Levels & Trends in
Child Mortality

Report 2022

Estimates developed by the
United Nations Inter-agency Group
for Child Mortality Estimation

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CONTENTS

CHILD, ADOLESCENT AND YOUTH MORTALITY: A SNAPSHOT

- **In 2021, 5 million children died before turning 5 years old.** Many of these tragedies occurred because children were deprived of their basic right to quality health care, vaccinations, proper food and clean water and sanitation. Too many children continue to die because efforts to address preventable communicable and infectious diseases remain inadequate.

- **An estimated 2.1 million children, adolescents and youth aged 5–24 years died that same year.** Over half of these deaths occured among adolescents and youth aged 15–24 years. These losses are not only unacceptable on a personal level, but also represent an unnecessary setback to development. Focused measures are needed to ensure the survival of the most vulnerable children, adolescents and youth, to end preventable deaths and to deliver the promise of a healthy adulthood.

- **Children around the world face vastly different chances of survival.** Globally, the under-five mortality rate was 38 deaths per 1,000 live births in 2021, but in sub-Saharan Africa, the rate was 74 deaths per 1,000 live births. In low-income countries, the 2021 under-five mortality rate was 67 deaths per 1,000 live births, versus just 5 deaths per 1,000 live births in high-income countries. Children and youth older than 5 years old also face the highest probability of dying in sub-Saharan Africa.

- **More children and youth died in sub-Saharan Africa and Southern Asia than all other regions in 2021.** More than 80 per cent of under-five deaths and about 70 per cent of all deaths among 5–24-year-olds occurred in sub-Saharan Africa and Southern Asia. This unjust burden must be recognized, prioritized and addressed.

- **The first 28 days of life remain the most vulnerable period for child survival.** In 2021, approximately 2.3 million children died during the first month of life – or about 6,400 babies every day. These deaths constituted nearly 47 per cent of the under-five deaths that took place that same year. Children in sub-Saharan Africa continue to face the greatest risk of dying during the neonatal period.

- **Renewed focus is needed to address mortality among children aged 1–59 months.** Children in this age group accounted for 2.7 million of 2021's under-five deaths. Moreover, that burden is not equitably shared around the world: Over 40 per cent of all under-five deaths globally in 2021 were among children aged 1–59 months in sub-Saharan Africa and Southern Asia.

- **Conflict and emergencies – including the COVID-19 pandemic – continue to threaten the survival of children.** The under-five mortality rate in the 37 countries classified as fragile and conflict-affected situations was triple the rate in all other countries. And though available data on the impact of COVID-19 show no systematic evidence of excess child mortality, this area will require continued monitoring given

limited data and the pandemic's potential impact on access to health care and intervention provision.

- **Persistent data gaps are limiting efforts to end preventable child deaths.** Quality data are vital to monitoring the survival of children during the neonatal period, the remainder of the under-five period, throughout adolescence and into early adulthood. Investing in data collection mechanisms and systems – particularly in conflict-affected situations – is an essential component of realizing children's rights and achieving the SDGs.

- **Without urgent action, 54 countries will not meet the under-five mortality target by 2030 and an even larger number – 63 countries – will miss the neonatal mortality target.** Most countries that are off track to meet the SDG target on under-five mortality are in sub-Saharan Africa or classified as low- or lower-middle-income countries. Increased investment is required across all ages – from the neonatal period through young adulthood – to reduce the number of these deaths, including a renewed focus on children aged 1–59 months. Ending preventable deaths is a critical step to upholding every child's right to survive and thrive.

Introduction

Child survival is a critical marker of a thriving society. This was recognized by the international community in the Sustainable Development Goals (SDGs),[1] which call for all countries to reach by 2030 an under-five mortality rate (U5MR) – i.e., the probability a newborn would die before reaching age 5 expressed per 1,000 live births – of 25 or fewer deaths per 1,000 live births, and a neonatal mortality rate (NMR) – i.e., the probability a newborn would die before reaching age 28 days expressed per 1,000 live births – of 12 or fewer deaths per 1,000 live births. The enshrinement of these targets into the global sustainable development agenda speaks to the importance of these ages as foundational to a healthy life. Neonatal mortality, as part of under-five mortality, gets particular focus due to the substantial portion of children that die in the brief period just after birth.

In 2021, there were an estimated 5 million deaths of children under age 5. Sadly, this devastating loss of life was mostly preventable with widespread and effective interventions like improved care around the time of birth, vaccination, nutritional supplementation and water and sanitation programmes. This startling and preventable burden of child deaths also raises an alarm regarding achievement of the SDGs: Without urgent action to reduce under-five mortality, more than 50 countries will not meet the under-five mortality target by 2030 and more than 60 countries will miss the neonatal mortality target.

Ending every preventable child death

The global community must intensify its efforts to end all preventable deaths of children, wherever they are and however old they are, by targeting age- and cause-specific interventions to the most vulnerable children. Elimination of preventable under-five deaths can be broken down into two critical windows of opportunity: the first four weeks after birth and the remaining 59 months before age 5. While the first window is captured in the SDG NMR target – as newborns are among the most vulnerable groups and require intensified quality intrapartum care and essential newborn care – the second window, from 1 month of age to 59 months of age, is not captured in a separate target, but rather coupled with neonatal mortality in the U5MR target. As such, the mortality experiences of children in this older age group are often overlooked. There is, however, an enormous amount of death to address among these children: 2.7 (2.5–3.0) million children aged 1–59 months died in 2021 alone, more than half the under-five deaths in that year. These children are vulnerable to different causes of death and ill health relative to the neonatal period, requiring different, targeted interventions. In order to call attention to the mortality risks carried by this age group, this year's *Levels & Trends in Child Mortality* report includes additional analysis for children aged 1–59 months.

In addition, there is considerable work to be done in preventing the deaths of children, adolescents and youth beyond age 5. An estimated 2.1 million children, adolescents and youth aged 5–24 years died in 2021, a tragic loss to millions of families and a staggering depletion of global potential. Increased investment is still required at these ages to reduce the number of these deaths and ensure young people are given the chance for a healthy adulthood.

Continuing impacts of COVID-19

The goal of ending preventable deaths of children entirely is hindered by numerous threats to child health and survival, not least of which is the still-unfolding COVID-19 pandemic. Families, children and governments around the world

continue to be challenged by the reverberations of the pandemic, such as the continued loss of life, disruptions to health care systems and economic uncertainty. Fortunately, data available as of October 2022 continue to show a very mild direct mortality impact of COVID-19 on child and youth mortality.[2] Still, indirect mortality among children and youth resulting from obstacles like exhausted health care systems, interrupted vital interventions and services like vaccination and nutrition, and household income loss remain of great concern to the global public health community. Notably, disruptions to certain interventions like vaccination or nutrition may particularly affect the 1–59-months portion of under-five mortality, because children in this age group tend to be more susceptible to infectious disease as a cause of death relative to older ages. These effects may not be visible for some time.

While global data remain sparse and non-representative, the United Nations Inter-agency Group for Child Mortality Estimation (UN IGME) has collected national and subnational data to assess any direct or indirect mortality impact of the pandemic for more than 110 countries or areas for 2020 and over 80 countries or areas for 2021; this dataset includes data from health management information systems (HMIS) in

some low- and middle-income countries. Based on these data and the recommendations of its Technical Advisory Group, the UN IGME has not made additional adjustments for COVID-19-related mortality (see Box 1). Estimates in this report are based on empirical data up to 2021, where available, or extrapolation to 2021 by continuing recent trends from the most recent empirical data point available.

Data to save lives

Timely, high-quality and disaggregated data – which allow the most vulnerable children to be identified – are critical to achieving the goal of ending preventable deaths of children. Yet as the COVID-19 pandemic has put into stark light, data of this nature are more the exception than the rule: Just 36 countries have high-quality nationally representative data on under-five mortality for 2021, while about half the world's countries have no data on child mortality in the last five years. These substantial data gaps pose enormous challenges to policy- and decision-making and prolong the need for modelling mortality from what little data are available. To improve the availability, quality and timeliness of data for monitoring the health and survival situation of children and youth, much greater investments must be made to strengthen data systems.

Under-five mortality and SDG assessment

In 2021, 5.0 (4.8–5.6)[3] million children died before reaching their fifth birthday. This is an immense, intolerable and mostly preventable loss of life. Over half of these deaths, 2.7 (2.5–3.0) million, occurred among children aged 1–59 months, while the remainder, 2.3 (2.2–2.6) million, occurred in just the first month of life (see Figure 1). The fact that 5 million children died in 2021 before turning 5 is alarming given the availability of knowledge and interventions to prevent these deaths. Furthermore, this period saw pandemic-driven disruptions to interventions like vaccination and nutrition programmes, the effects of which on mortality and health may not become apparent for some time. It is critical to expand coverage of interventions and improve the quality of child health services to achieve an end to preventable under-five deaths.

FIGURE 1 Global mortality rates and number of deaths, by age, 2021
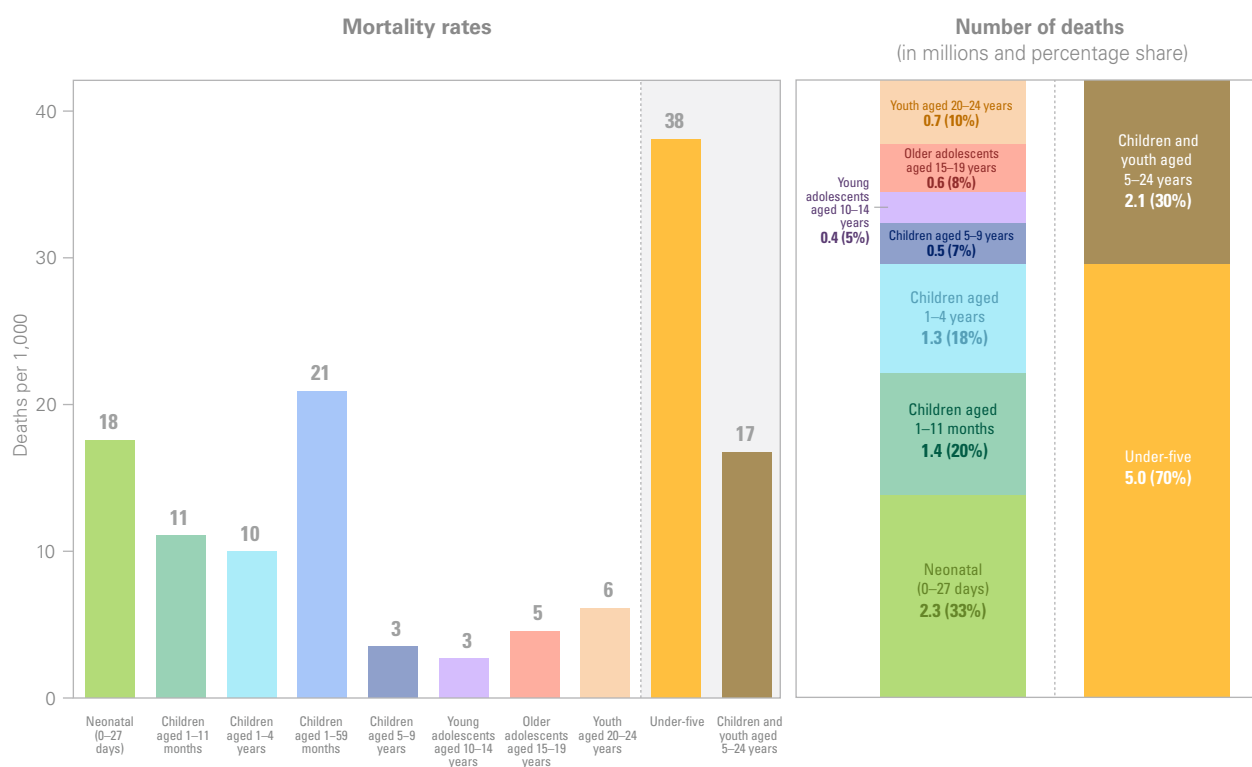
Note: All figures are based on unrounded numbers.

Children continue to face widely differing chances of survival based on where they are born. Globally, the U5MR fell to 38 (36–42)[4] deaths per 1,000 live births in 2021. By contrast, children born in sub-Saharan Africa are subject to the highest risk of childhood death in the world with a 2021 U5MR of 74 (67–86) deaths per 1,000 live births – 15 times higher than the risk for children in Europe and Northern America and 19 times higher than in the region of Australia and New Zealand (see Table 1 and Figure 2).[5]

Children born in poorer countries are more likely to die before reaching age 5. Children born in low-income countries, where the 2021 U5MR was 67 (62–80) deaths per 1,000 live births, were 14 times more likely to die before reaching age 5 than children born in high-income countries, where the 2021 U5MR was just 5 (5–5) deaths per 1,000 live births. At the country level, U5MRs in 2021 ranged from 2 deaths per 1,000 live births to 115 deaths per 1,000 live births, 67 times higher than in the lowest-mortality country (see Map 1).

TABLE 1   **Levels and trends in the under-five mortality rate, by Sustainable Development Goal region, 1990–2021**

Region	Under-five mortality rate (deaths per 1,000 live births)							Decline (per cent)	Annual rate of reduction (per cent)			
	1990	1995	2000	2005	2010	2015	2021	1990–2021	1990–2021	1990–1999	2000–2009	2010–2021
Sub-Saharan Africa	181	172	153	125	103	87	74	59	2.9	1.5	4.0	3.0
Northern Africa and Western Asia	76	62	50	40	33	29	26	66	3.5	4.0	4.3	2.2
Northern Africa	86	72	59	47	39	33	28	67	3.6	3.7	4.1	2.9
Western Asia	66	54	43	34	27	26	23	65	3.4	4.3	4.8	1.5
Central and Southern Asia	125	109	91	74	60	47	35	72	4.1	3.1	4.2	4.8
Central Asia	70	73	61	43	30	23	18	74	4.4	1.1	7.1	4.6
Southern Asia	127	110	92	75	61	48	36	71	4.0	3.2	4.1	4.7
Eastern and South-Eastern Asia	57	49	39	29	22	17	15	74	4.4	3.4	6.1	3.6
Eastern Asia	51	44	34	23	15	10	7	87	6.5	3.6	8.3	7.2
South-Eastern Asia	72	59	48	39	33	28	23	68	3.6	4.0	3.9	3.1
Latin America and the Caribbean	55	43	33	26	23	18	16	71	4.0	5.0	4.5	3.2
Oceania	33	31	31	29	26	23	20	39	1.6	0.8	1.7	2.2
Australia and New Zealand	10	7	6	6	5	4	4	59	2.9	4.2	2.3	2.3
Oceania (exc. Australia and New Zealand)	71	65	61	57	51	46	39	45	1.9	1.5	1.6	2.5
Europe and Northern America	14	12	10	8	7	6	5	64	3.3	3.8	3.4	2.9
Europe	16	13	11	8	7	6	4	72	4.1	4.0	4.5	3.9
Northern America	11	9	8	8	7	7	6	44	1.9	2.9	1.3	1.5
World	**93**	**87**	**76**	**63**	**51**	**43**	**38**	**59**	**2.9**	**1.8**	**4.0**	**2.7**

Note: All calculations are based on unrounded numbers.

FIGURE 2

Under-five mortality rate, by Sustainable Development Goal region, 1990, 2000 and 2021
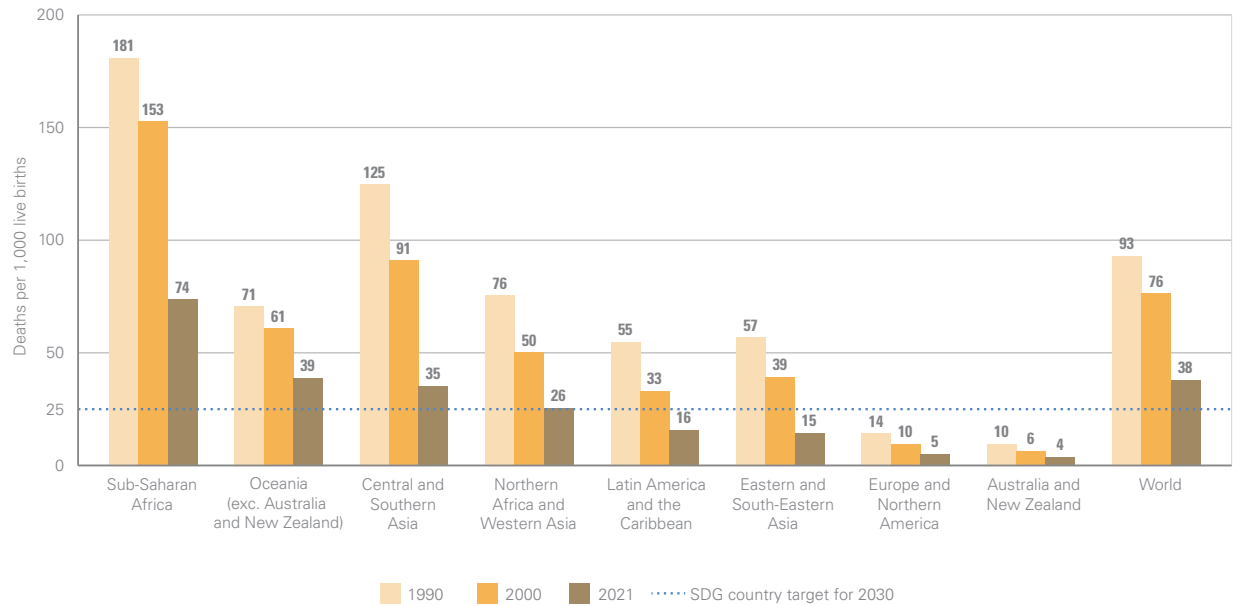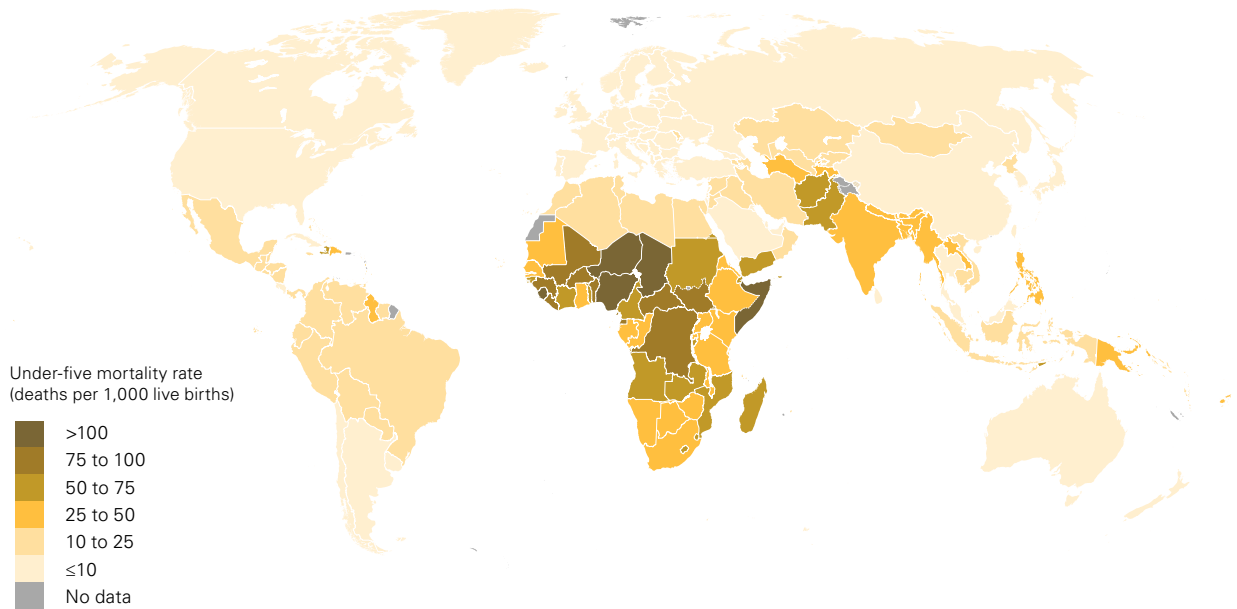
Deaths per 1,000 live births

Region	1990	2000	2021
Sub-Saharan Africa	181	153	74
Oceania (exc. Australia and New Zealand)	71	61	39
Central and Southern Asia	125	91	35
Northern Africa and Western Asia	76	50	26
Latin America and the Caribbean	55	33	16
Eastern and South-Eastern Asia	57	39	15
Europe and Northern America	14	10	5
Australia and New Zealand	10	6	4
World	93	76	38

1990   2000   2021   ······· SDG country target for 2030

MAP 1

Under-five mortality rate, by country, 2021

Under-five mortality rate
(deaths per 1,000 live births)

- >100
- 75 to 100
- 50 to 75
- 25 to 50
- 10 to 25
- ≤10
- No data

Note: Categories are based on unrounded numbers; value ranges are greater than the lower bound number and less than or equal to the upper bound number. This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

Divergent chances of survival start from the earliest ages. While the global NMR in 2021 was 18 (17–19) deaths per 1,000 live births, regionally, sub-Saharan Africa had the highest NMR in the world at 27 (24–32) deaths per 1,000 live births: A child born in sub-Saharan Africa is 11 times more likely to die in the first month of life than a child born in the region of Australia and New Zealand, which has the lowest regional NMR in the world (see Table 2 and Figure 3). Sub-Saharan Africa is followed by Central and Southern Asia at 22 (20–24) deaths per 1,000 live births. Notably, when disaggregated by subregion, the Central and Southern Asia region's high NMR is primarily driven by the Southern Asia subregion, with 22 (20–25) deaths per 1,000 live births in 2021 compared to Central Asia's 2021 NMR of 10 (6–13) deaths per 1,000 live births. The risk of death in the first month of life for a child born in a high-income country was one tenth the risk for a child born in a low-income country. At the country level, the risk of dying during the first 28 days of life for a child born in the highest-mortality country was about 53 times higher than in the lowest-mortality country, with NMRs in 2021 ranging from less than 1 death per 1,000 live births to almost 40 deaths per 1,000 live births (see Map 2).

