL HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
144	OBSERVE MAIN MATERIAL OF THE EXTERIOR WALLS OF THE DWELLING. RECORD OBSERVATION.	**NATURAL WALLS** NO WALLS . . . . . 11 CANE/PALM/TRUNKS . . . . . 12 DIRT . . . . . 13 **RUDIMENTARY WALLS** BAMBOO WITH MUD . . . . . 21 STONE WITH MUD . . . . . 22 UNCOVERED ADOBE . . . . . 23 PLYWOOD . . . . . 24 CARDBOARD . . . . . 25 REUSED WOOD . . . . . 26 **FINISHED WALLS** CEMENT . . . . . 31 STONE WITH LIME/CEMENT . . . . . 32 BRICKS . . . . . 33 CEMENT BLOCKS . . . . . 34 COVERED ADOBE . . . . . 35 WOOD PLANKS/SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	
145	I would like to check whether the salt used in your household is iodized. May I have a sample of the salt used to cook meals in your household? TEST SALT FOR IODINE.	IODINE PRESENT . . . . . 1 NO IODINE . . . . . 2 NO SALT IN HOUSEHOLD . . . . . 3 SALT NOT TESTED _____ 6 (SPECIFY REASON)	
146	RECORD THE TIME.	HOURS . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT INTERVIEW:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

EDITOR'S OBSERVATIONS

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NIGERIA DEMOGRAPHIC AND HEALTH SURVEY - 2018
WOMAN'S QUESTIONNAIRE

NIGERIA
NATIONAL POPULATION COMMISSION

IDENTIFICATION

STATE _____

LOCAL GOVT. AREA _____

LOCALITY _____

ENUMERATION AREA _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

NAME AND LINE NUMBER OF WOMAN _____

CHECK COVER PAGE OF HOUSEHOLD QUESTIONNAIRE: HOUSEHOLD SELECTED FOR MAN'S SURVEY? (1=YES, 2=NO)

CHECK HOUSEHOLD QUESTIONNAIRE DVH01: WOMAN SELECTED FOR DV MODULE? (1=YES, 2=NO)

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR
INTERVIEWER'S NAME	_____	_____	_____	INT. NO.
RESULT*	_____	_____	_____	RESULT*
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS
TIME	_____	_____		

*RESULT CODES: 1 COMPLETED 4 REFUSED
2 NOT AT HOME 5 PARTLY COMPLETED 7 OTHER _____ SPECIFY
3 POSTPONED 6 INCAPACITATED

LANGUAGE OF QUESTIONNAIRE** 0 1 LANGUAGE OF INTERVIEW** NATIVE LANGUAGE OF RESPONDENT** TRANSLATOR USED (YES = 1, NO = 2)

LANGUAGE OF QUESTIONNAIRE** ENGLISH

**LANGUAGE CODES:
01 ENGLISH 03 YORUBA
02 HAUSA 04 IGBO

SUPERVISOR	FIELD EDITOR
NAME _____ NUMBER	NAME _____ NUMBER

INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with National Population Commission. We are conducting a survey about health and other topics all over Nigeria. The information we collect will help the government to plan health services. Your household was selected for the survey. The questions usually take about 30 to 60 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER _____ DATE _____

RESPONDENT AGREES TO BE INTERVIEWED . . 1 ↓

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . 2 → END

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOURS . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	How long have you been living continuously in (NAME OF CURRENT CITY, TOWN OR VILLAGE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→ 105
103	Just before you moved here, did you live in a city, in a town, or in a rural area?	CITY . . . . . 1 TOWN . . . . . 2 RURAL AREA 3	
104	Before you moved here, which state did you live in?	ABIA . . . . . 01 ADAMAWA . . . . . 02 AKWA IBOM . . . . . 03 ANAMBRA . . . . . 04 BAUCHI . . . . . 05 BAYELSA . . . . . 06 BENUE . . . . . 07 BORNO . . . . . 08 CROSS RIVER . . . . . 09 DELTA . . . . . 10 EBONYI . . . . . 11 EDO . . . . . 12 EKITI . . . . . 13 ENUGU . . . . . 14 FCT-ABUJA . . . . . 15 GOMBE . . . . . 16 IMO . . . . . 17 JIGAWA . . . . . 18 KADUNA . . . . . 19 KANO . . . . . 20 KATSINA . . . . . 21 KEBBI . . . . . 22 KOGI . . . . . 23 KWARA . . . . . 24 LAGOS . . . . . 25 NASARAWA . . . . . 26 NIGER . . . . . 27 OGUN . . . . . 28 ONDO . . . . . 29 OSUN . . . . . 30 OYO . . . . . 31 PLATEAU . . . . . 32 RIVERS 33	

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
		SOKOTO . . . . . 34 TARABA . . . . . 35 YOBE . . . . . 36 ZAMFARA . . . . . 37 OUTSIDE OF NIGERIA 96	
105	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS . . . . . [ ][ ]	
107	Have you ever attended school?	YES . . . . . 1 NO 2	→ 111
108	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER 3	
109	What is the highest (class/year) you completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	CLASS/YEAR . . . . . [ ][ ]	
110	CHECK 108: PRIMARY OR SECONDARY ↓	HIGHER [ ]	→ 113
111	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PART OF THE SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE . . . . . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
112	CHECK 111: CODE '2', '3' OR '4' CIRCLED ↓ CODE '1' OR '5' CIRCLED →		114
113	Do you read a newspaper or magazine at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
114	Do you listen to the radio at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
115	Do you watch television at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
116	Do you own a mobile telephone?	YES . . . . . 1 NO 2	→ 118
117	Do you use your mobile phone for any financial transactions?	YES . . . . . 1 NO 2	
118	Do you have an account in a bank or other financial institution that you yourself use?	YES . . . . . 1 NO 2	
119	Have you ever used the internet?	YES . . . . . 1 NO 2	→ 122
120	In the last 12 months, have you used the internet? IF NECESSARY, PROBE FOR USE FROM ANY LOCATION, WITH ANY DEVICE.	YES . . . . . 1 NO 2	→ 122
121	During the last one month, how often did you use the internet: almost every day, at least once a week, less than once a week, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
122	What is your religion?	CATHOLIC . . . . . 1 OTHER CHRISTIAN . . . . . 2 ISLAM . . . . . 3 TRADITIONALIST . . . . . 4 OTHER _____ 6 (SPECIFY)	
123	What is your ethnic group?	_____ [ ][ ][ ] (ETHNIC GROUP)	
124	In the last 12 months, how many times have you been away from home for one or more nights?	NUMBER OF TIMES . . . . . [ ][ ] NONE 00	→ 201
125	In the last 12 months, have you been away from home for more than one month at a time?	YES . . . . . 1 NO 2	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES . . . . . 1 NO 2	→ 206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	a) How many sons live with you? b) And how many daughters live with you? IF NONE, RECORD '00'.	a) SONS AT HOME . . . . . [ ][ ] b) DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	a) How many sons are alive but do not live with you? b) And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	a) SONS ELSEWHERE . . . . . [ ][ ] b) DAUGHTERS ELSEWHERE . . . . . [ ][ ]	
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried, who made any movement, sound, or effort to breathe, or who showed any other signs of life even if for a very short time?	YES . . . . . 1 NO 2	→ 208
207	a) How many boys have died? b) And how many girls have died? IF NONE, RECORD '00'.	a) BOYS DEAD . . . . . [ ][ ] b) GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL BIRTHS . . . . . [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES → ↓ NO → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS → ↓ NO BIRTHS →		→ 226

SECTION 2. REPRODUCTION

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.
RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE ROWS. IF THERE ARE MORE THAN 10 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE SECOND ROW.

212 What name was given to your (first/ next) baby? RECORD NAME. BIRTH HISTORY NUMBER.	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 On what day, month, and year was (NAME) born?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at (NAME)'s last birthday? RECORD AGE IN COMP-LETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD. RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD.	220 IF DEAD: How old was (NAME) when (he/she) died? IF '12 MONTHS' OR '1 YR', ASK: Did (NAME) have (his/her) first birthday? THEN ASK: Exactly how many months old was (NAME) when (he/she) died? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	220B **IF DEATH AT AGE 0-5** On what day, month and year did (NAME) die?	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	BOY 1 GIRL 2	SING 1 MULT 2	DAY MONTH YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (NEXT BIRTH)	DAYS 1 MONTHS 2 YEARS 3	DAY MONTH YEAR	
02	BOY 1 GIRL 2	SING 1 MULT 2	DAY MONTH YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY MONTH YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)
03	BOY 1 GIRL 2	SING 1 MULT 2	DAY MONTH YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY MONTH YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)
04	BOY 1 GIRL 2	SING 1 MULT 2	DAY MONTH YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY MONTH YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)
05	BOY 1 GIRL 2	SING 1 MULT 2	DAY MONTH YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY MONTH YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)

212 What name was given to your (first/ next) baby? RECORD NAME. BIRTH HISTORY NUMBER.	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 On what day, month, and year was (NAME) born?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at (NAME)'s last birthday? RECORD AGE IN COMP-LETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD. RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD.	220 IF DEAD: How old was (NAME) when (he/she) died? IF '12 MONTHS' OR '1 YR', ASK: Did (NAME) have (his/her) first birthday? THEN ASK: Exactly how many months old was (NAME) when (he/she) died? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	220B **IF DEATH AT AGE 0-5** On what day, month and year did (NAME) die?	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
06	BOY 1 GIRL 2	SING 1 MULT 2	DAY MONTH YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY MONTH YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)
07	BOY 1 GIRL 2	SING 1 MULT 2	DAY MONTH YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY MONTH YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)
08	BOY 1 GIRL 2	SING 1 MULT 2	DAY MONTH YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY MONTH YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)
09	BOY 1 GIRL 2	SING 1 MULT 2	DAY MONTH YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY MONTH YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)
10	BOY 1 GIRL 2	SING 1 MULT 2	DAY MONTH YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY MONTH YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
222	Have you had any live births since the birth of (NAME OF LAST BIRTH)?	YES . . . . . 1 (RECORD BIRTH(S) IN TABLE) NO 2	
223	COMPARE 208 WITH NUMBER OF BIRTHS IN BIRTH HISTORY NUMBERS ARE SAME NUMBERS ARE DIFFERENT (PROBE AND RECONCILE)		
223A	CHECK 220B: ENTER THE NUMBER OF DEATHS IN JANUARY 2014 OR LATER IF NONE, RECORD `0'.	NUMBER OF DEATHS	
224	CHECK 215: ENTER THE NUMBER OF BIRTHS IN 2013-2018	NUMBER OF BIRTHS . . . . . . NONE 0	→ 226
225	**C** FOR EACH BIRTH IN 2013-2018, ENTER 'B' IN THE MONTH OF BIRTH IN THE CALENDAR. WRITE THE NAME OF THE CHILD TO THE LEFT OF THE 'B' CODE. FOR EACH BIRTH, ASK THE NUMBER OF COMPLETED MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY. (NOTE: THE NUMBER OF 'P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.)		
226	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	→ 230
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. **C** ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS	
228	When you got pregnant, did you want to get pregnant at that time?	YES . . . . . 1 NO 2	→ 230
229	CHECK 208: TOTAL NUMBER OF BIRTHS ONE OR MORE: a) Did you want to have a baby later on or did you not want any more children? NONE: b) Did you want to have a baby later on or did you not want any children?	LATER . . . . . 1 NO MORE/NONE 2	
230	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	→ 239
231	When did the last such pregnancy end?	MONTH . . . . . . YEAR	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
232	CHECK 231: LAST PREGNANCY ENDED IN 2013-2018 ☐			→ 234
		LAST PREGNANCY ENDED IN 2012 OR EARLIER ☐		→ 239
LINE NO.	233 In what month and year did the preceding such pregnancy end?	234 How many months pregnant were you when that pregnancy ended?	235 Since January 2013, have you had any other pregnancies that did not result in a live birth?	
01		☐☐ NUMBER OF MONTHS	YES . . . . . 1 NO 2	→ NEXT LINE → 236
02	☐☐ MONTH ☐☐☐☐ YEAR	☐☐ NUMBER OF MONTHS	YES . . . . . 1 NO 2	→ NEXT LINE → 236
03	☐☐ MONTH ☐☐☐☐ YEAR	☐☐ NUMBER OF MONTHS	YES . . . . . 1 NO 2	→ NEXT LINE → 236
04	☐☐ MONTH ☐☐☐☐ YEAR	☐☐ NUMBER OF MONTHS	YES . . . . . 1 NO 2	→ 236
236	**C** FOR EACH PREGNANCY THAT DID NOT END IN A LIVE BIRTH IN 2013-2018 OR LATER, ENTER 'T' IN THE CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS OF PREGNANCY. IF THERE ARE MORE THAN FOUR PREGNANCIES THAT DID NOT END IN A LIVE BIRTH, USE AN ADDITIONAL QUESTIONNAIRE STARTING ON THE SECOND LINE.			
237	Did you have any miscarriages, abortions or stillbirths that ended before 2013?	YES . . . . . 1 NO 2		→ 239
238	When did the last such pregnancy that terminated before 2013 end?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐		

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
239	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO . . . . . 1 WEEKS AGO . . . . . 2 MONTHS AGO . . . . . 3 YEARS AGO . . . . . 4 IN MENOPAUSE/ HAS HAD HYSTERECTOMY . . . . . 994 BEFORE LAST BIRTH . . . . . 995 NEVER MENSTRUATED 996	
240	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 242
241	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
242	After the birth of a child, can a woman become pregnant before her menstrual period has returned?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Have you ever heard of (METHOD)?	
01	Female Sterilization. PROBE: Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2
02	Male Sterilization. PROBE: Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2
03	IUD. PROBE: Women can have a loop or coil placed inside them by a doctor or a nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2
04	Injectables. PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2
05	Implants. PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2
06	Pill. PROBE: Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2
07	Condom. PROBE: Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2
08	Female Condom. PROBE: Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2
09	Emergency Contraception. PROBE: As an emergency measure, within three days after they have unprotected sexual intercourse, women can take special pills to prevent pregnancy.	YES . . . . . 1 NO 2
10	Standard Days Method. PROBE: A woman uses a string of colored beads to know the days she can get pregnant. On the days she can get pregnant, she uses a condom or does not have sexual intercourse.	YES . . . . . 1 NO 2
11	Lactational Amenorrhea Method (LAM). PROBE: Up to six months after childbirth, before the menstrual period has returned, women use a method requiring frequent breastfeeding day and night.	YES . . . . . 1 NO 2
12	Rhythm Method. PROBE: To avoid pregnancy, women do not have sexual intercourse on the days of the month they think they can get pregnant.	YES . . . . . 1 NO 2
13	Withdrawal. PROBE: Men can be careful and pull out before climax.	YES . . . . . 1 NO 2
14	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES, MODERN METHOD _____ A (SPECIFY) YES, TRADITIONAL METHOD _____ B (SPECIFY) NO . . . . . Y

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
302	CHECK 226: NOT PREGNANT OR UNSURE ☐ PREGNANT ☐		→ 312
303	Are you or your partner currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	 → 312
304	Which method are you using? RECORD ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS . . . . . E PILL . . . . . F CONDOM . . . . . G FEMALE CONDOM . . . . . H EMERGENCY CONTRACEPTION . . . . . I STANDARD DAYS METHOD . . . . . J LACTATIONAL AMENORRHEA METHOD . . . . . K RHYTHM METHOD . . . . . L WITHDRAWAL . . . . . M OTHER MODERN METHOD . . . . . X OTHER TRADITIONAL METHOD . . . . . Y	→ 307 → 309 → 306 → 309
305	What is the brand name of the pills you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	DUOFEMCONFIDENCE . . . . . 01 MICROGYNON . . . . . 02 LOFEMENAL . . . . . 03 NEOGYNON . . . . . 04 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 309
306	What is the brand name of the condoms you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	MALE CONDOMS GOLD CIRCLE . . . . . 01 DUREX . . . . . 02 ROUGH RIDER . . . . . 03 TWIN LOTUS . . . . . 04 PLAIN CONDOMS . . . . . 05 GO FLEX . . . . . 06 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 309

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
307	In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . 21 PRIVATE DOCTOR'S OFFICE . . . . . 22 MOBILE CLINIC . . . . . 23 NON-GOVERNMENT ORGANIZATION . . . . . 24 OTHER PRIVATE MEDICAL SECTOR _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
308	In what month and year was the sterilization performed?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	→ 310
309	Since what month and year have you been using (CURRENT METHOD) without stopping? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
310	CHECK 308 AND 309, 215 AND 231: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 308 OR 309 NO ☐ ↓ YES ☐ → GO BACK TO 308 OR 309, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION).		

SECTION 3. CONTRACEPTION (CAPI OPTION)

311	CHECK 308 AND 309: YEAR IS 2013-2018 C ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING. THEN CONTINUE YEAR IS 2012 OR EARLIER C ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO JANUARY 2013 . THEN (SKIP TO 324)
312	I would like to ask you some questions about the times you or your partner may have used a method to avoid getting pregnant during the last few years. C USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 2013. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS.

		COLUMN 1	COLUMN 2	COLUMN 3
312A	MONTH AND YEAR OF START OF INTERVAL OF USE OR NON-USE.	MONTH YEAR	MONTH YEAR	MONTH YEAR
312B	Between (EVENT) in (MONTH/YEAR) and (EVENT) in (MONTH/YEAR), did you or your partner use any method of contraception?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312I)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312I)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312I)
312C	Which method was that?	METHOD CODE . .	METHOD CODE . .	METHOD CODE . .
312D	How many months after (EVENT) in (MONTH/YEAR) did you start to use (METHOD)? CIRCLE '95' IF RESPONDENT GIVES THE DATE OF STARTING TO USE THE METHOD.	IMMEDIATELY . . . . . 00 MONTHS . . (SKIP TO 312F) DATE GIVEN 95	IMMEDIATELY . . . . . 00 MONTHS . . (SKIP TO 312F) DATE GIVEN 95	IMMEDIATELY . . . . . 00 MONTHS . . (SKIP TO 312F) DATE GIVEN 95
312E	RECORD MONTH AND YEAR RESPONDENT STARTED USING METHOD.	MONTH YEAR	MONTH YEAR	MONTH YEAR
312F	For how many months did you use (METHOD)? CIRCLE '95' IF RESPONDENT GIVES THE DATE OF TERMINATION OF USE.	MONTHS . . (SKIP TO 312H) DATE GIVEN 95	MONTHS . . (SKIP TO 312H) DATE GIVEN 95	MONTHS . . (SKIP TO 312H) DATE GIVEN 95
312G	RECORD MONTH AND YEAR RESPONDENT STOPPED USING METHOD.	MONTH YEAR	MONTH YEAR	MONTH YEAR
312H	Why did you stop using (METHOD)?	REASON STOPPED	REASON STOPPED	REASON STOPPED . . . . .
312I		GO BACK TO 312A IN NEXT COLUMN; OR, IF NO MORE GAPS, GO TO 313.	GO BACK TO 312A IN NEXT COLUMN; OR, IF NO MORE GAPS, GO TO 313.	GO BACK TO 312A IN NEW QUESTIONNAIRE; OR, IF NO MORE GAPS, GO TO 313.

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
313	CHECK THE CALENDAR FOR USE OF ANY CONTRACEPTIVE METHOD IN ANY MONTH NO METHOD USED ☐ ↓	ANY METHOD USED ☐	→ 315
314	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 326
315	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS . . . . . 05 PILL . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 EMERGENCY CONTRACEPTION . . . . . 09 STANDARD DAYS METHOD . . . . . 10 LACTATIONAL AMENORRHEA METHOD . . . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD 96	→ 326 → 319 → 327 → 323
316	You first started using (CURRENT METHOD) in (DATE FROM 309). Where did you get it at that time? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 FIELDWORKER . . . . . 15 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . 21 PHARMACY . . . . . 22 CHEMIST/PMS STORE . . . . . 23 PRIVATE DOCTOR . . . . . 24 MOBILE CLINIC . . . . . 25 FIELDWORKER . . . . . 26 OTHER PRIVATE MEDICAL SECTOR _____ 27 (SPECIFY) **OTHER SOURCE** SHOP . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 NGO . . . . . 34 OTHER _____ 96 (SPECIFY)	
317	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS . . . . . 05 PILL . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 EMERGENCY CONTRACEPTION . . . . . 09 STANDARD DAYS METHOD . . . . . 10 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD 96	 → 323 → 322 → 323

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
318	At that time, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 321 → 320
319	When you got sterilized, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 321
320	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 322
321	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
322	CHECK 318 AND 319: ANY 'YES' ☐ ↓ — OTHER ☐ ↓ a) At that time, were you told about other methods of family planning that you could use? b) When you obtained (CURRENT METHOD FROM 315) from (SOURCE OF METHOD FROM 307 OR 316), were you told about other methods of family planning that you could use?	YES . . . . . 1 NO 2	→ 324
323	Were you ever told by a health or family planning worker about other methods of family planning that you could use?	YES . . . . . 1 NO 2	
324	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS . . . . . 05 PILL . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 EMERGENCY CONTRACEPTION . . . . . 09 STANDARD DAYS METHOD . . . . . 10 LACTATIONAL AMENORRHEA METHOD . . . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD 96	→ 327 → 327 → 327

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
325	Where did you obtain (CURRENT METHOD) the last time? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 FIELDWORKER . . . . . 15 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . 21 PHARMACY . . . . . 22 CHEMIST/PMS STORE . . . . . 23 PRIVATE DOCTOR . . . . . 24 MOBILE CLINIC . . . . . 25 FIELDWORKER . . . . . 26 OTHER PRIVATE MEDICAL SECTOR _____ 27 (SPECIFY) **OTHER SOURCE** SHOP . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 NGO . . . . . 34 OTHER _____ 96 (SPECIFY)	→ 327
326	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	
327	In the last 12 months, were you visited by a fieldworker?	YES . . . . . 1 NO 2	→ 329
328	Did the fieldworker talk to you about family planning?	YES . . . . . 1 NO 2	
329	CHECK 202: CHILDREN LIVING WITH RESPONDENT YES ☐ ↓ a) In the last 12 months, have you visited a health facility for care for yourself or your children? NO ☐ ↓ b) In the last 12 months, have you visited a health facility for care for yourself?	YES . . . . . 1 NO 2	→ 401
330	Did any staff member at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	

SECTION 4. PREGNANCY AND POSTNATAL CARE

401	CHECK 224: ONE OR MORE BIRTHS IN 2013-2018 ☐ ↓ NO BIRTHS IN 2013-2018 ☐ → 648		
402	CHECK 215. RECORD THE BIRTH HISTORY NUMBER IN 403 AND THE NAME AND SURVIVAL STATUS IN 404 FOR EACH BIRTH IN 2013-2018. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL QUESTIONNAIRE(S). Now I would like to ask some questions about your children born in the last five years. (We will talk about each separately.)		
403	BIRTH HISTORY NUMBER FROM 212 IN BIRTH HISTORY.	LAST BIRTH BIRTH HISTORY NUMBER . . . . . ☐☐	NEXT-TO-LAST BIRTH BIRTH HISTORY NUMBER . . . . . ☐☐
404	FROM 212 AND 216:	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓
405	When you got pregnant with (NAME), did you want to get pregnant at that time?	YES . . . . . 1 (SKIP TO 408) ← NO 2	YES . . . . . 1 (SKIP TO 426) ← NO 2
406	CHECK 208: ONLY ONE BIRTH ☐ ↓ — a) Did you want to have a baby later on, or did you not want any children? MORE THAN ONE BIRTH ☐ ↓ — b) Did you want to have a baby later on, or did you not want any more children?	LATER . . . . . 1 NO MORE/NONE . . . . . 2 (SKIP TO 408) ←	LATER . . . . . 1 NO MORE/NONE . . . . . 2 (SKIP TO 426) ←
407	How much longer did you want to wait?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ DON'T KNOW 998	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ DON'T KNOW 998
408	Did you see anyone for antenatal care for this pregnancy?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 414) ←	
409	Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	**HEALTH PERSONNEL** DOCTOR . . . . . A NURSE/MIDWIFE . . . . . B AUXILIARY MIDWIFE . . . . . C COMMUNITY EXTENSION HEALTH WORKER . . . . . D **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . E COMMUNITY/ VILLAGE HEALTH WORKER . . . . . F OTHER _____ X (SPECIFY)	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
410	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME . . . . . A OTHER HOME . . . . . B **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . C GOVERNMENT HEALTH CENTER . . . . . D GOVERNMENT HEALTH POST . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . G OTHER PRIVATE MEDICAL SECTOR _____ H (SPECIFY) OTHER _____ X (SPECIFY)	
411	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	
412	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES . . . . . [ ][ ] DON'T KNOW 98	
413	As part of your antenatal care during this pregnancy, were any of the following done at least once: a) Was your blood pressure measured? b) Did you give a urine sample? c) Did you give a blood sample?	YES NO a) BP . . . . . 1 2 b) URINE . . . . . 1 2 c) BLOOD 1 2	
414	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 417) DON'T KNOW 8	
415	During this pregnancy, how many times did you get a tetanus injection?	TIMES . . . . . [ ] DON'T KNOW 8	
416	CHECK 415:	2 OR MORE TIMES [ ] (SKIP TO 420) OTHER [ ]	
417	At any time before this pregnancy, did you receive any tetanus injections?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420) DON'T KNOW 8	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
418	Before this pregnancy, how many times did you receive a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES . . . . . [ ] DON'T KNOW 8	
419	CHECK 418: ONLY ONE → a) How many years ago did you receive that tetanus injection? MORE THAN ONE TIME → b) How many years ago did you receive the last tetanus injection prior to this pregnancy?	YEARS AGO . . . . . [ ][ ]	
420	During this pregnancy, were you given or did you buy any iron tablets or iron syrup? SHOW TABLETS/SYRUP.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 422) DON'T KNOW 8	
421	During the whole pregnancy, for how many days did you take the tablets or syrup? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	DAYS . . . . . [ ][ ][ ] DON'T KNOW 998	
422	During this pregnancy, did you take any drug for intestinal worms?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
423	During this pregnancy, did you take SP/Fansidar to keep you from getting malaria?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 426) DON'T KNOW 8	
424	How many times did you take SP/Fansidar during this pregnancy?	TIMES . . . . . [ ][ ]	
425	Did you get the SP/Fansidar during any antenatal care visit, during another visit to a health facility or from another source? IF MORE THAN ONE SOURCE, RECORD THE HIGHEST SOURCE ON THE LIST.	ANTENATAL VISIT . . . . . 1 ANOTHER FACILITY VISIT . . . . . 2 COMMUNITY HEALTH EXTENSION WORKER . . . . . 3 OTHER SOURCE 6	
426	When (NAME) was born, was (NAME) very large, larger than average, average, smaller than average, or very small?	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8
427	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 429) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 429) DON'T KNOW 8

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
428	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 [ ] . [ ][ ][ ] KG FROM RECALL 2 [ ] . [ ][ ][ ] DON'T KNOW 99998	KG FROM CARD 1 [ ] . [ ][ ][ ] KG FROM RECALL 2 [ ] . [ ][ ][ ] DON'T KNOW 99998
429	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD ALL MENTIONED. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	**HEALTH PERSONNEL** DOCTOR . . . . . A NURSE/MIDWIFE . . . . . B COMMUNITY HEALTH EXTENSION WORKER . . C AUXILIARY MIDWIFE . . . . . D **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . E RELATIVE/FRIEND . . . . . F OTHER _____ X (SPECIFY) NO ONE ASSISTED . . . . . Y (SKIP TO 430)	**HEALTH PERSONNEL** DOCTOR . . . . . A NURSE/MIDWIFE . . . . . B COMMUNITY HEALTH EXTENSION WORKER . . C AUXILIARY MIDWIFE . . . . . D **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . E RELATIVE/FRIEND . . . . . F OTHER _____ X (SPECIFY) NO ONE ASSISTED . . . . . Y (SKIP TO 430)
429A	Immediately after delivery of (NAME) did you receive an injection in the thigh or buttock?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
430	Where did you give birth to (NAME)? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME . . . . . 11 (SKIP TO 434) OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 434)	**HOME** HER HOME . . . . . 11 (SKIP TO 459) OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 459)

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
430A	Did you move from another health facility to come to this facility or did you go directly from home to this facility, or from somewhere else that was not a health facility?	CAME FROM ANOTHER HEALTH FACILITY . . . . . 1 CAME FROM HOME . . . . . 2 CAME FROM OTHER NON-FACILITY LOCATION . . 3 DON'T KNOW . . . . . 8 (SKIP TO 430F)	CAME FROM ANOTHER HEALTH FACILITY . . . . . 1 CAME FROM HOME . . . . . 2 CAME FROM OTHER NON-FACILITY LOCATION . . 3 DON'T KNOW . . . . . 8 (SKIP TO 430F)
430B	Which health facility referred or send you to this facility where you gave birth to (NAME)? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) NO FORMAL REFERRAL . . . . . 41 OTHER _____ 96 (SPECIFY)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) NO FORMAL REFERRAL . . . . . 41 OTHER _____ 96 (SPECIFY)
430C	Why did you move from this facility to the facility where you gave birth to (NAME)?	PROBLEM DURING LABOR/ EMERGENCY . . . . . 1 HEALTH PROFESSIONAL NOT AVAILABLE . . . . . 2 FACILITY TOO CROWDED/ NO BED AVAILABLE . . . . . 3 FACILITY NOT OPEN . . . . . 4 OTHER _____ 6 (SPECIFY)	PROBLEM DURING LABOR/ EMERGENCY . . . . . 1 HEALTH PROFESSIONAL NOT AVAILABLE . . . . . 2 FACILITY TOO CROWDED/ NO BED AVAILABLE . . . . . 3 FACILITY NOT OPEN . . . . . 4 OTHER _____ 6 (SPECIFY)
430D	Did a health worker go with you when you moved to the facility where you gave birth to (NAME)?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
430E	What means of transportation did you use to get from the facility that referred you to the faclity where you gave birth to (NAME)?	**MOTORISED** AMBULANCE . . . . . A PRIVATE CAR/TRUCK . . . . . B TAXI/PAID DRIVER . . . . . C TRICYCLE . . . . . D MOTORCYCLE/SCOOTER . . E BOAT WITH MOTOR . . . . . F PUBLIC TRANSPORT/BUS . . G	**MOTORISED** AMBULANCE . . . . . A PRIVATE CAR/TRUCK . . . . . B TAXI/PAID DRIVER . . . . . C TRICYCLE . . . . . D MOTORCYCLE/SCOOTER . . E BOAT WITH MOTOR . . . . . F PUBLIC TRANSPORT/BUS . . G
430F	What means of transportation did you use to get to the health facility where you gave birth to (NAME)? PROBE FOR THE TYPE (S) OF TRANSPORT USED AND RECORD ALL MENTIONED.	**NOT MOTORISED** BICYCLE . . . . . H CANOE/BOAT WITHOUT MOTOR . . . . . I ANIMAL-DRAWN CART . . . . . J WALKING (ON FOOT) . . . . . K CARRIED . . . . . L OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	**NOT MOTORISED** BICYCLE . . . . . H CANOE/BOAT WITHOUT MOTOR . . . . . I ANIMAL-DRAWN CART . . . . . J WALKING (ON FOOT) . . . . . K CARRIED . . . . . L OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z
430G	How long did it take for you to decide to go and reach the health facility? IF LESS THAN ONE HOUR, RECORD IN MINUTES.	MINUTES . . . . . 1 [ ][ ] HOURS . . . . . 2 [ ][ ] DON'T KNOW 998	MINUTES . . . . . 1 [ ][ ] HOURS . . . . . 2 [ ][ ] DON'T KNOW 998
431	How long after (NAME) was delivered did you stay there? IF LESS THAN ONE DAY, RECORD HOURS; IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] WEEKS . . . . . 3 [ ][ ] DON'T KNOW 998	
432	Was (NAME) delivered by caesarean, that is, did they cut your belly open to take the baby out?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 434)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 459)
433	When was the decision made to have the caesarean section? Was it before or after your labor pains started?	BEFORE . . . . . 1 AFTER 2	BEFORE . . . . . 1 AFTER 2
433A	What was the reason for taking the decision to have the caesarean section?	EXCESS BLEEDING . . . . . 1 BREECH POSITON . . . . . 2 MEDICAL CONDITION OF MOTHER . . . . . 3 CORD PROBLEM . . . . . 4 VOLUNTARY . . . . . 5 OTHER _____ 6 (SPECIFY)	EXCESS BLEEDING . . . . . 1 BREECH POSITON . . . . . 2 MEDICAL CONDITION OF MOTHER . . . . . 3 CORD PROBLEM . . . . . 4 VOLUNTARY . . . . . 5 OTHER _____ 6 (SPECIFY)
434	Immediately after the birth, was (NAME) put on your chest?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 434B) DON'T KNOW 8	
434A	Was (NAME)'s bare skin touching your bare skin?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
434B	Was (NAME) wiped dry within a few minutes after birth?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
434C	How long after the birth was (NAME) bathed for the first time? IF LESS THAN ONE HOUR, RECORD `00' HOURS; IF LESS THAN 24 HOURS, RECORD HOURS; OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . . . 000 HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] DON'T KNOW 998	
434D	CHECK 430: PLACE OF DELIVERY	CODE 11, 12, OR 96 CIRCLED [ ] → OTHER [ ] → (SKIP TO 434H)	
434E	What was used to cut the cord?	RAZOR BLADE . . . . . 1 KNIFE . . . . . 2 SCISSORS . . . . . 3 SICKLE . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
434F	Was it new or had it ever been used before?	NEW . . . . . 1 USED BEFORE . . . . . 2 DON'T KNOW 8	
434G	Was it boiled before it was used to cut the cord?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
434H	Was anything applied to the stump of the cord at any time?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 434M) DON'T KNOW 8	
434I	What was applied? Anything else?	CHLORHEXIDINE . . . . . A OTHER ANTISEPTIC (ALCOHOL, SPIRIT, GENTIAN VIOLET, DETOL) . . . . . B OLIVE OIL . . . . . C ASH . . . . . D ANIMAL DUNG . . . . . E TURMERIC . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
434J	CHECK 434I: SUBSTANCE APPLIED TO CORD	CODE `A' NOT CIRCLED [ ] ↓ CODE `A' CIRCLED [ ] → (SKIP TO 434L)	
434K	Was chlorohexidine applied to the stump at any time? SHOW SAMPLE OF CHLORHEXIDINE	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 434M) DON'T KNOW 8	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
434L	How long after the cord was cut was chlorhexidine first applied? IF LESS THAN 1 HOUR, RECORD `00' HOURS; IF LESS THAN 24 HOURS, RECORD HOURS; OTHERWISE, RECORD DAYS.	HOURS . . . . . 1 DAYS . . . . . 2 DON'T KNOW 998	
434M	CHECK 430: PLACE OF DELIVERY	CODE 11, 12, OR 96 CIRCLED → (SKIP TO 449) OTHER →	
435	I would like to talk to you about checks on your health after delivery, for example, someone asking you questions about your health or examining you. Did anyone check on your health while you were still in the facility?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 438)	
436	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS; IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . . 1 DAYS . . . . . 2 WEEKS . . . . . 3 DON'T KNOW 998	
437	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE/MIDWIFE . . . . . 12 COMMUNITY HEALTH EXTENSION WORKER . . 13 AUXILIARY MIDWIFE . . . . . 14 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 COMMUNITY/ VILLAGE HEALTH WORKER . . . . . 22 OTHER _____ 96 (SPECIFY)	
438	Now I would like to talk to you about checks on (NAME)'s health after delivery – for example, someone examining (NAME), checking the cord, or seeing if (NAME) is OK. Did anyone check on (NAME)'s health while you were still in the facility?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 441) DON'T KNOW 8	
439	How long after delivery was (NAME)'s health first checked? IF LESS THAN ONE DAY, RECORD HOURS; IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . . 1 DAYS . . . . . 2 WEEKS . . . . . 3 DON'T KNOW 998	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
440	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE/MIDWIFE . . . . . 12 COMMUNITY HEALTH EXTENSION WORKER . . 13 AUXILIARY MIDWIFE . . . . . 14 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 COMMUNITY/ VILLAGE HEALTH WORKER . . . . . 22 OTHER _____ 96 (SPECIFY)	
441	Now I want to talk to you about what happened after you left the facility. Did anyone check on your health after you left the facility?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 445)	
442	How long after delivery did that check take place? IF LESS THAN ONE DAY, RECORD HOURS; IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] WEEKS . . . . . 3 [ ][ ] DON'T KNOW 998	
443	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE/MIDWIFE . . . . . 12 COMMUNITY HEALTH EXTENSION WORKER . . 13 AUXILIARY MIDWIFE . . . . . 14 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 COMMUNITY/ VILLAGE HEALTH WORKER . . . . . 22 OTHER _____ 96 (SPECIFY)	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
444	Where did the check take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME . . . . . 11 OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY)	
445	I would like to talk to you about checks on (NAME)'s health after you left (FACILITY IN 430). Did any health care provider or a traditional birth attendant check on (NAME)'s health in the two months after you left (FACILITY IN 430)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 457) DON'T KNOW 8	
446	How many hours, days or weeks after the birth of (NAME) did that check take place? IF LESS THAN ONE DAY, RECORD HOURS; IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] WEEKS . . . . . 3 [ ][ ] DON'T KNOW 998	
447	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE/MIDWIFE . . . . . 12 COMMUNITY HEALTH EXTENSION WORKER . . 13 AUXILIARY MIDWIFE . . . . . 14 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 COMMUNITY/ VILLAGE HEALTH WORKER . . . . . 22 OTHER _____ 96 (SPECIFY)	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
448	Where did this check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME . . . . . 11 OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 457)	
449	I would like to talk to you about checks on your health after delivery, for example, someone asking you questions about your health or examining you. Did anyone check on your health after you gave birth to (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 453)	
450	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS; IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] WEEKS . . . . . 3 [ ][ ] DON'T KNOW 998	
451	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE/MIDWIFE . . . . . 12 COMMUNITY HEALTH EXTENSION WORKER . . 13 AUXILIARY MIDWIFE . . . . . 14 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 COMMUNITY/ VILLAGE HEALTH WORKER . . . . . 22 OTHER _____ 96 (SPECIFY)	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
452	Where did this first check take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME . . . . . 11 OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY)	
453	I would like to talk to you about checks on (NAME)'s health after delivery – for example, someone examining (NAME), checking the cord, or seeing if (NAME) is OK. In the two months after (NAME) was born, did any health care provider or a traditional birth attendant check on (NAME)'s health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 457) ← DON'T KNOW 8	
454	How many hours, days or weeks after the birth of (NAME) did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS; IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS AFTER BIRTH . . . . . 1 [ ][ ] DAYS AFTER BIRTH . . . . . 2 [ ][ ] WEEKS AFTER BIRTH . . . . . 3 [ ][ ] DON'T KNOW 998	
455	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE/MIDWIFE . . . . . 12 COMMUNITY HEALTH EXTENSION WORKER . . 13 AUXILIARY MIDWIFE . . . . . 14 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 COMMUNITY/ VILLAGE HEALTH WORKER . . . . . 22 OTHER _____ 96 (SPECIFY)	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
456	Where did this first check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME . . . . . 11 OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) OTHER _____ 96 SPECIFY	
457	During the first two days after (NAME)'s birth, did any health care provider do the following: a) Examine the cord? b) Measure (NAME)'s temperature? c) Counsel you on danger signs for newborns? d) Counsel you on breastfeeding? e) Observe (NAME) breastfeeding?	YES NO DK a) CORD . . . . . 1 2 8 b) TEMP. . . . . 1 2 8 c) SIGNS . . . . . 1 2 8 d) COUNSEL BREAST-FEED 1 2 8 e) OBSERVE BREAST-FEED 1 2 8	
458	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 → (SKIP TO 460) NO . . . . . 2 → (SKIP TO 461)	
459	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 → (SKIP TO 463)
460	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98
461	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREGNANT ↓ PREGNANT OR UNSURE → (SKIP TO 463)	
462	Have you had sexual intercourse since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 464)	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
463	For how many months after the birth of (NAME) did you not have sexual intercourse?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98
464	Did you ever breastfeed (NAME)?	YES . . . . . 1 (SKIP TO 466) NO 2	YES . . . . . 1 NO 2
465	CHECK 404: IS CHILD LIVING?	LIVING (SKIP TO 470) DEAD (SKIP TO 471)	
466	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS; IF LESS THAN 24 HOURS, RECORD HOURS; OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . . . 000 HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ]	
467	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO 2	
468	CHECK 404: IS CHILD LIVING?	LIVING DEAD (SKIP TO 471)	LIVING DEAD (SKIP TO 471)
469	Are you still breastfeeding (NAME)?	YES . . . . . 1 NO 2	
470	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
471		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501A.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501A.

SECTION 5A. CHILD IMMUNIZATION (LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501A	CHECK 215 IN THE BIRTH HISTORY: ANY BIRTHS IN 2015-2018? ONE OR MORE BIRTHS IN 2015-2018 ☐ ↓	NO BIRTHS IN 2015-2018 ☐	→ 601
502A	RECORD THE NAME AND BIRTH HISTORY NUMBER FROM 212 OF THE LAST CHILD BORN IN 2015-2018. NAME OF LAST BIRTH _____	BIRTH HISTORY NUMBER . . . . . ☐☐	
503A	CHECK 216 FOR CHILD: LIVING ☐ ↓	DEAD ☐	→ 501B
504A	Do you have a card or other document where (NAME)'s vaccinations are written down?	YES, HAS ONLY A CARD . . . . . 1 YES, HAS ONLY AN OTHER DOCUMENT . . . . . 2 YES, HAS CARD AND OTHER DOCUMENT . . . . . 3 NO, NO CARD AND NO OTHER DOCUMENT . . 4	→ 507A → 507A
505A	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 NO 2	
506A	CHECK 504A: CODE '2' CIRCLED ☐ ↓	CODE '4' CIRCLED ☐	→ 511A
507A	May I see the card or other document where (NAME)'s vaccinations are written down?	YES, ONLY CARD SEEN . . . . . 1 YES, ONLY OTHER DOCUMENT SEEN . . . . . 2 YES, CARD AND OTHER DOCUMENT SEEN . . 3 NO CARD AND NO OTHER DOCUMENT SEEN . . 4	 → 511A

SECTION 5A. CHILD IMMUNIZATION (LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	NAME OF LAST BIRTH _____	BIRTH HISTORY NUMBER . . . . . [ ][ ]	
508A	COPY DATES FROM THE CARD. WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A DOSE WAS GIVEN, BUT NO DATE IS RECORDED.		

	DAY		MONTH		YEAR			
BCG								
HEPATITIS B AT BIRTH								
ORAL POLIO VACCINE (OPV) 0 (BIRTH DOSE)								
ORAL POLIO VACCINE (OPV) 1								
ORAL POLIO VACCINE (OPV) 2								
ORAL POLIO VACCINE (OPV) 3								
DPT-HEP.B-HIB (PENTAVALENT) 1								
DPT-HEP.B-HIB (PENTAVALENT) 2								
DPT-HEP.B-HIB (PENTAVALENT) 3								
PNEUMOCOCCAL 1								
PNEUMOCOCCAL 2								
PNEUMOCOCCAL 3								
INACTIVATED POLIO VIRUS (IPV)								
MEASLES 1								
MEASLES/MMR 2								
VITAMIN A (MOST RECENT)								

509A	CHECK 508A: 'BCG' TO 'MEASLES/MMR 2' ALL RECORDED? NO [ ] ↓	YES [ ] →	526A
510A	In addition to what is recorded on (this document/these documents), did (NAME) receive any other vaccinations, including vaccinations received in campaigns or immunization days or child health days? RECORD 'YES' ONLY IF THE RESPONDENT MENTIONS AT LEAST ONE OF THE VACCINATIONS IN 508A THAT ARE NOT RECORDED AS HAVING BEEN GIVEN.	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 508A THEN WRITE '00' IN THE CORRESPONDING DAY COLUMN FOR ALL VACCINATIONS NOT GIVEN) (THEN SKIP TO 526A) NO . . . . . 2 DON'T KNOW . . . . . 8 (WRITE '00' IN THE CORRESPONDING DAY COLUMN FOR ALL VACCINATIONS NOT GIVEN) (THEN SKIP TO 526A)	

SECTION 5A. CHILD IMMUNIZATION (LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	NAME OF LAST BIRTH _____	BIRTH HISTORY NUMBER . . . . . [ ][ ]	
511A	Did (NAME) ever receive any vaccinations to prevent (NAME) from getting diseases, including vaccinations received in campaigns or immunization days or child health days?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 526A
512A	Has (NAME) ever received a BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
513A	Within 24 hours after birth, did (NAME) receive a Hepatitis B vaccination, that is, an injection in the thigh to prevent Hepatitis B?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
514A	Has (NAME) ever received oral polio vaccine, that is, about two drops in the mouth to prevent polio?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 517A
515A	Did (NAME) receive the first oral polio vaccine in the first two weeks after birth or later?	FIRST TWO WEEKS . . . . . 1 LATER 2	
516A	How many times did (NAME) receive the oral polio vaccine?	NUMBER OF TIMES . . . . . [ ]	
517A	Has (NAME) ever received a pentavalent vaccination, that is, an injection given in the thigh sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 519A
518A	How many times did (NAME) receive the pentavalent vaccine?	NUMBER OF TIMES . . . . . [ ]	
519A	Has (NAME) ever received a pneumococcal vaccination, that is, an injection in the thigh to prevent pneumonia?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 521A
520A	How many times did (NAME) receive the pneumococcal vaccine?	NUMBER OF TIMES . . . . . [ ]	
521A	Has (NAME) ever received an inactivated polio vaccine (IPV), that is, an injection in the thigh to prevent polio?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
523A	Has (NAME) ever received a measles vaccination, that is, an injection in the arm to prevent measles?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 526A
524A	How many times did (NAME) receive the measles vaccine?	NUMBER OF TIMES . . . . . [ ]	
526A	CONTINUE WITH 501B.		

SECTION 5B. CHILD IMMUNIZATION (NEXT-TO-LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501B	CHECK 215 IN THE BIRTH HISTORY: ANY MORE BIRTHS IN 2015-2018? MORE BIRTHS IN 2015-2018 ☐ ↓ NO MORE BIRTHS IN 2015-2018 ☐		→ 601
502B	RECORD THE NAME AND BIRTH HISTORY NUMBER FROM 212 OF THE NEXT-TO-LAST CHILD BORN IN 2015-2018. NAME OF NEXT-TO-LAST BIRTH _____ BIRTH HISTORY NUMBER . . . . . ☐☐		
503B	CHECK 216 FOR CHILD: LIVING ☐ ↓ DEAD ☐		→ 526B
504B	Do you have a card or other document where (NAME)'s vaccinations are written down?	YES, HAS ONLY A CARD . . . . . 1 YES, HAS ONLY AN OTHER DOCUMENT . . . . . 2 YES, HAS CARD AND OTHER DOCUMENT . . . . . 3 NO, NO CARD AND NO OTHER DOCUMENT . . 4	→ 507B → 507B
505B	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 NO 2	
506B	CHECK 504B: CODE '2' CIRCLED ☐ ↓ CODE '4' CIRCLED ☐		→ 511B
507B	May I see the card or other document where (NAME)'s vaccinations are written down?	YES, ONLY CARD SEEN . . . . . 1 YES, ONLY OTHER DOCUMENT SEEN . . . . . 2 YES, CARD AND OTHER DOCUMENT SEEN . . 3 NO CARD AND NO OTHER DOCUMENT SEEN . . 4	 → 511B

SECTION 5B. CHILD IMMUNIZATION (NEXT-TO-LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	NAME OF NEXT-TO-LAST BIRTH _____	BIRTH HISTORY NUMBER . . . . . [ ][ ]	
508B	COPY DATES FROM THE CARD. WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A DOSE WAS GIVEN, BUT NO DATE IS RECORDED.		