Inequity in survival continues for children aged 1–59 months. The global mortality rate among children aged 1–59 months of 21 (19–24) deaths per 1,000 children aged 28 days in 2021 obscures wide-ranging regional and economic variation in the risk of death in this age group (see Table 3 and Figure 3). Children aged 1–59 months in sub-Saharan Africa face the greatest risk, with a 1–59-months mortality rate of 48 (43–57) deaths

per 1,000 children aged 28 days, more than twice the global rate and 32 times higher than the rate in the region of Australia and New Zealand (see Table 3 and Figure 3). Unlike regional NMR, Oceania (excluding Australia and New Zealand) has the second-highest 1–59-months rate at 20 (14–30) deaths per 1,000 children aged 28 days. The deaths burden in this region for the 1–59-months age group, however, is far smaller than that of Central and Southern Asia – the region with the third-highest rate of 14 (12–15) deaths per 1,000 children aged 28 days – due to the smaller number of live births in Oceania (excluding Australia and New Zealand). Country-level mortality rates for the 1–59-months age group ranged from less than 1 death per 1,000 children aged 28 days to 84 deaths per 1,000 children aged 28 days, a 96-fold difference (see Map 3). Because the rate for the 1–59-months age group is a large part of U5MR, the two rates show different levels but generally similar trends over time; regions with relatively lower U5MR also see relatively lower mortality rates for 1–59-month-olds (see Figure 3). Among the regions with the highest U5MR, the 1–59-months rate typically exceeds the NMR; in other words, as the level of U5MR declines, more under-five deaths occur in the neonatal period due to the more rapid decline of 1–59-months mortality relative to neonatal mortality. One notable exception is Central and Southern Asia, which has an unusually high proportion of deaths among newborns given the level of under-five mortality. Indeed, the NMR in this region has exceeded the 1–59-months rate since 2004 due to the more rapid decline in mortality among children aged 1–59 months relative to neonatal mortality since 1990.

FIGURE
3

Under-five, 1–59-months and neonatal mortality rates, by Sustainable Development Goal region, 1990–2021
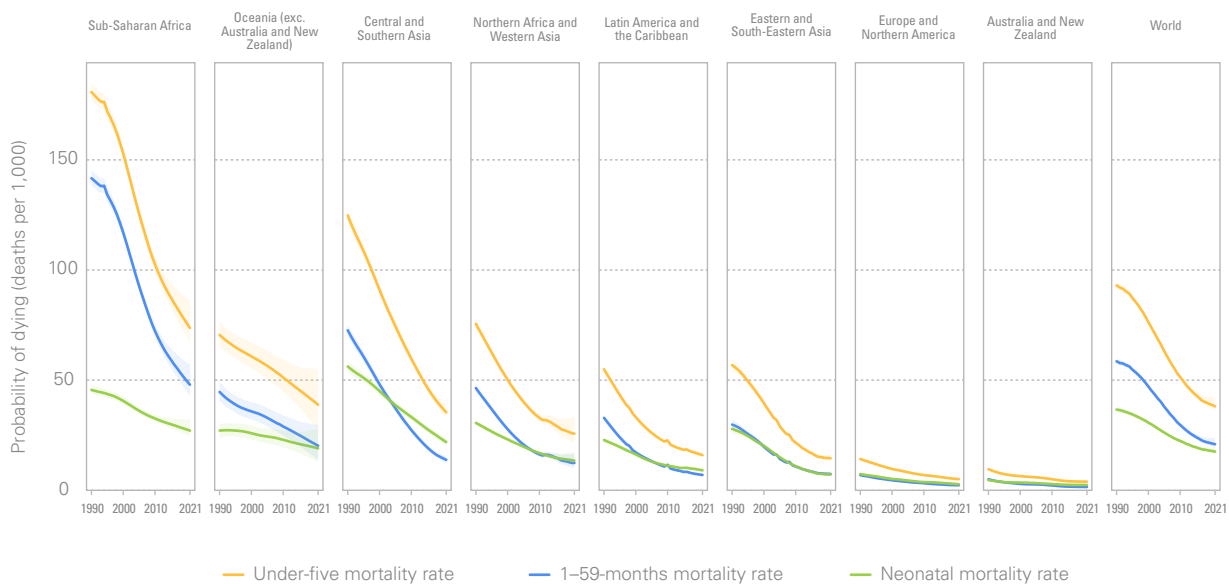
Note: All figures are based on unrounded numbers.

Communicable and infectious diseases continue to be main causes of under-five deaths. The leading causes of preventable deaths of children under 5 years old globally include premature birth and birth complications (such as birth asphyxia/trauma), acute respiratory infections, diarrhoea and malaria.[6] The differences in neonatal and 1–59-months mortality rates are due to different risk factors for the two age groups: Neonatal deaths are associated with causes of death related to antenatal care and the birth process, while the age period beyond the first month but before age 5 is more impacted by communicable disease in low- and middle-income countries. Injuries (unintentional and intentional) become the more prominent cause of preventable mortality among older children, adolescents and youth aged 5–24 years.[7] These differing causes of deaths by age warrant separate sets of interventions for addressing mortality and morbidity in these age groups.

TABLE 2

Levels and trends in the neonatal mortality rate, by Sustainable Development Goal region, 1990–2021

Region	Neonatal mortality rate (deaths per 1,000 live births)							Decline (per cent)	Annual rate of reduction (per cent)			
	1990	1995	2000	2005	2010	2015	2021	1990–2021	1990–2021	1990–1999	2000–2009	2010–2021
Sub-Saharan Africa	46	44	41	36	33	30	27	41	1.7	1.1	2.2	1.7
Northern Africa and Western Asia	31	27	23	20	17	15	13	56	2.6	2.8	3.2	2.1
Northern Africa	34	30	26	23	20	17	15	54	2.5	2.4	2.8	2.3
Western Asia	28	24	20	17	14	13	11	58	2.8	3.1	3.8	1.8
Central and Southern Asia	56	51	45	39	33	28	22	61	3.0	2.1	3.0	3.8
Central Asia	28	29	27	22	16	12	10	66	3.4	0.1	5.0	4.6
Southern Asia	57	52	46	39	34	29	22	61	3.0	2.2	2.9	3.7
Eastern and South-Eastern Asia	28	25	20	15	11	8	7	74	4.4	3.1	6.1	3.8
Eastern Asia	28	25	20	13	8	5	3	89	7.0	3.3	9.0	8.4
South-Eastern Asia	28	24	21	18	16	14	12	58	2.8	2.8	2.6	2.9
Latin America and the Caribbean	23	20	16	13	11	10	9	60	3.0	3.3	3.9	2.0
Oceania	13	13	14	13	12	11	10	23	0.9	-0.3	1.3	1.4
Australia and New Zealand	5	4	4	3	3	2	2	48	2.1	2.9	2.1	1.5
Oceania (exc. Australia and New Zealand)	27	27	26	24	23	21	19	30	1.1	0.4	1.2	1.7
Europe and Northern America	7	6	5	4	4	3	3	62	3.2	3.6	3.3	2.7
Europe	8	7	6	4	4	3	2	70	3.9	3.9	4.6	3.3
Northern America	6	5	5	4	4	4	3	42	1.7	2.2	1.1	2.0
World	**37**	**34**	**31**	**26**	**22**	**20**	**18**	**52**	**2.4**	**1.6**	**3.2**	**2.2**

Note: All calculations are based on unrounded numbers.

TABLE 3

Levels and trends in the 1–59-months mortality rate, by Sustainable Development Goal region, 1990–2021

Region	1–59-months mortality rate (deaths per 1,000 children aged 28 days)							Decline (per cent)	Annual rate of reduction (per cent)			
	1990	1995	2000	2005	2010	2015	2021	1990–2021	1990–2021	1990–1999	2000–2009	2010–2021
Sub-Saharan Africa	142	134	117	93	72	59	48	66	3.5	1.7	4.8	3.7
Northern Africa and Western Asia	46	37	28	21	16	15	12	73	4.3	5.1	5.5	2.5
Northern Africa	54	43	33	25	20	16	13	75	4.5	4.7	5.3	3.6
Western Asia	39	31	23	17	13	14	11	71	4.0	5.3	5.8	1.1
Central and Southern Asia	73	61	48	37	27	19	14	81	5.4	4.0	5.5	6.2
Central Asia	44	45	35	21	14	11	9	80	5.2	1.7	9.3	4.5
Southern Asia	74	61	49	38	28	20	14	81	5.3	4.1	5.4	6.2
Eastern and South-Eastern Asia	30	26	20	14	11	9	7	75	4.5	3.8	6.2	3.4
Eastern Asia	24	20	15	10	7	5	4	84	6.0	4.1	7.5	6.1
South-Eastern Asia	46	35	28	22	17	14	12	74	4.4	4.9	5.1	3.4
Latin America and the Caribbean	33	24	17	13	12	8	7	79	5.0	6.5	5.2	4.6
Oceania	20	18	17	16	14	12	10	50	2.2	1.6	2.1	2.9
Australia and New Zealand	5	4	3	3	2	2	1	70	3.9	5.6	2.5	3.5
Oceania (exc. Australia and New Zealand)	45	39	36	33	29	25	20	55	2.6	2.3	2.0	3.3
Europe and Northern America	7	6	5	4	3	3	2	67	3.6	4.2	3.4	3.0
Europe	8	6	5	4	3	3	2	74	4.4	4.1	4.3	4.6
Northern America	5	5	4	3	3	3	3	47	2.0	3.8	1.7	0.9
World	**59**	**55**	**47**	**38**	**30**	**24**	**21**	**64**	**3.3**	**2.0**	**4.6**	**3.2**

Note: All calculations are based on unrounded numbers.

MAP 2 — Neonatal mortality rate, by country, 2021
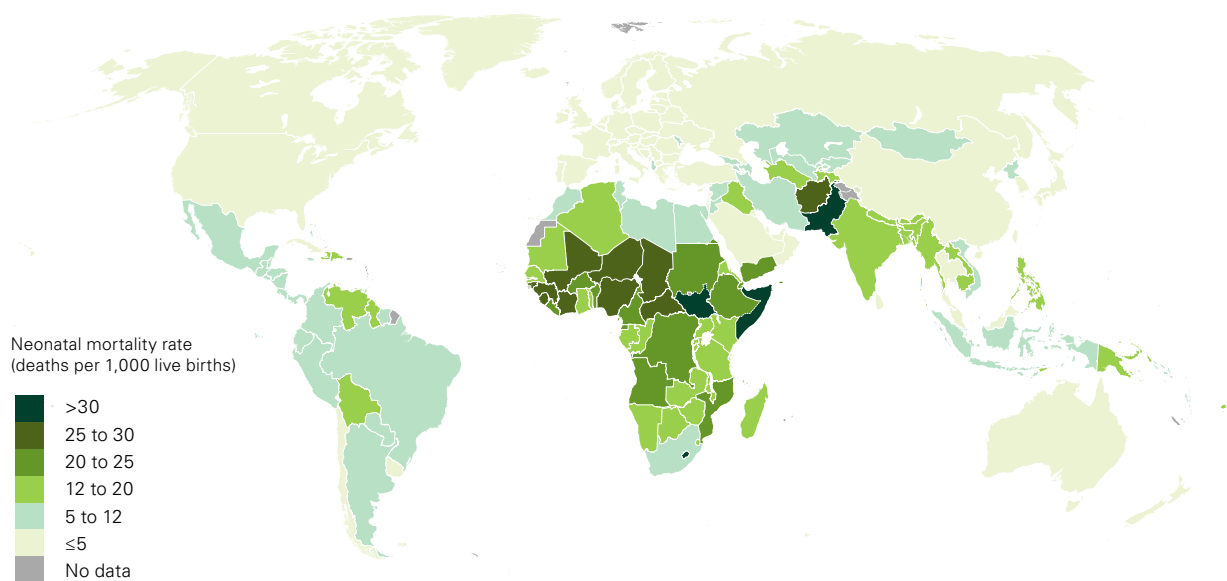
Neonatal mortality rate
(deaths per 1,000 live births)

- >30
- 25 to 30
- 20 to 25
- 12 to 20
- 5 to 12
- ≤5
- No data

Note: Categories are based on unrounded numbers; value ranges are greater than the lower bound number and less than or equal to the upper bound number. This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

MAP 3 — 1–59-months mortality rate, by country, 2021
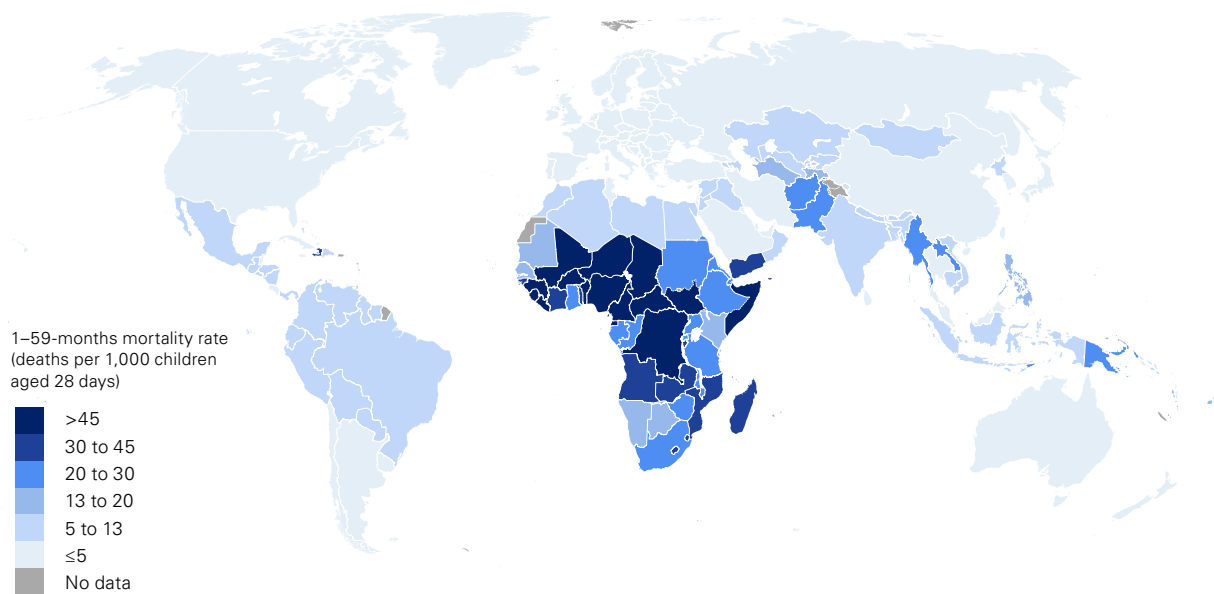
1–59-months mortality rate
(deaths per 1,000 children
aged 28 days)

- >45
- 30 to 45
- 20 to 30
- 13 to 20
- 5 to 13
- ≤5
- No data

Note: Categories are based on unrounded numbers; value ranges are greater than the lower bound number and less than or equal to the upper bound number. This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

More than 80 per cent of the global burden of child deaths falls on just two regions. While sub-Saharan Africa had just 29 per cent of global live births, the region accounted for 56 per cent of all under-five deaths in 2021, with 2.8 (2.6–3.3) million children dying before reaching their fifth birthday (see Table 4). The Southern Asia subregion suffered 1.3 (1.2–1.4) million under-five deaths in 2021 – about 26 per cent of the global total versus 27 per cent of live births in 2021. The Southern Asia subregion accounted for 98 per cent of the Central and Southern Asia region's under-five deaths in 2021.

Sub-Saharan Africa bears an outsized 1–59-months deaths burden. When broken down by two age groups – neonatal and 1–59 months – sub-Saharan Africa and Central and Southern Asia are the two regions with the greatest number of deaths (see Figure 4), with the Southern Asia subregion accounting for most of the deaths in the latter region. At 45 per cent (1.1 (1.0–1.3) million), sub-Saharan Africa leads in the share

of global neonatal deaths, followed by Southern Asia with a share of 35 per cent (0.8 (0.7–0.9 million) (see Table 5). Notably, neonatal deaths have stagnated at 1 million deaths annually in sub-Saharan Africa, even as NMR has declined, due to an increase in live births in the region in recent years.[8] Regional differences in the burden of child deaths become even more stark among children aged 1–59 months: Sub-Saharan Africa accounts for 65 per cent (1.8 (1.6–2.1) million) of all deaths for that age group globally, followed by Southern Asia with just 18 per cent (0.5 (0.4–0.5) million) of global 1–59-months deaths (see Table 6). Even though Southern Asia has unusually high neonatal mortality given its level of under-five mortality and thus the subregion's under-five deaths burden is concentrated in the neonatal period, roughly 1 in 10 under-five deaths globally occur among children aged 1–59 months in Southern Asia. Likewise, close to 1 in 3 under-five deaths globally were among children aged 1–59 months in sub-Saharan Africa.

FIGURE 4 Distribution of global under-five deaths, by region and age, 1990–2021
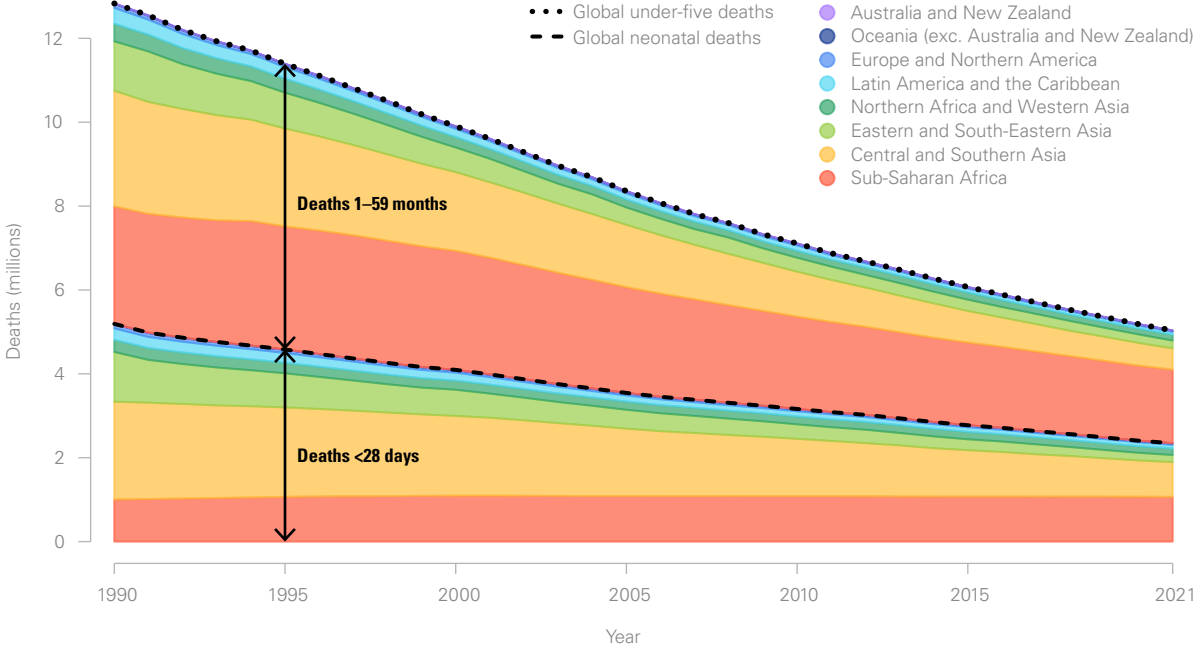
Note: While the Central and Southern Asia region is shown as a single regional category here, the under-five deaths burden is mostly borne by Southern Asia; in 2021, Southern Asia accounted for 98 per cent of the region's under-five deaths.