	DAY		MONTH		YEAR			
BCG								
HEPATITIS B AT BIRTH								
ORAL POLIO VACCINE (OPV) 0 (BIRTH DOSE)								
ORAL POLIO VACCINE (OPV) 1								
ORAL POLIO VACCINE (OPV) 2								
ORAL POLIO VACCINE (OPV) 3								
DPT-HEP.B-HIB (PENTAVALENT) 1								
DPT-HEP.B-HIB (PENTAVALENT) 2								
DPT-HEP.B-HIB (PENTAVALENT) 3								
PNEUMOCOCCAL 1								
PNEUMOCOCCAL 2								
PNEUMOCOCCAL 3								
INACTIVATED POLIO VIRUS (IPV)								
MEASLES 1								
MEASLES/MMR 2								
VITAMIN A (MOST RECENT)								

509B	CHECK 508B: 'BCG' TO 'MEASLES/MMR 2' ALL RECORDED? NO [ ] ↓	YES [ ] →	526B
510B	In addition to what is recorded on (this document/these documents), did (NAME) receive any other vaccinations, including vaccinations received in campaigns or immunization days or child health days?	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 508B THEN WRITE '00' IN THE CORRESPONDING DAY COLUMN FOR ALL VACCINATIONS NOT GIVEN) (THEN SKIP TO 526B)	
	RECORD 'YES' ONLY IF THE RESPONDENT MENTIONS AT LEAST ONE OF THE VACCINATIONS IN 508B THAT ARE NOT RECORDED AS HAVING BEEN GIVEN.	NO . . . . . 2 DON'T KNOW . . . . . 8 (WRITE '00' IN THE CORRESPONDING DAY COLUMN FOR ALL VACCINATIONS NOT GIVEN) (THEN SKIP TO 526B)	

SECTION 5B. CHILD IMMUNIZATION (NEXT-TO-LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	NAME OF NEXT-TO-LAST BIRTH _____	BIRTH HISTORY NUMBER . . . . . [ ][ ]	
511B	Did (NAME) ever receive any vaccinations to prevent (NAME) from getting diseases, including vaccinations received in campaigns or immunization days or child health days?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 526B
512B	Has (NAME) ever received a BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
513B	Within 24 hours after birth, did (NAME) receive a Hepatitis B vaccination, that is, an injection in the thigh to prevent Hepatitis B?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
514B	Has (NAME) ever received oral polio vaccine, that is, about two drops in the mouth to prevent polio?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 517B
515B	Did (NAME) receive the first oral polio vaccine in the first two weeks after birth or later?	FIRST TWO WEEKS . . . . . 1 LATER 2	
516B	How many times did (NAME) receive the oral polio vaccine?	NUMBER OF TIMES . . . . . [ ]	
517B	Has (NAME) ever received a pentavalent vaccination, that is, an injection given in the thigh sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 519B
518B	How many times did (NAME) receive the pentavalent vaccine?	NUMBER OF TIMES . . . . . [ ]	
519B	Has (NAME) ever received a pneumococcal vaccination, that is, an injection in the thigh to prevent pneumonia?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 521B
520B	How many times did (NAME) receive the pneumococcal vaccine?	NUMBER OF TIMES . . . . . [ ]	
521B	Has (NAME) ever received an inactivated polio vaccine (IPV), that is, an injection in the thigh to prevent polio?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
523B	Has (NAME) ever received a measles vaccination, that is, an injection in the arm to prevent measles?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 526B
524B	How many times did (NAME) receive the measles vaccine?	NUMBER OF TIMES . . . . . [ ]	
526B	CHECK 215 IN BIRTH HISTORY: ANY MORE BIRTHS IN 2015-2018? MORE BIRTHS IN 2015-2018 [ ] → (GO TO 502B IN AN ADDITIONAL QUESTIONNAIRE) NO MORE BIRTHS IN 2015-2018 [ ] → 601		

SECTION 6. CHILD HEALTH AND NUTRITION

601	CHECK 224: ONE OR MORE BIRTHS IN 2013-2018 ☐ ↓ NO BIRTHS IN 2013-2018 ☐ → 648		
602	CHECK 215: RECORD THE BIRTH HISTORY NUMBER IN 603 AND THE NAME AND SURVIVAL STATUS IN 604 FOR EACH BIRTH IN 2013-2018. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL QUESTIONNAIRE(S). Now I would like to ask some questions about your children born in the last five years. (We will talk about each separately.)		
603	BIRTH HISTORY NUMBER FROM 212 IN BIRTH HISTORY.	LAST BIRTH BIRTH HISTORY NUMBER . . . . . ☐☐	NEXT-TO-LAST BIRTH BIRTH HISTORY NUMBER . . . . . ☐☐
604	FROM 212 AND 216:	NAME _____ LIVING ☐ ↓ DEAD ☐ → (SKIP TO 646)	NAME _____ LIVING ☐ ↓ DEAD ☐ → (SKIP TO 646)
605	In the last six months, was (NAME) given a vitamin A dose like this? SHOW COMMON TYPES OF CAPSULES.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
606	In the last seven days, was (NAME) given iron pills, sprinkles with iron, or iron syrup like [this/any of these]? SHOW COMMON TYPES OF PILLS/SPRINKLES/SYRUPS.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
607	Was (NAME) given any medicine for deworming in the last six months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
608	Has (NAME) had diarrhea in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 618) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 618) DON'T KNOW 8

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
609	CHECK 469: CURRENTLY BREASTFEEDING? YES → a) Now I would like to know how much (NAME) was given to drink during the diarrhea including breastmilk. Was (NAME) given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was (NAME) given much less than usual to drink or somewhat less? NO/ NOT ASKED → b) Now I would like to know how much (NAME) was given to drink during the diarrhea. Was (NAME) given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was (NAME) given much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 NOTHING TO DRINK . . . . . 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 NOTHING TO DRINK . . . . . 5 DON'T KNOW 8
610	When (NAME) had diarrhea, was (NAME) given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was (NAME) given much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 STOPPED FOOD . . . . . 5 NEVER GAVE FOOD . . . . . 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 STOPPED FOOD . . . . . 5 NEVER GAVE FOOD . . . . . 6 DON'T KNOW 8
611	Did you seek advice or treatment for the diarrhea from any source?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 615)	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 615)

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
612	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . A GOVERNMENT HEALTH CENTER . . . . . B GOVERNMENT HEALTH POST . . . . . C MOBILE CLINIC . . . . . D FIELDWORKER . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . G PHARMACY . . . . . H CHEMIST/PMS . . . . . I PRIVATE DOCTOR . . . . . J MOBILE CLINIC . . . . . K FIELDWORKER . . . . . L OTHER PRIVATE MEDICAL SECTOR _____ M (SPECIFY) **OTHER SOURCE** SHOP . . . . . N TRADITIONAL PRACTITIONER . . . . . O MARKET . . . . . P ITINERANT DRUG SELLER . . . . . Q COMMUNITY-ORIENTED RESOURCE PERSON . . R OTHER _____ X (SPECIFY)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . A GOVERNMENT HEALTH CENTER . . . . . B GOVERNMENT HEALTH POST . . . . . C MOBILE CLINIC . . . . . D FIELDWORKER . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . G PHARMACY . . . . . H CHEMIST/PMS . . . . . I PRIVATE DOCTOR . . . . . J MOBILE CLINIC . . . . . K FIELDWORKER . . . . . L OTHER PRIVATE MEDICAL SECTOR _____ M (SPECIFY) **OTHER SOURCE** SHOP . . . . . N TRADITIONAL PRACTITIONER . . . . . O MARKET . . . . . P ITINERANT DRUG SELLER . . . . . Q COMMUNITY-ORIENTED RESOURCE PERSON . . R OTHER _____ X (SPECIFY)
613	CHECK 612:	TWO OR MORE CODES CIRCLED ☐ ↓ ONLY ONE CODE CIRCLED ☐ → (SKIP TO 615)	TWO OR MORE CODES CIRCLED ☐ ↓ ONLY ONE CODE CIRCLED ☐ → (SKIP TO 615)
614	Where did you first seek advice or treatment? USE LETTER CODE FROM 612.	FIRST PLACE . . . . . ☐	FIRST PLACE . . . . . ☐

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
615	Was (NAME) given any of the following at any time since (NAME) started having the diarrhea: a) A fluid made from a special packet called CHI ORS, Emzorlyte, Orasure, Olpharm ORS etc.? c) A government-recommended homemade fluid? d) Zinc tablets or syrup?	YES NO DK a) FLUID FROM ORS PACKET . . 1 2 8 c) HOMEMADE FLUID . . . . . 1 2 8 d) ZINC 1 2 8	YES NO DK a) FLUID FROM ORS PACKET . . 1 2 8 c) HOMEMADE FLUID . . . . . 1 2 8 d) ZINC 1 2 8
616	CHECK 615: ANY 'YES' → a) Was anything else given to treat the diarrhea? ALL 'NO' OR 'DK' → b) Was anything given to treat the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 618) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 618) DON'T KNOW 8
617	CHECK 615: ANY 'YES' → a) What else was given to treat the diarrhea? Anything else? ALL 'NO' OR 'DK' → b) What was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	**PILL OR SYRUP** ANTIBIOTIC . . . . . A ANTIMOTILITY . . . . . B OTHER (NOT ANTIBIOTIC OR ANTIMOTILITY) . . . . . C UNKNOWN PILL OR SYRUP . . . . . D **INJECTION** ANTIBIOTIC . . . . . E NON-ANTIBIOTIC . . . . . F UNKNOWN INJECTION . . . . . G (IV) INTRAVENOUS . . . . . H HOME REMEDY/ HERBAL MEDICINE . . . . . I OTHER _____ X (SPECIFY)	**PILL OR SYRUP** ANTIBIOTIC . . . . . A ANTIMOTILITY . . . . . B OTHER (NOT ANTIBIOTIC OR ANTIMOTILITY) . . . . . C UNKNOWN PILL OR SYRUP . . . . . D **INJECTION** ANTIBIOTIC . . . . . E NON-ANTIBIOTIC . . . . . F UNKNOWN INJECTION . . . . . G (IV) INTRAVENOUS . . . . . H HOME REMEDY/ HERBAL MEDICINE . . . . . I OTHER _____ X (SPECIFY)
618	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 620) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 620) DON'T KNOW 8
619	At any time during the illness, did (NAME) have blood taken from (NAME)'s finger or heel for testing?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
620	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
621	Has (NAME) had fast, short, rapid breaths or difficulty breathing at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 623) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 623) DON'T KNOW 8

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
622	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	CHEST ONLY . . . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 624)	CHEST ONLY . . . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 624)
623	CHECK 618: HAD FEVER?	YES NO OR DK (SKIP TO 646)	YES NO OR DK (SKIP TO 646)
624	Did you seek advice or treatment for the illness from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 629)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 629)
625	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . A GOVERNMENT HEALTH CENTER . . . . . B GOVERNMENT HEALTH POST . . . . . C MOBILE CLINIC . . . . . D FIELDWORKER/CHW . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . G PHARMACY . . . . . H CHEMIST/PMS . . . . . I PRIVATE DOCTOR . . . . . J MOBILE CLINIC . . . . . K FIELDWORKER/CHW . . . . . L OTHER PRIVATE MEDICAL SECTOR _____ M (SPECIFY) **OTHER SOURCE** SHOP . . . . . N TRADITIONAL PRACTITIONER . . . . . O MARKET . . . . . P ITINERANT DRUG SELLER . . . . . Q COMMUNITY-ORIENTED RESOURCE PERSON . . R OTHER _____ X (SPECIFY)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . A GOVERNMENT HEALTH CENTER . . . . . B GOVERNMENT HEALTH POST . . . . . C MOBILE CLINIC . . . . . D FIELDWORKER/CHW . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/ CLINIC . . . . . G PHARMACY . . . . . H CHEMIST/PMS . . . . . I PRIVATE DOCTOR . . . . . J MOBILE CLINIC . . . . . K FIELDWORKER/CHW . . . . . L OTHER PRIVATE MEDICAL SECTOR _____ M (SPECIFY) **OTHER SOURCE** SHOP . . . . . N TRADITIONAL PRACTITIONER . . . . . O MARKET . . . . . P ITINERANT DRUG SELLER . . . . . Q COMMUNITY-ORIENTED RESOURCE PERSON . . R OTHER _____ X (SPECIFY)
626	CHECK 625:	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 628)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 628)

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
627	Where did you first seek advice or treatment? USE LETTER CODE FROM 625.	FIRST PLACE . . . . . [ ]	FIRST PLACE . . . . . [ ]
628	How many days after the illness began did you first seek advice or treatment for (NAME)? IF THE SAME DAY RECORD '00'.	DAYS . . . . . [ ][ ]	DAYS . . . . . [ ][ ]
629	At any time during the illness, did (NAME) take any drugs for the illness?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 646) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 646) DON'T KNOW 8
630	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	**ANTIMALARIAL DRUGS** ARTEMISININ COMBINATION THERAPY (ACT) . . . . . A SP/FANSIDAR . . . . . B CHLOROQUINE . . . . . C AMODIAQUINE . . . . . D QUININE PILLS . . . . . E INJECTION/IV . . . . . F ARTESUNATE RECTAL . . . . . G INJECTION/IV . . . . . H OTHER ANTIMALARIAL _____ I (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP . . . . . J INJECTION/IV . . . . . K **OTHER DRUGS** ASPIRIN . . . . . L PARACETAMOL . . . . . M IBUPROFEN . . . . . N OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	**ANTIMALARIAL DRUGS** ARTEMISININ COMBINATION THERAPY (ACT) . . . . . A SP/FANSIDAR . . . . . B CHLOROQUINE . . . . . C AMODIAQUINE . . . . . D QUININE PILLS . . . . . E INJECTION/IV . . . . . F ARTESUNATE RECTAL . . . . . G INJECTION/IV . . . . . H OTHER ANTIMALARIAL _____ I (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP . . . . . J INJECTION/IV . . . . . K **OTHER DRUGS** ASPIRIN . . . . . L PARACETAMOL . . . . . M IBUPROFEN . . . . . N OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z
631	CHECK 630: ANY CODE A-I CIRCLED?	YES [ ] NO [ ] (SKIP TO 646)	YES [ ] NO [ ] (SKIP TO 646)

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
632	CHECK 630: ARTEMISININ COMBINATION THERAPY ('A') GIVEN	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 646)	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 646)
633	How long after the fever started did (NAME) first take an artemisinin combination therapy?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW 8
646		GO BACK TO 604 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 647.	GO TO 604 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 647.

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
647	CHECK 615(a) AND 615(b), ALL COLUMNS:	NO CHILD RECEIVED FLUID FROM ORS PACKET ☐ ↓ ANY CHILD RECEIVED FLUID FROM ORS PACKET ☐ →	649
648	Have you ever heard of a special product ORS called CHI ORS, Emzorlyte, Orasure, Olpharm ORS etc. you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	
649	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2016-2018 LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓ _____ (NAME OF YOUNGEST CHILD LIVING WITH HER) ↓	NONE ☐ →	653A

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
650	Now I would like to ask you about liquids or foods that (NAME FROM 649) had yesterday during the day or at night. I am interested in whether your child had the item I mention even if it was combined with other foods. Did (NAME FROM 649) drink or eat:		YES	NO	DK	
	a) Plain water?	a)	1	2	8	
	b) Juice or juice drinks?	b)	1	2	8	
	c) Clear broth?	c)	1	2	8	
	d) Milk such as tinned, powdered, or fresh animal milk? IF YES: How many times did (NAME) drink milk? IF 7 OR MORE TIMES, RECORD '7'.	d)	1	2	8	
		NUMBER OF TIMES DRANK	[ ]			
	e) Infant formula (Nan, SMA Gold, My Boy, Friso, Lactogen, Peak Milk 123, Cow and Gate, etc.)? IF YES: How many times did (NAME) drink infant formula? IF 7 OR MORE TIMES, RECORD '7'.	e)	1	2	8	
		NUMBER OF TIMES DRANK	[ ]			
	f) Any other liquids?	f)	1	2	8	
	g) Yogurt? IF YES: How many times did (NAME) eat yogurt? IF 7 OR MORE TIMES, RECORD '7'.	g)	1	2	8	
		NUMBER OF TIMES ATE	[ ]			
	h) Any commercially fortified baby food like Cerelac, Nutren, Frisolac H, Weatabix, etc.?	h)	1	2	8	
	i) Bread, rice, noodles, porridge, macaroni, tuwo shinkafa, semo, masa, pap or other foods made from grains (e.g. millet, sorghum, maize, wheat, oats, etc.)?	i)	1	2	8	
	j) Pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside?	j)	1	2	8	
	k) Irish/white potatoes, white yams, cassava, plantain, cocoyam, garri, fufu, lafun, or any other foods made from roots?	k)	1	2	8	
	l) Any dark green, leafy vegetables like spinach, pumpkin leaf, ugu, zogale (moringa), yakuwa, soko, ewedu, oha leaf, lansir, yadiya, rama, tafasa, etc.?	l)	1	2	8	
	m) Ripe mangoes, ripe pawpaw, ripe passion fruit, dorowa, or red palm-nuts etc. ?	m)	1	2	8	
	n) Any other fruits or vegetables (e.g. banana, watermelon, apples, green beans, avocados, tomatoes)?	n)	1	2	8	
	o) Liver, kidney, heart, or other organ meats?	o)	1	2	8	
	p) Any meat, such as beef, mutton, pork, lamb, bat, bush rat/bush meat, kundi, kilishi, camel, chicken, or duck?	p)	1	2	8	
	q) Eggs?	q)	1	2	8	
	r) Fresh or dried fish or shellfish?	r)	1	2	8	
	s) Any foods made from beans, peas, lentils, or nuts like moimoi, akara?	s)	1	2	8	
	t) Cheese or other food made from milk?	t)	1	2	8	
	u) Any other solid, semi-solid, or soft food?	u)	1	2	8	

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
651	CHECK 650 (CATEGORIES 'g' THROUGH 'u'): NOT A SINGLE 'YES' ☐ ↓ AT LEAST ONE 'YES' ☐		→ 653
652	Did (NAME FROM 649) eat any solid, semi-solid, or soft foods yesterday during the day or at night? IF 'YES' PROBE: What kind of solid, semi-solid or soft foods did (NAME) eat?	YES . . . . . 1 (GO BACK TO 650 TO RECORD FOOD EATEN YESTERDAY) (THEN CONTINUE TO 653) NO 2	→ 653A
653	How many times did (NAME FROM 649) eat solid, semi-solid, or soft foods yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES . . . . . ☐ DON'T KNOW 8	

653A Now I would like to ask you about foods and drinks that you ate or drank yesterday during the day or night, whether you ate it at home or anywhere else.
I am interested in whether you had the food items I will mention even if they were combined with other foods. For example, if you had a soup made with carrots, potatoes and meat, you should reply "yes" for each of these ingredients when I read you the list. However, if you consumed only the broth of a soup, but not the meat or vegetable, do not say "yes" for the meat or vegetable.
As I ask you about foods and drinks, please think of foods and drinks you had as snacks or small meals as well as during any main meals. Please also remember foods you may have eaten while preparing meals or preparing food for others.
Please do not include any food used in a small amount for seasoning or condiments (like spices, herbs or crayfish powder). I will ask you about those foods separately.

Yesterday during the day or at night, did you eat or drink:

		YES	NO	DK
Any foods made from grains, like: a) Wheat, maize, rice, sorghum (guinea corn or dawa), millet (gero/jero), acha, spaghetti (talia), macaroni, noodles, bread,	a)	1	2	8
Any vegetables or roots that are orange coloured inside like: b) Squash that is orange inside, pumpkin, carrot, red sweet pepper (tatase), sweet potato that is orange inside (orange flesh sweet potatoes)?	b)	1	2	8
Any white roots and tubers or plantains, like: c) Yam, water yam, cocoyam, potato, cassava, tigernut flour,	c)	1	2	8
Any dark green leafy vegetables, like: d) Ugu, bitter leaf (ewuro/ onugbu), zogale (moringa), yakuwa (sorrel leaves), soko, ewedu/ayoyo, afang/okazi, sweet potato leaves, cassava leaves, cocoyam leaves, amaranthus/spinach (green/tete), water leaf, oha leaf, karkashi, kuka (baobab, luru), lansir, yadiya, rama, tafasa, kanya, cress, lettuce, yanrin (wild spinach), eku gogoro, eku petere, ilasa (young okro leaves), igbagba, ebolo, atama, editan, scent leaf (ntong/nchuawu/ arigbe/aluluisi), chaya (iyana paja), egg plant leaves?	d)	1	2	8
Any fruits that are dark yellow or orange inside, like: e) Ripe pawpaw (gwanda/ibeppe/okwuru oru/bobo), ripe mango, ripe passion fruit, dorowa (locust bean fruit), red palm fruit, hog plum (tsadan gida, iyeye, ngulungu), ripe cantaloupe, musk melon, monkey cola (ndiya), bush mango fruit (ugili/ogbono/mbupauyo) ?	e)	1	2	8
Any other fruits, like: f) Apple, banana, watermelon, tangerine, grapes, avocado pear, oranges, pears, dates (dabino), guava, pineapple, grapefruit, coconut, African cherry/African star apple (agbalumo/udara/udala), breadfruit, cashew fruit, soursop, golden melon, baobab fruit (ose/nonkuku), figs, shea fruit, doum palm fruit (goruba)?	f)	1	2	8
Any other vegetables, like: g) Cabbage, cucumber, fresh tomato, onion, green beans, green pepper, okro, garden egg, green peas, boiled or roasted fresh corn, beets, mushroom, ujuju?	g)	1	2	8

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	Any meat made from animal organs, like: h) Liver, kidney, heart, gizzard?	h) 1 2 8	
	Any other types of meat or poultry, like: i) Meat, chicken, and other bush meat/bird, kundi, kilishi, dambu nama, ponmo (cow skin)?	i) 1 2 8	
	Any eggs j) Any eggs?	j) 1 2 8	
	Any fish or seafood, whether fresh or dried, like: k) Fish, crab, lobster, cray fish, shrimp, stock fish (okporoko)?	k) 1 2 8	
	Any beans or peas, like: l) Beans, chickpeas, soya beans, bambara nut (ebi-abo)?	l) 1 2 8	
	Any nuts or seeds, like: m) Melon seed (egusi), pumpkin seeds (mkpuru anyu/ugboguru), walnuts, groundnuts, shea nut, cashew nuts, bush mango seeds (ogbono)?	m) 1 2 8	
	Any milk or milk products, like: n) Milk, sour milk (nono), yogurt, cheese (wara)?	n) 1 2 8	
	Any insects and other small protein foods, like: o) Winged termite (aku, esunsun, chinge, ako), cricket, snails (igbin/ejuna), sea snails (nkonko/isawuru), periwinkle, ogongo, akankwu, African palm weevil larva (monini/ekuku/okuka/uton/	o) 1 2 8	
	Any red palm oil, like: p) Foods made with red palm oil, red palm nut, or red palm nut pulp sauces?	p) 1 2 8	
	Any other oils and fats, like: q) Oil, fats or butter added to food or used for cooking, including vegetable oil, any other type of oil, butter, margarine (blue band), mayonnaise, shea butter, manshanu, extracted oils from nuts, fruits and seeds, and all animal fat?	q) 1 2 8	
	Any savoury and fried snacks, like: r) Crisps and chips, fried dough (puffpuff), other fried snacks (chinchin, kulikuli, donkuwa)?	r) 1 2 8	
	Any sweets, like: s) Chocolates, candies, cookies/sweet biscuits and cakes, sweet pastries or ice cream?	s) 1 2 8	
	Any sugar-sweetened beverages, like: t) Sweetened fruit juices and “juice drinks”, soft drinks/fizzy drinks, chocolate drinks(milo), malt drinks, sweet tea or coffee with	t) 1 2 8	
	Any condiments and seasonings, like: u) Salt, Maggi, black pepper, alligator pepper, yaji, bay leaf, uziza, scent leaves, utazi, thyme, curry, ginger, garlic, cloves (kanafuru), tomato paste, ehuru, uyayak, uda, crayfish powder, locust bean used as seasoning, ogiri?	u) 1 2 8	
	Any other beverages and foods, like: v) Coffee or tea if unsweetened, alcohol, clear broth, soup broth, olives, pickled cucumbers, herbal beverages/infusions (zobo), kunun aya, kunun dawa, water, kolanut, bitter kola?	v) 1 2 8	

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
653B	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2016-2018 LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓ _____ (NAME OF YOUNGEST CHILD LIVING WITH HER) ↓	NONE ☐ →	701
654	The last time (NAME FROM 649) passed stools, what was done to dispose of the stools?	CHILD USED TOILET OR LATRINE . . . . . 01 PUT/RINSED INTO TOILET OR LATRI . . . . . 02 PUT/RINSED INTO DRAIN OR DITCH . . . . . 03 THROWN INTO GARBA(. . . . . 04 BURIED . . . . . 05 LEFT IN THE OPE . . . . . 06 OTHER _____ 96 (SPECIFY)	

SECTION 7. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Are you currently married or living together with a man as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A MAN . . . . . 2 NO, NOT IN UNION 3	→ 704
702	Have you ever been married or lived together with a man as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A MAN . . . . . 2 NO 3	→ 712
703	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 709
704	Is your (husband/partner) living with you now or is he staying elsewhere?	LIVING WITH HER . . . . . 1 STAYING ELSEWHERE 2	
705	RECORD THE HUSBAND'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO. . . . . [ ][ ]	
706	Does your (husband/partner) have other wives or does he live with other women as if married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 709
707	Including yourself, in total, how many wives or live-in partners does he have?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . . . [ ][ ] DON'T KNOW 98	
708	Are you the first, second, … wife?	RANK . . . . . [ ][ ]	
709	Have you been married or lived with a man only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	
710	CHECK 709: MARRIED/ LIVED WITH A MAN ONLY ONCE → a) In what month and year did you start living with your (husband/partner)? MARRIED/ LIVED WITH A MAN MORE THAN ONCE → b) Now I would like to ask about your first (husband/partner). In what month and year did you start living with him?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→ 712
711	How old were you when you first started living with him?	AGE . . . . . [ ][ ]	

SECTION 7. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
712	**CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.**		
713	Now I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS . . . . . [ ][ ]	→ 731
714	I would like to ask you about your recent sexual activity. When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	→ 716 → 727

SECTION 7. MARRIAGE AND SEXUAL ACTIVITY

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
715	When was the last time you had sexual intercourse with this person?		DAYS AGO . . 1 WEEKS AGO . . 2 MONTHS AGO . . 3	DAYS AGO . . 1 WEEKS AGO . . 2 MONTHS AGO . . 3
716	The last time you had sexual intercourse with this person, was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 718)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 718)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 718)
717	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
718	What was your relationship to this person with whom you had sexual intercourse? IF BOYFRIEND: Were you living together as if married? IF YES, RECORD '2'. IF NO, RECORD '3'.	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)
719	How long ago did you first have sexual intercourse with this person?	DAYS AGO . . 1 WEEKS AGO . . 2 MONTHS AGO . . 3 YEARS AGO . . 4	DAYS AGO . . 1 WEEKS AGO . . 2 MONTHS AGO . . 3 YEARS AGO . . 4	DAYS AGO . . 1 WEEKS AGO . . 2 MONTHS AGO . . 3 YEARS AGO . . 4
720	How many times during the last 12 months did you have sexual intercourse with this person? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF TIMES IS 95 OR MORE, RECORD '95'.	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES . . . . .
721	How old is this person?	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98
722	Apart from this person, have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 715 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 724)	YES . . . . . 1 (GO BACK TO 715 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 724)	
723	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, RECORD '95'.			NUMBER OF PARTNERS LAST 12 MONTHS . . DON'T KNOW 98

SECTION 7. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
724	CHECK 106:	AGE 15-24 ☐ ↓ AGE 25-49 ☐ →	727
725	CHECK 701:	NOT IN A UNION ☐ ↓ CURRENTLY MARRIED/ LIVING WITH A MAN ☐ →	727
726	In the past 12 months have you had sex or been sexually involved with anyone because he gave you or told you he would give you gifts, cash, or anything else?	YES . . . . . 1 NO 2	
727	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, RECORD '95'.	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
728	CHECK 716, MOST RECENT PARTNER (FIRST COLUMN):	YES, CONDOM USED ☐ ↓ NO, CONDOM NOT USED ☐ → NOT ASKED ☐ →	 731 731
729	You told me that a condom was used the last time you had sex. What is the brand name of the condom used at that time? IF BRAND NOT KNOWN, ASK TO SEE THE PACKAGE.	**MALE CONDOMS** GOLD CIRCLE . . . . . 01 DUREX . . . . . 02 ROUGH RIDER . . . . . 03 TWIN LOTUS . . . . . 04 PLAIN CONDOMS . . . . . 05 GO FLEX . . . . . 06 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

SECTION 7. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
730	From where did you obtain the condom the last time? PROBE TO IDENTIFY TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 FIELDWORKER . . . . . 15 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . 21 PHARMACY . . . . . 22 CHEMIST/PMS . . . . . 23 PRIVATE DOCTOR . . . . . 24 MOBILE CLINIC . . . . . 25 FIELDWORKER . . . . . 26 OTHER PRIVATE MEDICAL SECTOR _____ 27 (SPECIFY) **OTHER SOURCE** SHOP . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 NGO . . . . . 34 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
731	PRESENCE OF OTHERS DURING THIS SECTION.	YES NO CHILDREN <10 . . . . . 1 2 MALE ADULTS . . . . . 1 2 FEMALE ADULTS 1 2	

SECTION 8. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 304:	NEITHER STERILIZED ☐ ↓ HE OR SHE STERILIZED ☐	→ 813
802	CHECK 226:	PREGNANT ☐ ↓ NOT PREGNANT OR UNSURE ☐	→ 804
803	Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 805 → 812
804	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT . . . . . 3 UNDECIDED/DON'T KNOW 8	→ 807 → 813 → 811
805	CHECK 226: NOT PREGNANT OR UNSURE ☐ ↓ a) How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ ↓ b) After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT . . . . . 994 AFTER MARRIAGE . . . . . 995 OTHER _____ (SPECIFY) 996 DON'T KNOW 998	→ 811 → 813 → 811
806	CHECK 226:	NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐	→ 812
807	CHECK 303: USING A CONTRACEPTIVE METHOD?	NOT CURRENTLY USING ☐ ↓ CURRENTLY USING ☐	→ 813
808	CHECK 805:	'24' OR MORE MONTHS OR '02' OR MORE YEARS ☐ ↓ NOT ASKED ☐ ↓ '00-23' MONTHS OR '00-01' YEAR ☐	→ 812
809	CHECK 714:	DAYS, WEEKS OR MONTHS AGO ☐ ↓ YEARS AGO ☐ NOT ASKED ☐	→ 811 → 811

SECTION 8. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
810	CHECK 804: WANTS TO HAVE A/ANOTHER CHILD a) You have said that you do not want (a/another) child soon. Can you tell me why you are not using a method to prevent pregnancy? Any other reason? WANTS NO MORE/ NONE b) You have said that you do not want any (more) children. Can you tell me why you are not using a method to prevent pregnancy? Any other reason? RECORD ALL REASONS MENTIONED.	NOT MARRIED . . . . . A **FERTILITY-RELATED REASONS** NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY . . . . . D CAN'T GET PREGNANT . . . . . E NOT MENSTRUATED SINCE LAST BIRTH . . . . . F BREASTFEEDING . . . . . G UP TO GOD/FATALISTIC . . . . . H **OPPOSITION TO USE** RESPONDENT OPPOSED . . . . . I HUSBAND/PARTNER OPPOSED . . . . . J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L **LACK OF KNOWLEDGE** KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N **METHOD-RELATED REASONS** SIDE EFFECTS/HEALTH CONCERNS . . . . . O LACK OF ACCESS/TOO FAR . . . . . P COSTS TOO MUCH . . . . . Q PREFERRED METHOD NOT AVAILABLE . . . . . R NO METHOD AVAILABLE . . . . . S INCONVENIENT TO USE . . . . . T INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . U OTHER _____ (SPECIFY) X DON'T KNOW . . . . . Z	
811	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT ASKED NO, NOT CURRENTLY USING YES, CURRENTLY USING		→ 813
812	Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
813	CHECK 216: HAS LIVING CHILDREN a) If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN b) If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . [ ][ ] OTHER _____ (SPECIFY) 96	→ 815 → 815
814	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	BOYS GIRLS EITHER NUMBER . . [ ][ ] [ ][ ] [ ][ ] OTHER _____ (SPECIFY) 96	

SECTION 8. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			SKIP
815	In the last few months have you:		YES	NO	
	a) Heard about family planning on the radio?	a) RADIO	1	2	
	b) Seen anything about family planning on the television?	b) TELEVISION	1	2	
	c) Read about family planning in a newspaper or magazine?	c) NEWSPAPER OR MAGAZINE	1	2	
	d) Received a voice or text message about family planning on a mobile phone?	d) MOBILE PHONE	1	2	
	e) Read/heard from social media (facebook, twitter, etc.)?	e) SOCIAL MEDIA	1	2	
	f) Read about family planning in a poster?	f) POSTER	1	2	
	g) Read about family planning in a leaflet or brochures?	g) LEAFLET OR BROCHURE	1	2	
	h) Heard about family planning from town crier?	h) TOWN CRIER	1	2	
	i) Heard about family planning from mobile public announcement?	i) MOBILE PUBLIC ANNOUNCEMEN	1	2	
815A	CHECK 815:	AT LEAST ONE `YES' (HAS HEARD OR READ MESSAGE) ☐ ↓ / NOT A SINGLE `YES' (HAS NOT HEARD OR READ MESSAGE) ☐			→ 817
816	Please tell me which family planning messages you have heard or seen in the past few months? PROBE: Any others?	AS FOR ME AND MY PARTNER WE `DEY KAMPE' WITH FEMALE CONDOM		A	
		UNSPACED CHILDREN MAKES THE GOING TOUGH FOR THE LOVE OF YOUR FAMILY, GO FOR CHILD SPACING TODAY		B	
		WELL-SPACED CHILDREN ARE EVERY PARENT'S JOY		C	
		IT'S NOT TOO LATE TO PREVENT UNWANTED PREGNANCY		D	
		WHY IS YOUR WIFE LOOKING SO GOO		E	
		OTHER _____ (SPECIFY)		X	
817	CHECK 701:	YES, CURRENTLY MARRIED ☐ ↓ / YES, LIVING WITH A MAN ☐ ↓ / NO, NOT IN A UNION ☐			→ 901
818	CHECK 303: USING A CONTRACEPTIVE METHOD?	CURRENTLY USING ☐ ↓ / NOT CURRENTLY USING ☐			→ 820
		NOT ASKED ☐			→ 822
819	Would you say that using contraception is mainly your decision, mainly your (husband's/partner's) decision, or did you both decide together?	MAINLY RESPONDENT		1	→ 821
		MAINLY HUSBAND/PARTNER		2	
		JOINT DECISION		3	
		OTHER _____ (SPECIFY)		6	
820	Would you say that not using contraception is mainly your decision, mainly your (husband's/partner's) decision, or did you both decide together?	MAINLY RESPONDENT		1	
		MAINLY HUSBAND/PARTNER		2	
		JOINT DECISION		3	
		OTHER _____ (SPECIFY)		6	
821	CHECK 304:	NEITHER ARE STERILIZED ☐ ↓ / HE OR SHE ARE STERILIZED ☐			→ 901
822	Does your (husband/partner) want the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER		1	
		MORE CHILDREN		2	
		FEWER CHILDREN		3	
		DON'T KNOW		8	

SECTION 9. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	CHECK 701: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓	NOT IN UNION ☐	→ 909
902	How old was your (husband/partner) on his last birthday?	AGE IN COMPLETED YEARS ..... ☐☐	
903	Did your (husband/partner) ever attend school?	YES ..... 1 NO 2	→ 906
904	What was the highest level of school he attended: primary, secondary, or higher?	PRIMARY ..... 1 SECONDARY ..... 2 HIGHER ..... 3 DON'T KNOW 8	→ 906
905	What was the highest Class/Year he completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	CLASS/YEAR ..... ☐☐ DON'T KNOW 98	
906	Has your (husband/partner) done any work in the last 7 days?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→ 908
907	Has your (husband/partner) done any work in the last 12 months?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→ 909
908	What is your (husband's/partner's) occupation? That is, what kind of work does he mainly do?	_____ _____ ☐☐ _____	
909	Aside from your own housework, have you done any work in the last seven days?	YES ..... 1 NO 2	→ 913
910	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES ..... 1 NO 2	→ 913
911	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave, or any other such reason?	YES ..... 1 NO 2	→ 913
912	Have you done any work in the last 12 months?	YES ..... 1 NO 2	→ 917
913	What is your occupation? That is, what kind of work do you mainly do?	_____ _____ ☐☐ _____	

SECTION 9. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
914	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
915	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . . . . . 2 ONCE IN A WHILE 3	
916	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
917	CHECK 701: CURRENTLY MARRIED/LIVING WITH A MAN ☐ ↓	NOT IN UNION ☐ →	925
918	CHECK 916: CODE '1' OR '2' CIRCLED ☐ ↓	OTHER ☐ →	921
919	Who usually decides how the money you earn will be used: you, your (husband/partner), or you and your (husband/partner) jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . . . 3 OTHER _____ 6 (SPECIFY)	
920	Would you say that the money that you earn is more than what your (husband/partner) earns, less than what he earns, or about the same?	MORE THAN HIM . . . . . 1 LESS THAN HIM . . . . . 2 ABOUT THE SAME . . . . . 3 HUSBAND/PARTNER HAS NO EARNINGS . . . . . 4 DON'T KNOW 8	→ 922
921	Who usually decides how your (husband's/partner's) earnings will be used: you, your (husband/partner), or you and your (husband/partner) jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . . . 3 HUSBAND/PARTNER HAS NO EARNINGS . . . . . 4 OTHER _____ 6 (SPECIFY)	
922	Who usually makes decisions about health care for yourself: you, your (husband/partner), you and your (husband/partner) jointly, or someone else?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
923	Who usually makes decisions about making major household purchases?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	

SECTION 9. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
924	Who usually makes decisions about visits to your family or relatives?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
925	Do you own this or any other house either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	→ 928
926	Do you have a title deed for any house you own?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 928
927	Is your name on the title deed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
928	Do you own any agricultural or non-agricultural land either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	→ 931
929	Do you have a title deed for any land you own?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 931
930	Is your name on the title deed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
931	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)	PRES./ LISTEN. / PRES./ NOT LISTEN. / NOT PRES. CHILDREN < 10 . . . . . 1 2 3 HUSBAND . . . . . 1 2 3 OTHER MALES . . . . . 1 2 3 OTHER FEMALES 1 2 3	
932	In your opinion, is a husband justified in hitting or beating his wife in the following situations: a) If she goes out without telling him? b) If she neglects the children? c) If she argues with him? d) If she refuses to have sex with him? e) If she burns the food?	YES / NO / DK a) GOES OUT . . . . . 1 2 8 b) NEGLECTS CHILDREN . . 1 2 8 c) ARGUES . . . . . 1 2 8 d) REFUSES SEX . . . . . 1 2 8 e) BURNS FOOD 1 2 8	

SECTION 10. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1001	Now I would like to talk about something else. Have you ever heard of HIV or AIDS?	YES . . . . . 1 NO 2	→ 1042
1002	HIV is the virus that can lead to AIDS. Can people reduce their chance of getting HIV by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1003	Can people get HIV from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1004	Can people reduce their chance of getting HIV by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1005	Can people get HIV by sharing food with a person who has HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1006	Can people get HIV because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1007	Is it possible for a healthy-looking person to have HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1008	Can HIV be transmitted from a mother to her baby: a) During pregnancy? b) During delivery? c) By breastfeeding?	YES NO DK a) DURING PREGNANCY . . 1 2 8 b) DURING DELIVERY . . . . . 1 2 8 c) BREASTFEEDING 1 2 8	
1009	CHECK 1008: AT LEAST ONE 'YES' ☐ ↓ OTHER ☐		→ 1011
1010	Are there any special drugs that a doctor or a nurse can give to a woman infected with HIV to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1011	CHECK 208 AND 215: LAST BIRTH IN 2016-2018 ☐ ↓ NO BIRTHS ☐ LAST BIRTH IN 2015 OR EARLIER ☐		→ 1035 → 1035
1012	CHECK 408 FOR LAST BIRTH: HAD ANTENATAL CARE ☐ ↓ NO ANTENATAL CARE ☐		→ 1035
1014	During any of the antenatal visits for your last birth were you given any information about: a) Babies getting HIV from their mother? b) Things that you can do to prevent getting HIV? c) Getting tested for HIV?	YES NO DK a) HIV FROM MOTHER . . 1 2 8 b) THINGS TO DO . . . . . 1 2 8 c) TESTED FOR HIV 1 2 8	
1035	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	

SECTION 10. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1036	Do you think children living with HIV should be allowed to attend school with children who do not have HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
1037	Do you think people hesitate to take an HIV test because they are afraid of how other people will react if the test result is positive for HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
1038	Do people talk badly about people living with HIV, or who are thought to be living with HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
1039	Do people living with HIV, or thought to be living with HIV, lose the respect of other people?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
1040	Do you agree or disagree with the following statement: I would be ashamed if someone in my family had HIV.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
1041	Do you fear that you could get HIV if you come into contact with the saliva of a person living with HIV?	YES . . . . . 1 NO . . . . . 2 SAYS SHE HAS HIV . . . . . 3 DON'T KNOW/NOT SURE/DEPENDS 8	
1042	CHECK 1001: HEARD ABOUT HIV OR AIDS → a) Apart from HIV, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT HIV OR AIDS → b) Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
1043	CHECK 713: HAS HAD SEXUAL INTERCOURSE → NEVER HAD SEXUAL INTERCOURSE →		1051
1044	CHECK 1042: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES → NO →		1046
1045	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1046	Sometimes women experience a bad-smelling abnormal genital discharge. During the last 12 months, have you had a bad-smelling abnormal genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1047	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1048	CHECK 1045, 1046, AND 1047: HAS HAD AN INFECTION (ANY 'YES') → HAS NOT HAD AN INFECTION OR DOES NOT KNOW →		1051
1049	The last time you had (PROBLEM FROM 1045/1046/1047), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 1051

SECTION 10. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1050	Where did you go? Any other place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVERNMENT HEALTH CENTER . . . . . B STAND-ALONE HTS CENTER . . . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE HTS SERVICES . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . G STAND-ALONE HTS CENTER . . . . . H PHARMACY . . . . . I CHEMIST/PMS STORE . . . . . J MOBILE HTS SERVICES . . . . . K OTHER PRIVATE MEDICAL SECTOR _____ L (SPECIFY) **OTHER SOURCE** SHOP . . . . . M OTHER _____ X (SPECIFY)	
1051	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1052	Is a wife justified in refusing to have sex with her husband when she knows he has sex with other women?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1053	CHECK 701: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ NOT IN UNION ☐ → 1101		
1054	Can you say no to your (husband/partner) if you do not want to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	
1055	Could you ask your (husband/partner) to use a condom if you wanted him to?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	

SECTION 11. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1101	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . . . [ ][ ] NONE 00	→ 1104
1102	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . . . [ ][ ] NONE 00	→ 1104
1103	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1104	Do you currently smoke cigarettes every day, some days, or not at all?	EVERY DAY . . . . . 1 SOME DAYS . . . . . 2 NOT AT ALL 3	→ 1106
1105	On average, how many cigarettes do you currently smoke each day?	NUMBER OF CIGARETTES . . . . . [ ][ ]	
1106	Do you currently smoke or use any other type of tobacco every day, some days, or not at all?	EVERY DAY . . . . . 1 SOME DAYS . . . . . 2 NOT AT ALL 3	→ 1108
1107	What other type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	KRETEKS . . . . . A PIPES FULL OF TOBACCO . . . . . B CIGARS, CHEROOTS, OR CIGARILLOS . . . . . C WATER PIPE . . . . . D SNUFF BY MOUTH . . . . . E SNUFF BY NOSE . . . . . F CHEWING TOBACCO . . . . . G BETEL QUID WITH TOBACCO . . . . . H OTHER _____ X (SPECIFY)	
1108	Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not a big problem: a) Getting permission to go to the doctor? b) Getting money needed for advice or treatment? c) The distance to the health facility? d) Not wanting to go alone?	BIG PROBLEM / NOT A BIG PROBLEM a) PERMISSION TO GO . . . . . 1 / 2 b) GETTING MONEY . . . . . 1 / 2 c) DISTANCE . . . . . 1 / 2 d) GO ALONE . . . . . 1 / 2	

SECTION 11. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
1108A	I am going to ask you about your opinion on behavior/practice on reducing the risk of malaria. Please tell me whether you agree or disagree with the following statements:		AGREE	DISAGREE	DON'T KNOW	
	b) The medicine given to pregnant women to prevent malaria works well to keep the mother healthy	b)	1	2	8	
	c) The medicine given to pregnant women to prevent malaria works well to keep the baby healthy when it is born	c)	1	2	8	
	d) The malaria tests are the only way to know if someone really has malaria or not	d)	1	2	8	
	f) Even if the malaria test shows that the fever is not caused by malaria, I will still seek out treatment for malaria because I don't trust the test result	f)	1	2	8	
	i) When the entire course of malaria medicine is taken, the disease will be fully cured	i)	1	2	8	
1108B	I am going to ask you about your opinion on consequences of malaria. Please tell me whether you agree or disagree with the following statements:		AGREE	DISAGREE	DON'T KNOW	
	a) Every case of malaria can potentially lead to death	a)	1	2	8	
	c) You don't worry about malaria because it can be easily treated	c)	1	2	8	
	d) You know people who have become dangerously sick with malaria.	d)	1	2	8	
	f) Only weak children can die from malaria	f)	1	2	8	
1109	Are you covered by any health insurance?	YES . . . . . 1 NO 2				 → 1200
1110	What type of health insurance are you covered by? RECORD ALL MENTIONED.	MUTUAL HEALTH ORGANIZATION/ COMMUNITY-BASED HEALTH INSURANCE . . . . . A HEALTH INSURANCE THROUGH EMPLOYER . . . . . B SOCIAL SECURITY . . . . . C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE . . . . . D OTHER _____ X (SPECIFY)				

SECTION 12. FEMALE GENITAL CUTTING/MUTILATION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1200	CHECK COVER PAGE: HOUSEHOLD SELECTED FOR MAN'S SURVEY? HOUSEHOLD NOT SELECTED FOR MAN'S SURVEY ☐ ↓	HOUSEHOLD SELECTED ☐	→ 1401
1201	Now I would like to ask some questions about a practice known as female circumcision, that is, a practice in which a girl may have part of her genitals cut, for example, excision of the clitoris and the labia minora, scraping of tissue surrounding the vaginal orifice (angurya cuts) or cutting of the vagina (gishiri cuts) and even use of corrosive sunstances or herbs into vagina to tighten or narrow it or to cause bleeding. Have you ever heard about any of these practices?	YES . . . . . 1 NO 2	→ 1301
1202	Have you yourself ever had any of these procedures performed on you?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 1208
1203	Now I would like to ask you what was done to you at that time. Was any flesh removed from the genital area?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 1205
1204	Was the genital area just nicked without removing any flesh?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1205	Was your genital area sewn closed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1205A	Which type of procedure was performed on you?	YES NO DK a) REMOVAL OF CLITORIS . . 1 2 8 b) INFIBULATION . . . . . 1 2 8 c) ANGURYA . . . . . 1 2 8 d) GISHIRI 1 2 8	
	a) Removal of clitoris along with partial or total excision of the labia minora?		
	b) Infibulation: removal of clitoris, labia minora and adjacent medial part of labia majora and stitching it?		
	c) Scraping of tissue surrounding the vaginal orifice (eg. Angurya cuts etc.)?		
	d) Cutting of the vagina (eg. Gishiri cuts etc)?		
1205B	Have you ever used corrosive substances or herbs into vagina with the aim of tightening or narrowing it or to cause bleeding?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1206	How old were you when this procedure (GC6A/GC6B) was performed for the first time? IF THE RESPONDENT DOES NOT KNOW THE EXACT AGE, PROBE TO GET AN ESTIMATE.	AGE IN COMPLETED YEARS . . . . . ☐☐ AS A BABY/DURING INFANCY . . . . . 95 DON'T KNOW 98	
1207	Who performed this procedure?	TRADITIONAL TRADITIONAL CURCUMCISER . . . . . 11 TRADITIONAL BIRTH ATTENDANT . . . . . 12 OTHER TRADITIONAL _____ 16 (SPECIFY) HEALTH PROFESSIONAL DOCTOR . . . . . 21 NURSE/MIDWIFE . . . . . 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	
1208	CHECK 213, 215 AND 216: HAS ONE OR MORE LIVING DAUGHTERS BORN IN 2003 OR LATER ☐ ↓	HAS NO LIVING DAUGHTERS BORN IN 2003 OR LATER ☐	→ 1216

CHECK 213, 215 AND 216: ENTER IN THE TABLE THE BIRTH HISTORY NUMBER AND NAME OF EACH LIVING DAUGHTER BORN IN 2003 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE DAUGHTERS. BEGIN WITH THE YOUNGEST DAUGHTER. (IF THERE ARE MORE THAN 3 DAUGHTERS, USE ADDITIONAL QUESTIONNAIRES).

1209 Now I would like to ask you some questions about your (daughter/daughters).

		YOUNGEST LIVING DAUGHTER	NEXT-TO-YOUNGEST LIVING DAUGHTER	SECOND-TO-YOUNGEST LIVING DAUGHTER
1210	BIRTH HISTORY NUMBER AND NAME OF EACH LIVING DAUGHTER BORN IN 2003 OR LATER.	BIRTH HISTORY NUMBER [ ][ ] NAME _____	BIRTH HISTORY NUMBER [ ][ ] NAME _____	BIRTH HISTORY NUMBER [ ][ ] NAME _____
1211	Is (NAME OF DAUGHTER) circumcised?	YES . . . . . 1 NO . . . . . 2 (GO TO 1211 IN NEXT COLUMN; OR IF NO MORE DAUGHTERS, GO TO 1216)	YES . . . . . 1 NO . . . . . 2 (GO TO 1211 IN NEXT COLUMN; OR IF NO MORE DAUGHTERS, GO TO 1216)	YES . . . . . 1 NO . . . . . 2 (GO TO 1211 IN NEXT COLUMN; OR IF NO MORE DAUGHTERS, GO TO 1216)
1212	How old was (NAME OF DAUGHTER) when she was circumcised? IF THE RESPONDENT DOES NOT KNOW THE AGE, PROBE TO GET AN ESTIMATE.	AGE IN COMPLETED YRS . . [ ][ ] DON'T KNOW 98	AGE IN COMPLETED YRS . . [ ][ ] DON'T KNOW 98	AGE IN COMPLETED YRS . . [ ][ ] DON'T KNOW 98
1213	Was her genital area sewn closed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
1214	Who performed the circumcision?	**TRADITIONAL** TRADITIONAL CIRCUMCISER . . 11 TRAD. BIRTH ATTENDANT . . 12 OTHER TRAD. _____ 16 (SPECIFY) **HEALTH PROFESSIONAL** DOCTOR . . . . . 21 NURSE/MIDWIFE . . 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	**TRADITIONAL** TRADITIONAL CIRCUMCISER . . 11 TRAD. BIRTH ATTENDANT . . 12 OTHER TRAD. _____ 16 (SPECIFY) **HEALTH PROFESSIONAL** DOCTOR . . . . . 21 NURSE/MIDWIFE . . 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	**TRADITIONAL** TRADITIONAL CIRCUMCISER . . 11 TRAD. BIRTH ATTENDANT . . 12 OTHER TRAD. _____ 16 (SPECIFY) **HEALTH PROFESSIONAL** DOCTOR . . . . . 21 NURSE/MIDWIFE . . 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98
1215		GO BACK TO 1211 IN NEXT COLUMN; OR, IF NO MORE DAUGHTERS, GO TO 1216.	GO BACK TO 1211 IN NEXT COLUMN; OR, IF NO MORE DAUGHTERS, GO TO 1216.	GO BACK TO 1211 IN NEXT COLUMN; OR, IF NO MORE DAUGHTERS, GO TO 1216.
1216	Do you believe that female circumcision is required by your religion?	YES . . . . . 1 NO . . . . . 2 NO RELIGION . . . . . 3 DON'T KNOW 8		
1217	Do you think that female circumcision should be continued, or should it be stopped?	CONTINUED . . . . . 1 STOPPED . . . . . 2 DEPENDS . . . . . 3 DON'T KNOW 8		

SECTION 13. FISTULA

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1301	Sometimes a woman can have a problem of constant leakage of urine or stool from her vagina during the day and night. This problem usually occurs after a difficult childbirth, but may also occur after a sexual assault or after pelvic surgery. Have you ever experienced a constant leakage of urine or stool from your vagina during the day and night?	YES . . . . . 1 NO 2	→ 1303
1302	Have you ever heard of this problem?	YES . . . . . 1 NO 2	→ 1401
1303	Did this problem start after you delivered a baby or had a stillbirth?	AFTER DELIVERED BABY . . . . . 1 AFTER HAD STILLBIRTH . . . . . 2 NEITHER 3	→ 1305
1304	Did this problem start after a normal labor and delivery, or after a very difficult labor and delivery?	NORMAL LABOR/DELIVERY . . . . . 1 VERY DIFFICULT LABOR/DELIVERY 2	→ 1306
1305	What do you think caused this problem?	SEXUAL ASSAULT . . . . . 1 PELVIC SURGERY . . . . . 2 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	→ 1307
1306	How many days after (CAUSE OF PROBLEM FROM 1303 OR 1305) did the leakage start? ENTER '90' IF 90 DAYS OR MORE.	NUMBER OF DAYS AFTER DELIVERY/OTHER EVENT . . . . . [ ][ ]	
1306A	How old were you when you experienced this problem?	AGE IN YEARS . . . . . [ ][ ]	
1307	Have you sought treatment for this condition?	YES . . . . . 1 NO 2	→ 1309
1308	Why have you not sought treatment?	DO NOT KNOW CAN BE FIXED . . . . . A DO NOT KNOW WHERE TO GO . . . . . B TOO EXPENSIVE . . . . . C TOO FAR . . . . . D POOR QUALITY OF CARE . . . . . E COULD NOT GET PERMISSION . . . . . F EMBARRASSMENT . . . . . G PROBLEM DISAPPEARED . . . . . H OTHER _____ X (SPECIFY)	→ 1401
1309	From whom did you last seek treatment?	**HEALTH PROFESSIONAL** DOCTOR . . . . . 1 NURSE/MIDWIFE . . . . . 2 **OTHER PERSON** COMMUNITY/VILLAGE HEALTH WORKER . . . . . 3 OTHER _____ 6 (SPECIFY)	
1310	Did you have an operation to fix the problem?	YES . . . . . 1 NO 2	
1311	Did the treatment stop the leakage completely? IF NO: Did the treatment reduce the leakage?	YES, STOPPED COMPLETELY . . . . . 1 NOT STOPPED BUT REDUCED . . . . . 2 NOT STOPPED AT ALL . . . . . 3 DID NOT RECEIVE TREATMENT 4	
1312	Are there any (other) women in your household who suffer from obstetric fistula?	YES . . . . . 1 NO 2	→ 1401
1313	How many (other) women in your household suffer from obstetric fistula?	NUMBER . . . . . [ ][ ] DON'T KNOW 98	

1401 Now I would like to ask you some questions about your brothers and sisters born to your natural mother, including those who are living with you, those living elsewhere and those who have died. From our experience in prior surveys, we know it may sometimes be difficult to establish a complete list of all the children born to your natural mother. We will work together to draw the most complete list and work to recall all your siblings. Could you please now give me the names of all of your brothers and sisters born to your natural mother.
DO NOT FILL IN THE ORDER NUMBER YET.