TABLE
4

Levels and trends in the number of deaths of children under age 5, by Sustainable Development Goal region, 1990–2021

Region	Number of under-five deaths (thousands)							Decline (per cent)	Share of global under-five deaths (per cent)			
	1990	1995	2000	2005	2010	2015	2021	1990–2021	1990	2000	2010	2021
Sub-Saharan Africa	3,806	4,001	3,930	3,608	3,287	3,048	2,822	26	29.7	39.7	46.2	56.1
Northern Africa and Western Asia	709	587	470	391	358	353	296	58	5.5	4.7	5.0	5.9
Northern Africa	399	323	258	220	209	198	167	58	3.1	2.6	2.9	3.3
Western Asia	310	264	212	170	150	155	128	59	2.4	2.1	2.1	2.5
Central and Southern Asia	5,090	4,467	3,780	3,093	2,437	1,856	1,336	74	39.7	38.2	34.3	26.5
Central Asia	111	106	74	53	45	38	32	71	0.9	0.8	0.6	0.6
Southern Asia	4,979	4,361	3,706	3,040	2,392	1,818	1,303	74	38.8	37.4	33.7	25.9
Eastern and South-Eastern Asia	2,362	1,668	1,211	864	679	529	356	85	18.4	12.2	9.5	7.1
Eastern Asia	1,509	977	664	417	298	207	97	94	11.8	6.7	4.2	1.9
South-Eastern Asia	854	692	547	447	381	322	258	70	6.7	5.5	5.4	5.1
Latin America and the Caribbean	650	507	382	288	244	195	155	76	5.1	3.9	3.4	3.1
Oceania	17	16	17	17	17	15	14	19	0.1	0.2	0.2	0.3
Australia and New Zealand	3	2	2	2	2	1	1	53	0	0	0	0
Oceania (exc. Australia and New Zealand)	14	14	15	15	15	14	12	11	0.1	0.1	0.2	0.2
Europe and Northern America	199	145	113	98	87	75	56	72	1.5	1.1	1.2	1.1
Europe	150	105	77	63	55	46	31	79	1.2	0.8	0.8	0.6
Northern America	49	40	36	35	32	29	25	49	0.4	0.4	0.5	0.5
World	12,832	11,393	9,903	8,357	7,109	6,070	5,034	61	100	100	100	100

Note: All calculations are based on unrounded numbers. Values 0 in the table are around 0.02.

TABLE
5

Levels and trends in the number of neonatal deaths, by Sustainable Development Goal region, 1990–2021

Region	Number of neonatal deaths (thousands)							Decline (per cent)	Neonatal deaths as a share of under-five deaths (per cent)			
	1990	1995	2000	2005	2010	2015	2021	1990–2021	1990	2000	2010	2021
Sub-Saharan Africa	1,004	1,066	1,093	1,087	1,085	1,075	1,067	-6	26	28	33	38
Northern Africa and Western Asia	290	252	219	197	190	179	155	46	41	47	53	53
Northern Africa	157	134	117	110	110	105	91	42	39	46	53	54
Western Asia	133	118	102	87	80	74	65	51	43	48	53	51
Central and Southern Asia	2,332	2,133	1,903	1,606	1,366	1,104	828	64	46	50	56	62
Central Asia	44	42	32	27	24	20	17	62	40	43	54	52
Southern Asia	2,288	2,091	1,870	1,579	1,341	1,084	811	65	46	50	56	62
Eastern and South-Eastern Asia	1,185	814	625	450	346	260	170	86	50	52	51	48
Eastern Asia	853	524	387	241	158	99	39	95	57	58	53	40
South-Eastern Asia	332	290	238	209	188	160	130	61	39	43	49	50
Latin America and the Caribbean	272	233	187	144	121	107	87	68	42	49	50	56
Oceania	7	7	7	8	8	7	7	0	41	45	47	51
Australia and New Zealand	1	1	1	1	1	1	1	41	49	55	57	62
Oceania (exc. Australia and New Zealand)	5	6	6	7	7	7	6	-11	39	44	46	49
Europe and Northern America	102	75	60	53	47	42	30	70	51	53	54	54
Europe	76	54	40	33	29	25	17	78	51	52	53	55
Northern America	26	21	20	20	18	17	13	48	53	56	56	54
World	5,191	4,580	4,095	3,545	3,162	2,774	2,345	55	40	41	44	47

Note: All calculations are based on unrounded numbers.

TABLE
6

Levels and trends in the number of 1–59-months deaths, by Sustainable Development Goal region, 1990–2021

Region	Number of 1–59-months deaths (thousands)							Decline (per cent)	1–59-months deaths as a share of under-five deaths (per cent)			
	1990	1995	2000	2005	2010	2015	2021	1990–2021	1990	2000	2010	2021
Sub-Saharan Africa	2,802	2,935	2,837	2,521	2,202	1,973	1,755	37	74	72	67	62
Northern Africa and Western Asia	419	335	251	194	168	174	140	67	59	53	47	47
Northern Africa	242	189	140	111	99	93	77	68	61	54	47	46
Western Asia	177	145	110	83	70	81	63	64	57	52	47	49
Central and Southern Asia	2,758	2,335	1,878	1,486	1,072	752	507	82	54	50	44	38
Central Asia	67	65	42	25	21	18	15	77	60	57	46	48
Southern Asia	2,691	2,270	1,836	1,461	1,051	734	492	82	54	50	44	38
Eastern and South-Eastern Asia	1,177	855	587	414	333	269	186	84	50	48	49	52
Eastern Asia	656	453	277	176	140	108	58	91	43	42	47	60
South-Eastern Asia	521	402	310	238	193	161	128	75	61	57	51	50
Latin America and the Caribbean	378	275	194	144	123	87	68	82	58	51	50	44
Oceania	10	9	9	9	9	8	7	32	59	55	53	49
Australia and New Zealand	2	1	1	1	1	1	1	64	51	45	43	38
Oceania (exc. Australia and New Zealand)	8	8	8	8	8	7	6	26	61	56	54	51
Europe and Northern America	97	70	53	45	40	33	26	74	49	47	46	46
Europe	74	51	37	30	26	21	14	81	49	48	47	45
Northern America	23	19	16	15	14	12	12	50	47	44	44	46
World	7,640	6,813	5,809	4,813	3,947	3,296	2,689	65	60	59	56	53

Note: All calculations are based on unrounded numbers.

Children living in fragile and conflict-affected situations are especially vulnerable. At 75 deaths per 1,000 live births in 2021, the U5MR in the 37 countries classified as fragile and conflict-affected situations[9] was three times higher than in all other countries.

If current trends continue, 54 countries will not meet the SDG target for under-five mortality. Of the 200 countries or territories analysed in this report, 133 have already met the SDG target on under-five mortality, and 13 countries are expected to do so by 2030. In the remaining 54 countries, however, the pace of mortality decline must be accelerated to meet the target on time. Of these 54, 37 countries will need to more than double their current rate of progress or reverse a recent increasing trend to achieve the target of 25 or fewer deaths per 1,000 live births by 2030 (see Figure 5).

Even more countries are at risk of missing the SDG target for neonatal mortality. To meet the neonatal mortality target by 2030, 63 countries will need to accelerate progress, with 55 countries needing to more than double their current rate of decline or reverse an increasing trend to meet the target on time (see Figure 5). Meanwhile, 11 countries are currently on track to meet the neonatal mortality target on time and 126 countries have already achieved the neonatal mortality target of 12 or fewer deaths per 1,000 live births.

Based on SDG targets for U5MR and NMR, 42 countries are off track to meet a hypothetical target for 1–59-months mortality by 2030. Based on the U5MR target of 25 deaths per 1,000 live births and the NMR target of 12 deaths per 1,000 live births, the corresponding 1–59-months mortality target for 2030 would be about 13 deaths per 1,000 children aged 28 days.[10] If countries were to meet both this hypothetical 1–59-months target and the neonatal target, the under-five target should also be met. Of the 200 countries analysed in this report, 140 have already achieved a 1–59-months rate below the hypothetical target and 18 more are set to do so by 2030.

Geographic and economic disparities in the risk of death for children threaten universal achievement of the SDGs. Nearly 75 per cent (40) of the 54 countries that are off track to meet the SDG target on under-five mortality are in sub-Saharan Africa (see Figure 5), 87 per cent (47) are classified as low- or lower-middle-income countries and about half (25) are classified as fragile and conflict-affected situations. In terms of the neonatal mortality target, 68 per cent (43) of the 63 countries at risk of missing the target are in sub-Saharan Africa, 81 per cent (51) are classified as low- or lower-middle-income and 41 per cent (26) are classified as fragile and conflict-affected situations.

FIGURE 5 Projected year to achieve the Sustainable Development Goal targets in neonatal mortality and under-five mortality if current trends continue in the countries that have not achieved the SDG targets
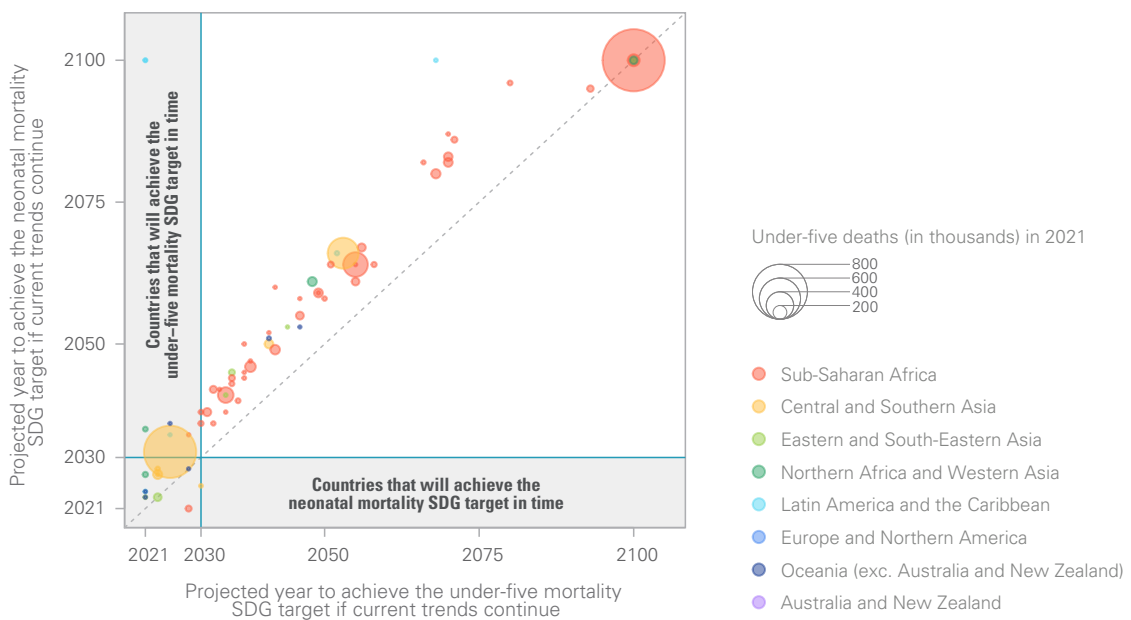
Note: All calculations are based on unrounded numbers. 'If current trends continue' refers to projecting the mortality rate to 2030 based on the annual rate of reduction for the period 2010–2021. See note 11 for further details.

Despite limited resources, several low- and middle-income countries have reduced under-five mortality by substantial amounts. While global under-five mortality declined by 59 per cent since 1990, several countries have managed to outpace that global decline despite relatively limited economic resources. Four low-income countries (Eritrea, Ethiopia, Malawi and Uganda) and 15 lower-middle-income countries, including Bangladesh, Mongolia and Uzbekistan, have reduced under-five mortality by more than 75 per cent since 1990, a remarkable achievement by any standard (see Figure 6). Eight more low-income countries reduced their U5MRs by more than two thirds since 1990. The progress of these individual countries demonstrates child mortality reduction is possible under varying economic settings.

FIGURE 6 **Percentage decline in U5MR in 1990–2021 against U5MR in 2021**
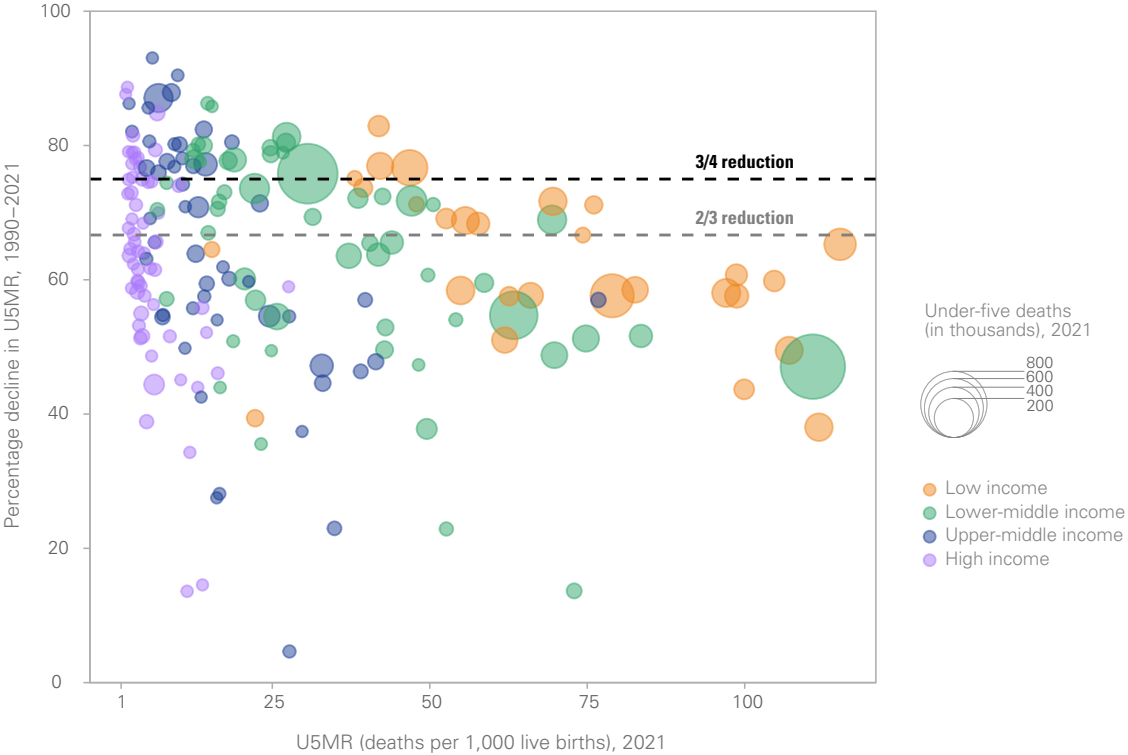
Note: National income classification follows the World Bank income classification, 2022. Five countries/territories with mortality estimates do not have income classification available. Details can be found at: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>, accessed August 2022.

Almost 10 million child deaths could be averted if countries at risk of missing the SDG target on under-five mortality accelerated progress to achieve it by 2030. On current trends,[11] about 40 million children younger than 5 will die before 2030, with just over half of these deaths occurring among those aged 1–59 months (i.e., just under half will occur in the neonatal period). Well over half of these 40 million deaths – 59 per cent (24 million) – will take place in sub-Saharan Africa, with another 24 per cent (9 million) occurring in Southern Asia. Meeting the SDG target in the 54 countries that are off track would avert 10 million under-five deaths between 2022 and 2030 (57 per cent of lives saved would be among children aged 1–59 months) and reduce the annual number of under-five deaths to 2.4 million in 2030 (see Figure 7). Even more lives could be saved – almost 24 million – if all countries were able to reach a U5MR equivalent to the average U5MR in high-income countries in 2021 of 5 deaths per 1,000 live births. Under this scenario, there would be just 630,000 under-five deaths in 2030.

FIGURE 7 Scenario-based projections of under-five and neonatal deaths to 2030

Under-five deaths

Neonatal deaths

Legend: UN IGME 2022 · Remaining at 2021 level · Continuing current trends · Achieving SDG target · Achieving high-income rate
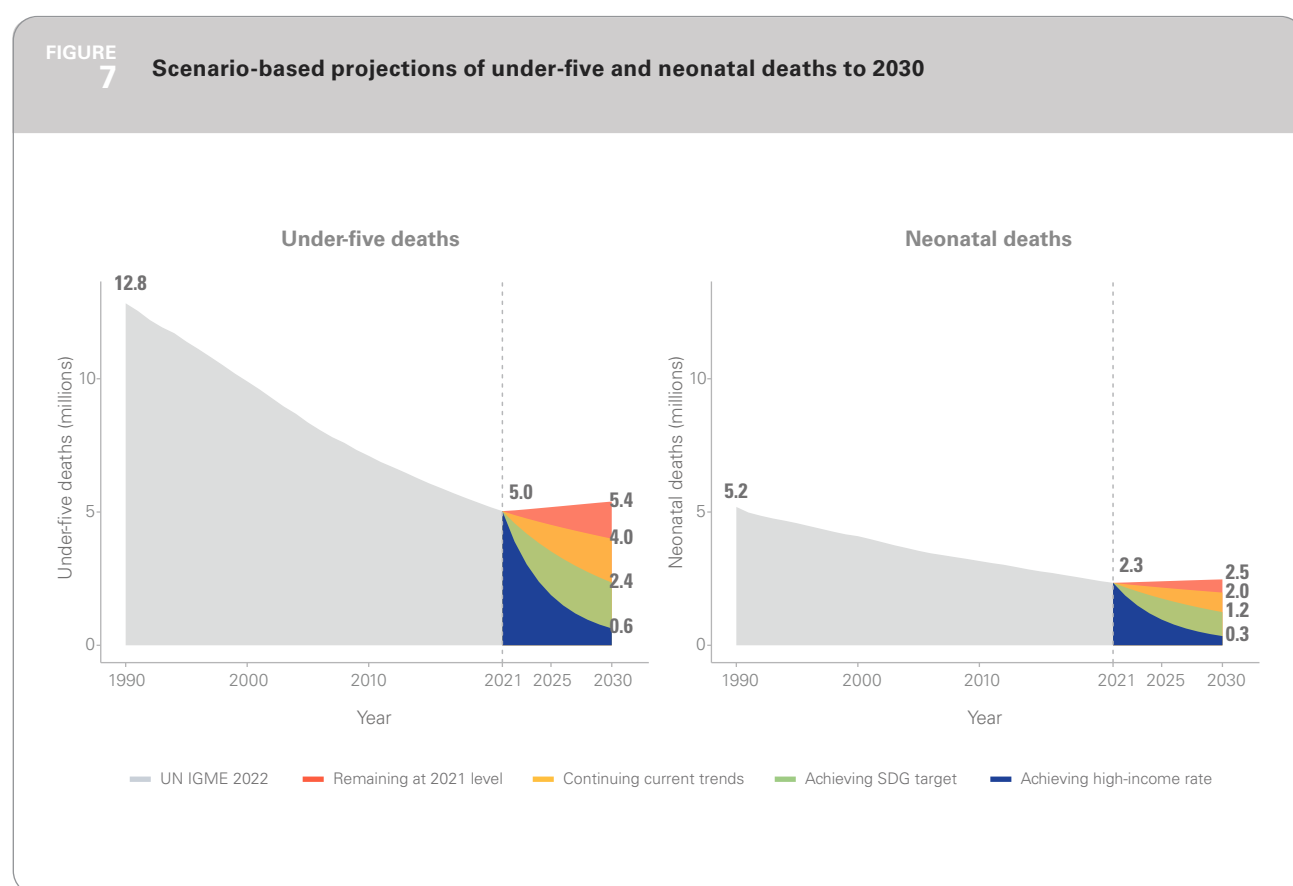
The number of countries showing gender disparities in under-five mortality has declined by almost 80 per cent. The estimated U5MR for girls in 2021 was 36 (34–40) deaths per 1,000 live births and for boys was 40 (38–45) deaths per 1,000 live births. In 2021, an estimated 2.3 (2.2–2.5) million girls and 2.7 (2.6–3.0) million boys died before reaching age 5 (see Figure 8).

On average, boys are expected to have a higher U5MR than girls. In some countries, the U5MR for girls is significantly higher than what would be expected based on global sex-ratio patterns. The number of countries showing higher-than-expected mortality for girls has fallen from 24 to 5 since 1990.