	NAME	ORDER NUMBER		NAME	ORDER NUMBER
a			k		
b			l		
c			m		
d			n		
e			o		
f			p		
g			q		
h			r		
i			s		
j			t		

1402 CHECK 1401:

ONE OR MORE BROTHERS OR SISTERS LISTED ☐ ↓

NO BROTHERS OR SISTERS LISTED ☐ → 1404

1403 READ THE NAMES OF THE BROTHERS AND SISTERS TO THE RESPONDENT AND AFTER THE LAST ONE ASK: Are there any other brothers and sisters from the same mother that you have not mentioned?

NO ☐ ↓ YES ☐ → LIST ADDITIONAL BROTHERS AND SISTERS IN 1401.

1404 Sometimes people forget to mention children born to their natural mother because they do not live with them or they do not see them very often. Are there any brothers or sisters who do not live with you that you have not mentioned?

NO ☐ ↓ YES ☐ → LIST ADDITIONAL BROTHERS AND SISTERS IN 1401.

1405 Sometimes people forget to mention children born to their natural mother because they have died. Are there any brothers or sisters who died that you have not mentioned?

NO ☐ ↓ YES ☐ → LIST ADDITIONAL BROTHERS AND SISTERS IN 1401.

1406 Some people have brothers or sisters from the same mother but a different father. Are there any brothers or sisters born to your natural mother, but who have a different natural father, that you have not mentioned?

NO ☐ ↓ YES ☐ → LIST ADDITIONAL BROTHERS AND SISTERS IN 1401.

1407 COUNT THE NUMBER OF BROTHERS AND SISTERS RECORDED IN 1401.

TOTAL BROTHERS AND SISTERS . . ☐☐

1408	CHECK 1407: Just to make make sure that I have this right: Your mother had in TOTAL _____ births, excluding you, during her lifetime. Is that correct? YES ☐ NO ☐ → PROBE AND CORRECT 1401 AND/OR 1407	
1409	CHECK 1407: ONE OR MORE BROTHERS/SISTERS ☐ NO BROTHER OR SISTER ☐ → 1501	
1410	Please tell me, which brother or sister was born first? And which was born next? RECORD '01' FOR THE ORDER NUMBER IN 1401 FOR THE FIRST BROTHER OR SISTER, '02' FOR THE SECOND, AND SO ON UNTIL YOU HAVE RECORDED THE ORDER NUMBER FOR ALL BROTHERS AND SISTERS.	
1411	How many births did your mother have before you were born? NUMBER OF PRECEDING BIRTHS ☐☐	

1412	LIST THE BROTHERS AND SISTERS ACCORDING TO THE ORDER NUMBER IN 1401. ASK 1413 TO 1424 FOR ONE BROTHER OR SISTER BEFORE ASKING ABOUT THE NEXT BROTHER OR SISTER. IF THERE ARE MORE THAN 12 BROTHERS AND SISTERS, USE AN ADDITIONAL QUESTIONNAIRE.						
1413	NAME OF BROTHER OR SISTER	(01) _____	(02) _____	(03) _____	(04) _____	(05) _____	(06) _____
1414	Is (NAME) male or female?	MALE . . . 1 FEMALE . 2	MALE . . . 1 FEMALE . 2	MALE . . . 1 FEMALE . 2	MALE . . . 1 FEMALE . 2	MALE . . . 1 FEMALE . 2	MALE . . . 1 FEMALE . 2
1415	Is (NAME) still alive?	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (02)	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (03)	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (04)	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (05)	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (06)	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (07)
1416	How old is (NAME)?	[ ][ ] GO TO (02)	[ ][ ] GO TO (03)	[ ][ ] GO TO (04)	[ ][ ] GO TO (05)	[ ][ ] GO TO (06)	[ ][ ] GO TO (07)
1417	How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
1418	How old was (NAME) when (he/she) died? IF DON'T KNOW, PROBE AND ASK ADDITIONAL QUESTIONS TO GET AN ESTIMATE	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423
1419	Was (NAME) pregnant when she died?	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2
1420	Did (NAME) die during childbirth?	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2
1421	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . . . 1 NO . . . . . 2 GO TO 1423	YES . . . . . 1 NO . . . . . 2 GO TO 1423	YES . . . . . 1 NO . . . . . 2 GO TO 1423	YES . . . . . 1 NO . . . . . 2 GO TO 1423	YES . . . . . 1 NO . . . . . 2 GO TO 1423	YES . . . . . 1 NO . . . . . 2 GO TO 1423
1422	How many days after the end of the pregnancy did (NAME)	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
1422A	In which State did (NAME) WRITE THE STATE CODE.	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
1422B	CHECK 1420:	YES [ ] GO TO (02) NO/ NOT ASKED [ ]	YES [ ] GO TO (03) NO/ NOT ASKED [ ]	YES [ ] GO TO (04) NO/ NOT ASKED [ ]	YES [ ] GO TO (05) NO/ NOT ASKED [ ]	YES [ ] GO TO (06) NO/ NOT ASKED [ ]	YES [ ] GO TO (07) NO/ NOT ASKED [ ]
1423	Was (NAME)'s death due to an act of violence?	YES . . . . . 1 GO TO (02) NO 2	YES . . . . . 1 GO TO (03) NO 2	YES . . . . . 1 GO TO (04) NO 2	YES . . . . . 1 GO TO (05) NO 2	YES . . . . . 1 GO TO (06) NO 2	YES . . . . . 1 GO TO (07) NO 2
1424	Was (NAME)'s death due to an accident?	YES . . . . . 1 NO . . . . . 2 GO TO (02)	YES . . . . . 1 NO . . . . . 2 GO TO (03)	YES . . . . . 1 NO . . . . . 2 GO TO (04)	YES . . . . . 1 NO . . . . . 2 GO TO (05)	YES . . . . . 1 NO . . . . . 2 GO TO (06)	YES . . . . . 1 NO . . . . . 2 GO TO (07)

IF NO MORE BROTHERS OR SISTERS, GO TO NEXT SECTION.

1412	LIST THE BROTHERS AND SISTERS ACCORDING TO THE ORDER NUMBER IN 1401. ASK 1413 TO 1424 FOR ONE BROTHER OR SISTER BEFORE ASKING ABOUT THE NEXT BROTHER OR SISTER. IF THERE ARE MORE THAN 12 BROTHERS AND SISTERS, USE AN ADDITIONAL QUESTIONNAIRE.						
1413	NAME OF BROTHER OR SISTER	(07) _____	(08) _____	(09) _____	(10) _____	(11) _____	(12) _____
1414	Is (NAME) male or female?	MALE . . . 1 FEMALE . 2	MALE . . . 1 FEMALE . 2	MALE . . . 1 FEMALE . 2	MALE . . . 1 FEMALE . 2	MALE . . . 1 FEMALE . 2	MALE . . . 1 FEMALE . 2
1415	Is (NAME) still alive?	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (08)	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (09)	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (10)	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (11)	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (12)	YES . . . . . 1 NO . . . . . 2 GO TO 1417 DK . . . . . 8 GO TO (13)
1416	How old is (NAME)?	☐☐ GO TO (08)	☐☐ GO TO (09)	☐☐ GO TO (10)	☐☐ GO TO (11)	☐☐ GO TO (12)	☐☐ GO TO (13)
1417	How many years ago did (NAME) die?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
1418	How old was (NAME) when (he/she) died? IF DON'T KNOW, PROBE AND ASK ADDITIONAL QUESTIONS TO GET AN ESTIMATE	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE, GO TO 1423
1419	Was (NAME) pregnant when she died?	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2
1420	Did (NAME) die during childbirth?	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2	YES . . . . . 1 GO TO 1422A NO 2
1421	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . . . 1 NO . . . . . 2 GO TO 1423	YES . . . . . 1 NO . . . . . 2 GO TO 1423	YES . . . . . 1 NO . . . . . 2 GO TO 1423	YES . . . . . 1 NO . . . . . 2 GO TO 1423	YES . . . . . 1 NO . . . . . 2 GO TO 1423	YES . . . . . 1 NO . . . . . 2 GO TO 1423
1422	How many days after the end of the pregnancy did (NAME)	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
1422A	In which State did (NAME) WRITE THE STATE CODE.	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
1422B	CHECK 1420:	YES ☐ GO TO (08) NO/NOT ASKED ☐	YES ☐ GO TO (09) NO/NOT ASKED ☐	YES ☐ GO TO (10) NO/NOT ASKED ☐	YES ☐ GO TO (11) NO/NOT ASKED ☐	YES ☐ GO TO (12) NO/NOT ASKED ☐	YES ☐ GO TO (13) NO/NOT ASKED ☐
1423	Was (NAME)'s death due to an act of violence?	YES . . . . . 1 GO TO (08) NO 2	YES . . . . . 1 GO TO (09) NO 2	YES . . . . . 1 GO TO (10) NO 2	YES . . . . . 1 GO TO (11) NO 2	YES . . . . . 1 GO TO (12) NO 2	YES . . . . . 1 GO TO (13) NO 2
1424	Was (NAME)'s death due to an accident?	YES . . . . . 1 NO . . . . . 2 GO TO (08)	YES . . . . . 1 NO . . . . . 2 GO TO (09)	YES . . . . . 1 NO . . . . . 2 GO TO (10)	YES . . . . . 1 NO . . . . . 2 GO TO (11)	YES . . . . . 1 NO . . . . . 2 GO TO (12)	YES . . . . . 1 NO . . . . . 2 GO TO (13)

IF NO MORE BROTHERS OR SISTERS, GO TO NEXT SECTION.

SECTION 15: DOMESTIC VIOLENCE MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1500	CHECK COVER PAGE: WOMAN SELECTED FOR DV MODULE?	WOMAN SELECTED FOR THIS SECTION ☐ ↓ WOMAN NOT SELECTED ☐	→ 1533
1501	CHECK FOR PRESENCE OF OTHERS: DO NOT CONTINUE UNTIL PRIVACY IS ENSURED.	PRIVACY OBTAINED . . . . . 1 ↓ PRIVACY NOT POSSIBLE 2	→ 1532
1501A	READ TO THE RESPONDENT: Now I would like to ask you questions about some other important aspects of a woman's life. You may find some of these questions very personal. However, your answers are crucial for helping to understand the condition of women in Nigeria. Let me assure you that your answers are completely confidential and will not be told to anyone and no one else in your household will know that you were asked these questions. If I ask you any question you don't want to answer, just let me know and I will go on to the next question.		
1502	CHECK 701 AND 702:	CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ FORMERLY MARRIED/ LIVED WITH A MAN (READ IN PAST TENSE AND USE 'LAST' WITH 'HUSBAND/PARTNER') ☐ ↓ NEVER MARRIED/ NEVER LIVED WITH A MAN ☐	→ 1516

1503 First, I am going to ask you about some situations which happen to some women. Please tell me if these apply to your relationship with your (last) (husband/partner)?

	YES	NO	DK
a) He (is/was) jealous or angry if you (talk/talked) to other men? — JEALOUS	1	2	8
b) He frequently (accuses/accused) you of being unfaithful? — ACCUSES	1	2	8
c) He (does/did) not permit you to meet your female friends? — NOT MEET FRIENDS . .	1	2	8
d) He (tries/tried) to limit your contact with your family? — NO FAMILY	1	2	8
e) He (insists/insisted) on knowing where you (are/were) at all times? — WHERE YOU ARE	1	2	8

1504 Now I need to ask some more questions about your relationship with your (last) (husband/partner).

A. Did your (last) (husband/partner) ever:	EVER		B. How often did this happen during the last 12 months: often, only sometimes, or not at all? OFTEN	SOME-TIMES	NOT IN LAST 12 MONTHS
a) say or do something to humiliate you in front of others?	YES NO	1 2 ↓	→ 1	2	3
b) threaten to hurt or harm you or someone you care about?	YES NO	1 2 ↓	→ 1	2	3
c) insult you or make you feel bad about yourself?	YES NO	1 2 ↓	→ 1	2	3

SECTION 15: DOMESTIC VIOLENCE MODULE

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES			SKIP
1505	A. Did your (last) (husband/partner) ever do any of the following things to you:		B. How often did this happen during the last 12 months: often, only sometimes, or not at all?			
		EVER	OFTEN	SOME-TIMES	NOT IN LAST 12 MONTHS	
	a) push you, shake you, or throw something at you?	YES 1 NO 2	1	2	3	
	b) slap you?	YES 1 NO 2	1	2	3	
	c) twist your arm or pull your hair?	YES 1 NO 2	1	2	3	
	d) punch you with his fist or with something that could hurt you?	YES 1 NO 2	1	2	3	
	e) kick you, drag you, or beat you up?	YES 1 NO 2	1	2	3	
	f) try to choke you or burn you on purpose?	YES 1 NO 2	1	2	3	
	g) threaten or attack you with a knife, gun, or other weapon?	YES 1 NO 2	1	2	3	
	h) physically force you to have sexual intercourse with him when you did not want to?	YES 1 NO 2	1	2	3	
	i) physically force you to perform any other sexual acts you did not want to?	YES 1 NO 2	1	2	3	
	j) force you with threats or in any other way to perform sexual acts you did not want to?	YES 1 NO 2	1	2	3	
1506	CHECK 1505A (a-j): AT LEAST ONE 'YES' ☐		NOT A SINGLE 'YES' ☐			1509
1507	How long after you first (got married/started living together) with your (last) (husband/partner) did (this/any of these things) first happen? IF LESS THAN ONE YEAR, RECORD '00'.		NUMBER OF YEARS ..... ☐☐ BEFORE MARRIAGE/BEFORE LIVING TOGETHER 95			
1508	Did the following ever happen as a result of what your (last) (husband/partner) did to you:					
	a) You had cuts, bruises, or aches?		YES ..... 1 NO 2			
	b) You had eye injuries, sprains, dislocations, or burns?		YES ..... 1 NO 2			
	c) You had deep wounds, broken bones, broken teeth, or any other serious injury?		YES ..... 1 NO 2			
1509	Have you ever hit, slapped, kicked, or done anything else to physically hurt your (last) (husband/partner) at times when he was not already beating or physically hurting you?		YES ..... 1 NO 2			1511

SECTION 15: DOMESTIC VIOLENCE MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1510	In the last 12 months, how often have you done this to your (last) (husband/partner): often, only sometimes, or not at all?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3	
1511	Does (did) your (last) (husband/partner) drink alcohol?	YES . . . . . 1 NO 2	→ 1513
1512	How often does (did) he get drunk: often, only sometimes, or never?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NEVER 3	
1513	Are (Were) you afraid of your (last) (husband/partner): most of the time, sometimes, or never?	MOST OF THE TIME AFRAID . . . . . 1 SOMETIMES AFRAID . . . . . 2 NEVER AFRAID 3	
1514	CHECK 709: MARRIED MORE THAN ONCE ↓	MARRIED ONLY ONCE →	1516
1515	A. So far we have been talking about the behavior of your (current/last) (husband/partner). Now I want to ask you about the behavior of any previous (husband/partner).	B. How long ago did this last happen?	

	EVER		0 - 11 MONTHS AGO	12+ MONTHS AGO	DON'T REMEMBER
a) Did any previous (husband/partner) ever hit, slap, kick, or do anything else to hurt you physically?	YES NO	1 2 ↓	→ 1	2	3
b) Did any previous (husband/partner) physically force you to have intercourse or perform any other sexual acts against your will?	YES NO	1 2 ↓	→ 1	2	3
c) Did any previous (husband/partner) humiliate you in front of others, threaten to hurt you or someone you care about, or insult you or make you feel bad about yourself?	YES NO	1 2 ↓	→ 1	2	3

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1516	CHECK 701 AND 702: EVER MARRIED/EVER LIVED WITH A MAN ↓ a) From the time you were 15 years old has anyone other than (your/any) (husband/partner) hit you, slapped you, kicked you, or done anything else to hurt you physically? NEVER MARRIED/NEVER LIVED WITH A MAN ↓ b) From the time you were 15 years old has anyone hit you, slapped you, kicked you, or done anything else to hurt you physically?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ 1519

SECTION 15: DOMESTIC VIOLENCE MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1517	Who has hurt you in this way? Anyone else? RECORD ALL MENTIONED.	MOTHER/STEP-MOTHER . . . . . A FATHER/STEP-FATHER . . . . . B SISTER/BROTHER . . . . . C DAUGHTER/SON . . . . . D OTHER RELATIVE . . . . . E CURRENT BOYFRIEND . . . . . F FORMER BOYFRIEND . . . . . G MOTHER-IN-LAW . . . . . H FATHER-IN-LAW . . . . . I OTHER IN-LAW . . . . . J TEACHER . . . . . K EMPLOYER/SOMEONE AT WORK . . . . . L POLICE/SOLDIER . . . . . M OTHER _____ X (SPECIFY)	
1518	In the last 12 months, how often has (this person/have these persons) physically hurt you: often, only sometimes, or not at all?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3	
1519	CHECK 201, 226, AND 230: EVER BEEN PREGNANT ('YES' ON 201 OR 226 OR 230) ☐ ↓	NEVER BEEN PREGNANT ☐ →	1522
1520	Has any one ever hit, slapped, kicked, or done anything else to hurt you physically while you were pregnant?	YES . . . . . 1 NO . . . . . 2 →	1522
1521	Who has done any of these things to physically hurt you while you were pregnant? Anyone else? RECORD ALL MENTIONED.	CURRENT HUSBAND/PARTNER . . . . . A MOTHER/STEP-MOTHER . . . . . B FATHER/STEP-FATHER . . . . . C SISTER/BROTHER . . . . . D DAUGHTER/SON . . . . . E OTHER RELATIVE . . . . . F FORMER HUSBAND/PARTNER . . . . . G CURRENT BOYFRIEND . . . . . H FORMER BOYFRIEND . . . . . I MOTHER-IN-LAW . . . . . J FATHER-IN-LAW . . . . . K OTHER IN-LAW . . . . . L TEACHER . . . . . M EMPLOYER/SOMEONE AT WORK . . . . . N POLICE/SOLDIER . . . . . O OTHER _____ X (SPECIFY)	
1522	CHECK 701 AND 702: EVER MARRIED/EVER LIVED WITH A MAN ☐ ↓	NEVER MARRIED/NEVER LIVED WITH A MAN ☐ →	1522B

SECTION 15: DOMESTIC VIOLENCE MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1522A	Now I want to ask you about things that may have been done to you by someone other than (your/any) (husband/partner). At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts when you did not want to?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ 1523 → 1524A
1522B	At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts when you did not want to?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ 1526
1523	Who was the person who was forcing you the very first time this happened?	CURRENT HUSBAND/PARTNER . . . . . 01 FORMER HUSBAND/PARTNER . . . . . 02 CURRENT/FORMER BOYFRIEND . . . . . 03 FATHER/STEP-FATHER . . . . . 04 BROTHER/STEP-BROTHER . . . . . 05 OTHER RELATIVE . . . . . 06 IN-LAW . . . . . 07 OWN FRIEND/ACQUAINTANCE . . . . . 08 FAMILY FRIEND . . . . . 09 TEACHER . . . . . 10 EMPLOYER/SOMEONE AT WORK . . . . . 11 POLICE/SOLDIER . . . . . 12 PRIEST/RELIGIOUS LEADER . . . . . 13 STRANGER . . . . . 14 OTHER _____ 96 (SPECIFY)	
1524	CHECK 701 AND 702: EVER MARRIED/EVER LIVED WITH A MAN ☐ — a) In the last 12 months, has anyone other than (your/any) (husband/partner) physically forced you to have sexual intercourse when you did not want to? NEVER MARRIED/NEVER LIVED WITH A MAN ☐ — b) In the last 12 months has anyone physically forced you to have sexual intercourse when you did not want to?	YES . . . . . 1 NO 2	→ 1525
1524A	CHECK 1505A (h-j) and 1515A(b) AT LEAST ONE 'YES' ☐ NOT A SINGLE 'YES' ☐		→ 1526
1525	CHECK 701 AND 702: EVER MARRIED/EVER LIVED WITH A MAN ☐ — a) How old were you the first time you were forced to have sexual intercourse or perform any other sexual acts by anyone, including (your/any) husband/partner? NEVER MARRIED/NEVER LIVED WITH A MAN ☐ — b) How old were you the first first time you were forced to have sexual intercourse or perform any other sexual acts?	AGE IN COMPLETED YEARS . . . . . ☐☐ DON'T KNOW 98	
1526	CHECK 1505A (a-j), 1515A (a,b), 1516, 1520, 1522A, AND 1522B: AT LEAST ONE 'YES' ☐ NOT A SINGLE 'YES' ☐		→ 1530
1527	Thinking about what you yourself have experienced among the different things we have been talking about, have you ever tried to seek help?	YES . . . . . 1 NO 2	→ 1529

SECTION 15: DOMESTIC VIOLENCE MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1528	From whom have you sought help? Anyone else? RECORD ALL MENTIONED.	OWN FAMILY . . . . . A HUSBAND'S/PARTNER'S FAMILY . . . . . B CURRENT/FORMER HUSBAND/PARTNER . . . . . C CURRENT/FORMER BOYFRIEND . . . . . D FRIEND . . . . . E NEIGHBOR . . . . . F RELIGIOUS LEADER . . . . . G DOCTOR/MEDICAL PERSONNEL . . . . . H POLICE . . . . . I LAWYER . . . . . J SOCIAL SERVICE ORGANIZATION . . . . . K OTHER _____ X (SPECIFY)	→ 1530
1529	Have you ever told any one about this?	YES . . . . . 1 NO 2	
1530	As far as you know, did your father ever beat your mother?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
	THANK THE RESPONDENT FOR HER COOPERATION AND REASSURE HER ABOUT THE CONFIDENTIALITY OF HER ANSWERS. FILL OUT THE QUESTIONS BELOW WITH REFERENCE TO THE DOMESTIC VIOLENCE MODULE ONLY.		
1531	DID YOU HAVE TO INTERRUPT THE INTERVIEW BECAUSE SOME ADULT WAS TRYING TO LISTEN, OR CAME INTO THE ROOM, OR INTERFERED IN ANY OTHER WAY?	YES, ONCE / YES, MORE THAN ONCE / NO HUSBAND . . . . . 1 / 2 / 3 OTHER MALE ADU . . . . . 1 / 2 / 3 FEMALE ADUL . . . . . 1 / 2 / 3	
1532	INTERVIEWER'S COMMENTS/EXPLANATION FOR NOT COMPLETING THE DOMESTIC VIOLENCE MODULE. _____ _____ _____		
1533	CHECK 223A:	ONE OR MORE DEATHS ☐ ↓ NO DEATHS ☐ → 1535	
1534	READ TO THE RESPONDENT: I would like to inform you that detailed information on the circumstances surrounding the deaths of children under the age of 5 years will be collected in the near future so that the federal government of Nigeria can provide health services to help reduce these deaths. If you do not mind, another team will be coming at a leter date to interview members of the household about the death (s) you have told me about. Is this okay?	YES . . . . . 1 NO 2	
1535	RECORD THE TIME.	HOURS ☐☐ MINUTES ☐☐	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT INTERVIEW:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

EDITOR'S OBSERVATIONS

INSTRUCTIONS:

ONLY ONE CODE SHOULD APPEAR IN ANY BOX.
COLUMN 1 REQUIRES A CODE IN EVERY MONTH.

CODES FOR EACH COLUMN:

COLUMN 1: BIRTHS, PREGNANCIES, CONTRACEPTIVE USE (2)

B BIRTHS
P PREGNANCIES
T TERMINATIONS

0 NO METHOD

1 FEMALE STERILIZATION
2 MALE STERILIZATION
3 IUD
4 INJECTABLES
5 IMPLANTS
6 PILL
7 CONDOM
8 FEMALE CONDOM
9 EMERGENCY CONTRACEPTION
J STANDARD DAYS METHOD
K LACTATIONAL AMENORRHEA METHOD
L RHYTHM METHOD

M WITHDRAWAL
X OTHER MODERN METHOD
Y OTHER TRADITIONAL METHOD

COLUMN 2: DISCONTINUATION OF CONTRACEPTIVE USE

0 INFREQUENT SEX/HUSBAND AWAY
1 BECAME PREGNANT WHILE USING
2 WANTED TO BECOME PREGNANT
3 HUSBAND/PARTNER DISAPPROVED
4 WANTED MORE EFFECTIVE METHOD
5 SIDE EFFECTS/HEALTH CONCERNS

6 LACK OF ACCESS/TOO FAR
7 COSTS TOO MUCH
8 INCONVENIENT TO USE
F UP TO GOD/FATALISTIC
A DIFFICULT TO GET PREGNANT/MENOPAUSAL
D MARITAL DISSOLUTION/SEPARATION
X OTHER

_____
(SPECIFY)

Z DON'T KNOW

				COL. 1	COL. 2	
	02	FEB	01			2019
	01	JAN	02			
	12	DEC	03			
	11	NOV	04			
	10	OCT	05			
	09	SEP	06			
2018	08	AUG	07			2018
	07	JUL	08			
	06	JUN	09			
	05	MAY	10			
	04	APR	11			
	03	MAR	12			
	02	FEB	13			
	01	JAN	14			
	12	DEC	15			
	11	NOV	16			
	10	OCT	17			
	09	SEP	18			
2017	08	AUG	19			2017
	07	JUL	20			
	06	JUN	21			
	05	MAY	22			
	04	APR	23			
	03	MAR	24			
	02	FEB	25			
	01	JAN	26			
	12	DEC	27			
	11	NOV	28			
	10	OCT	29			
	09	SEP	30			
2016	08	AUG	31			2016
	07	JUL	32			
	06	JUN	33			
	05	MAY	34			
	04	APR	35			
	03	MAR	36			
	02	FEB	37			
	01	JAN	38			
	12	DEC	39			
	11	NOV	40			
	10	OCT	41			
	09	SEP	42			
2015	08	AUG	43			2015
	07	JUL	44			
	06	JUN	45			
	05	MAY	46			
	04	APR	47			
	03	MAR	48			
	02	FEB	49			
	01	JAN	50			
	12	DEC	51			
	11	NOV	52			
	10	OCT	53			
	09	SEP	54			
2014	08	AUG	55			2014
	07	JUL	56			
	06	JUN	57			
	05	MAY	58			
	04	APR	59			
	03	MAR	60			
	02	FEB	61			
	01	JAN	62			
	12	DEC	63			
	11	NOV	64			
	10	OCT	65			
	09	SEP	66			
2013	08	AUG	67			2013
	07	JUL	68			
	06	JUN	69			
	05	MAY	70			
	04	APR	71			
	03	MAR	72			
	02	FEB	73			
	01	JAN	74			

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ENGLISH LANGUAGE: 26 May 2018

NIGERIA DEMOGRAPHIC AND HEALTH SURVEY - 2018
MAN'S QUESTIONNAIRE

NIGERIA
NATIONAL POPULATION COMMISSION

IDENTIFICATION

STATE _____

LOCAL GOVT. AREA _____

LOCALITY _____

ENUMERATION AREA _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

NAME AND LINE NUMBER OF MAN _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY MONTH YEAR
INTERVIEWER'S NAME				INT. NO.
RESULT*				RESULT*
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES: 1 COMPLETED; 2 NOT AT HOME; 3 POSTPONED; 4 REFUSED; 5 PARTLY COMPLETED; 6 INCAPACITATED; 7 OTHER _____ SPECIFY

LANGUAGE OF QUESTIONNAIRE** 0 1 | LANGUAGE OF INTERVIEW** | NATIVE LANGUAGE OF RESPONDENT** | TRANSLATOR USED (YES = 1, NO = 2)

LANGUAGE OF QUESTIONNAIRE** ENGLISH

**LANGUAGE CODES:
01 ENGLISH
02 HAUSA
03 YORUBA
04 IGBO

SUPERVISOR		FIELD EDITOR	
NAME	NUMBER	NAME	NUMBER

INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with Nigeria Population Commission. We are conducting a survey about health and other topics all over Nigeria. The information we collect will help the government to plan health services. Your household was selected for the survey. The questions usually take about 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER _____ DATE _____

RESPONDENT AGREES TO BE INTERVIEWED . . 1 ↓

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . 2 → END

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOURS . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	How long have you been living continuously in (NAME OF CURRENT CITY, TOWN OR VILLAGE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→ 105
103	Just before you moved here, did you live in a city, in a town, or in a rural area?	CITY . . . . . 1 TOWN . . . . . 2 RURAL AREA 3	
104	Before you moved here, which state did you live in?	ABIA . . . . . 01 ADAMAWA . . . . . 02 AKWA IBOM . . . . . 03 ANAMBRA . . . . . 04 BAUCHI . . . . . 05 BAYELSA . . . . . 06 BENUE . . . . . 07 BORNO . . . . . 08 CROSS RIVER . . . . . 09 DELTA . . . . . 10 EBONYI . . . . . 11 EDO . . . . . 12 EKITI . . . . . 13 ENUGU . . . . . 14 FCT-ABUJA . . . . . 15 GOMBE . . . . . 16 IMO . . . . . 17 JIGAWA . . . . . 18 KADUNA . . . . . 19 KANO . . . . . 20 KATSINA . . . . . 21 KEBBI . . . . . 22 KOGI . . . . . 23 KWARA . . . . . 24 LAGOS . . . . . 25 NASARAWA 26	

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
		NIGER . . . . . 27 OGUN . . . . . 28 ONDO . . . . . 29 OSUN . . . . . 30 OYO . . . . . 31 PLATEAU . . . . . 32 RIVERS . . . . . 33 SOKOTO . . . . . 34 TARABA . . . . . 35 YOBE . . . . . 36 ZAMFARA . . . . . 37 OUTSIDE OF NIGERIA 96	
105	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS . . . . . [ ][ ]	
107	Have you ever attended school?	YES . . . . . 1 NO 2	→ 111
108	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER 3	
109	What is the highest (class/year) you completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	CLASS/YEAR . . . . . [ ][ ]	
110	CHECK 108: PRIMARY OR SECONDARY [ ] ↓	HIGHER [ ]	→ 113
111	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PART OF THE SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE . . . . . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
112	CHECK 111: CODE '2', '3' OR '4' CIRCLED ☐ ↓ CODE '1' OR '5' CIRCLED ☐ → 114		
113	Do you read a newspaper or magazine at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
114	Do you listen to the radio at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
115	Do you watch television at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
116	Do you own a mobile telephone?	YES . . . . . 1 NO 2	→ 118
117	Do you use your mobile phone for any financial transactions?	YES . . . . . 1 NO 2	
118	Do you have an account in a bank or other financial institution that you yourself use?	YES . . . . . 1 NO 2	
119	Have you ever used the internet?	YES . . . . . 1 NO 2	→ 122
120	In the last 12 months, have you used the internet? IF NECESSARY, PROBE FOR USE FROM ANY LOCATION, WITH ANY DEVICE.	YES . . . . . 1 NO 2	→ 122
121	During the last one month, how often did you use the internet: almost every day, at least once a week, less than once a week, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
122	What is your religion?	CATHOLIC . . . . . 1 OTHER CHRISTIAN . . . . . 2 ISLAM . . . . . 3 TRADITIONALIST . . . . . 4 OTHER _____ 6 (SPECIFY)	
123	What is your ethnic group?	_____ ☐☐☐ (ETHNIC GROUP)	
124	In the last 12 months, how many times have you been away from home for one or more nights?	NUMBER OF TIMES . . . . . ☐☐ NONE 00	→ 201
125	In the last 12 months, have you been away from home for more than one month at a time?	YES . . . . . 1 NO 2	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had during your life. I am interested in all of the children that are biologically yours, even if they are not legally yours or do not have your last name. Have you ever fathered any children with any woman?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	a) How many sons live with you? b) And how many daughters live with you? IF NONE, RECORD '00'.	a) SONS AT HOME . . . . . [ ][ ] b) DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters that you have fathered who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	a) How many sons are alive but do not live with you? b) And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	a) SONS ELSEWHERE . . . . . [ ][ ] b) DAUGHTERS ELSEWHERE . . . . . [ ][ ]	
206	Have you ever fathered a son or a daughter who was born alive but later died? IF NO, PROBE: Any baby who cried, who made any movement, sound, or effort to breathe, or who showed any other signs of life even if for a very short time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 208
207	a) How many boys have died? b) And how many girls have died? IF NONE, RECORD '00'.	a) BOYS DEAD . . . . . [ ][ ] b) GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL CHILDREN . . . . . [ ][ ]	
209	CHECK 208: HAS HAD MORE THAN ONE CHILD ↓ HAS HAD ONLY ONE CHILD → 211 HAS NOT HAD ANY CHILDREN → 301		
210	Did all of the children you have fathered have the same biological mother?	YES . . . . . 1 NO 2	
211	CHECK 208: HAS HAD MORE THAN ONE CHILD ↓ a) How old were you when your first child was born? HAS HAD ONLY ONE CHILD ↓ b) How old were you when your child was born?	AGE IN YEARS . . . . . [ ][ ]	
212	CHECK 203 AND 205: AT LEAST ONE LIVING CHILD ↓ NO LIVING CHILDREN → 301		

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
213	CHECK 203 AND 205: MORE THAN ONE LIVING CHILD ☐ → a) How old is your youngest child? ONLY ONE LIVING CHILD ☐ → b) How old is your child?	AGE IN YEARS . . . . . ☐☐	
214	CHECK 213: (YOUNGEST) CHILD IS AGE 0-2 YEARS ☐ (YOUNGEST) CHILD IS AGE 3 YEARS OR OLDER ☐		→ 301
215	CHECK 203 AND 205: MORE THAN ONE LIVING CHILD ☐ → a) What is the name of your youngest child? ONLY ONE LIVING CHILD ☐ → b) What is the name of your child?	_____ (NAME OF (YOUNGEST) CHILD)	
216	When (NAME)'s mother was pregnant with (NAME), did she have any antenatal check-ups?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	☐ → 218
217	Were you ever present during any of those antenatal check-ups?	PRESENT . . . . . 1 NOT PRESENT 2	
218	Was (NAME) born in a hospital or health facility?	HOSPITAL/HEALTH FACILITY . . . . . 1 OTHER 2	
219	When a child has diarrhea, how much should he or she be given to drink: more than usual, about the same as usual, less than usual, or nothing to drink at all?	MORE THAN USUAL . . . . . 1 ABOUT THE SAME . . . . . 2 LESS THAN USUAL . . . . . 3 NOTHING TO DRINK . . . . . 4 DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Have you ever heard of (METHOD)?	
01	Female Sterilization. PROBE: Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2
02	Male Sterilization. PROBE: Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2
03	IUD. PROBE: Women can have a loop or coil placed inside them by a doctor or a nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2
04	Injectables. PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2
05	Implants. PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2
06	Pill. PROBE: Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2
07	Condom. PROBE: Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2
08	Female Condom. PROBE: Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2
09	Emergency Contraception. PROBE: As an emergency measure, within three days after they have unprotected sexual intercourse, women can take special pills to prevent pregnancy.	YES . . . . . 1 NO 2
10	Standard Days Method. PROBE: A woman uses a string of colored beads to know the days she can get pregnant. On the days she can get pregnant, she uses a condom or does not have sexual intercourse.	YES . . . . . 1 NO 2
11	Lactational Amenorrhea Method (LAM). PROBE: Up to six months after childbirth, before the menstrual period has returned, women use a method requiring frequent breastfeeding day and night.	YES . . . . . 1 NO 2
12	Rhythm Method. PROBE: To avoid pregnancy, women do not have sexual intercourse on the days of the month they think they can get pregnant.	YES . . . . . 1 NO 2
13	Withdrawal. PROBE: Men can be careful and pull out before climax.	YES . . . . . 1 NO 2
14	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES, MODERN METHOD _____ A (SPECIFY) YES, TRADITIONAL METHOD _____ B (SPECIFY) NO . . . . . Y

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			SKIP
302	In the last few months have you:		YES	NO	
	a) Heard about family planning on the radio?	a) RADIO	1	2	
	b) Seen anything about family planning on the television?	b) TELEVISION	1	2	
	c) Read about family planning in a newspaper or magazine?	c) NEWSPAPER OR MAGAZINE	1	2	
	d) Received a voice or text message about family planning on a mobile phone?	d) MOBILE PHONE	1	2	
	e) Read/heard from social media (facebook, twitter, etc.)?	e) SOCIAL MEDIA	1	2	
	f) Read about family planning in a poster?	f) POSTER	1	2	
	g) Read about family planning in a leaflet or brochures?	g) LEAFLET OR BROCHURE	1	2	
	h) Heard about family planning from town crier?	h) TOWN CRIER	1	2	
	i) Heard about family planning from mobile public announcement?	i) MOBILE PUBLIC ANNOUNCEMEN	1	2	
302A	CHECK 302:	AT LEAST ONE `YES' (HAS HEARD OR READ MESSAGE) ↓	NOT A SINGLE `YES' (HAS NOT HEARD OR READ MESSAGE)	→ 303	
302B	Please tell me which family planning messages you have heard or seen in the past few months? PROBE: Any others?	AS FOR ME AND MY PARTNER WE `DEY KAMPE' WITH FEMALE CONDOM UNSPACED CHILDREN MAKES THE GOING TOUGH FOR THE LOVE OF YOUR FAMILY, GO FOR CHILD SPACING TODAY WELL-SPACED CHILDREN ARE EVERY PARENT'S JOY IT'S NOT TOO LATE TO PREVENT UNWANTED PREGNANCY WHY IS YOUR WIFE LOOKING SO GOO OTHER _____ (SPECIFY)	A B C D E X		
303	In the last few months, have you discussed family planning with a health worker or health professional?	YES NO	1 2		
304	Now I would like to ask you about a woman's risk of pregnancy. From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant when she has sexual relations?	YES NO DON'T KNOW	1 2 8	→ 306	
305	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS DURING HER PERIOD RIGHT AFTER HER PERIOD HAS ENDEI HALFWAY BETWEEN TWO PERIODS OTHER _____ (SPECIFY) DON'T KNOW	1 2 3 4 6 8		
306	After the birth of a child, can a woman become pregnant before her menstrual period has returned?	YES NO DON'T KNOW	1 2 8		
307	I will now read you some statements about contraception. Please tell me if you agree or disagree with each one.		AGREE	DIS-AGREE	DK
	a) Contraception is a woman's concern and a man should not have to worry about it.	a) CONTRACEPTION WOMAN'S CONCERN	1	2	8
	b) Women who use contraception may become promiscuous.	b) WOMEN MAY BECOME PROMISCUOUS	1	2	8

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	Are you currently married or living together with a woman as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A WOMAN . . . . . 2 NO, NOT IN UNION 3	→ 404
402	Have you ever been married or lived together with a woman as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A WOMAN . . . . . 2 NO 3	→ 413
403	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 410
404	Is your (wife/partner) living with you now or is she staying elsewhere?	LIVING WITH HIM . . . . . 1 STAYING ELSEWHERE 2	
405	Do you have other wives or do you live with other women as if married?	YES (MORE THAN ONE WIFE) . . . . . 1 NO (ONLY ONE WIFE) 2	→ 407
406	Altogether, how many wives or live-in partners do you have?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . . . [ ][ ]	
407	CHECK 405: ONE WIFE/ PARTNER ↓ — a) Please tell me the name of (your wife/the woman you are living with as if married). MORE THAN ONE WIFE/ PARTNER ↓ — b) Please tell me the name of each of your wives or each woman you are living with as if married. RECORD THE NAME AND THE LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH WIFE AND LIVE-IN PARTNER. IF A WOMAN IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME / LINE NUMBER / 408 How old was (NAME) on her last birthday? / AGE _____ [ ][ ] [ ][ ] _____ [ ][ ] [ ][ ] _____ [ ][ ] [ ][ ] _____ [ ][ ] [ ][ ]	
408	ASK 408 FOR EACH PERSON.		
409	CHECK 407: ONE WIFE/ PARTNER ↓ MORE THAN ONE WIFE/ PARTNER →		→ 411
410	Have you been married or lived with a woman only once or more than once?	MORE THAN ONCE . . . . . 1 ONLY ONCE 2	

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
411	CHECK 405 AND 410: BOTH ARE CODE '2' ☐ → a) In what month and year did you start living with your (wife/partner)? OTHER ☐ → b) Now I would like to ask about your first (wife/partner). In what month and year did you start living with her?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	→ 413
412	How old were you when you first started living with her?	AGE . . . . . ☐☐	
413	**CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.**		
414	I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS . . . . . ☐☐	→ 501
415	I would like to ask you about your recent sexual activity. When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 ☐☐ WEEKS AGO . . . . . 2 ☐☐ MONTHS AGO . . . . . 3 ☐☐ YEARS AGO . . . . . 4 ☐☐	→ 417 → 427

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
416	When was the last time you had sexual intercourse with this person?		DAYS AGO . . 1 WEEKS AGO . . 2 MONTHS AGO . . 3	DAYS AGO . . 1 WEEKS AGO . . 2 MONTHS AGO . . 3
417	The last time you had sexual intercourse with this person, was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 419)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 419)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 419)
418	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
419	What was your relationship to this person with whom you had sexual intercourse? IF GIRLFRIEND: Were you living together as if married? IF YES, RECORD '2'. IF NO, RECORD '3'.	WIFE . . . . . 1 LIVE-IN PARTNER . . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)	WIFE . . . . . 1 LIVE-IN PARTNER . . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)	WIFE . . . . . 1 LIVE-IN PARTNER . . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)
420	How long ago did you first have sexual intercourse with this person?	DAYS AGO . . 1 WEEKS AGO . . 2 MONTHS AGO . . 3 YEARS AGO . . 4	DAYS AGO . . 1 WEEKS AGO . . 2 MONTHS AGO . . 3 YEARS AGO . . 4	DAYS AGO . . 1 WEEKS AGO . . 2 MONTHS AGO . . 3 YEARS AGO . . 4
421	How many times during the last 12 months did you have sexual intercourse with this person? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF TIMES IS 95 OR MORE, RECORD '95'.	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES . . . . .
422	How old is this person?	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98
423	Apart from this person, have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 416 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 425)	YES . . . . . 1 (GO BACK TO 416 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 425)	
424	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, RECORD '95'.			NUMBER OF PARTNERS LAST 12 MONTHS . . DON'T KNOW 98

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
425	CHECK 419 (ALL COLUMNS): AT LEAST ONE PARTNER IS A SEX WORKER ☐ NO PARTNERS ARE SEX WORKERS ☐		→ 427
426	CHECK 419 AND 417 (ALL COLUMNS): CONDOM USED WITH EVERY SEX WORKER ☐ OTHER ☐		→ 430 → 431
427	In the last 12 months, did you pay anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 429
428	Have you ever paid anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 431
429	The last time you paid someone in exchange for having sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	→ 431
430	Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
431	In the past 12 months have you given any gifts or other goods in order to have sex or to become sexually involved with anyone?	YES . . . . . 1 NO 2	→ 433
432	Have you ever given any gifts or other goods in order to have sex or to become sexually involved with anyone?	YES . . . . . 1 NO 2	
433	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, RECORD '95'.	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
434	CHECK 417: MOST RECENT PARTNER (FIRST COLUMN) CONDOM USED ☐ NOT ASKED ☐ NO CONDOM USED ☐		→ 438 → 438
435	You told me that a condom was used the last time you had sex. What is the brand name of the condom used at that time? IF BRAND NOT KNOWN, ASK TO SEE THE PACKAGE.	MALE CONDOMS . . . . . 01 GOLD CIRCLE . . . . . 02 DUREX . . . . . 03 ROUGH RIDER . . . . . 04 TWIN LOTUS . . . . . 05 PLAIN CONDOMS . . . . . 06 GO FLEX . . . . . 07 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
436	From where did you obtain the condom the last time? PROBE TO IDENTIFY TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 FIELDWORKER . . . . . 15 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . 21 PHARMACY . . . . . 22 CHEMIST/PMS STORE . . . . . 23 PRIVATE DOCTOR . . . . . 24 MOBILE CLINIC . . . . . 25 FIELDWORKER . . . . . 26 OTHER PRIVATE MEDICAL SECTOR _____ 27 (SPECIFY) **OTHER SOURCE** SHOP . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 NGO . . . . . 34 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
437	The last time you had sex did you or your partner use any method other than a condom to avoid or prevent a pregnancy?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 439 → 440
438	The last time you had sex did you or your partner use any method to avoid or prevent a pregnancy?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 440
439	What method did you or your partner use? PROBE: Did you or your partner use any other method to prevent pregnancy? RECORD ALL MENTIONED.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS . . . . . E PILL . . . . . F CONDOM . . . . . G FEMALE CONDOM . . . . . H EMERGENCY CONTRACEPTION . . . . . I STANDARD DAYS METHOD . . . . . J LACTATIONAL AMENORRHEA METHOD . . . . . K RHYTHM METHOD . . . . . L WITHDRAWAL . . . . . M OTHER MODERN METHOD . . . . . X OTHER TRADITIONAL METHOD . . . . . Y	→ 501
440	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 401: CURRENTLY MARRIED OR LIVING WITH A PARTNER ☐ ↓ NOT CURRENTLY MARRIED AND NOT LIVING WITH A PARTNER ☐ →		514
502	CHECK 439: MAN NOT STERILIZED ☐ ↓ MAN STERILIZED ☐ →		514
503	CHECK 407: ONE WIFE/ PARTNER ☐ ↓ MORE THAN ONE WIFE/ PARTNER ☐ →		509
504	Is your (wife/partner) currently pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	507
505	Now I have some questions about the future. After the child you and your (wife/partner) are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE . . . . . 2 UNDECIDED/DON'T KNOW 8	514
506	After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ] SOON/NOW . . . . . .993 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	514
507	CHECK 208: HAS FATHERED CHILDREN ☐ ↓ a) Now I have some questions about the future. Would you like to have another child, or would you prefer not to have any more children? HAS NOT FATHERED CHILDREN ☐ ↓ b) Now I have some questions about the future. Would you like to have a child, or would you prefer not to have any children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS COUPLE CAN'T GET PREGNANT . . . . . 3 WIFE/PARTNER STERILIZED . . . . . 4 UNDECIDED/DON'T KNOW 8	514
508	CHECK 208: HAS FATHERED CHILDREN ☐ ↓ a) How long would you like to wait from now before the birth of another child? HAS NOT FATHERED CHILDREN ☐ ↓ b) How long would you like to wait from now before the birth of a child?	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ] SOON/NOW . . . . . .993 SAYS COUPLE CAN'T GET PREGNANT . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	514
509	Are any of your (wives/partners) currently pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	512

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
510	Now I have some questions about the future. After the (child/children) you and your (wives/partners) are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 514
511	After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ] SOON/NOW . . . . . .993 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	→ 514
512	CHECK 208: HAS FATHERED CHILDREN ☐ → a) Now I have some questions about the future. Would you like to have another child, or would you prefer not to have any more children? HAS NOT FATHERED CHILDREN ☐ → b) Now I have some questions about the future. Would you like to have a child, or would you prefer not to have any children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS COUPLE CAN'T GET PREGNANT . . . . . 3 (WIFE/WIVES/PARTNER(S)) STERILIZED . . . . . 4 UNDECIDED/DON'T KNOW 8	→ 514
513	CHECK 208: HAS FATHERED CHILDREN ☐ → a) How long would you like to wait from now before the birth of another child? HAS NOT FATHERED CHILDREN ☐ → b) How long would you like to wait from now before the birth of a child?	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ] SOON/NOW . . . . . .993 SAYS COUPLE CAN'T GET PREGNANT . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	
514	CHECK 203 AND 205: HAS LIVING CHILDREN ☐ → a) If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ → b) If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . [ ][ ] OTHER _____ 96 (SPECIFY)	→ 601 → 601
515	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	BOYS GIRLS EITHER NUMBER . . [ ][ ] [ ][ ] [ ][ ] OTHER _____ 96 (SPECIFY)	

SECTION 6. EMPLOYMENT AND GENDER ROLES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 604
602	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, or any other such reason?	YES . . . . . 1 NO 2	→ 604
603	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 607
604	What is your occupation? That is, what kind of work do you mainly do?	_____ _____ [ ][ ] _____	
605	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . . . . . 2 ONCE IN A WHILE 3	
606	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
607	CHECK 401: CURRENTLY MARRIED OR LIVING WITH A PARTNER [ ] ↓ NOT CURRENTLY MARRIED AND NOT LIVING WITH A PARTNER [ ] →		612
608	CHECK 606: CODE '1' OR '2' CIRCLED [ ] ↓ OTHER [ ] →		610
609	Who usually decides how the money you earn will be used: you, your (wife/partner), or you and your (wife/partner) jointly?	RESPONDENT . . . . . 1 WIFE/PARTNER . . . . . 2 RESPONDENT AND WIFE/PARTNER JOINTLY . . 3 OTHER _____ 6 (SPECIFY)	
610	Who usually makes decisions about health care for yourself: you, your (wife/partner), you and your (wife/partner) jointly, or someone else?	RESPONDENT . . . . . 1 WIFE/PARTNER . . . . . 2 RESPONDENT AND WIFE/PARTNER JOINTLY . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
611	Who usually makes decisions about making major household purchases?	RESPONDENT . . . . . 1 WIFE/PARTNER . . . . . 2 RESPONDENT AND WIFE/PARTNER JOINTLY . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	

SECTION 6. EMPLOYMENT AND GENDER ROLES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
612	Do you own this or any other house either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	→ 615
613	Do you have a title deed for any house you own?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 615
614	Is your name on the title deed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
615	Do you own any agricultural or non-agricultural land either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	→ 618
616	Do you have a title deed for any land you own?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 618
617	Is your name on the title deed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
618	In your opinion, is a husband justified in hitting or beating his wife in the following situations: a) If she goes out without telling him? b) If she neglects the children? c) If she argues with him? d) If she refuses to have sex with him? e) If she burns the food?	YES NO DK a) GOES OUT . . . . . 1 2 8 b) NEGLECTS CHILDREN . . 1 2 8 c) ARGUES . . . . . 1 2 8 d) REFUSES SEX . . . . . 1 2 8 e) BURNS FOOD 1 2 8	