FIGURE 8

Under-five mortality rate and number of under-five deaths, by sex and Sustainable Development Goal region, 2021

Under-five mortality rate
(deaths per 1,000 live births)

Number of deaths
(in thousands)

Region	Female	Male
Sub-Saharan Africa	1,284	1,538
Oceania (exc. Australia and New Zealand)	5	7
Central and Southern Asia	628	708
Northern Africa and Western Asia	132	163
Latin America and the Caribbean	68	87
Eastern and South-Eastern Asia	154	202
Europe and Northern America	25	31
Australia and New Zealand	1	1
World	2,297	2,737

Female   Male
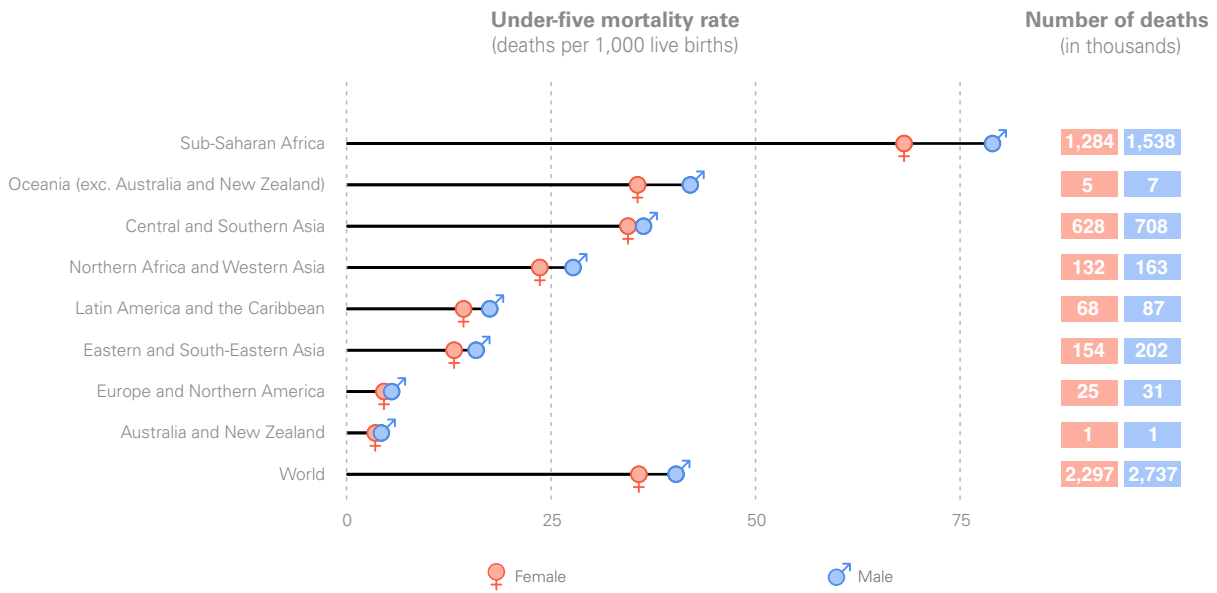
Mortality among children, adolescents and youth (5–24 years)

Globally and across all regions, the probability of dying between the ages of 5 and 24 is lower than for children under 5 years old. At 17 (16–18) deaths per 1,000 children aged 5 years in 2021, the probability of dying among children and youth aged 5–24 years was about half the level of global under-five mortality even though exposure to the risk of death is four times longer among the older age group (see Table 7 and Figure 9). Global child, adolescent and youth mortality rates peak among under-fives, fall to a low among 10–14-year-olds and then increase again. While regions sustain differing levels of mortality, this global age pattern is consistent across four regions – Eastern

and South-Eastern Asia, Northern Africa and Western Asia, Oceania (excluding Australia and New Zealand) and sub-Saharan Africa – while Australia and New Zealand, Central and Southern Asia, Europe and Northern America, and Latin America and the Caribbean have the lowest mortality among 5–9-year-olds (see Table 7 and Figure 9). Despite lower rates compared to children under 5, an estimated 2.1 (2.1–2.3) million children, adolescents and youth aged 5–24 years died in 2021. Over half of those deaths occured among youth aged 15–24 years, where mortality rates are highest among the 5–24-year age group (see Table 8 and Figure 9).

TABLE 7	Levels and trends in mortality rate among children, adolescents and youth aged 5–24 years and in five-year age groups, by Sustainable Development Goal region, 1990–2021

| | Mortality rates (deaths per 1,000) | | | | | | | | | | Annual rate of reduction 1990–2021 (per cent) | | | | |
| | Age 5–9 | | Age 10–14 | | Age 15–19 | | Age 20–24 | | Age 5–24 | | Age 5–9 | Age 10–14 | Age 15–19 | Age 20–24 | Age 5–24 |
Region	1990	2021	1990	2021	1990	2021	1990	2021	1990	2021					
Sub-Saharan Africa	26	10	12	6	18	10	24	13	77	38	3.2	2.1	1.9	2.0	2.3
Northern Africa and Western Asia	7	2	4	2	7	4	8	5	26	13	3.7	2.6	1.8	1.3	2.1
Northern Africa	8	2	5	2	7	5	9	6	29	15	3.8	2.9	1.5	1.3	2.1
Western Asia	6	2	3	2	7	4	7	5	23	12	3.7	2.2	2.0	1.2	2.1
Central and Southern Asia	13	2	7	2	10	4	14	5	43	14	5.8	3.3	3.2	3.0	3.7
Central Asia	4	1	3	2	5	3	7	4	19	10	3.1	2.2	1.3	2.1	2.0
Southern Asia	13	2	7	2	11	4	14	5	44	14	5.8	3.3	3.2	3.1	3.7
Eastern and South-Eastern Asia	6	1	3	1	5	2	5	3	19	8	4.7	2.6	2.7	1.0	2.6
Eastern Asia	4	1	2	1	5	1	4	2	15	6	5.2	3.2	4.1	1.3	3.2
South-Eastern Asia	9	2	4	2	7	4	8	5	28	13	4.6	2.3	1.9	1.4	2.4
Latin America and the Caribbean	3	1	3	2	6	5	9	7	20	14	3.0	1.8	0.9	0.7	1.2
Oceania	3	2	2	2	5	3	6	4	17	11	1.6	1.2	1.1	1.3	1.3
Australia and New Zealand	1	0	1	0	4	2	5	2	10	5	3.3	2.8	2.4	2.3	2.5
Oceania (exc. Australia and New Zealand)	8	4	5	3	9	6	11	8	32	21	2.0	1.5	1.1	1.1	1.3
Europe and Northern America	2	1	1	1	4	2	5	4	12	7	3.6	2.6	2.0	1.3	1.9
Europe	2	0	2	1	4	2	5	2	12	5	4.1	3.1	2.7	2.4	2.8
Northern America	1	1	1	1	4	3	5	5	12	9	2.3	1.7	1.3	0.1	0.8
World	**10**	**3**	**5**	**3**	**8**	**5**	**9**	**6**	**31**	**17**	**3.3**	**1.9**	**1.7**	**1.3**	**2.0**

Note: All calculations are based on unrounded numbers.

FIGURE 9 Mortality rates for five-year age groups among children, adolescents and youth, by Sustainable Development Goal region, 2021

Close to 1 million adolescents died in 2021.
Despite a relatively lower risk of death in this age group – the probability of dying among adolescents aged 10–19 years was estimated at 7.2 (6.9–7.9) deaths per 1,000 children aged 10 years in 2021 – 0.9 (0.9–1.0) million adolescents died in 2021. Globally, about 43 per cent of deaths among those aged 5–24 years occurred among adolescents (see Figure 1 and Table 8).
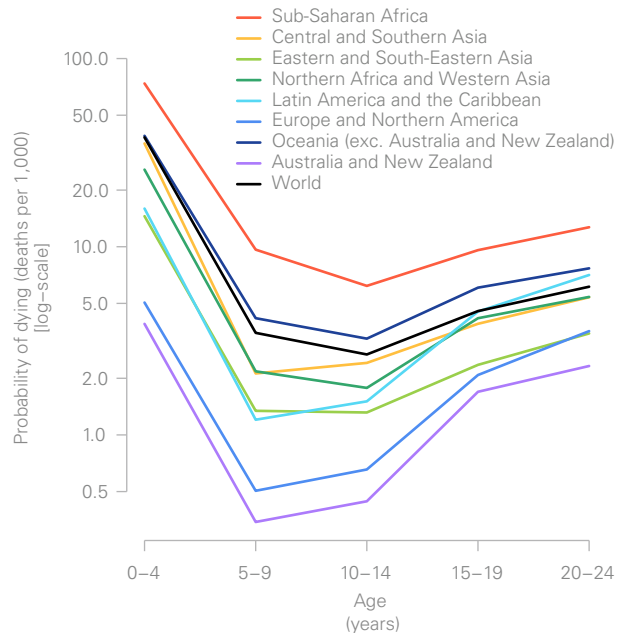
TABLE 8 Levels and trends in number of deaths among children, adolescents and youth aged 5–24 years and among adolescents aged 10–19 years, by Sustainable Development Goal region, 1990–2021

Region	Deaths age 5–24 (thousands)				Decline (per cent)	Deaths age 10–19 (thousands)				Decline (per cent)
	1990	2000	2010	2021	1990–2021	1990	2000	2010	2021	1990–2021
Sub-Saharan Africa	929	999	958	982	-6	329	375	377	411	-25
Northern Africa and Western Asia	172	149	129	130	24	72	66	57	58	20
Northern Africa	94	83	73	69	27	38	36	31	30	22
Western Asia	78	67	57	62	21	34	30	26	28	19
Central and Southern Asia	1,188	1,024	834	522	56	461	426	368	242	48
Central Asia	19	21	16	12	35	8	9	7	6	28
Southern Asia	1,169	1,004	818	510	56	453	417	362	236	48
Eastern and South-Eastern Asia	675	483	349	251	63	299	225	149	108	64
Eastern Asia	399	250	166	104	74	190	124	65	41	78
South-Eastern Asia	276	233	183	148	47	109	101	84	67	39
Latin America and the Caribbean	186	178	205	153	18	81	79	93	64	22
Oceania	8	7	7	7	4	3	3	3	3	2
Australia and New Zealand	3	3	2	2	45	2	1	1	1	48
Oceania (exc. Australia and New Zealand)	4	5	5	5	-30	2	2	2	2	-38
Europe and Northern America	175	166	112	86	51	75	71	41	34	54
Europe	126	124	74	41	68	53	51	26	17	68
Northern America	49	42	38	46	7	22	19	15	17	20
World	**3,334**	**3,008**	**2,594**	**2,132**	**36**	**1,320**	**1,245**	**1,089**	**920**	**30**

Note: All calculations are based on unrounded numbers.

Survival chances for children, adolescents and youth aged 5–24 years vary considerably by region and country. Sub-Saharan Africa had the highest regional probability of dying for the 5–24-year age group in 2021, at 38 (36–43) deaths per 1,000 children aged 5 years, followed by Oceania (excluding Australia and New Zealand) at 21 (17–26) deaths per 1,000 children aged 5 years, and Latin America and the Caribbean at 14 (14–15) deaths per 1,000 children aged 5 years (see Table 7). Sub-Saharan Africa and Oceania (excluding Australia and New Zealand) have the highest regional mortality rates across all four five-year age groups among 5–24-year-olds in 2021 (see Table 7 and Figure 8). A child or youth in sub-Saharan Africa faces a risk of death before age 25 eight times higher than in Australia and New Zealand, which has the lowest regional mortality rate for 5–24-year-olds. At the country level, mortality rates for 5–9-year-olds ranged from 0.2 to 20.8 deaths per 1,000 children aged 5 years; for 10–14-year-olds, from 0.2 to 12.1 deaths per 1,000 adolescents aged 10 years; for 15–19-year-olds, from 0.8 to 17.0 deaths per 1,000 adolescents aged 15 years; and for 20–24-year-olds, from 1.0 to 26.8 deaths per 1,000 youth aged 20 years.

More children, adolescents and youth between the ages of 5 and 24 died in sub-Saharan Africa and Central and Southern Asia than in all other regions in 2021. Over 70 per cent of all deaths among 5–24-year-olds occurred in sub-Saharan Africa (46 per cent) and Central and Southern Asia (24 per cent) (see Table 8).

The ratio of male to female mortality increases with age. In 2021, the global mortality rate for boys aged 5–14 was 7 (6–7) deaths per 1,000 children aged 5 years and for girls aged 5–14 was 6 (5–6) deaths per 1,000 children aged 5 years. For male youth aged 15–24 the mortality rate was 13 (12–15) deaths per 1,000 youth aged 15 years and for female youth aged 15–24 was 8 (8–9) deaths per 1,000 youth aged 15 years (see Figure 10). Globally, male mortality for the 5–24-year age group was 1.4 times higher than female mortality in 2021, at 20 (19–22) deaths per 1,000 children aged 5 years for males versus 14 (13–25) deaths per 1,000 children aged 5 years for females. That ratio increases with age: In 2021, male mortality was 1.1 times higher than female mortality among 5–9-year-olds (3.7 deaths per 1,000 versus 3.3 deaths per 1,000), 1.2 times higher among 10–14-year-olds (2.9 deaths per 1,000 versus 2.4 deaths per 1,000), 1.5 times higher among 15–19-year-olds (5.5 deaths per 1,000 versus 3.5 deaths per 1,000) and 1.7 times higher among 20–24-year-olds (7.7 deaths per 1,000 versus 4.4 deaths per 1,000).

FIGURE
10

Mortality rates and number of deaths among children aged 5–14 years and among youth aged 15–24 years, by sex and Sustainable Development Goal region, 2021

A. 5–14 years

Probability of dying among children aged 5–14 years
(deaths per 1,000 children aged 5 years)

Number of deaths
(in thousands)

Region	Female	Male
Sub-Saharan Africa	229	255
Oceania (exc. Australia and New Zealand)	1	1
Central and Southern Asia	73	100
Northern Africa and Western Asia	18	26
Latin America and the Caribbean	12	16
Eastern and South-Eastern Asia	31	51
Europe and Northern America	6	9
Australia and New Zealand	0	0
World	370	459

Female   Male

B. 15–24 years

Probability of dying among youth aged 15–24 years
(deaths per 1,000 youth aged 15 years)

Number of deaths
(in thousands)

Region	Female	Male
Sub-Saharan Africa	215	283
Oceania (exc. Australia and New Zealand)	1	2
Latin America and the Caribbean	28	96
Northern Africa and Western Asia	25	61
Central and Southern Asia	135	213
Eastern and South-Eastern Asia	47	122
Europe and Northern America	20	52
Australia and New Zealand	0	1
World	472	831

Female   Male

If current trends continue, nearly 19 million children, adolescents and youth aged 5–24 years will die between 2022 and 2030, with more than 70 per cent of those deaths projected to take place in just two regions. Nearly 3.8 million of these deaths will occur among adolescents aged 10–19 years, and a combined 71 per cent will occur in sub-Saharan Africa (9.4 million, or 50 per cent) and Southern Asia (4.0 million, or 21 per cent).

BOX 1. COVID-19 AND CHILD, ADOLESCENT AND YOUTH MORTALITY IN 2020 AND 2021

Introduction

COVID-19 has evolved into an ongoing threat to human health and survival, the impacts of which will take many years to comprehend. Concerns regarding the mortality and morbidity of the disease itself by age and concerns about COVID-19's indirect impact on deaths and ill health related to disruptions to health care and economies persist. Even as evidence continues to grow showing a strong age association for direct COVID-19 deaths,[12, 13] indirect impacts of the pandemic on health and survival remain of urgent concern given the continued strain on economies[14, 15] and under-resourced health systems. In some low- and middle-income countries, depletion or diversion of health services has been associated with increases in maternal, under-five and neonatal mortalities in the short and medium term.[16] Likewise, environmental and individual factors such as living in areas with a higher proportion of people without complete education or not attending school have also been associated with a higher risk of children dying from COVID-19.[17] Moreover, the emergence of more infectious strains of the virus continues to reshape the pandemic response of individuals and governments. Close attention must also be paid to any medium- and long-term mortality and health impacts of disruption to certain interventions like vaccinations or nutritional support in the early days of pandemic lockdowns, which may be coming to fruition after sufficient lag time between the missed intervention and population-level impact. Indeed, according to the *WHO UNICEF Immunization Coverage Estimates: 2021 revision*, global vaccination continued to decline in 2021, with 2 million more children missing out on life-saving vaccinations in 2021 compared to 2020 and 6 million more missing out than in 2019.[18]

Data reported by countries on age-specific COVID-19 deaths, i.e., those deaths resulting directly from COVID-19 infection, can be used to assess the direct mortality impact of the pandemic. Indirect deaths, i.e., those deaths resulting from *effects* of the pandemic, such as disruption to life-saving interventions, limitations on care seeking or economic downturns, can be assessed with an excess mortality analysis of available all-cause mortality data. Analysis of the available data on direct and indirect deaths in 2020 appearing in last year's version of this report showed no evidence of widespread excess mortality among children, adolescents and youth. Empirical mortality data to assess both direct and indirect deaths has become more widely available for 2020 and is now available, albeit in a more limited capacity, for 2021.

The UN IGME has undertaken analysis of both empirical data sources to assess the direct and indirect mortality impacts of the COVID-19 pandemic for 2020 and 2021. Based on the available empirical data, the UN IGME determined there is not sufficient evidence to warrant an adjustment to the estimates in 2020 or 2021 for any indicator, but further assessments should be conducted when more data become available. The UN IGME's data collection and analysis of child mortality data for 2020 and 2021 is described below.

Direct COVID-19 deaths

Data on deaths directly attributable to COVID-19 infection by age show a strong association between age and death, with those at the oldest ages most vulnerable to death. The Max Planck Institute for Demographic Research (MPIDR) has been compiling an open-access database containing age- and sex-specific data on direct COVID-19 deaths from a subset of countries

since January 2020. As of 1 October 2022, the database contained data on age-specific deaths for 87 countries or areas in 2020 and 56 countries or areas for 2021 (see Map 4).[19] According to these data, about 0.7 per cent of the 3.7 million total reported COVID-19 deaths for 2020 and 2021 occurred among those under 25 years of age, while that same age group accounted for about 40 per cent of the total population in these countries in 2020 and 38 per cent in 2021.[20] Even among children and adolescents, the youngest age groups tend to be least vulnerable to direct COVID-19 deaths: Of the 23,000 deaths

reported among those under 25, just 26 per cent occurred among children aged 0–9 years, while more than 44 per cent took place among youth aged 20–24 years. More information about this dataset and its limitations can be found in the UNICEF dashboard COVID-19 Confirmed Cases and Deaths: Age- and sex-disaggregated data at <https://data.unicef.org/resources/covid-19-confirmed-cases-and-deaths-dashboard>, and further information on total COVID-19 deaths and cases by country can be found at the WHO Coronavirus (COVID-19) Dashboard at <https://covid19.who.int>.

MAP 4 **Countries with age-disaggregated data on direct COVID-19 deaths for 2020 and/or 2021 in COVerAGE database**
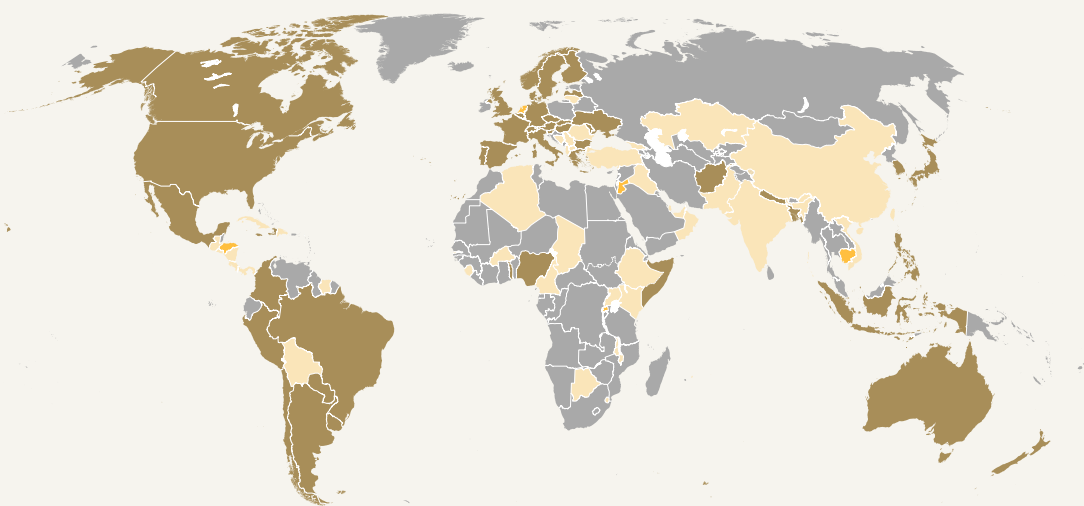
- Has age-specific data for 2020 and 2021
- Has age-specific data for 2021 only
- Has age-specific data for 2020 only
- No data

Note: This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

Source: UN IGME analysis of COVerAGE database.

Excess mortality

While the above evidence suggests a very modest direct mortality impact from the COVID-19 pandemic for children, adolescents and youth, these age groups, especially in low- and middle-income countries, may be at increased risk of death or ill health due to discontinuity in service and intervention provision, strained health care systems or economic contractions, among other disruptions. Using all-cause mortality data by age, an excess mortality analysis can capture any indirect mortality impact of the pandemic. Excess mortality is defined as the difference between observed deaths (or mortality rates) over a given period of time, e.g., annual deaths in 2020, and a baseline or expected number of deaths typically based on historical data. Excess mortality results when observed deaths exceed expected deaths. Because excess mortality analysis uses all-cause data, this analysis should capture any direct or indirect mortality among children, adolescents and youth.