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Now I would like to talk about something else. Have you ever heard of HIV or AIDS?	YES . . . . . 1 NO 2	→ 727
702	HIV is the virus that can lead to AIDS. Can people reduce their chance of getting HIV by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
703	Can people get HIV from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
704	Can people reduce their chance of getting HIV by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
705	Can people get HIV by sharing food with a person who has HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
706	Can people get HIV because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707	Is it possible for a healthy-looking person to have HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
708	Can HIV be transmitted from a mother to her baby: a) During pregnancy? b) During delivery? c) By breastfeeding?	YES NO DK a) DURING PREGNANCY . . 1 2 8 b) DURING DELIVERY . . . . . 1 2 8 c) BREASTFEEDING 1 2 8	
709	CHECK 708: AT LEAST ONE 'YES' ☐ ↓ OTHER ☐		→ 720
710	Are there any special drugs that a doctor or a nurse can give to a woman infected with HIV to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
720	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
721	Do you think children living with HIV should be allowed to attend school with children who do not have HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
722	Do you think people hesitate to take an HIV test because they are afraid of how other people will react if the test result is positive for HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
723	Do people talk badly about people living with HIV, or who are thought to be living with HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
724	Do people living with HIV, or thought to be living with HIV, lose the respect of other people?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
725	Do you agree or disagree with the following statement: I would be ashamed if someone in my family had HIV.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
726	Do you fear that you could get HIV if you come into contact with the saliva of a person living with HIV?	YES . . . . . 1 NO . . . . . 2 SAYS HE HAS HIV . . . . . 3 DON'T KNOW/NOT SURE/DEPENDS 8	
727	CHECK 701: HEARD ABOUT HIV OR AIDS ☐ → a) Apart from HIV, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT HIV OR AIDS ☐ → b) Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
728	CHECK 414: HAS HAD SEXUAL INTERCOURSE ☐ ↓ NEVER HAD SEXUAL INTERCOURSE ☐ →		736
729	CHECK 727: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ ↓ NO ☐ →		731
730	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
731	Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
732	Sometimes men have a sore or ulcer near their penis. During the last 12 months, have you had a sore or ulcer on or near your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
733	CHECK 730, 731 AND 732:	HAS HAD AN INFECTION (ANY 'YES') ☐ ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐ → 736	
734	The last time you had (PROBLEM FROM 730/731/732), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 736
735	Where did you go? Any other place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVERNMENT HEALTH CENTER . . . . . B STAND-ALONE HTS CENTER . . . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE HTS SERVICES . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . G STAND-ALONE HTS CENTER . . . . . H PHARMACY . . . . . I CHEMIST/PMS STORE . . . . . J MOBILE HTS SERVICES . . . . . K OTHER PRIVATE MEDICAL SECTOR _____ L (SPECIFY) **OTHER SOURCE** SHOP . . . . . M OTHER _____ X (SPECIFY)	
736	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
737	Is a wife justified in refusing to have sex with her husband when she knows he has sex with women other than his wives?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Some men are circumcised, that is, the foreskin is completely removed from the penis. Are you circumcised?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 805
802	How old were you when you got circumcised?	AGE IN COMPLETED YEARS . . . . . [ ][ ] DURING CHILDHOOD (<5 YEARS) . . . . . 95 DON'T KNOW 98	
803	Who did the circumcision?	TRADITIONAL PRACTITIONER/FAMILY/FRIEND . . 1 HEALTH WORKER/PROFESSIONAL . . . . . 2 OTHER . . . . . 3 DON'T KNOW 8	
804	Where was it done?	HEALTH FACILITY . . . . . 1 HOME OF A HEALTH WORKER/PROFESSIONA . . 2 CIRCUMCISION DONE AT HOME . . . . . 3 RITUAL SITE . . . . . 4 OTHER HOME/PLACE . . . . . 5 DON'T KNOW 8	
805	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . . . [ ][ ] NONE 00	→ 808
806	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . . . [ ][ ] NONE 00	→ 808
807	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
808	Do you currently smoke tobacco every day, some days, or not at all?	EVERY DAY . . . . . 1 SOME DAYS . . . . . 2 NOT AT ALL 3	→ 811 → 810
809	In the past, have you smoked tobacco every day?	YES . . . . . 1 NO 2	→ 812
810	In the past, have you ever smoked tobacco every day, some days, or not at all?	EVERY DAY . . . . . 1 SOME DAYS . . . . . 2 NOT AT ALL 3	→ 813

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
811	On average, how many of the following products do you currently smoke each day? Also, let me know if you use the product, but not every day. IF RESPONDENT REPORTS USING THE PRODUCT BUT NOT EVERY DAY, RECORD '888'. IF THE PRODUCT IS NOT USED AT ALL, RECORD '000'. a) Manufactured cigarettes? b) Hand-rolled cigarettes? c) Kreteks? d) Pipes full of tobacco? e) Cigars, cheroots, or cigarillos? f) Number of water pipe sessions? g) Any others? _____ (SPECIFY)	NUMBER DAILY a) MANUFACTURED CIGARETTES . . . . . [ ][ ][ ] b) HAND-ROLLED CIGARETTES . . . . . [ ][ ][ ] c) KRETEKS . . . . . [ ][ ][ ] d) PIPES FULL OF TOBACCO . . . . . [ ][ ][ ] e) CIGARS, CHEROOTS, OR CIGARILLOS . . . . . [ ][ ][ ] f) NUMBER OF WATER PIPE SESSIONS . . . . . [ ][ ][ ] g) OTHERS . . . . . [ ][ ][ ]	→ 813
812	On average, how many of the following products do you currently smoke each week? Also, let me know if you use the product, but not every week. IF RESPONDENT REPORTS USING THE PRODUCT BUT NOT EVERY WEEK, RECORD '888'. IF THE PRODUCT IS NOT USED AT ALL, RECORD '000'. a) Manufactured cigarettes? b) Hand-rolled cigarettes? c) Kreteks? d) Pipes full of tobacco? e) Cigars, cheroots, or cigarillos? f) Number of water pipe sessions? g) Any others? _____ (SPECIFY)	NUMBER WEEKLY a) MANUFACTURED CIGARETTES . . . . . [ ][ ][ ] b) HAND-ROLLED CIGARETTES . . . . . [ ][ ][ ] c) KRETEKS . . . . . [ ][ ][ ] d) PIPES FULL OF TOBACCO . . . . . [ ][ ][ ] e) CIGARS, CHEROOTS, OR CIGARILLOS . . . . . [ ][ ][ ] f) NUMBER OF WATER PIPE SESSIONS . . . . . [ ][ ][ ] g) OTHERS . . . . . [ ][ ][ ]	
813	Do you currently use smokeless tobacco every day, some days, or not at all?	EVERY DAY . . . . . 1 SOME DAYS . . . . . 2 NOT AT ALL 3	 → 815 → 815A

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
814	On average, how many times a day do you use the following products? Also, let me know if you use the product, but not every day. IF RESPONDENT REPORTS USING THE PRODUCT BUT NOT EVERY DAY, RECORD '888'. IF THE PRODUCT IS NOT USED AT ALL, RECORD '000'. a) Snuff, by mouth? b) Snuff, by nose? c) Chewing tobacco? d) Betel quid with tobacco? e) Any others? _____ (SPECIFY)	TIMES DAILY a) SNUFF, BY MOUTH . . . . . [ ][ ][ ] b) SNUFF, BY NOSE . . . . . [ ][ ][ ] c) CHEWING TOBACCO . . . . . [ ][ ][ ] d) BETEL QUID WITH TOBACCO . . . . . [ ][ ][ ] e) ANY OTHERS . . . . . [ ][ ][ ]	→ 815A
815	On average, how many times a week do you use the following products? Also, let me know if you use the product, but not every week. IF RESPONDENT REPORTS USING THE PRODUCT BUT NOT EVERY WEEK, RECORD '888'. IF THE PRODUCT IS NOT USED AT ALL, RECORD '000'. a) Snuff, by mouth? b) Snuff, by nose? c) Chewing tobacco? d) Betel quid with tobacco? e) Any others? _____ (SPECIFY)	TIMES WEEKLY a) SNUFF, BY MOUTH . . . . . [ ][ ][ ] b) SNUFF, BY NOSE . . . . . [ ][ ][ ] c) CHEWING TOBACCO . . . . . [ ][ ][ ] d) BETEL QUID WITH TOBACCO . . . . . [ ][ ][ ] e) ANY OTHERS . . . . . [ ][ ][ ]	

815A	I am going to ask you about your opinion on behavior/practice on reducing the risk of malaria. Please tell me whether you agree or disagree with the following statements:		AGREE	DISAGREE	DON'T KNOW
	b) The medicine given to pregnant women to prevent malaria works well to keep the mother healthy	b)	1	2	8
	c) The medicine given to pregnant women to prevent malaria works well to keep the baby healthy when it is born	c)	1	2	8
	d) The malaria tests are the only way to know if someone really has malaria or not	d)	1	2	8
	f) Even if the malaria test shows that the fever is not caused by malaria, I will still seek out treatment for malaria because I don't trust the test result	f)	1	2	8
	i) When the entire course of malaria medicine is taken, the disease will be fully cured	i)	1	2	8

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
815B	I am going to ask you about your opinion on consequences of malaria. Please tell me whether you agree or disagree with the following statements:		AGREE	DISAGREE	DON'T KNOW	
	a) Every case of malaria can potentially lead to death	a)	1	2	8	
	c) You don't worry about malaria because it can be easily treated	c)	1	2	8	
	d) You know people who have become dangerously sick with malaria.	d)	1	2	8	
	f) Only weak children can die from malaria	f)	1	2	8	
816	Are you covered by any health insurance?	YES . . . . . 1 NO 2				 → 818
817	What type of health insurance are you covered by? RECORD ALL MENTIONED.	MUTUAL HEALTH ORGANIZATION/ COMMUNITY-BASED HEALTH INSURANCE . . . . . A HEALTH INSURANCE THROUGH EMPLOYER . . . . . B SOCIAL SECURITY . . . . . C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE . . . . . D OTHER _____ X (SPECIFY)				
818	RECORD THE TIME.	HOURS . . . . . [ ][ ] MINUTES . . . . . [ ][ ]				

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT INTERVIEW:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

EDITOR'S OBSERVATIONS

FORMATTING DATE: 09 Jun 2015
ENGLISH LANGUAGE: 26 May 2018

NIGERIA DEMOGRAPHIC AND HEALTH SURVEYS 2018
BIOMARKER QUESTIONNAIRE

NIGERIA

IDENTIFICATION

STATE _____

LOCAL GOVT. AREA _____

LOCALITY _____

ENUMERATION AREA _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

HOUSEHOLD SELECTED FOR MAN'S SURVEY? (1=YES, 2=NO) . . . . . .

HOUSEHOLD SELECTED FOR MICROSCOPY OR DBS?
SELECTED FOR MICROSCOPY = 1
SELECTED FOR DBS = 2 . . . . . .

FIELDWORKER VISITS

	1	2	3	FINAL VISIT
DATE				DAY
FIELDWORKER'S NAME				MONTH
				YEAR
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

NOTES:

TOTAL ELIGIBLE WOMEN

TOTAL ELIGIBLE CHILDREN

LANGUAGE OF QUESTIONNAIRE** 0 1

LANGUAGE OF INTERVIEW**

NATIVE LANGUAGE OF RESPONDENT**

TRANSLATOR (YES = 1, NO = 2)

LANGUAGE OF QUESTIONNAIRE** ENGLISH

**LANGUAGE CODES:
01 ENGLISH
02 HAUSA
03 YORUBA
04 IGBO

SUPERVISOR		FIELD EDITOR	
NAME	NUMBER	NAME	NUMBER

WEIGHT, HEIGHT AND HEMOGLOBIN, GENOTYPE, AND MALARIA MEASUREMENT FOR CHILDREN AGE 0-5

101	CHECK COLUMN 11 IN HOUSEHOLD QUESTIONNAIRE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 102; IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 1	CHILD 2	CHILD 3
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
103	IF MOTHER INTERVIEWED: COPY CHILD'S DATE OF BIRTH (DAY, MONTH, AND YEAR) FROM BIRTH HISTORY. IF MOTHER NOT INTERVIEWED ASK: What is (NAME)'s date of birth?	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [ ][ ][ ][ ]
104	CHECK 103: CHILD BORN IN 2013-2018?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 130)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 130)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 130)
105	WEIGHT IN KILOGRAMS.	KG. . . . [ ][ ] . [ ][ ] NOT PRESENT . . . . .9994 REFUSED . . . . . 9995 OTHER 9996	KG. . . . [ ][ ] . [ ][ ] NOT PRESENT . . . . .9994 REFUSED . . . . . 9995 OTHER 9996	KG. . . . [ ][ ] . [ ][ ] NOT PRESENT . . . . . .9994 REFUSED . . . . . 9995 OTHER 9996
106	HEIGHT IN CENTIMETERS.	CM. . . . [ ][ ][ ] . [ ] NOT PRESENT . . . . .9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 (SKIP TO 108)	CM. . . . [ ][ ][ ] . [ ] NOT PRESENT . . . . .9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 (SKIP TO 108)	CM. . . . [ ][ ][ ] . [ ] NOT PRESENT . . . . . .9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 (SKIP TO 108)
107	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2
108	MEASURER: ENTER YOUR FIELDWORKER NUMBER.	[ ][ ][ ][ ] FIELDWORKER NUMBER	[ ][ ][ ][ ] FIELDWORKER NUMBER	[ ][ ][ ][ ] FIELDWORKER NUMBER
109	CHECK 103: CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR 5 PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (SKIP TO 130) OLDER 2	0-5 MONTHS . . . . . 1 (SKIP TO 130) OLDER 2	0-5 MONTHS . . . . . 1 (SKIP TO 130) OLDER 2
110	NAME AND RELATIONSHIP TO THE CHILD OF ADULT RESPONSIBLE FOR THE CHILD. GET LINE NUMBER FROM COLUMN 1 OF HOUSEHOLD SCHEDULE.	NAME _____ RELATIONSHIP TO THE CHILD _____ LINE NUMBER . . . . . [ ][ ] (RECORD '00' IF NOT LISTED)	NAME _____ RELATIONSHIP TO THE CHILD _____ LINE NUMBER . . . . . [ ][ ] (RECORD '00' IF NOT LISTED)	NAME _____ RELATIONSHIP TO THE CHILD _____ LINE NUMBER . . . . . [ ][ ] (RECORD '00' IF NOT LISTED)
111	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. We ask that all children born in 2013 or later take part in anemia testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes or no. It is up to you to decide. Will you allow (NAME OF CHILD) to participate in the anemia test?		

WEIGHT, HEIGHT AND HEMOGLOBIN, GENOTYPE, AND MALARIA MEASUREMENT FOR CHILDREN AGE 0-5

101	CHECK COLUMN 11 IN HOUSEHOLD QUESTIONNAIRE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 102; IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 1	CHILD 2	CHILD 3
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
111A	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 130)	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 130)	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 130)
112	Has (NAME) had blood transfusion in the past 3 months?	YES . . . . . 1 (SKIP TO 112C) NO 2	YES . . . . . 1 (SKIP TO 112C) NO 2	YES . . . . . 1 (SKIP TO 112C) NO 2
112A	ASK CONSENT FOR GENOTYPE TEST FROM PARENT/OTHER ADULT.	As part of this survey, we are asking children all over the country to take a test to see if they have sickle cell anemia (SS) or its trait (AS). Sickle cell disease (SCD) is an inherited blood disorder, which affects children early in life often with repeated episodes of catastrophic illness and bone pains with varying periods of relative good health in between. This survey will assist the government to develop programs for the prevention and management of sickle cell disease. We ask that all children born in 2013 or later take part in genotype testing in this survey and give a few drops of blood from a finger or heel. One blood drop will be tested for genotype immediately, and the result will be told to you right away. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes or no. It is up to you to decide. Will you allow (NAME OF CHILD) to participate in the genotype test?		
112B	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 **(SKIP TO 130)**	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 **(SKIP TO 130)**	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 **(SKIP TO 130)**
112C	ASK CONSENT FOR MALARIA TEST FROM PARENT/OTHER ADULT.	As part of this survey, we are asking children all over the country to take a test to see if they have malaria. Malaria is a serious illness caused by a parasite transmitted by a mosquito bite. This survey will assist the government to develop programs to prevent malaria. We ask that all children born in 2013 or later take part in malaria testing in this survey and give a few drops of blood from a finger or heel. The blood will be tested for malaria immediately, and the result will be told to you right away. All results will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes or no. It is up to you to decide. Will you allow (NAME OF CHILD) to participate in the malaria test?		
112D	CIRCLE THE CODE, SIGN YOUR NAME, AND ENTER YOUR FIELDWORKER NUMBER.	GRANTED . . . . . 1 REFUSED . . . . . 2 _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) [ ][ ][ ][ ]	GRANTED . . . . . 1 REFUSED . . . . . 2 _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) [ ][ ][ ][ ]	GRANTED . . . . . 1 REFUSED . . . . . 2 _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) [ ][ ][ ][ ]

WEIGHT, HEIGHT AND HEMOGLOBIN, GENOTYPE, AND MALARIA MEASUREMENT FOR CHILDREN AGE 0-5

101	CHECK COLUMN 11 IN HOUSEHOLD QUESTIONNAIRE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 102; IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 1	CHILD 2	CHILD 3
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER ..... [ ][ ] NAME _____	LINE NUMBER ..... [ ][ ] NAME _____	LINE NUMBER ..... [ ][ ] NAME _____

112E	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
112F	PLACE BAR CODE LABEL FOR MALARIA LAB TEST OR GENOTYPE CONFIRMATORY LAB TEST.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT ... 99994 REFUSED ..... 99995 OTHER 99996	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT ... 99994 REFUSED ..... 99995 OTHER 99996	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT ..... 99994 REFUSED ..... 99995 OTHER 99996
	MENTION WHERE BAR CODE PLACED BASED ON THE TEST.	SLIDE ..... A DBS ..... B TRANSMITTAL FORM ... C	SLIDE ..... A DBS ..... B TRANSMITTAL FORM ... C	SLIDE ..... A DBS ..... B TRANSMITTAL FORM ... C
	RESULTS OF HEMOGLOBIN TEST			
113	RECORD HEMOGLOBIN LEVEL HERE AND IN THE PAMPHLET.	G/DL ..... [ ][ ].[ ] NOT PRESENT ..... 994 REFUSED ..... 995 OTHER 996	G/DL ..... [ ][ ].[ ] NOT PRESENT ..... 994 REFUSED ..... 995 OTHER 996	G/DL ..... [ ][ ].[ ] NOT PRESENT ..... 994 REFUSED ..... 995 OTHER 996
	RESULTS OF GENOTYPE TEST			
113A	CIRCLE THE CODE FOR THE GENOTYPE RDT.	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 114)	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 114)	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 114)
113B	RECORD THE RESULT OF THE GENOTYPE RDT HERE AND IN THE PAMPHLET.	AA ..... 1 AS ..... 2 AC ..... 3 SC ..... 4 (SKIP TO 114) SS 5	AA ..... 1 AS ..... 2 AC ..... 3 SC ..... 4 (SKIP TO 114) SS 5	AA ..... 1 AS ..... 2 AC ..... 3 SC ..... 4 (SKIP TO 114) SS 5
113C	**SICKLE CELL ANEMIA (SS) REFERRAL** RECORD THE RESULT OF THE GENOTYPE TEST ON THE REFERRAL FORM.	The genotype test shows that (NAME OF CHILD) has sickle cell anemia. Your child is very ill and must be taken to a health facility immediately.		
	RESULTS OF MALARIA RDT TEST			
114	CIRCLE THE CODE FOR THE MALARIA RDT.	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 128)	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 128)	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 128)
115	RECORD THE RESULT OF THE MALARIA RDT HERE AND IN THE PAMPHLET.	POSITIVE ..... 1 NEGATIVE ..... 2 OTHER ..... 6 (SKIP TO 128)	POSITIVE ..... 1 NEGATIVE ..... 2 OTHER ..... 6 (SKIP TO 128)	POSITIVE ..... 1 NEGATIVE ..... 2 OTHER ..... 6 (SKIP TO 128)

WEIGHT, HEIGHT AND HEMOGLOBIN, GENOTYPE, AND MALARIA MEASUREMENT FOR CHILDREN AGE 0-5

101	CHECK COLUMN 11 IN HOUSEHOLD QUESTIONNAIRE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 102; IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 1	CHILD 2	CHILD 3
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER ..... [ ][ ] NAME _____	LINE NUMBER ..... [ ][ ] NAME _____	LINE NUMBER ..... [ ][ ] NAME _____

118	Does (NAME) suffer from any of the following illnesses or symptoms:	YES NO	YES NO	YES NO
	a) Extreme weakness?	a) EXTREME WEAKNESS 1 2	a) EXTREME WEAKNESS 1 2	a) EXTREME WEAKNESS 1 2
	b) Heart problems?	b) HEART PROBLEMS 1 2	b) HEART PROBLEMS 1 2	b) HEART PROBLEMS 1 2
	c) Loss of consciousness?	c) LOSS OF CONSCIOUS. 1 2	c) LOSS OF CONSCIOUS. 1 2	c) LOSS OF CONSCIOUS. 1 2
	d) Rapid or difficult breathing?	d) RAPID BREATHING 1 2	d) RAPID BREATHING 1 2	d) RAPID BREATHING 1 2
	e) Seizures?	e) SEIZURES 1 2	e) SEIZURES 1 2	e) SEIZURES 1 2
	f) Abnormal bleeding?	f) BLEEDING 1 2	f) BLEEDING 1 2	f) BLEEDING 1 2
	g) Jaundice or yellow skin?	g) JAUNDICE 1 2	g) JAUNDICE 1 2	g) JAUNDICE 1 2
	h) Dark urine?	h) DARK URINE 1 2	h) DARK URINE 1 2	h) DARK URINE 1 2
119	CHECK 118: ANY 'YES' CIRCLED?	NO → (SKIP TO 122) YES [ ]	NO → (SKIP TO 122) YES [ ]	NO → (SKIP TO 122) YES [ ]
120	CHECK 113: HEMOGLOBIN RESULT	BELOW 8.0 G/DL, SEVERE ANEMIA ... 1 → (SKIP TO 122) 8.0 G/DL OR ABOVE ... 2 NOT PRESENT ..... 3 REFUSED ..... 4 OTHER 6	BELOW 8.0 G/DL, SEVERE ANEMIA ... 1 → (SKIP TO 122) 8.0 G/DL OR ABOVE ... 2 NOT PRESENT ..... 3 REFUSED ..... 4 OTHER 6	BELOW 8.0 G/DL, SEVERE ANEMIA ... 1 → (SKIP TO 122) 8.0 G/DL OR ABOVE ... 2 NOT PRESENT ..... 3 REFUSED ..... 4 OTHER 6
121	In the past two weeks has (NAME) taken or is taking ACT given by a doctor or health center to treat the malaria? VERIFY BY ASKING TO SEE TREATMENT	YES ..... 1 → (SKIP TO 123) NO ..... 2 → (SKIP TO 124)	YES ..... 1 → (SKIP TO 123) NO ..... 2 → (SKIP TO 124)	YES ..... 1 → (SKIP TO 123) NO ..... 2 → (SKIP TO 124)
122	**SEVERE MALARIA REFERRAL** RECORD THE RESULT OF THE MALARIA RDT ON THE REFERRAL FORM.	The malaria test shows that (NAME OF CHILD) has malaria. Your child also has symptoms of severe malaria. The malaria treatment I have will not help your child, and I cannot give you the medication. Your child is very ill and must be taken to a health facility right away. **(SKIP TO 128)**		
123	ALREADY TAKING ACT REFERRAL STATEMENT	You have told me that (NAME OF CHILD) had already received ACT for malaria. Therefore, I cannot give you additional ACT. However, the test shows that he/she has malaria. If your child has a fever for two days after the last dose of ACT, you should take the child to the nearest health facility for further examination. **(SKIP TO 130)**		
124	READ INFORMATION FOR MALARIA TREATMENT AND CONSENT STATEMENT TO PARENT/OTHER	The malaria test shows that your child has malaria. We can give you free medicine. The medicine is called ACT. ACT is very effective and in a few days it should get rid of the fever and other symptoms. You do not have to give the child the medicine. This is up to you. Please tell me whether you accept the medicine or not.		

WEIGHT, HEIGHT AND HEMOGLOBIN, GENOTYPE, AND MALARIA MEASUREMENT FOR CHILDREN AGE 0-5

101	CHECK COLUMN 11 IN HOUSEHOLD QUESTIONNAIRE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 102; IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 1	CHILD 2	CHILD 3
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER ..... [ ][ ] NAME _____	LINE NUMBER ..... [ ][ ] NAME _____	LINE NUMBER ..... [ ][ ] NAME _____
125	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	ACCEPTED MEDICINE . 1 _____ (SIGN) REFUSED ..... 2 OTHER 6	ACCEPTED MEDICINE . 1 _____ (SIGN) REFUSED ..... 2 OTHER 6	ACCEPTED MEDICINE . 1 _____ (SIGN) REFUSED ..... 2 OTHER 6
126	CHECK 125: MEDICATION ACCEPTED	ACCEPTED MEDICINE . 1 REFUSED ..... 2 OTHER ..... 6 (SKIP TO 130)	ACCEPTED MEDICINE . 1 REFUSED ..... 2 OTHER ..... 6 (SKIP TO 130)	ACCEPTED MEDICINE . 1 REFUSED ..... 2 OTHER ..... 6 (SKIP TO 130)
127	TREATMENT FOR CHILDREN WITH POSITIVE MALARIA TESTS	**TREATMENT WITH ACT**		

WEIGHT (in kg)	**AGE**	**ARTEMETHER-LUMEFANTRINE**
LESS THAN 5 KGS	NOTHING	NOTHING
5-14 KGS	6 MONTHS - 3 YEARS	1 TABLET TWICE A DAY FOR 3 DAYS
15-25 KGS	4 - 8 YEARS	2 TABLETS TWICE A DAY FOR 3 DAYS

IF CHILD WEIGHS LESS THAN 5 KGS, DO NOT LEAVE DRUGS. TELL PARENTS TO TAKE CHILD TO HEALTH FACILITY.

ALSO TELL THE PARENT/OTHER ADULT: If [NAME] has a high fever, fast or difficult breathing, is not able to drink or breastfeed, gets sicker or does not get better in two days, you should take him/her to a health professional for treatment right away.
(SKIP TO 130)

128	CHECK 113: HEMOGLOBIN RESULT	BELOW 8.0 G/DL, SEVERE ANEMIA 1 8.0 G/DL OR ABOVE 2 NOT PRESENT 3 REFUSED 4 OTHER 6 **(SKIP TO 130)**	BELOW 8.0 G/DL, SEVERE ANEMIA 1 8.0 G/DL OR ABOVE 2 NOT PRESENT 3 REFUSED 4 OTHER 6 **(SKIP TO 130)**	BELOW 8.0 G/DL, SEVERE ANEMIA 1 8.0 G/DL OR ABOVE 2 NOT PRESENT 3 REFUSED 4 OTHER 6 **(SKIP TO 130)**
129	**SEVERE ANEMIA REFERRAL** RECORD THE RESULT OF THE ANEMIA TEST ON THE REFERRAL FORM.	The anemia test shows that (NAME OF CHILD) has severe anemia. Your child is very ill and must be taken to a health facility immediately.		
130	GO BACK TO 103 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO 201.			

		CHILD 4	CHILD 5	CHILD 6
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
103	IF MOTHER INTERVIEWED: COPY CHILD'S DATE OF BIRTH (DAY, MONTH, AND YEAR) FROM BIRTH HISTORY. IF MOTHER NOT INTERVIEWED ASK: What is (NAME)'s date of birth?	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [ ][ ][ ][ ]
104	CHECK 103: CHILD BORN IN 2013-2018?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 130)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 130)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 130)
105	WEIGHT IN KILOGRAMS.	KG. . . . [ ][ ] . [ ][ ] NOT PRESENT . . . . .9994 REFUSED . . . . . 9995 OTHER 9996	KG. . . . [ ][ ] . [ ][ ] NOT PRESENT . . . . .9994 REFUSED . . . . . 9995 OTHER 9996	KG. . . . [ ][ ] . [ ][ ] NOT PRESENT . . . . .9994 REFUSED . . . . . 9995 OTHER 9996
106	HEIGHT IN CENTIMETERS.	CM. . . . [ ][ ][ ] . [ ] NOT PRESENT . . . . .9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 (SKIP TO 108)	CM. . . . [ ][ ][ ] . [ ] NOT PRESENT . . . . .9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 (SKIP TO 108)	CM. . . . [ ][ ][ ] . [ ] NOT PRESENT . . . . .9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 (SKIP TO 108)
107	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2
108	MEASURER: ENTER YOUR FIELDWORKER NUMBER.	[ ][ ][ ][ ] FIELDWORKER NUMBER	[ ][ ][ ][ ] FIELDWORKER NUMBER	[ ][ ][ ][ ] FIELDWORKER NUMBER
109	CHECK 103: CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR 5 PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (SKIP TO 130) OLDER 2	0-5 MONTHS . . . . . 1 (SKIP TO 130) OLDER 2	0-5 MONTHS . . . . . 1 (SKIP TO 130) OLDER 2
110	NAME AND RELATIONSHIP TO THE CHILD OF ADULT RESPONSIBLE FOR THE CHILD. GET LINE NUMBER FROM COLUMN 1 OF HOUSEHOLD SCHEDULE.	NAME _____ RELATIONSHIP TO THE CHILD _____ LINE NUMBER . . . . . [ ][ ] (RECORD '00' IF NOT LISTED)	NAME _____ RELATIONSHIP TO THE CHILD _____ LINE NUMBER . . . . . [ ][ ] (RECORD '00' IF NOT LISTED)	NAME _____ RELATIONSHIP TO THE CHILD _____ LINE NUMBER . . . . . [ ][ ] (RECORD '00' IF NOT LISTED)
111	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. We ask that all children born in 2013 or later take part in anemia testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes or no. It is up to you to decide. Will you allow (NAME OF CHILD) to participate in the anemia test?		

		CHILD 4	CHILD 5	CHILD 6
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
111A	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 130)	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 130)	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 130)
112	Has (NAME) had blood transfusion in the past 3 months?	YES . . . . . 1 (SKIP TO 112C) NO 2	YES . . . . . 1 (SKIP TO 112C) NO 2	YES . . . . . 1 (SKIP TO 112C) NO 2
112A	ASK CONSENT FOR GENOTYPE TEST FROM PARENT/OTHER ADULT.	As part of this survey, we are asking children all over the country to take a test to see if they have sickle cell anemia (SS) or its trait (AS). Sickle cell disease (SCD) is an inherited blood disorder, which affects children early in life often with repeated episodes of catastrophic illness and bone pains with varying periods of relative good health in between. This survey will assist the government to develop programs for the prevention and management of sickle cell disease. We ask that all children born in 2013 or later take part in genotype testing in this survey and give a few drops of blood from a finger or heel. One blood drop will be tested for genotype immediately, and the result will be told to you right away. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes or no. It is up to you to decide. Will you allow (NAME OF CHILD) to participate in the genotype test?		
112B	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 130)	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 130)	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 130)
112C	ASK CONSENT FOR MALARIA TEST FROM PARENT/OTHER ADULT.	As part of this survey, we are asking children all over the country to take a test to see if they have malaria. Malaria is a serious illness caused by a parasite transmitted by a mosquito bite. This survey will assist the government to develop programs to prevent malaria. We ask that all children born in 2013 or later take part in malaria testing in this survey and give a few drops of blood from a finger or heel. The blood will be tested for malaria immediately, and the result will be told to you right away. All results will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes or no. It is up to you to decide. Will you allow (NAME OF CHILD) to participate in the malaria test?		
112D	CIRCLE THE CODE, SIGN YOUR NAME, AND ENTER YOUR FIELDWORKER NUMBER.	GRANTED . . . . . 1 REFUSED . . . . . 2 _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) [ ][ ][ ][ ]	GRANTED . . . . . 1 REFUSED . . . . . 2 _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) [ ][ ][ ][ ]	GRANTED . . . . . 1 REFUSED . . . . . 2 _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) [ ][ ][ ][ ]

		CHILD 4	CHILD 5	CHILD 6
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER ..... [ ][ ] NAME _____	LINE NUMBER ..... [ ][ ] NAME _____	LINE NUMBER ..... [ ][ ] NAME _____
112E	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
112F	PLACE BAR CODE LABEL FOR MALARIA LAB TEST OR GENOTYPE CONFIRMATORY LAB TEST.	PUT THE 1ST BAR CODE LABEL HERE.	PUT THE 1ST BAR CODE LABEL HERE.	PUT THE 1ST BAR CODE LABEL HERE.
		NOT PRESENT ... 99994 REFUSED ..... 99995 OTHER 99996	NOT PRESENT ... 99994 REFUSED ..... 99995 OTHER 99996	NOT PRESENT ..... 99994 REFUSED ..... 99995 OTHER 99996
	MENTION WHERE BAR CODE PLACED BASED ON THE TEST.	SLIDE ..... A DBS ..... B TRANSMITTAL FORM ... C	SLIDE ..... A DBS ..... B TRANSMITTAL FORM ... C	SLIDE ..... A DBS ..... B TRANSMITTAL FORM . C
	RESULTS OF HEMOGLOBIN TEST			
113	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA AND MALARIA PAMPHLET.	G/DL ..... [ ][ ].[ ] NOT PRESENT ..... 994 REFUSED ..... 995 OTHER 996	G/DL ..... [ ][ ].[ ] NOT PRESENT ..... 994 REFUSED ..... 995 OTHER 996	G/DL ..... [ ][ ].[ ] NOT PRESENT ..... 994 REFUSED ..... 995 OTHER 996
	RESULTS OF GENOTYPE TEST			
113A	CIRCLE THE CODE FOR THE GENOTYPE RDT.	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 114)	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 114)	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 114)
113B	RECORD THE RESULT OF THE GENOTYPE RDT HERE AND IN THE PAMPHLET.	AA ..... 1 AS ..... 2 AC ..... 3 SC ..... 4 (SKIP TO 114) SS 5	AA ..... 1 AS ..... 2 AC ..... 3 SC ..... 4 (SKIP TO 114) SS 5	AA ..... 1 AS ..... 2 AC ..... 3 SC ..... 4 (SKIP TO 114) SS 5
113C	**SICKLE CELL ANEMIA (SS) REFERRAL** RECORD THE RESULT OF THE GENOTYPE TEST ON THE REFERRAL FORM.	The genotype test shows that (NAME OF CHILD) has sickle cell anemia. Your child is very ill and must be taken to a health facility immediately.		
	RESULTS OF MALARIA RDT TEST			
114	CIRCLE THE CODE FOR THE MALARIA RDT.	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 128)	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 128)	TESTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER ..... 6 (SKIP TO 128)
115	RECORD THE RESULT OF THE MALARIA RDT HERE AND IN THE PAMPHLET.	POSITIVE ..... 1 NEGATIVE ..... 2 OTHER ..... 6 (SKIP TO 128)	POSITIVE ..... 1 NEGATIVE ..... 2 OTHER ..... 6 (SKIP TO 128)	POSITIVE ..... 1 NEGATIVE ..... 2 OTHER ..... 6 (SKIP TO 128)

		CHILD 4	CHILD 5	CHILD 6
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER ..... [ ][ ] NAME _____	LINE NUMBER ..... [ ][ ] NAME _____	LINE NUMBER ..... [ ][ ] NAME _____

118	Does (NAME) suffer from any of the following illnesses or symptoms:	YES NO	YES NO	YES NO
	a) Extreme weakness?	a) EXTREME WEAKNESS 1 2	a) EXTREME WEAKNESS 1 2	a) EXTREME WEAKNESS 1 2
	b) Heart problems?	b) HEART PROBLEMS 1 2	b) HEART PROBLEMS 1 2	b) HEART PROBLEMS 1 2
	c) Loss of consciousness?	c) LOSS OF CONSCIOUS. 1 2	c) LOSS OF CONSCIOUS. 1 2	c) LOSS OF CONSCIOUS. 1 2
	d) Rapid or difficult breathing?	d) RAPID BREATHING 1 2	d) RAPID BREATHING 1 2	d) RAPID BREATHING 1 2
	e) Seizures?	e) SEIZURES 1 2	e) SEIZURES 1 2	e) SEIZURES 1 2
	f) Abnormal bleeding?	f) BLEEDING 1 2	f) BLEEDING 1 2	f) BLEEDING 1 2
	g) Jaundice or yellow skin?	g) JAUNDICE 1 2	g) JAUNDICE 1 2	g) JAUNDICE 1 2
	h) Dark urine?	h) DARK URINE 1 2	h) DARK URINE 1 2	h) DARK URINE 1 2
119	CHECK 118: ANY 'YES' CIRCLED?	NO [ ] YES [ ] (SKIP TO 122)	NO [ ] YES [ ] (SKIP TO 122)	NO [ ] YES [ ] (SKIP TO 122)
120	CHECK 113: HEMOGLOBIN RESULT	BELOW 8.0 G/DL, SEVERE ANEMIA ... 1 (SKIP TO 122) 8.0 G/DL OR ABOVE ... 2 NOT PRESENT ..... 3 REFUSED ..... 4 OTHER 6	BELOW 8.0 G/DL, SEVERE ANEMIA ... 1 (SKIP TO 122) 8.0 G/DL OR ABOVE ... 2 NOT PRESENT ..... 3 REFUSED ..... 4 OTHER 6	BELOW 8.0 G/DL, SEVERE ANEMIA ... 1 (SKIP TO 122) 8.0 G/DL OR ABOVE ... 2 NOT PRESENT ..... 3 REFUSED ..... 4 OTHER 6
121	In the past two weeks has (NAME) taken or is taking ACT given by a doctor or health center to treat the malaria? VERIFY BY ASKING TO SEE TREATMENT	YES ..... 1 (SKIP TO 123) NO ..... 2 (SKIP TO 124)	YES ..... 1 (SKIP TO 123) NO ..... 2 (SKIP TO 124)	YES ..... 1 (SKIP TO 123) NO ..... 2 (SKIP TO 124)
122	**SEVERE MALARIA REFERRAL** RECORD THE RESULT OF THE MALARIA RDT ON THE REFERRAL FORM.	The malaria test shows that (NAME OF CHILD) has malaria. Your child also has symptoms of severe malaria. The malaria treatment I have will not help your child, and I cannot give you the medication. Your child is very ill and must be taken to a health facility right away. **(SKIP TO 128)**		
123	ALREADY TAKING ACT REFERRAL STATEMENT	You have told me that (NAME OF CHILD) had already received ACT for malaria. Therefore, I cannot give you additional ACT. However, the test shows that he/she has malaria. If your child has a fever for two days after the last dose of ACT, you should take the child to the nearest health facility for further examination. **(SKIP TO 130)**		
124	READ INFORMATION FOR MALARIA TREATMENT AND CONSENT STATEMENT TO PARENT/OTHER	The malaria test shows that your child has malaria. We can give you free medicine. The medicine is called ACT. ACT is very effective and in a few days it should get rid of the fever and other symptoms. You do not have to give the child the medicine. This is up to you. Please tell me whether you accept the medicine or not.		

		CHILD 4	CHILD 5	CHILD 6
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
125	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	ACCEPTED MEDICINE . 1 _____ (SIGN) REFUSED . . . . . 2 OTHER 6	ACCEPTED MEDICINE . 1 _____ (SIGN) REFUSED . . . . . 2 OTHER 6	ACCEPTED MEDICINE . 1 _____ (SIGN) REFUSED . . . . . 2 OTHER 6
126	CHECK 125: MEDICATION ACCEPTED	ACCEPTED MEDICINE . 1 REFUSED . . . . . 2 OTHER . . . . . 6 (SKIP TO 130)	ACCEPTED MEDICINE . 1 REFUSED . . . . . 2 OTHER . . . . . 6 (SKIP TO 130)	ACCEPTED MEDICINE . 1 REFUSED . . . . . 2 OTHER . . . . . 6 (SKIP TO 130)
127	TREATMENT FOR CHILDREN WITH POSITIVE MALARIA TESTS	**TREATMENT WITH ACT**		
		WEIGHT (in kg)	**AGE**	**ARTEMETHER-LUMEFANTRINE**
		LESS THAN 5 KGS	NOTHING	NOTHING
		5-14 KGS	6 MONTHS - 3 YEARS	1 TABLET TWICE A DAY FOR 3 DAYS
		15-25 KGS	4 - 8 YEARS	2 TABLETS TWICE A DAY FOR 3 DAYS
		IF CHILD WEIGHS LESS THAN 5 KGS, DO NOT LEAVE DRUGS. TELL PARENTS TO TAKE CHILD TO HEALTH FACILITY.		
		ALSO TELL THE PARENT/OTHER ADULT: If [NAME] has a high fever, fast or difficult breathing, is not able to drink or breastfeed, gets sicker or does not get better in two days, you should take him/her to a health professional for treatment right away. **(SKIP TO 130)**		
128	CHECK 113: HEMOGLOBIN RESULT	BELOW 8.0 G/DL, SEVERE ANEMIA 1 8.0 G/DL OR ABOVE 2 NOT PRESENT 3 REFUSED 4 OTHER 6 (SKIP TO 130)	BELOW 8.0 G/DL, SEVERE ANEMIA 1 8.0 G/DL OR ABOVE 2 NOT PRESENT 3 REFUSED 4 OTHER 6 (SKIP TO 130)	BELOW 8.0 G/DL, SEVERE ANEMIA 1 8.0 G/DL OR ABOVE 2 NOT PRESENT 3 REFUSED 4 OTHER 6 (SKIP TO 130)
129	**SEVERE ANEMIA REFERRAL** RECORD THE RESULT OF THE ANEMIA TEST ON THE REFERRAL FORM.	The anemia test shows that (NAME OF CHILD) has severe anemia. Your child is very ill and must be taken to a health facility immediately.		
130	GO BACK TO 103 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE CHILDREN, GO TO 201.			

WEIGHT, HEIGHT, AND HEMOGLOBIN MEASUREMENT FOR WOMEN AGE 15-49

201	CHECK COLUMN 9 IN HOUSEHOLD QUESTIONNAIRE. RECORD THE LINE NUMBER, NAME, AGE, AND MARITAL STATUS FOR ALL ELIGIBLE WOMEN IN 202, 203, AND 204. IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S).

		WOMAN 1	WOMAN 2	WOMAN 3
202	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 9. NAME FROM COLUMN 2.	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
203	CHECK HOUSEHOLD QUESTIONNAIRE COLUMN 7 (AGE):	15-17 YEARS . . . . . 1 18-49 YEARS 2	15-17 YEARS . . . . . 1 18-49 YEARS 2	15-17 YEARS . . . . . 1 18-49 YEARS 2
204	CHECK HOUSEHOLD QUESTIONNAIRE COLUMN 8 (MARITAL STATUS):	CODE 4 (NEVER IN UNION) . 1 OTHER 2	CODE 4 (NEVER IN UNION) . 1 OTHER 2	CODE 4 (NEVER IN UNION) . 1 OTHER 2
205	WEIGHT IN KILOGRAMS.	KG. . . [ ][ ][ ].[ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. . . [ ][ ][ ].[ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. . . [ ][ ][ ].[ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996
206	HEIGHT IN CENTIMETERS.	CM. . . . . [ ][ ][ ].[ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . . . . [ ][ ][ ].[ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . . . . [ ][ ][ ].[ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
207	MEASURER: ENTER YOUR FIELDWORKER NUMBER.	[ ][ ][ ][ ] FIELDWORKER NUMBER	[ ][ ][ ][ ] FIELDWORKER NUMBER	[ ][ ][ ][ ] FIELDWORKER NUMBER
208	CHECK 203: AGE	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (SKIP TO 210)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (SKIP TO 210)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (SKIP TO 210)
209	CHECK 204: MARITAL STATUS	CODE 4 (NEVER IN UNION) . 1 (SKIP TO 216) OTHER 2	CODE 4 (NEVER IN UNION) . 1 (SKIP TO 216) OTHER 2	CODE 4 (NEVER IN UNION) . 1 (SKIP TO 216) OTHER 2

WEIGHT, HEIGHT, AND HEMOGLOBIN MEASUREMENT FOR WOMEN AGE 15-49

		WOMAN 1	WOMAN 2	WOMAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____

ADULT RESPONDENT CONSENT FOR ANEMIA TEST

ADULT RESPONDENT CONSENT

210	ASK CONSENT FOR ANEMIA TEST.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after we take your blood. The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes or no. It is up to you to decide. Will you take the anemia test?		
211	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 233) NOT PRESENT/OTHER . . . . . 3 (SKIP TO 233)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 233) NOT PRESENT/OTHER . . . . . 3 (SKIP TO 233)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 233) NOT PRESENT/OTHER . . . . . 3 (SKIP TO 233)
211A	CHECK 226 IN WOMAN'S QUESTIONNAIRE OR ASK: Are you pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . . . . 8 (SKIP TO 229)	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . . . . 8 (SKIP TO 229)	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . . . . 8 (SKIP TO 229)
216	NAME AND RELATIONSHIP TO THE ADOLESCENT OF ADULT RESPONSIBLE FOR THEM. GET LINE NUMBER FROM COLUMN 1 OF HOUSEHOLD SCHEDULE.	NAME _____ RELATIONSHIP TO THE ADOLESCENT _____ [ ][ ] (RECORD '00' IF NOT LISTED)	NAME _____ RELATIONSHIP TO THE ADOLESCENT _____ [ ][ ] (RECORD '00' IF NOT LISTED)	NAME _____ RELATIONSHIP TO THE ADOLESCENT _____ [ ][ ] (RECORD '00' IF NOT LISTED)

PARENTAL/RESPONSIBLE ADULT CONSENT FOR ANEMIA TEST

PARENT—RESP ADULT CONSENT

217	ASK CONSENT FOR ANEMIA TEST FROM PARENT/ADULT.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you and (NAME OF MINOR) right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes or no. It is up to you to decide. Will you allow (NAME OF MINOR) to take the anemia test?		
218	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 233) NOT PRESENT/OTHER . . . . . 3 (SKIP TO 233)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 233) NOT PRESENT/OTHER . . . . . 3 (SKIP TO 233)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 233) NOT PRESENT/OTHER . . . . . 3 (SKIP TO 233)

WEIGHT, HEIGHT, AND HEMOGLOBIN MEASUREMENT FOR WOMEN AGE 15-49

		WOMAN 1	WOMAN 2	WOMAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____

MINOR RESPONDENT CONSENT FOR ANEMIA TEST

MINOR RESPONDENT CONSENT

219	ASK CONSENT FOR ANEMIA TEST FROM RESPONDENT.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after we take your blood. The blood will be tested for anemia immediately, and the result will be told to you and (NAME OF PARENT/RESPONSIBLE ADULT) right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes or no. It is up to you to decide. Will you take the anemia test?		
220	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED MINOR RESPONDENT . . . . . 1 REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 233) NOT PRESENT/OTHER . . . . . 3 (SKIP TO 233)	GRANTED MINOR RESPONDENT . . . . . 1 REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 233) NOT PRESENT/OTHER . . . . . 3 (SKIP TO 233)	GRANTED MINOR RESPONDENT . . . . . 1 REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 233) NOT PRESENT/OTHER . . . . . 3 (SKIP TO 233)
220A	CHECK 226 IN WOMAN'S QUESTIONNAIRE OR ASK: Are you pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

229	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THOSE FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST.			
231	RECORD HEMOGLOBIN LEVEL HERE AND IN ANEMIA PAMPHLET.	G/DL . . . . . [ ][ ].[ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . . . . . [ ][ ].[ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . . . . . [ ][ ].[ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996
233	GO BACK TO 202 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE WOMEN, END INTERVIEW.			

FIELDWORKER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING BIOMARKERS

SUPERVISOR'S OBSERVATIONS

EDITOR'S OBSERVATIONS

NIGERIA DEMOGRAPHIC AND HEALTH SURVEY 2018
FIELDWORKER QUESTIONNAIRE

NIGERIA
NATIONAL POPULATION COMMISSION

LANGUAGE OF QUESTIONNAIRE ENGLISH

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
100	What is your name?	NAME _____	
101	RECORD FIELDWORKER NUMBER	NUMBER . . . . . [ ][ ][ ][ ]	

INSTRUCTIONS

Information on all Nigeria DHS field workers is collected as part of the Nigeria DHS survey. Please fill out the questions below. The information you provide will be part of the survey data file; however, your name will be removed and will not be part of the data file. Thank you for providing the information needed.

102	In what state do you live?	ABIA . . . . . 01 ADAMAWA . . . . . 02 AKWA IBOM . . . . . 03 ANAMBRA . . . . . 04 BAUCHI . . . . . 05 BAYELSA . . . . . 06 BENUE . . . . . 07 BORNO . . . . . 08 CROSS RIVER . . . . . 09 DELTA . . . . . 10 EBONYI . . . . . 11 EDO . . . . . 12 EKITI . . . . . 13 ENUGU . . . . . 14 FCT-ABUJA . . . . . 15 GOMBE . . . . . 16 IMO . . . . . 17 JIGAWA . . . . . 18 KADUNA . . . . . 19 KANO . . . . . 20 KATSINA . . . . . 21 KEBBI . . . . . 22 KOGI . . . . . 23 KWARA . . . . . 24 LAGOS . . . . . 25 NASARAWA . . . . . 26 NIGER . . . . . 27 OGUN . . . . . 28 ONDO . . . . . 29 OSUN . . . . . 30 OYO . . . . . 31 PLATEAU . . . . . 32 RIVERS . . . . . 33 SOKOTO . . . . . 34 TARABA . . . . . 35 YOBE . . . . . 36 ZAMFARA 37	
103	Do you live in a city, town, or rural area?	CITY . . . . . 1 TOWN . . . . . 2 RURAL 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
104	How old are you? RECORD AGE IN COMPLETED YEARS.	AGE . . . . . [ ][ ]	
105	Are you male or female?	MALE . . . . . 1 FEMALE 2	
106	What is your current marital status?	CURRENTLY MARRIED . . . . . 1 LIVING WITH A MAN/WOMAN . . . . . 2 WIDOWED . . . . . 3 DIVORCED . . . . . 4 SEPARATED . . . . . 5 NEVER MARRIED OR LIVED WITH A MAN/WOMAN 6	
107	How many living children do you have? INCLUDE ONLY CHILDREN WHO ARE YOUR BIOLOGICAL CHILDREN.	LIVING CHILDREN . . . . . [ ][ ]	
108	Have you ever had a child who died?	YES . . . . . 1 NO 2	
109	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER 3	
110	What is the highest class/year you completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	CLASS/YEAR . . . . . [ ][ ]	
111	What is your religion?	CATHOLIC . . . . . 01 OTHER CHRISTIAN . . . . . 02 ISLAM . . . . . 03 TRADITIONALIST . . . . . 04 NO RELIGION . . . . . 95 OTHER _____ 96 (SPECIFY)	
112	What is your ethnicity?	ETHNICITY _____ [ ][ ]	
113	What languages can you speak? RECORD ALL LANGUAGES YOU CAN SPEAK.	ENGLISH . . . . . A HAUSA . . . . . B YORUBA . . . . . C IGBO . . . . . D URHOBO . . . . . E IBIBIO . . . . . F EDO . . . . . G FULFULDE . . . . . H KANURI . . . . . I OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
114	What is your mother tongue/native language (language spoken at home growing up)?	ENGLISH . . . . . 01 HAUSA . . . . . 02 YORUBA . . . . . 03 IGBO . . . . . 04 URHOBO . . . . . 05 IBIBIO . . . . . 06 EDO . . . . . 07 FULFULDE . . . . . 08 KANURI . . . . . 09 OTHER _____ 96 (SPECIFY)	
115	Have you ever worked on a DHS survey prior to this one?	YES . . . . . 1 NO 2	
116	Have you ever worked on any other survey prior to this one (not a DHS)?	YES . . . . . 1 NO 2	
117	Were you already working for the National Population Commission (NPC) at the time you were employed to work on this DHS?	YES . . . . . 1 NO 2	→ 119
118	Are you a permanent or temporary employee of the National Population Commission (NPC)?	PERMANENT . . . . . 1 TEMPORARY 2	
119	If you have comments, please write them here.		

ADDITIONAL DHS PROGRAM RESOURCES

The DHS Program Website – Download free DHS reports, standard documentation, key indicator data, and training tools, and view announcements.	DHSprogram.com
STATcompiler – Build custom tables, graphs, and maps with data from 90 countries and thousands of indicators.	Statcompiler.com
DHS Program Mobile App – Access key DHS indicators for 90 countries on your mobile device (Apple, Android, or Windows).	Search DHS Program in your iTunes or Google Play store
DHS Program User Forum – Post questions about DHS data, and search our archive of FAQs.	userforum.DHSprogram.com
Tutorial Videos – Watch interviews with experts and learn DHS basics, such as sampling and weighting, downloading datasets, and how to read DHS tables.	www.youtube.com/DHSProgram
Datasets – Download DHS datasets for analysis.	DHSprogram.com/Data
Spatial Data Repository – Download geographically-linked health and demographic data for mapping in a geographic information system (GIS).	spatialdata.DHSprogram.com

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