To calculate the possible excess mortality in all age groups of interest – neonatal, infant (under one year), under-five and 5–24 – the UN IGME undertook an analysis of empirical national and subnational data derived from CRVS systems and HMIS, i.e., observed number of deaths, for more than 110 countries or areas in 2020 and over 80 countries or areas in 2021 (see Map 5). These countries or areas account for 65 per cent of total live births in 2020 and 47 per cent of total live births in 2021. Likewise, these countries or areas accounted for about 41 per cent of under-five deaths in 2020 and about a third of under-five deaths in 2021. Of the 40 countries with the highest burden of under-five deaths in 2020, 19 had data available for this analysis – including Brazil, China, Ethiopia, India, Mexico and South Africa. For 2021, 14 of the 40 top burden countries had data available for the excess mortality analysis. Moreover, just over half of the countries in the UN IGME excess mortality analysis for 2020 and 2021 are classifed as low- or middle-income countries. The baseline or expected mortality was modelled using historical deaths for 2015–2019 to predict expected deaths for 2020 and 2021 with 95 per cent confidence intervals. Ratios of observed deaths to expected deaths were analysed to detect any significant deviations.

MAP
5
Countries with data included in the excess mortality analysis, by data source type, 2020 and 2021

A. 2020
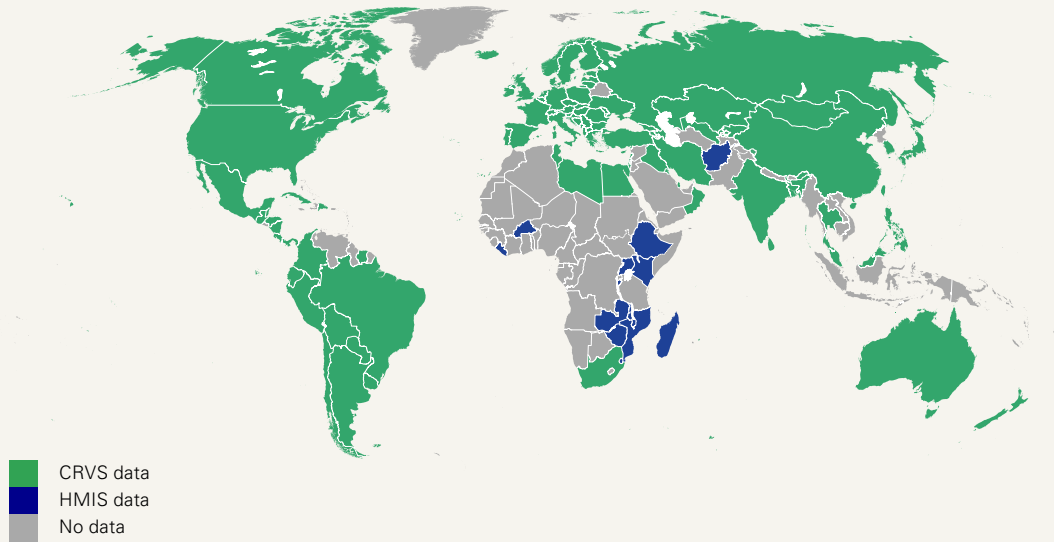
CRVS data
HMIS data
No data

Note: Grey colour-coded countries do not have CRVS, HMIS or other relevant data available and were therefore not included in this analysis.
This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

B. 2021

CRVS data
HMIS data
No data
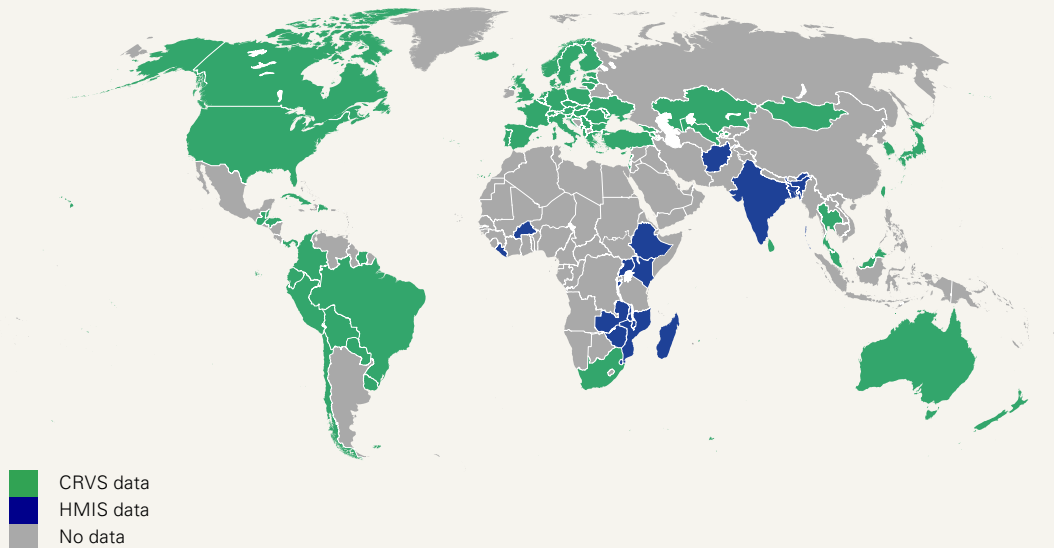
Note: Grey colour-coded countries do not have CRVS, HMIS or other relevant data available and were therefore not included in this analysis.
This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

When the uncertainty in the expected number of deaths is considered, only 4 per cent (4) of countries with CRVS data showed significant, positive excess for under-five mortality in 2020 and 15 per cent (11) in 2021 (see Figure 11). About 73 per cent (78) of countries showed no significant deviation from the expected number of under-five deaths in 2020 and 23 per cent (25) showed significantly fewer deaths than would be expected based on historical data. In 2021, about 62 per cent (44) of countries showed no significant deviation from the expected number of deaths and 23 per cent (16) showed significantly fewer deaths than expected. In

2020, the proportion of countries with significant excess mortality increases with age, reaching a peak of 9 per cent (9) of all countries in the 20–24 age group. In 2021, 24 per cent (16) of countries showed significant positive excess in the 20–24 age group, compared with 15 per cent (11) of countries in the 0–4 age group. While most countries show no significant deviation from the expected number of deaths, even in these older age groups, the high proportion in the eldest age group, 20–24, in 2021 is an area of concern for future analysis when more data are available for 2021.

FIGURE 11 Proportion of countries with significant excess mortality in CRVS data for 2020 and 2021
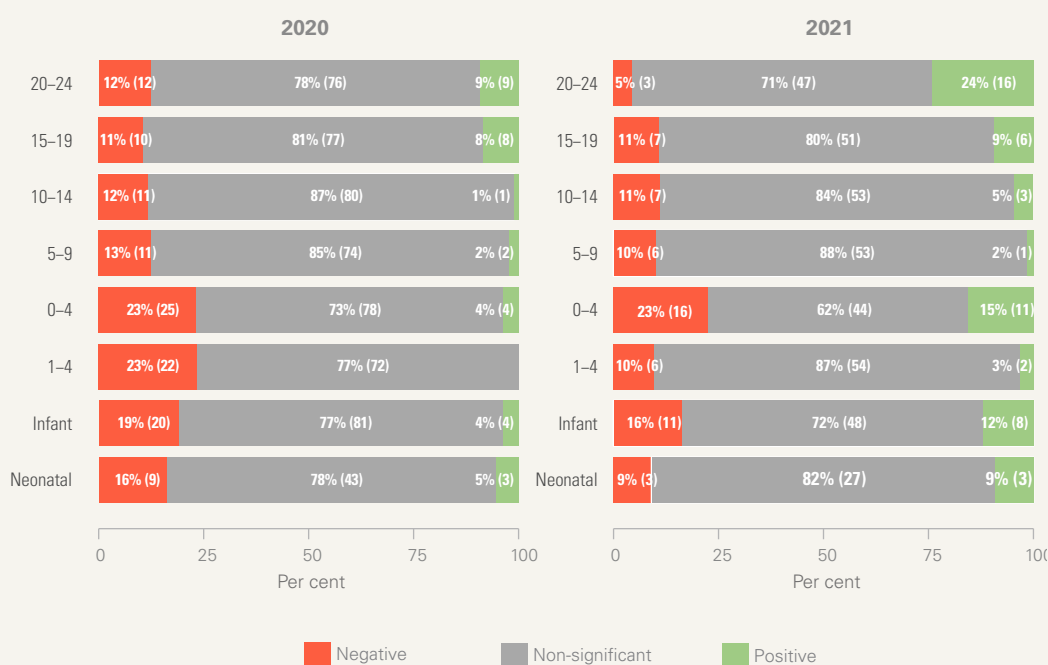
Note: The number of countries in each category is shown in parentheses. Not all countries had age-specific data available for all age groups, and countries that are not among the 200 countries that UN IGME produces annual estimates for are excluded from this figure. Thus, the number of countries in each age category is not necessarily the same.

Source: UN IGME analysis.

While the analysis of CRVS data is a useful exercise in determining the extent of possible excess mortality, these data disproportionately represent high-income countries, which may differ in their mortality experience of the pandemic compared to low- or middle-income countries. The UN IGME analysed monthly data on births and neonatal, infant and under-five deaths from 15 low- and middle-income countries' HMIS or other data collection systems, including some with substantial child and youth populations like Bangladesh, Ethiopia, India and Kenya. After applying a similar analysis to the approach used with CRVS data, the HMIS data largely confirmed the results of the CRVS analysis for both 2020 and 2021.

Limited data

Based on the available data for 2020 and 2021, there is a lack of evidence showing widespread, significant excess mortality among children, adolescents and youth. While it is encouraging to find a similar result in this updated analysis covering 2020 and 2021, the limited, incomplete and non-representative nature of the data, especially for 2021, means these results must be interpreted with a healthy amount of caution. As was the case for this analysis in last year's report, the data on COVID-19 deaths are extremely limited in their disaggregation by age and sex, hindering a complete understanding of the age-specific burden of direct deaths. Relatedly, data for 2021 for excess mortality analysis are largely incomplete and unavailable for most countries – even those with well-functioning CRVS systems. Events happening later in 2021 may be less likely to be reported and considered at this juncture. Likewise, data at the national level can mask subnational trends by geographic area or household income, which may differ substantially from national aggregates. Data also tend to be most sparse in low-income countries where intervention disruption may have the greatest impact on child survival. Data gaps remain a very serious concern in timely monitoring of excess mortality.

As discussed in this report last year, future pandemic years may be dissimilar due to changing conditions of the pandemic; data for 2021 have differed in some ways from those in 2020. While this analysis did not find widespread evidence of excess mortality at the ages UN IGME covers for either year, there were increases in some age groups of the proportion of countries showing significant positive excess, especially among 20–24-year-olds and stillbirths. Furthermore, in 2021 several countries saw a rebound to expected mortality levels with less restrictive COVID-19 measures, dampening some protective effects seen in 2020 possibly arising from limited exposure to deleterious health conditions like infectious disease, air pollution or traffic accidents. While different in some notable ways that will require further analysis, 2021 did not have widespread significant excess mortality in children, adolescents and youth based on limited data.

Considering the data limitations just described, differing results for 2021, and the dynamic and now chronic nature of the pandemic, continued monitoring of excess mortality in children, adolescents and youth will be crucial in the short and long term to detect any impact and to take required action. With rapidly changing pandemic conditions, it is not only important to quickly adapt to these changes to maintain essential services for women and children,[21] but also to urgently expand and strengthen the data systems for monitoring and reacting to a quickly changing pandemic landscape.

Data gaps in child mortality

Reliable, timely data on child mortality are sparse. Half the countries in the world do not have a quality, nationally representative data point on child mortality within the past 4.0 years, and on average, the most recent quality data point across all countries was 4.8 years old. For about a third of all countries, the latest available child mortality data point was more than five years old (see Figure 12 and Map 6).

Global averages mask worsening data availability for some regions and income groups. Globally, 34 per cent of countries have a gap of more than five years between the most recent available data point and the common reference year 2021, while about half of all countries in sub-Saharan Africa have a most recent quality data point that is more than five years old (see Figure 12 and Map 6). Data timeliness and availability also worsen from high- to low-income classification: The most recent data point among low-income countries was 7.2 years old, among middle-income countries 5.2 years old and among high-income countries 2.3 years old. About 44 per cent of all low- and middle-income countries have no reliable data on under-five mortality in the past five years. Recent data are also rare in fragile and conflict-affected situations: On average, fragile and conflict-affected situations had a most recent data point that was 7.4 years old.

FIGURE 12   **Distribution of the country extrapolation periods, by Sustainable Development Goal region**

Region	≤ 2 years	>2–5 years	>5–10 years	>10 years
Australia and New Zealand, Europe and Northern America	96%		2%	2%
Eastern and South-Eastern Asia	56%		38%	6%
Northern Africa and Western Asia	46%	29%	21%	4%
Central and Southern Asia	43%	21%	21%	14%
Latin America and the Caribbean	27%	30%	24%	19%
Sub-Saharan Africa	10%	42%	31%	17%
Oceania (exc. Australia and New Zealand)	7%	21%	14%	57%
World	44%	23%	21%	14%

Legend: ≤ 2 years · >2–5 years · >5–10 years · >10 years
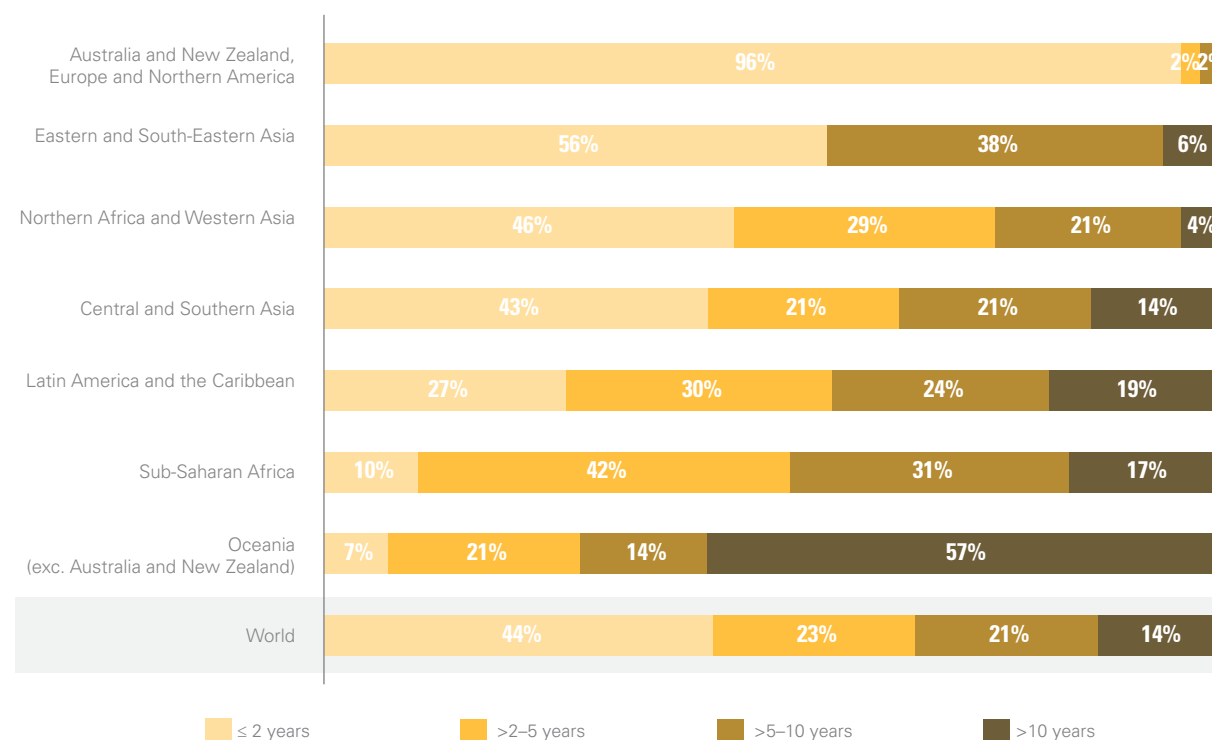
Countries at risk of missing the SDGs are less likely to have recent, reliable data on child mortality. Among the countries at risk of missing the SDG target on under-five mortality, the most recent data point on average was 6.9 years old. In comparison, the most recent data point from countries that have already achieved the target was on average 3.7 years old. Less recent data means greater uncertainty in the recent period and greater reliance on extrapolation in those places where children are likely at greatest risk of death. That greater uncertainty is reflected in Figure 3, where the wider uncertainty intervals for sub-Saharan Africa and Oceania (excluding Australia and New Zealand) arise from limited data at the country level in recent years.

Just 36 countries had high-quality national data for 2021 included in the estimation model, though national or subnational data were available for more than 80 countries or areas to help analyse excess mortality due to COVID-19. The countries shown in green in Map 6 have an included data point for 2021 in the estimation model,[22] and data availability for the excess mortality analysis is described in the box on COVID-19 and child mortality (see Box 1). Overall, there are fewer countries with data for 2021 included in the estimation model than those that have information on age-specific deaths in 2021 for the excess mortality analysis; this is because some countries' civil registration and vital statistics (CRVS) data may not meet data completeness thresholds for inclusion in the model and some death data for use in the excess mortality analysis did not have appropriate denominators for calculating rates. Furthermore, countries that rely on survey data to describe child mortality are unlikely to have 2021 data even if they have conducted a recent survey due to the retrospective nature of child mortality estimation from birth histories.

MAP 6 Reference year for the most recent included data point in UN IGME 2022 estimation round

Reference year
- 2021
- 2019–2020
- 2017–2018
- 2012–2016
- 2000–2011
- No data

Note: This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.
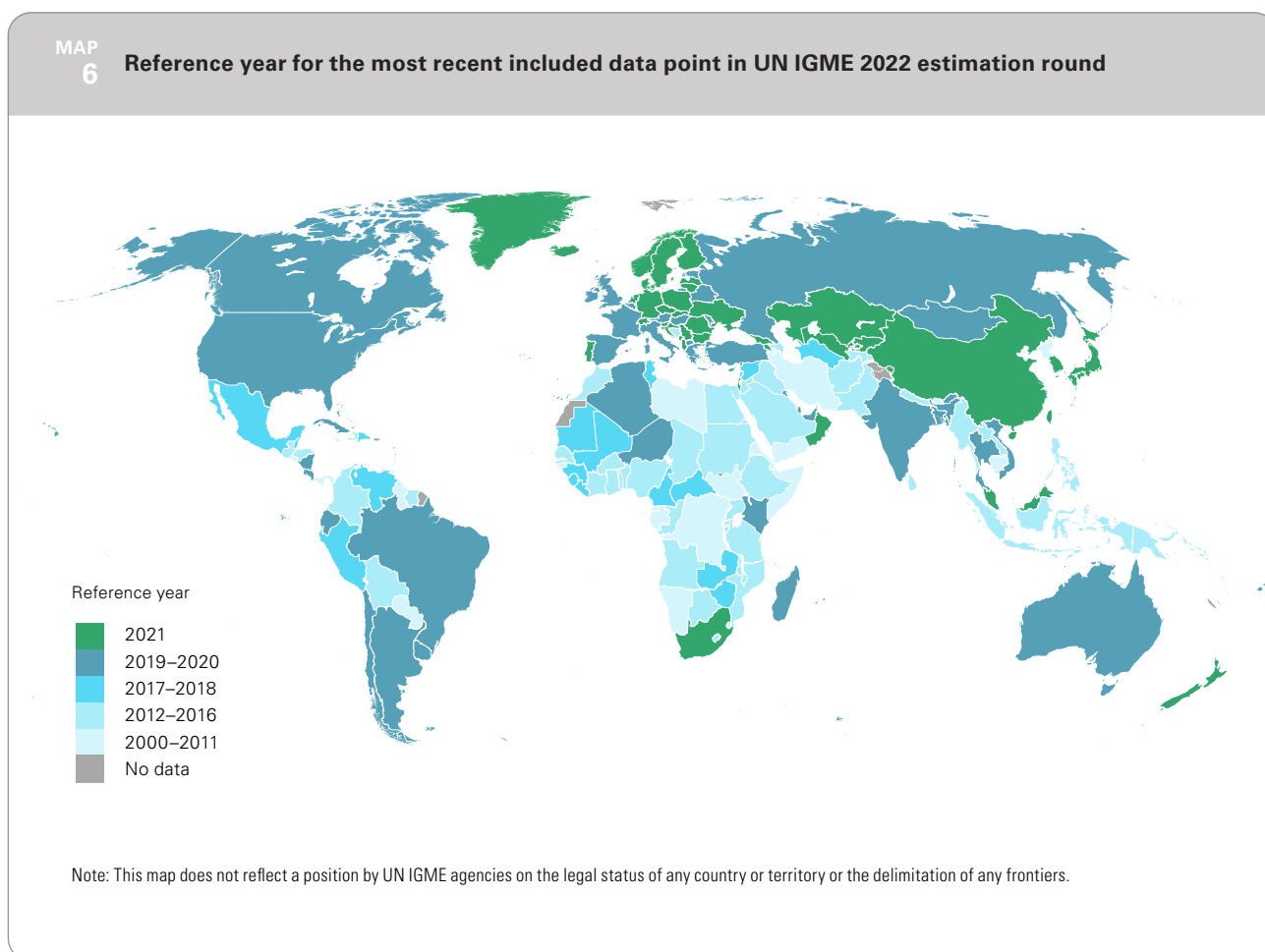
BOX 2. COUNTRY CONSULTATION

In accordance with the decision by the Statistical Commission and the United Nations Economic and Social Council Resolution 2006/6, UN IGME child mortality estimates, which are used for the compilation of global indicators for SDG monitoring, are produced in consultation with countries.[23] UNICEF and WHO undertook joint country consultations in 2022. The country consultation process gave each country's ministry of health, national statistical office or relevant agency the opportunity to review all data inputs, the estimation methodology, and the draft estimates for under-five mortality and mortality among children and young adolescents aged 5–14 years and youth aged 15–24 years. The objective was to identify relevant data that were not included in the UN IGME database and to allow countries to review and provide feedback on estimates. In 2022, 91 of 200 countries sent comments or additional data. After the consultations, the UN IGME draft estimates for mortality in children under age 5 were revised for 81 countries using new or updated data, and the estimates for mortality in children and young adolescents aged 5–14 years or in youth aged 15–24 years were revised for 69 countries, after receiving new or updated data. All countries were informed about changes in their estimates.

Conclusion

The global community failed to uphold its promise to its youngest and most vulnerable members in 2021 as millions of children and young people lost their lives and millions more continued to face survival threats based on where they were born. In 2021 alone, the world lost 5.0 million children before they turned 5 – 2.7 million children aged 1–59 months and 2.3 million newborns – along with 2.1 million older children and youth aged 5–24 years, 43 per cent of whom were adolescents. These deaths are disproportionately concentrated in just a few countries and regions: Sub-Saharan Africa and Southern Asia continue to shoulder a lopsided burden of all deaths that occur before age 25, including accounting for more than 80 per cent of all under-five deaths. The global burden of well over 7 million deaths of children and young people in a single year is a senseless and colossal loss of life when one considers the tragic reality that in most cases, the knowledge and means to prevent these deaths exist. This needless loss of life demonstrates the urgency of ending preventable deaths of children and young people immediately.

If swift action is not taken, dozens of countries will fall short of meeting the SDG mortality targets by 2030 and tens of millions of families will suffer the loss of a child or young person in the coming years. If current trends continue, 54 countries will not meet the SDG target on under-five mortality, more than 60 countries will miss the target on neonatal mortality and 40 million under-five deaths are projected to take place between 2022 and 2030, with just under half of those deaths occurring in the first month of life. Additionally, almost 19 million children, adolescents and youth aged 5–24 years are projected to die before 2030, if nothing is done to save their lives.

Moreover, the burden of these projected child deaths will be no more equally borne in the future than in the present: 57 per cent of the projected 40 million under-five deaths before 2030 will take place in sub-Saharan Africa and another 25 per

cent will occur in Southern Asia. Close to 75 per cent of the countries at risk of missing the SDG target are in sub-Saharan Africa and 85 per cent are low- or lower-middle-income countries.

This dire scenario is not inevitable. Variation in mortality rates by country and region demonstrate the possibility of lower mortality rates for all countries and regions with the requisite political will and investments. If urgent action is taken and every country met the SDG target on under-five mortality, 10 million under-five deaths could be averted between 2022 and 2030. Ending all preventable deaths of children would take progression beyond the SDG targets: If all countries achieved a U5MR by 2030 equivalent to the high-income country average in 2021 of 5 deaths per 1,000 live births, nearly 24 million deaths could be averted.

If the world is to address the persistent and unconscionably large annual burden of child deaths, action and attention should target the most vulnerable regions, countries and children, with special focus on accelerating subnational and local action as we approach the midpoint of the SDG timeline. Children in sub-Saharan Africa continue to suffer the world's highest mortality rates; the region's projected demographic changes call for sharpened focus and expanded investment in the life-saving interventions that have reduced mortality rates up to now. Neonatal deaths have stagnated in sub-Saharan Africa and the region continues to bear an outsized portion of global 1–59-months deaths due to persistently high neonatal and under-five mortality rates combined with an increase in births and the under-five population – 379 million births are projected to take place between 2022 and 2030 and the under-five population is projected to increase by 14 per cent, to about 204 million, by 2030.[24] Addressing sub-Saharan Africa's demographic changes and disproportionally large under-five deaths burden will require strengthening and investing in health systems ensuring equitable coverage of high-

quality care around child birth and delivering high-quality and high-impact maternal, newborn and child survival interventions.

This report has also called for additional focus on the 1–59-months age group, which is distinct from the neonatal period in terms of vulnerability to certain causes of death and responsiveness to interventions. While it has been observed that globally, as the level of under-five mortality falls, a greater share of all under-five deaths is taking place during the neonatal period, more than half of all under-five deaths still take place among 1–59-month-olds and much greater investment must be made to save these lives. The other half of under-five mortality happens in the first month after birth, where we must intensify quality intrapartum care and essential newborn care to save these youngest lives.

The estimates and projection scenarios presented in this report do not make any adjustment to 2020 or 2021 rates for COVID-19 related mortality, but the COVID-19 pandemic and its many far-reaching impacts continue to be of significant concern to child health and survival. Based on the best available empirical evidence representing more than 110 countries or areas in 2020 and over 80 countries or areas in 2021, the UN IGME did not find significant excess mortality among children or youth in 2020 or 2021 and therefore makes no adjustment to its 2020 or 2021 estimates. While the UN IGME analysis did not find sufficient evidence to make adjustments, the data used in that analysis have limitations in their representativeness; the pandemic and resulting mortality profile could change substantially from what has been observed thus far. The UN IGME will continue to collect data, where available, to monitor the mortality situation of children and youth especially as it relates to the ongoing COVID-19 pandemic.

Notably, the projection scenarios also do not consider potential future risks brought on by climate change, conflicts, other pandemics and economic constraints that could drastically impact child and youth mortality in the short and long terms, directly and indirectly, by effecting food security and the provision of life saving interventions. Acute humanitarian crises may also

influence government and donor attention to and investment in routine child health services in the future and near term. High-quality, routine care and monitoring must be expanded to weather these probable threats to child survival.

Reaching the goal of ensuring all children survive to healthy adulthoods also requires investment in and expansion of data collection systems required to monitor mortality in the future. Available data to assess excess mortality in 2020 and 2021 are limited in age disaggregation, geographic representativeness and income representativeness. The database for estimation had just 36 high-quality child mortality data points for 2021 available at the time these estimates were generated, and the most recent quality data point was on average almost five years old across countries. Data availability and timeliness worsen in countries and regions where estimated mortality rates are highest and children are likely at highest risk of death: In about half the countries in sub-Saharan Africa, the most recent data point on child mortality was more than five years old, while the most recent quality data point among low-income countries was more than seven years old. Routine data on coverage and quality of essential child health services – a closely related data source that informs understanding on the overall health and survival of children and youth – are similarly lacking in many places, impeding targeted interventions. These data gaps pose serious challenges to judicious and precise estimation and monitoring of child mortality, which itself limits informed policy responses and programming.

Through the sustainable development agenda, the world has rightly recognized and moved towards full enjoyment of the right of every child to survive. Yet millions of children and youth perish every year. The complacency that has led to the failure to honour this right of every child must be rejected. To avert the tragic loss of millions of children and adolescents that is projected to occur if the status quo is maintained, the world must expedite efforts to reduce child mortality across the continuum of care, beginning with antenatal care. While the global child death toll is enormous, with appropriate investments, will and policy, it is possible to ensure every child survives.

Annex: Estimating child mortality

This chapter summarizes the methods the UN IGME uses to generate mortality estimates for children under age 5, older children and young adolescents aged 5–14 years, and older adolescents and youth aged 15–24 years.

The UN IGME updates its estimates of under-five mortality, including neonatal and infant mortality, mortality among children aged 5–14 years and mortality among youth aged 15–24 years annually after reviewing newly available data and assessing their quality. These estimates are widely used in UNICEF's flagship publications, the United Nations Secretary-General's annual SDG report, and publications by other United Nations agencies, governments and donors.

The UN IGME, which includes members from UNICEF, WHO, the World Bank Group and United Nations Department of Economic and Social Affairs, Population Division, was established in 2004 to advance the work on monitoring progress towards the achievement of child survival goals. Its Technical Advisory Group (TAG), comprising leading academic scholars and independent experts in demography and biostatistics, provides guidance on estimation methods, technical issues, and strategies for data analysis and data quality assessment.

Overview

The UN IGME employs the following broad strategy (Figure 13) to arrive at annual estimates of child mortality:

1. Compile and assess the quality of all available nationally representative data relevant to the estimation of child mortality, including data from vital registration systems, population censuses, household surveys and sample registration systems;

FIGURE 13 UN IGME estimation strategy (FBH: full birth histories; SBH: summary birth histories; HH: household deaths; SSH: sibling survival history)

COMPILE
Compile and assess the quality of all available nationally representative data relevant to the estimation
- Vital Registration
- Sample Vital Registration
- Population Census (FBH, SBH, HH)
- Household Surveys (FBH, SBH, HH, SSH)

PROCESS
Recalculate data inputs and make data adjustments if needed
- Recalculate indicators
- Calculate standard errors
- Pooled intervals for small populations
- Recalculate indicators
- Calculate standard errors
- Optimize intervals
- Adjust for HIV/AIDS-related bias in survey data collection

MODEL
Fit a statistical model to the data to generate a smooth trend curve that averages over the different data sources for a country
- Under-five mortality
- Infant mortality
- Neonatal mortality
- Mortality among children aged 5–14
- Mortality among youth aged 15–24

EXTRAPOLATE
Extrapolate the model output to a target year and apply post-estimation adjustments
- Extrapolate
- Adjustments for HIV/AIDS and crisis
- UN IGME mortality estimates with uncertainty

OUTPUT
Calculate number of deaths and publish estimates
- Calculate number of deaths using UN IGME mortality estimates and annual live births and population
- UN IGME report
- CME Info
- SDG database/ SDG report
- Others

COUNTRY CONSULTATION
Annual country consultation process to solicit feedback on UN IGME underlying data and methods: Revision of estimates based on new data from country consultation

2. Recalculate data inputs and make adjustments as needed by applying standard methods;

3. Fit a statistical model to these data to generate a smooth trend curve that averages possibly disparate estimates from the different data sources for a country; and

4. Extrapolate the model to a target year (in this case, 2021).

To increase the transparency of the estimation process, the UN IGME has developed a child mortality web portal, Child Mortality Estimation (CME) Info, available at <https://childmortality.org>. It includes all available data and shows estimates for each country as well as which data are currently officially used by the UN IGME. Once new estimates are finalized, CME Info is updated accordingly.

The UN IGME applies a common methodology across countries and uses empirical data from each country to produce comparable estimates, i.e., country values for the same reference year produced using a common method. Applying a consistent methodology allows for comparisons between countries, despite the varied number and types of data sources. UN IGME estimates are based on nationally available data from censuses, surveys or vital registration systems. The UN IGME does not use covariates to derive its estimates, but, rather, applies a curve-fitting method to empirical data after data quality assessment.

Countries may use a single data source for their official estimates or apply valid methods different from those used by the UN IGME. The UN IGME does not report figures produced by individual countries using other methods, as these estimates would not be comparable across countries. The differences between UN IGME and national official estimates are usually not large if the empirical data are of good quality. The UN IGME aims to minimize errors for each estimate, harmonize trends over time, and produce up-to-date and comparable estimates of child mortality. Because errors are inevitable in data, there will

always be uncertainty around data and estimates. To allow for added comparability, the UN IGME generates all child mortality estimates with uncertainty bounds.

Data sources

Nationally representative estimates of under-five mortality can be derived from several different sources, including civil registration and sample surveys. Demographic surveillance sites and hospital data are excluded as they are not nationally representative. The preferred source of data is a civil registration system that records births and deaths on a continuous basis. If registration is complete and this system functions efficiently, the resulting estimates will be accurate and timely. However, many low- and middle-income countries do not have well-functioning vital registration systems. Therefore, household surveys such as the UNICEF-supported Multiple Indicator Cluster Surveys, the USAID-supported Demographic and Health Surveys, and periodic population censuses have become the primary sources of data on mortality among children under age 5 and children, adolescents and youth aged 5–24 years. These surveys ask women about the survival of their children and about the survival of their siblings, and it is these reports (or microdata upon availability) that provide the basis for child, adolescent and youth mortality estimates for a majority of low- and middle-income countries.

The first step in the process of arriving at estimates of levels and recent trends of child mortality is to compile all newly available data and add the data to the UN IGME database. Newly available data will include recently released vital statistics from a civil registration system, results from recent censuses and household surveys and, occasionally, results from older censuses or surveys not previously available.

The full set of empirical data used in this analysis is publicly available from the UN IGME web portal, CME Info <https://childmortality.org>. In this round of estimation, a substantial amount of newly available data has been added to the underlying database for under-five, infant and neonatal mortality. Data from 31 new surveys or censuses were added for 27 countries and data

from vital registration systems or sample vital registration systems were added or updated for 124 countries. In total, more than 7,200 country-year data points from about 250 series were added or updated. The database, as of October 2022, contains over 20,300 country-year data points from more than 2,200 series across 200 countries from 1990 (or earlier, back to 1911) to 2021. The database for mortality among children aged 5–14 years contains more than 7,200 data points and the database for mortality among youth aged 15–24 years contains more than 7,000 data points.

The increased empirical data have substantially changed UN IGME estimates for some countries from previous editions, partly because the fitted trend line is based on the entire time series of data available for each country. The estimates presented in this report may differ from and are not necessarily comparable with previous sets of UN IGME estimates or the most recent underlying country data.

Whatever the method used to derive the estimates, data quality is critical. The UN IGME assesses data quality and does not include data sources with substantial non-sampling errors or omissions as underlying empirical data in its statistical model.

Civil registration data

Data from civil registration systems are the preferred data source for child mortality estimation. The calculation of under-five mortality rates (U5MR, the probability of dying between birth and exactly 5 years of age, expressed per 1,000 live births), infant mortality rates (IMR, the probability of dying between birth and exactly one year of age, expressed per 1,000 live births), mortality rates among children aged 5–14 years (the probability a five-year-old would die before reaching age 15, expressed per 1,000 children aged 5 years) and mortality rates among youth aged 15–24 years (the probability a 15-year-old would die before reaching age 25, expressed per 1,000 youths aged 15 years) are derived from a standard period abridged life table using the age-specific deaths and midyear population counts from civil registration data. The neonatal mortality rate (NMR, the probability of dying between birth and exactly 28 days of age,

expressed per 1,000 live births) is calculated with the number of deaths of infants under 28 days of age and the number of live births in a given year.

For civil registration data (with available data on the number of deaths and mid-year populations), annual observations were initially constructed for all observation years in a country. For country-years in which the coefficient of variation exceeded 10 per cent for children under 5 years or 20 per cent for children aged 5–14 years, deaths and midyear populations were pooled over longer periods. Starting from the most recent years, deaths and population were combined with adjacent previous years to reduce spurious fluctuations in countries where small numbers of births and deaths were observed. The coefficient of variation is defined to be the stochastic standard error of the $_5q_0$ ($_5q_0$ = U5MR/1,000) or $_1q_0$ ($_1q_0$ = IMR/1,000) observation divided by the value of the $_5q_0$ or $_1q_0$ observation. The stochastic standard error of the observation is calculated with a Poisson approximation using live birth numbers, given by $\mathrm{sqrt}(_5q_0/\mathrm{lb})$ or similarly $\mathrm{sqrt}(_1q_0/\mathrm{lb})$, where lb is the number of live births in the year of the observation.[25] After this recalculation of the civil registration data, the standard errors are set to a minimum of 2.5 per cent for input into the model. A similar approach was used for neonatal mortality and mortality among children, adolescents and youth aged 5–24 years.

To select country-years for which vital registration data are included for older children, adolescents and youth aged 5–24 years and to compute adjustment factors in case of incomplete registration, a hybrid of the generalized growth balance method (GGB) and the synthetic extinct generation method (SEG), the GGBSEG method was used. The GGBSEG method is one of several demographic methods known as "death distribution methods"[26] and has been shown to perform better than the GGB and SEG methods in isolation. The GGBSEG method is implemented in the DDM package of the R statistical software.[27] Completeness was estimated for each country for periods between pairs of recent censuses for which an age distribution of the population was available in the Demographic Yearbook.[28] The sex-specific completeness

estimates were combined to obtain an estimate for both sexes. When the estimated completeness was less than 80 per cent, mortality rates derived from vital registration data were excluded from the model fit. When completeness was greater than or equal to 95 per cent, the registration was considered virtually complete, and no adjustment was used to adjust mortality estimates upwards. If completeness was between 80 and 95 per cent, the inverse of the completeness rate was multiplied by the number of deaths to obtain adjusted estimates. These adjustments are only applied to mortality data above age 5 as the death distribution methods cannot be applied to estimate completeness of registration of under-five deaths.

Survey data

The majority of survey data on child mortality comes in one of two forms: the full birth history (FBH), whereby women are asked for the date of birth of each of their children, whether the child is still alive, and if not, the child's age at death; and the summary birth history (SBH), whereby women are asked only about the number of children ever born to them and the number who have died (or equivalently, the number still alive).

FBH data, collected by all Demographic and Health Surveys and increasingly, by Multiple Indicator Cluster Surveys and other nationally representative surveys, allow for the calculation of child mortality indicators for specific time periods in the past. This enables these survey programmes to publish under-five child mortality estimates for three 5-year periods before the survey; that is, 0 to 4, 5 to 9, and 10 to 14.[29, 30, 31] The UN IGME has recalculated estimates to refer to calendar year periods using single calendar years for periods shortly before the survey and gradually increasing the number of years for periods further in the past, whenever microdata from the survey are available. The cut-off points of a given survey for shifting from estimates for single calendar years to two years, or two years to three, etc., are based on the coefficients of variation of the estimates.[32]

Mortality estimates of children aged 5–14 years can also be derived from the FBH module, but the probability of dying among children in this age group ($_{10}q_5$) is estimated for the period 0–12

years before the survey and divided into periods according to the coefficient of variation of the estimates (< 20 per cent).

In general, SBH data collected by censuses and many household surveys use the woman's age as an indicator of the age of her children and their exposure time to the risk of dying and employ models to estimate mortality indicators for periods in the past for women ages 25 to 29 through ages 45 to 49. This method is well known but has several shortcomings. Starting with the 2014 round of estimation, the UN IGME changed the method of estimation for SBHs to one based on classification of women by the time that had passed since their first birth. This method has several benefits over the previous one. Firstly, it generally has lower sampling errors and, secondly, it avoids the problematic assumption that the mortality estimates derived for each age group of women adequately represent the mortality of the whole population. As a result, it has less susceptibility to the selection effect of young women who give birth early, since all women who give birth necessarily must have a first birth and therefore, are not selected for. Thirdly, the method tends to show less fluctuation across time, particularly in countries with relatively low fertility and mortality. The UN IGME considers the improvements in estimates based on time since first birth worthwhile when compared to the estimates derived from the classification by age of mother. Hence, in cases where the microdata are available, the UN IGME has reanalysed the data using the new method. Due to known biases in the estimation for the 0–4 year period by time since first birth and for the 15–19 and 20–24 age groups of women, these data points are excluded in the estimation model.

Moreover, following advice from UN IGME's TAG, child mortality estimates from SBH were not included if estimates from FBH in the same survey were available.[33] SBH data are not used to derive neonatal mortality or mortality among children aged 5–14 years.

Mortality estimates of youth aged 15–24 years were derived from the sibling survival histories (SSH). In SSH, women aged 15–49 years are asked to list all their siblings born to the same mother

by birth order and to report on each sibling's gender, survival status, current age, if alive, or age at death and years since death, if deceased. Sibling histories have been extensively used to model adult mortality in countries lacking vital registration and to monitor trends in maternal mortality.[34, 35, 36] SSH were used to estimate the probability of a 15-year-old dying before reaching age 25 ($_{10}q_{15}$) for a period of 0–12 years prior to each survey. This period was divided in intervals of various length (6, 4, 3, 2, 1 years) depending on the coefficient of the variation of the estimates.

Adjustment for missing mothers in high-HIV settings

In populations severely affected by HIV/AIDS, HIV-positive children will be more likely to die than other children and will also be less likely to be reported since their mothers will also have been more likely to die. Child mortality estimates will thus be biased downwards. The magnitude of the bias will depend on the extent to which the elevated under-five mortality of HIV-positive children is not reported because of the deaths of their mothers. The TAG developed a method to adjust HIV/AIDS-related mortality for each survey data observation from FBH during HIV/AIDS epidemics (1980–present) by adopting

a set of simplified but reasonable assumptions about the distribution of births to HIV-positive women, primarily relating to the duration of their infection, vertical transmission rates, and survival times of both mothers and children from the time of the birth.[37] This method was applied to all direct estimates from FBHs. The model was improved to incorporate the impact of antiretroviral therapies (ART) and prevention of mother to child transmission (PMTCT).[38] No adjustment was included for HIV-related biases in the age group 5–14, since no method currently exists to estimate the magnitude of this bias in the probability $_{10}q_5$. For mortality at ages 15–24, the vertical transmission of the virus is unlikely to introduce biases in the estimates, as mortality rates relate to the survival of the siblings of adult respondents.

Systematic and random measurement error

Data from these different sources require varied calculation methods and may suffer from different errors, such as random errors in sample surveys or systematic errors due to misreporting. Thus, different surveys often yield widely divergent estimates of U5MR for a given period, as illustrated in Figure 14. To reconcile these differences and take better account of the

FIGURE 14 Empirical child mortality data in Nigeria and Papua New Guinea
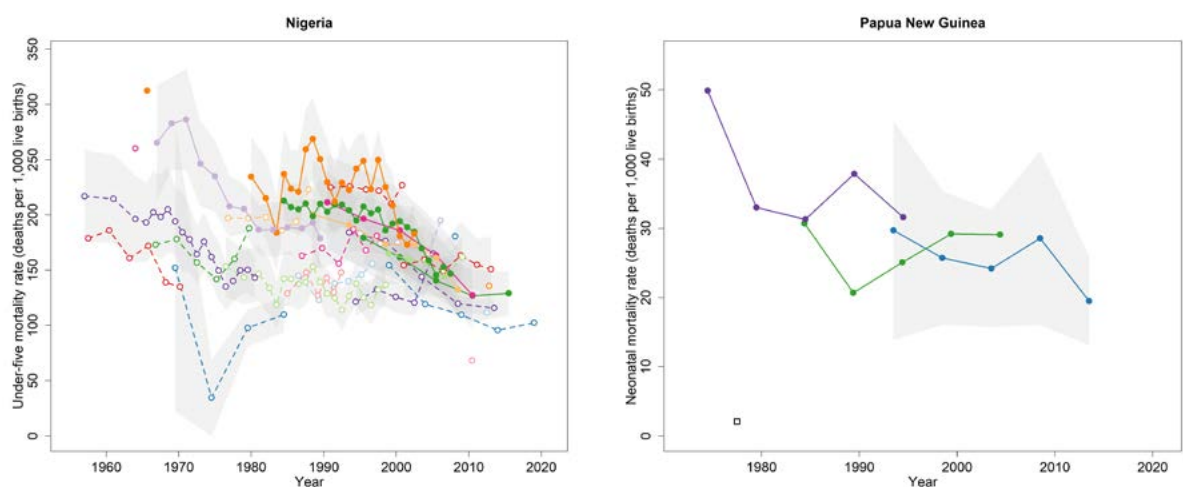
Note: All data available for the country are shown as coloured points, with observations from the same data series joined by lines, and each colour identifying different data sources. Solid points and lines represent data series/observations that were included in the statistical model. Grey bands represent the standard errors of the observations where available or applicable.

systematic biases associated with the various types of data inputs, the TAG developed an estimation method to fit a smoothed trend curve to a set of observations and to extrapolate that trend to a defined time point, in this case, 2021. This method is described in the following section.
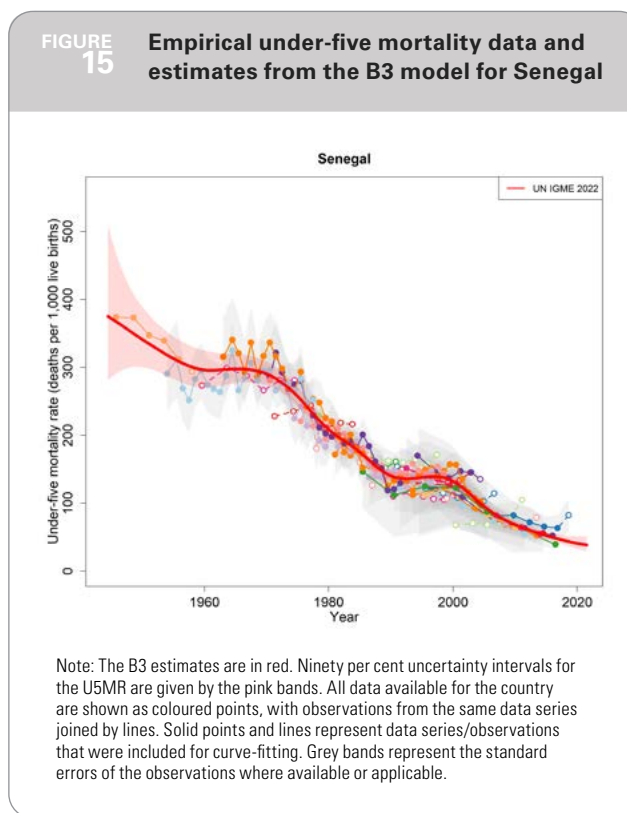
Estimation of under-five mortality rates

Estimation and projection of under-five mortality rates was undertaken using the Bayesian B-splines bias-adjusted model, referred to as the B3 model. This model was developed, validated and used to produce previous rounds of UN IGME child mortality estimates, including the previously published round in 2021.[39, 40]

In the B3 model, log(U5MR) is estimated with a flexible splines regression model. The spline regression model is fitted to all U5MR observations in the country. An observed value for U5MR is considered to be the true value for U5MR multiplied by an error multiplier, i.e., observed U5MR = true U5MR * error multiplier, or on the log scale, log(observed U5MR) = log(true U5MR) + log(error multiplier). The error multiplier refers to the relative difference between an observation and the truth with error multiplier equal to 1 (and log(error multiplier) equal to zero) meaning no error.

While estimating the true U5MR, properties of the errors that provide information about the quality of the observation – or in other words, the extent of error that we expect – are taken into account. These properties include: the standard error of the observation; its source type (e.g., Demographic and Health Surveys versus census); and whether the observation is part of a data series from a specific survey (and how far the data series is from other series with overlapping observation periods). These properties are summarized in the data model. When estimating the U5MR, the data model adjusts for errors in observations, including the average systematic biases associated with different types of data sources, using information on data quality for different source types from all countries.

Figure 15 displays the U5MR data and B3 model fit over time for Senegal, used here for illustrative purposes.

FIGURE 15

Empirical under-five mortality data and estimates from the B3 model for Senegal

Note: The B3 estimates are in red. Ninety per cent uncertainty intervals for the U5MR are given by the pink bands. All data available for the country are shown as coloured points, with observations from the same data series joined by lines. Solid points and lines represent data series/observations that were included for curve-fitting. Grey bands represent the standard errors of the observations where available or applicable.

Compared with the previously applied LOESS (locally estimated scatterplot smoothing) estimation approach,[41] the B3 model better accounts for data errors, including biases and sampling and non-sampling errors in the data. It can more accurately capture short-term fluctuations in the U5MR and its annual rate of reduction and, thus, is better able to account for evidence of acceleration in the decline of under-five mortality from new surveys. Validation exercises show that the B3 model also performs better in short-term projections.

The B3 method was developed and implemented for the UN IGME by Leontine Alkema and Jin Rou New with guidance and review by the UN IGME's TAG. A more complete technical description of the B3 model is available elsewhere.[42, 43]

Estimation of infant mortality rates

In general, the B3 model described above is applied to the U5MR for all countries (except the Democratic People's Republic of Korea where a non-standard method was employed). For countries with high-quality vital registration data (covering a sufficient period of time and deemed to have high levels of completeness and coverage), the B3 model is also used to estimate the IMR but is fitted to the logit transform of r, i.e., log(r/1-r) where r is the ratio of the IMR estimate to the median B3 estimate of U5MR in the corresponding country-year. This is to restrict the IMR estimate to be lower than the U5MR estimate for any given year. For the remaining countries, the IMR is derived from the U5MR using model life tables that contain known regularities in age patterns of child mortality.[44] The advantage of this approach is that it avoids potential problems with the underreporting of neonatal deaths in some countries and ensures that the internal relationships of the three indicators are consistent with established norms. For countries in the Sahel region of Africa (Burkina Faso, Chad, the Gambia, Mali, Mauritania, the Niger and Senegal) the relationship between infant and child mortality from model life tables does not apply, thus a logit transform of the ratio of IMR/U5MR is used to estimate IMR from U5MR using data from FBHs and a multilevel regression with country-specific intercept.

Adjustment for rapidly changing child mortality driven by HIV/AIDS

To capture the extraordinarily rapid changes in child mortality driven by HIV/AIDS over the epidemic period in some countries, the regression models were fitted to data points for the U5MR from all causes other than HIV/AIDS. UNAIDS estimates of HIV/AIDS under-five mortality were then added to estimates from the regression model. This method was used for 17 countries where the HIV prevalence rate exceeded 5 per cent at any point in time since 1980. Steps were as follows:

1. Compile and assess the quality of all newly available nationally representative data relevant to the estimation of child mortality;

2. Adjust survey data to account for possible biases in data collection and in HIV/AIDS epidemic;

3. Use UNAIDS estimates of HIV/AIDS child mortality[45] to adjust the data points from 1980 onwards to exclude HIV/AIDS deaths;

4. Fit the standard statistical model to the observations to HIV-free data points;

5. Extrapolate the model to the target year; in this case 2021;

6. Add back estimates of deaths due to HIV/AIDS (from UNAIDS); and

7. Derive a non-AIDS curve of IMR from the estimated U5MR using model life tables; add the UNAIDS estimates of HIV/AIDS deaths for children under age 1 to generate the final IMR estimates.

Estimation of under-five and infant mortality rates by sex

In 2012, the UN IGME produced estimates of U5MR for males and females separately for the first time.[46] In many countries, fewer sources have provided data by sex than for both sexes combined. For this reason, the UN IGME, rather than estimate U5MR trends by sex directly from reported mortality levels by sex, uses the available data by sex to estimate a time trend in the sex ratio (male/female ratio) of infant mortality and mortality for children aged 1–4 years (child mortality). Estimates of the sex ratio of under-five mortality are obtained from estimates of the sex ratios of infant and child mortality. The sex ratios for infant and child mortality are the product of an expected sex ratio for a given year t and country c, *W(c,t)*, based on the level of U5MR and a country-year multiplier, *P(c,t)*, which is informed by data and represents the relative advantage or disadvantage of infant girls to boys compared to other countries at similar levels of infant mortality. Bayesian methods for the UN IGME estimation of sex ratios, with a focus on the estimation and identification of countries with outlying levels or trends, were used. A more complete technical description of the model is available elsewhere.[47]

Estimation of neonatal mortality rates

The NMR is defined as the the probability of dying between birth and exactly 28 days of age, expressed per 1,000 live births. In 2015, the UN IGME method for estimating NMR was updated to a Bayesian methodology similar to that used to estimate U5MR and derive estimates by sex. It has the advantage that, compared to the previous model, it can capture data-driven trends in NMR within countries and over time, for all countries. A more complete technical description of the model is available elsewhere.[48]

For neonatal mortality in HIV-affected and crisis-affected populations, the ratio is estimated initially for non-AIDS and non-crisis mortality. After estimation, crisis neonatal deaths are added back on to the neonatal deaths to compute the total estimated NMR. No AIDS deaths are added to the NMR, thereby assuming these deaths only affect child mortality after the first month of life.

Estimation of mortality rates among children aged 5–14 years and youth aged 15–24 years

Since 2017, the UN IGME has generated country-specific trend estimates of the mortality in children aged 5–14 years – that is, the probability a five-year-old would die before reaching age 15 ($_{10}q_5$). Since 2020, the UN IGME has also generated estimates of the mortality in youth aged 15–24 years – that is, the probability a 15-year-old would die before reaching age 25 ($_{10}q_{15}$). The methods used are similar to those used to estimate the U5MR. The B3 statistical model was applied to the 5–14 and 15–24 age groups separately and used to obtain smooth trend curves in the probability of a five-year-old dying before age 15 ($_{10}q_5$) and the probability of a 15-year-old dying before age 25 ($_{10}q_{15}$).

There were not enough data inputs from vital registration, surveys or censuses to estimate the probability $_{10}q_5$ in 35 countries and $_{10}q_{15}$ in 40 countries. For these cases, the probability, $_{10}q_5$ or $_{10}q_{15}$ was modelled on the draft estimates of U5MR and an expected relationship between mortality in the 0–4 and 5–14 or 15–24 age groups, as observed in countries with sufficient data series. A hierarchical linear regression was used to regress $\log(_{10}q_5)$ or $\log(_{10}q_{15})$ against $\log(U5MR)$ and the coefficients of this regression were used to predict the probability $_{10}q_5$ and

$_{10}q_{15}$ between 1990 and 2021 for countries with insufficient data sources. The advantage of this approach is that no model life tables are used (such life tables are based on the historical experience of countries with high-quality vital registration data and do not always adequately reflect mortality age patterns in low- and middle-income countries). A more complete technical description of the model is available elsewhere.[49]

It is worth noting that for all non-vital registration data series, non-sampling biases specific to data series are estimated with the B3 model. We observed that full birth histories from surveys tend to slightly underestimate mortality in the age group 5–14 when compared to other data series. Sibling histories used to model the probability $_{10}q_{15}$ also tend to underestimate mortality in the age group 15–24, especially for reference periods that are located further in the past from the survey date. This is likely due to omissions of some deaths or systematic age misstatements. As a result, in countries where the trend in mortality is largely informed by survey data, the final estimates are adjusted upwards and therefore, the final estimated series may fall slightly above the original survey data points.

Estimation of mortality rates among children aged 5–14 years and youth aged 15–24 years by sex

For the first time in 2022, the UN IGME produced estimates of mortality in children aged 5–14 and youth aged 15–24 by sex. The estimation model builds upon the main model structure of the sex ratio for IMR, CMR and U5MR but with reconsideration of model choices. In particular, the expected sex ratio (denoted as W(c,t)), is modelled with a second-order random walk (RW2) model instead of a B-splines model. The within-country fluctuation time series P(c,t) is modelled with a first-order random walk (RW1) model rather than an AR(1) model. Furthermore, the statistical computing is carried out using Integrated Nested Laplace Approximations (INLA) instead of Markov chain Monte Carlo (MCMC).

Estimation of child mortality due to conflict and natural disasters

Estimated deaths from major crises were derived from various data sources from 1950 to the present. Data on natural disasters were

obtained from the Centre for Research on the Epidemiology of Disasters' International Disaster Database.[50] Conflict death data were taken from the Uppsala Conflict Data Program/Peace Research Institute Oslo datasets,[51, 52] Armed Conflict Location & Event Data Project,[53] Center for Systemic Peace/Integrated Network for Societal Conflict Research dataset,[54] as well as from reports prepared by the United Nations and other organizations. Estimated child and youth deaths due to major crises were included if they met the following criteria: (1) the crisis was isolated to a few years; (2) under-five crisis deaths, crisis deaths among children aged 5–14 years or crisis deaths among youth aged 15–24 years were greater than 10 per cent of non-crisis deaths in the age group; (3) crisis U5MR, crisis $_{10}q_5$ or crisis $_{10}q_{15}$ was > 0.2 deaths per 1,000; (4) the number of crisis deaths among children under 5 years, or among those 5–14 or 15–24 years old was > 10 deaths.

These criteria resulted in 46 different crises for 36 countries being explicitly incorporated into UN IGME estimates for under-five mortality, 64 different crises for 53 countries being incorporated into the mortality estimates among children aged 5–14 years, and 70 different crises for 48 countries being incorporated into the mortality estimates among youth aged 15–24 years. Because background mortality rates were relatively low in the older age groups, crisis deaths represented a larger share of deaths and thus, more crises met the criteria for inclusion than for under-five mortality. Crisis deaths were included in the estimates by first excluding data points from crisis years, then fitting the B3 model to the remaining data and adding the crisis-specific mortality rate to the fitted B3 curve. Crisis death estimates are uncertain but, presently, no uncertainty around crisis deaths is included in the uncertainty intervals of the estimates. Instead, we assume the relative uncertainty in the adjusted estimates is equal to the relative uncertainty in the non-adjusted estimates; this assumption will be revisited in the future.

The UN IGME has assessed recent crises and, based on the scarcity of currently available data and the difficulties of estimating the broader impact of these crises on health systems, decided to hold the estimates constant from the start of the crisis while increasing the uncertainty over

the crisis time for three countries: South Sudan, the Bolivarian Republic of Venezuela and Yemen. Where applicable, direct crisis deaths have been added to the constant trend estimate. The UN IGME will review new data, if available, in the next estimation round and revise estimates accordingly.

Estimation of uncertainty intervals

Given the inherent uncertainty in child mortality estimates, 90 per cent uncertainty intervals are used by the UN IGME instead of the more conventional 95 per cent intervals. Reporting intervals based on higher levels of uncertainty (i.e., 95 per cent instead of 90 per cent) has the advantage that the chance of not having included the true value in the interval is smaller. The disadvantage of choosing higher uncertainty levels, however, is that intervals lose their utility to present meaningful summaries of a range of likely outcomes if the indicator of interest is highly uncertain. Given this trade-off and the substantial uncertainty associated with child mortality estimates, the UN IGME chose to report 90 per cent uncertainty intervals or in other words, intervals for which there is a 90 per cent chance that they contain the true value, to encourage wider use and interpretation of uncertainty intervals.

Extrapolation to common reference year

If the underlying empirical data refer to an earlier reference period than the end year of the period the estimates are reported, the UN IGME extrapolates the estimates to the common end year; in this round, to 2021. The UN IGME does not use covariates to derive the estimates but uses the past trend in a country and the global trend to extrapolate to the target year.

Calculating number of deaths

Under-five, infant and neonatal deaths

A birth-week cohort method is used to calculate the absolute number of deaths among neonates, infants and children under age 5. First, each annual birth cohort is divided into 52 equal birth-week cohorts. Then each birth-week cohort is exposed throughout the first five years of life to the appropriate calendar year- and age-specific mortality rates depending on cohort age. For example, the 20th birth-week cohort of the year 2000 will be exposed to the infant mortality rates in both 2000 and 2001. All deaths from birth-

week cohorts occurring as a result of exposure to the mortality rate for a given calendar year are allocated to that year and are summed by age group at death to get the total number of deaths for a given year and age group. Continuing with the above example, deaths from the 20th birth-week cohort of the year 2000 would contribute to infant deaths in year 2000 and 2001. Any deaths occurring among the 20th birth-week cohort of year 2000 after the 20th week in 2001 would contribute to under-five deaths for year 2001 and so forth. Under-five deaths in each calendar year are calculated by summing up all the deaths under age 5 across all age group cohorts in that year. The annual estimate of the number of live births in each country from the *World Population Prospects 2022*[55] is used to calculate the number of deaths.

Deaths among children aged 5–14 years and youth aged 15–24

The absolute number of deaths among those aged 5–14 years in a given year and country is calculated using the central death rates of age groups 5–9 and 10–14 years, $_5M_5$ and $_5M_{10}$, computed from the estimated $_5q_5$ and $_5q_{10}$. The central death rates are then multiplied by the country population estimates for the respective age groups from the *World Population Prospects 2022* to calculate the number of deaths. A similar approach is used for calculating the number of deaths in the age group 15–24: the estimated $_5q_{15}$ and $_5q_{20}$ are converted in central death rates $_5M_{15}$ and $_5M_{20}$ and multiplied by the population estimates.

COVID-19

The 2022 UN IGME estimates do not include any adjustment in the years 2020 and 2021 for COVID-19-related mortality as the evidence is insufficient to support an adjustment at this time. First, direct COVID-19 deaths in the age groups estimated in this report are rare, and thus unlikely to impact national-level estimates. Second, a UN IGME analysis of excess mortality using empirical data on deaths in 2020 from more than 110 countries or areas and in 2021 from more than 70 countries or areas (including data from 15 countries' Health Management Information System (HMIS) and data from the COMSA system in Mozambique) found no evidence of systematic excess mortality among children or youth in 2020 or 2021.

Excess mortality analysis for 2020 and 2021

For the analysis of excess mortality from vital registration data in 2020 and 2021, death counts for countries or areas by age group and year between 2015 and 2021 are retrieved from various sources including WHO, Population Division of the United Nations Department of Economic and Social Affairs, Population Division of the United Nations Economic Commission for Latin America and the Caribbean (CELADE), Eurostat,[56] the Short-Term Mortality Fluctuations Data series (STMF),[57] Human Mortality Database (HMD),[58] country-specific statistical offices and ministries of health offices, and country-consultation data reported directly to UNICEF. Death counts are grouped in ages 0, 1–4, 5–9, 10–14, 15–19 and 20–24, where this configuration was possible. Data on infant mortality (<1 year) was available in a subset of countries. In populations where data configuration does not allow for estimates of infant mortality, child mortality is analysed for the full age interval 0–4.

Excess mortality is defined as the difference between the observed and expected all-cause mortality (also denoted as the baseline mortality) in a given period. The baseline mortality is obtained by fitting a Generalized Linear Model with quasi-Poisson distribution to observed mortality between 2015 and 2019 in each age group and sex. The model is defined as:

$$log(deaths_{x,s,t}^c) = \beta_0 + \beta t + log(exposure_{x,s,t}^c)$$

where $deaths_{x,t}^c$ and $exposure_{x,t}^c$ indicate, respectively, the death counts and population at risk for each age group x, sex s, and country c, during years t (between years 2015 and 2019), β_0 accounts for the intercept and βt for the secular change in mortality (as an exponential trend). Confidence intervals, 95 per cent, were predicted after obtaining robust standard errors.

For exposure, population estimates by single year of age and period, between 2015 and 2021, were obtained from the World Population Prospects projection. In order to account for variations in fertility during the pandemic, data on population counts were complemented with annual birth counts where this information was available. Fertility data are retrieved from the Short-Term Fertility Fluctuations Data series (STFF)[59] and statistical offices.

In order to be able to compare the excess magnitudes between populations, p-scores, which are estimated as the ratio of the baseline to the observed mortality ($deaths^c_{x,s,2020} / baseline^c_{x,s,2020}$), were computed for each age and sex.

HMIS data were analysed for 15 countries (Afghanistan, Bangladesh, Burkina Faso, Burundi, Eswatini, Ethiopia, India, Kenya, Liberia, Madagascar, Malawi, Mozambique, Uganda, Zambia, and Zimbabwe), along with COMSA data for Mozambique. Trends and excess deaths were analysed for neonatal, infant and under-five age groups (where available – not all data had sufficient age disaggregation for analysis of all these age groups) from these data for 2020 and 2021. Given the time span and granularity of available HMIS data, monthly observations were analysed to include additional data points for the prediction of baselines. The baseline for neonatal mortality was obtained by fitting a Generalized Additive Model (GAM) with quasi-Poisson distribution, which allows for the inclusion of non-linear terms to account for seasonality. The model is defined as:

$$log\left(deaths^c_{x,s,t}\right) = \beta_0 + \beta t + cps(mth) + log(exposure^c_{x,s,t})$$

where $deaths^c_{x,t}$ and $exposure^c_{x,t}$ indicate, respectively, the death counts (either neonatal or fetal deaths) and exposure at risk, during month *t*. β_0 accounts for the intercept, βt for the secular change in mortality (as an exponential trend), and cps(mth) is a cyclical p-spline that accounts for seasonal variations. Confidence intervals, 95 per cent, were predicted using bootstrapping with 2,000 iterations. For the analysis of neonatal death rates, we use monthly live births as exposures. The monthly baseline of infant and child excess mortality were also obtained by fitting a GAM model with quasi-Poisson distribution, similar to the model employed for neonatal mortality. However, the model employed for infant and child mortality does not account for monthly variations in the exposure, as these data were not available in the HMIS data and it is not expected to vary considerably during the observation months. As with the vital registration analysis, the monthly observations were assessed to detect any significant deviations from the expected number of deaths based on historical data.

Data from the Siaya Health and Demographic Surveillance Site in Kenya were also analysed in a similar manner to that described above and found no evidence of increased under-five or neonatal mortality in 2020.

It should be noted that geographic and income variation in the data on excess deaths analysed by the UN IGME thus far is limited, and data collection continues to gather a more complete picture of COVID-19-related mortality among children and youth. While these data do not support national-level adjustments for child mortality in 2020 or 2021, the pandemic continues to evolve in unpredictable ways. Thus, the UN IGME will continue to collect data for assessing excess deaths in 2020 and 2021 and begin to assess excess mortality impact for 2022. The UN IGME will revisit this issue and generate adjustments where applicable and as needed based on evidence as it becomes available.

Notes

1. Sustainable Development Goals, United Nations, New York, 2015.

2. United Nations Children's Fund, 'COVID-19 Confirmed Cases and Deaths: Age- and sex-disaggregated data', <https://data.unicef.org/resources/covid-19-confirmed-cases-and-deaths-dashboard>, accessed 10 November 2022.

3. Values in parentheses indicate 90 per cent uncertainty intervals for the estimates. For relatively low age-specific mortality rates, the median and uncertainty bounds can appear to be the same since age-specific mortality rates are rounded to zero digits in the text.

4. Under-five rates including U5MR and NMR are rounded to zero digits in this publication. Unrounded rates are available at <https://childmortality.org>.

5. All calculations are based on unrounded rates and deaths.

6. Perin, Jamie, et al., 'Global, Regional, and National Causes of Under-5 Mortality in 2000-19: An updated systematic analysis with implications for the Sustainable Development Goals', *Lancet Child & Adolescent Health*, vol. 6, no. 2, 1 February 2022, pp. 106–115.

7. Liu, Li, et al., 'National, Regional and Global Causes of Mortality in 5–19-year-olds from 2000 to 2019: A systematic analysis', *Lancet Global Health*, vol. 10, no. 3, 1 March 2022, pp. 337–347.

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11. The annual rate of reduction (ARR) from 2010–2021 is used to project mortality rates at the country level from 2022–2030, with the NMR constrained so as not to exceed the U5MR. If a country had a negative ARR in 2010–2021 (i.e., an increase in mortality rates in 2010–2021), the rate was held constant at the estimated 2021 value. If a country reached the current lowest observed mortality level among countries with more than 10,000 live births during the projection period, the mortality rate was held constant at that lowest observed level for the remainder of the projection period. Regional aggregates were calculated based on the projected country-level estimates. Crisis mortality was removed from the estimates for the calculation of the ARR. The number of deaths is calculated using projected live births from the *World Population Prospects 2022*.

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Country, regional and global estimates of mortality among children under age 5

Country	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2021	
	1990	2000	2021	1990–2021	1990	2000	2021	Male	Female	Male	Female
Afghanistan	178 (163 - 195)	129 (120 - 139)	56 (41 - 74)	3.8 (2.8 - 4.8)	96 (88 - 105)	123 (114 - 132)	78 (57 - 104)	182 (166 - 200)	174 (159 - 191)	59 (43 - 79)	52 (38 - 70)
Albania	41 (36 - 46)	27 (25 - 30)	9 (9 - 10)	4.7 (4.3 - 5.2)	3 (3 - 4)	2 (1 - 2)	0 (0 - 0)	45 (40 - 51)	36 (32 - 41)	10 (9 - 11)	9 (8 - 10)
Algeria	52 (48 - 56)	42 (39 - 44)	22 (20 - 25)	2.7 (2.2 - 3.2)	41 (38 - 44)	25 (24 - 27)	22 (19 - 24)	56 (52 - 60)	48 (44 - 51)	24 (21 - 27)	21 (18 - 23)
Andorra	13 (3 - 50)	8 (4 - 15)	3 (1 - 10)	5 (-2.7 - 12.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	15 (4 - 58)	11 (3 - 41)	3 (1 - 12)	2 (1 - 9)
Angola	224 (199 - 251)	205 (181 - 234)	69 (29 - 137)	3.8 (1.5 - 6.6)	128 (114 - 144)	151 (133 - 172)	90 (38 - 177)	235 (209 - 264)	212 (188 - 238)	75 (32 - 149)	63 (27 - 125)
Anguilla	17 (12 - 24)	10 (7 - 14)	4 (2 - 9)	4.6 (1.8 - 7.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	17 (12 - 25)	16 (11 - 23)	4 (2 - 8)	4 (2 - 9)
Antigua and Barbuda	14 (12 - 16)	16 (14 - 17)	6 (4 - 10)	2.7 (1.2 - 4.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	15 (13 - 17)	13 (11 - 15)	7 (4 - 10)	6 (4 - 9)
Argentina	29 (28 - 29)	20 (19 - 20)	7 (7 - 7)	4.6 (4.4 - 4.8)	20 (20 - 21)	14 (14 - 14)	4 (4 - 5)	32 (31 - 32)	26 (25 - 26)	8 (7 - 8)	6 (6 - 6)
Armenia	49 (44 - 54)	31 (28 - 34)	11 (8 - 13)	4.9 (4.1 - 5.8)	4 (4 - 5)	1 (1 - 1)	0 (0 - 0)	54 (48 - 59)	44 (40 - 49)	12 (9 - 15)	10 (8 - 12)
Australia	9 (9 - 9)	6 (6 - 6)	4 (4 - 4)	2.9 (2.7 - 3.1)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	10 (10 - 11)	8 (8 - 8)	4 (4 - 4)	3 (3 - 4)
Austria	10 (9 - 10)	6 (5 - 6)	4 (3 - 4)	3.1 (2.7 - 3.4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	11 (10 - 11)	8 (8 - 9)	4 (4 - 4)	3 (3 - 4)
Azerbaijan	95 (86 - 105)	75 (66 - 84)	19 (11 - 32)	5.3 (3.5 - 7)	20 (18 - 22)	11 (10 - 12)	2 (1 - 4)	101 (91 - 112)	89 (80 - 99)	20 (12 - 35)	17 (10 - 29)
Bahamas	23 (22 - 25)	16 (15 - 17)	13 (11 - 15)	1.9 (1.3 - 2.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	25 (24 - 27)	22 (20 - 23)	14 (12 - 17)	12 (10 - 14)
Bahrain	23 (22 - 24)	12 (12 - 13)	7 (6 - 8)	3.9 (3.3 - 4.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	24 (23 - 25)	22 (21 - 23)	7 (6 - 8)	7 (6 - 8)
Bangladesh	146 (141 - 151)	86 (83 - 89)	27 (25 - 30)	5.4 (5.1 - 5.8)	545 (528 - 563)	316 (306 - 327)	82 (74 - 91)	149 (144 - 155)	142 (137 - 147)	29 (26 - 32)	25 (23 - 28)
Barbados	18 (17 - 19)	15 (14 - 16)	12 (8 - 18)	1.4 (-0.1 - 2.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	20 (18 - 21)	16 (15 - 18)	13 (8 - 20)	11 (7 - 17)
Belarus	15 (15 - 16)	13 (12 - 13)	3 (2 - 3)	5.5 (5.1 - 6)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	17 (17 - 18)	13 (13 - 13)	3 (3 - 4)	2 (2 - 3)
Belgium	10 (10 - 10)	6 (6 - 6)	4 (4 - 5)	2.9 (2.5 - 3.2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 1)	11 (11 - 12)	9 (8 - 9)	5 (4 - 5)	4 (3 - 4)
Belize	38 (34 - 44)	24 (22 - 25)	11 (9 - 14)	4 (3.2 - 4.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	42 (37 - 48)	35 (30 - 40)	12 (10 - 15)	10 (8 - 13)
Benin	173 (163 - 183)	137 (129 - 145)	84 (68 - 103)	2.3 (1.7 - 3)	38 (36 - 41)	38 (36 - 41)	39 (31 - 48)	180 (169 - 191)	165 (155 - 176)	89 (73 - 111)	77 (63 - 96)
Bhutan	127 (112 - 146)	77 (70 - 86)	27 (16 - 44)	5 (3.3 - 6.8)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	131 (116 - 151)	122 (107 - 141)	29 (17 - 48)	24 (14 - 41)
Bolivia (Plurinational State of)	121 (115 - 128)	76 (71 - 81)	25 (17 - 35)	5.1 (4 - 6.3)	30 (29 - 32)	19 (18 - 20)	6 (5 - 9)	127 (120 - 135)	115 (109 - 122)	27 (19 - 39)	22 (16 - 32)
Bosnia and Herzegovina	18 (18 - 19)	10 (10 - 10)	6 (4 - 7)	3.8 (3 - 4.6)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	20 (20 - 21)	16 (16 - 17)	6 (5 - 8)	5 (4 - 6)
Botswana	45 (36 - 57)	74 (53 - 111)	35 (10 - 116)	0.8 (-3.2 - 4.9)	2 (2 - 3)	4 (3 - 5)	2 (1 - 7)	49 (40 - 62)	41 (33 - 52)	38 (12 - 127)	31 (9 - 104)
Brazil	63 (59 - 68)	35 (32 - 37)	14 (12 - 17)	4.8 (4.2 - 5.3)	237 (221 - 254)	122 (114 - 130)	40 (34 - 47)	69 (64 - 74)	57 (53 - 62)	16 (14 - 19)	13 (11 - 15)
British Virgin Islands	19 (16 - 23)	16 (13 - 19)	10 (5 - 23)	1.9 (-0.7 - 4.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	21 (18 - 25)	17 (14 - 20)	11 (5 - 25)	9 (4 - 21)
Brunei Darussalam	13 (13 - 14)	10 (10 - 11)	11 (10 - 14)	0.5 (-0.1 - 1.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	14 (13 - 15)	12 (11 - 13)	12 (10 - 15)	10 (9 - 13)
Bulgaria	18 (18 - 19)	17 (17 - 18)	6 (6 - 7)	3.4 (3.2 - 3.7)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	21 (20 - 21)	16 (16 - 17)	7 (6 - 7)	6 (5 - 6)
Burkina Faso	199 (186 - 213)	179 (167 - 192)	83 (56 - 122)	2.8 (1.6 - 4.1)	82 (77 - 87)	91 (85 - 98)	63 (43 - 94)	206 (193 - 222)	191 (179 - 205)	87 (60 - 129)	78 (53 - 115)
Burundi	170 (154 - 189)	155 (140 - 171)	53 (32 - 85)	3.8 (2.2 - 5.4)	42 (38 - 47)	40 (36 - 44)	23 (14 - 37)	178 (161 - 198)	162 (146 - 180)	57 (35 - 93)	48 (29 - 78)
Cabo Verde	60 (58 - 63)	38 (37 - 39)	14 (10 - 18)	4.8 (4 - 5.7)	1 (1 - 1)	1 (0 - 1)	0 (0 - 0)	65 (62 - 67)	56 (54 - 58)	15 (11 - 19)	12 (9 - 16)
Cambodia	116 (108 - 126)	106 (97 - 116)	25 (12 - 51)	5 (2.7 - 7.3)	45 (42 - 49)	36 (33 - 39)	8 (4 - 16)	124 (115 - 134)	108 (100 - 117)	28 (14 - 56)	22 (11 - 44)
Cameroon	136 (127 - 147)	144 (134 - 156)	70 (54 - 89)	2.2 (1.4 - 3)	66 (61 - 71)	86 (79 - 92)	65 (50 - 83)	144 (134 - 155)	128 (119 - 138)	75 (58 - 97)	64 (49 - 82)
Canada	8 (8 - 8)	6 (6 - 6)	5 (5 - 5)	1.6 (1.4 - 1.7)	3 (3 - 3)	2 (2 - 2)	2 (2 - 2)	9 (9 - 9)	7 (7 - 7)	5 (5 - 6)	5 (4 - 5)
Central African Republic	177 (160 - 196)	166 (151 - 184)	100 (79 - 126)	1.9 (1 - 2.7)	22 (20 - 24)	26 (24 - 29)	22 (18 - 28)	185 (167 - 205)	169 (152 - 188)	107 (84 - 135)	93 (73 - 118)
Chad	212 (197 - 229)	184 (171 - 200)	107 (75 - 151)	2.2 (1.1 - 3.4)	60 (56 - 65)	74 (69 - 80)	76 (54 - 108)	222 (205 - 240)	202 (187 - 219)	114 (79 - 161)	100 (70 - 142)
Chile	19 (19 - 19)	11 (11 - 11)	7 (5 - 8)	3.4 (2.9 - 4)	6 (5 - 6)	3 (3 - 3)	1 (1 - 2)	21 (20 - 21)	17 (17 - 18)	7 (6 - 8)	6 (5 - 7)
China	54 (49 - 58)	37 (35 - 39)	7 (6 - 8)	6.6 (6.2 - 7)	1,464 (1,352 - 1,592)	626 (592 - 664)	88 (79 - 98)	56 (51 - 61)	51 (47 - 56)	7 (7 - 8)	7 (6 - 7)
Colombia	36 (33 - 38)	25 (23 - 27)	13 (8 - 20)	3.3 (1.9 - 4.6)	31 (29 - 34)	22 (20 - 24)	9 (6 - 14)	39 (37 - 42)	32 (29 - 34)	14 (9 - 22)	11 (7 - 18)
Comoros	126 (113 - 140)	96 (82 - 113)	50 (37 - 67)	3 (2 - 4)	2 (2 - 2)	2 (2 - 2)	1 (1 - 2)	132 (117 - 147)	121 (107 - 135)	52 (39 - 70)	47 (35 - 63)
Congo	91 (81 - 103)	114 (102 - 126)	43 (24 - 77)	2.4 (0.5 - 4.3)	8 (7 - 9)	13 (11 - 14)	8 (4 - 14)	97 (85 - 110)	85 (75 - 97)	47 (26 - 85)	39 (22 - 70)

Country, regional and global estimates of mortality among children under age 5

Country	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands)a		
	1990	2021	1990	2021	1990	2000	2021	1990–2021	1990	2000	2021
Afghanistan	121 (112 - 131)	43 (33 - 56)	66 (61 - 71)	61 (47 - 78)	74 (66 - 83)	61 (55 - 67)	34 (25 - 46)	2.5 (1.5 - 3.6)	42 (38 - 47)	61 (55 - 67)	49 (35 - 66)
Albania	35 (32 - 39)	8 (8 - 9)	3 (3 - 3)	0 (0 - 0)	13 (10 - 16)	12 (10 - 15)	7 (6 - 8)	1.8 (1 - 2.6)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Algeria	44 (41 - 47)	19 (17 - 22)	34 (32 - 37)	18 (16 - 21)	24 (22 - 27)	22 (20 - 24)	16 (14 - 18)	1.4 (0.9 - 2)	19 (17 - 21)	13 (12 - 15)	15 (13 - 17)
Andorra	9 (2 - 35)	3 (1 - 10)	0 (0 - 0)	0 (0 - 0)	7 (2 - 25)	4 (2 - 7)	1 (0 - 6)	5 (-3 - 12.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Angola	132 (118 - 148)	47 (23 - 85)	77 (70 - 87)	62 (31 - 112)	54 (44 - 67)	50 (42 - 61)	27 (11 - 56)	2.3 (-0.2 - 5.3)	33 (27 - 40)	39 (33 - 48)	36 (14 - 74)
Anguilla	14 (10 - 19)	4 (2 - 8)	0 (0 - 0)	0 (0 - 0)	9 (6 - 14)	5 (3 - 8)	2 (1 - 5)	4.7 (1.7 - 7.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Antigua and Barbuda	11 (10 - 13)	5 (3 - 8)	0 (0 - 0)	0 (0 - 0)	8 (7 - 9)	10 (9 - 11)	3 (2 - 5)	2.9 (1.3 - 4.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Argentina	25 (25 - 26)	6 (6 - 6)	18 (18 - 18)	4 (4 - 4)	15 (14 - 16)	11 (11 - 11)	5 (5 - 6)	3.5 (3.2 - 3.7)	11 (10 - 11)	8 (8 - 8)	3 (3 - 3)
Armenia	42 (38 - 46)	10 (7 - 12)	3 (3 - 4)	0 (0 - 0)	23 (20 - 26)	16 (14 - 18)	6 (4 - 8)	4.5 (3.3 - 5.8)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)
Australia	8 (7 - 8)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	5 (4 - 5)	4 (3 - 4)	2 (2 - 3)	2.2 (1.9 - 2.4)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)
Austria	8 (8 - 8)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	5 (4 - 5)	3 (3 - 3)	2 (2 - 3)	2.2 (1.8 - 2.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Azerbaijan	76 (69 - 83)	17 (10 - 28)	16 (15 - 18)	2 (1 - 4)	31 (25 - 36)	34 (29 - 41)	10 (5 - 17)	3.8 (1.7 - 5.8)	6 (5 - 8)	5 (4 - 6)	1 (1 - 2)
Bahamas	20 (19 - 21)	11 (10 - 13)	0 (0 - 0)	0 (0 - 0)	14 (13 - 15)	8 (7 - 9)	7 (6 - 9)	2.1 (1.3 - 3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Bahrain	20 (19 - 20)	6 (5 - 7)	0 (0 - 0)	0 (0 - 0)	15 (14 - 16)	5 (4 - 5)	3 (2 - 4)	5.3 (4.4 - 6.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Bangladesh	101 (98 - 104)	23 (21 - 25)	375 (364 - 385)	69 (63 - 76)	66 (62 - 69)	44 (42 - 46)	16 (14 - 18)	4.5 (4.1 - 5)	246 (232 - 260)	165 (157 - 174)	48 (42 - 55)
Barbados	16 (15 - 17)	11 (7 - 17)	0 (0 - 0)	0 (0 - 0)	12 (11 - 13)	9 (8 - 10)	8 (5 - 12)	1.3 (-0.2 - 2.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Belarus	12 (12 - 12)	2 (2 - 2)	2 (2 - 2)	0 (0 - 0)	10 (8 - 12)	5 (4 - 6)	1 (1 - 1)	7.9 (6.2 - 9.6)	1 (1 - 2)	1 (0 - 1)	0 (0 - 0)
Belgium	8 (8 - 9)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	5 (4 - 5)	3 (3 - 3)	2 (2 - 3)	2.1 (1.6 - 2.5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Belize	31 (28 - 35)	10 (8 - 12)	0 (0 - 0)	0 (0 - 0)	19 (16 - 22)	12 (11 - 13)	7 (6 - 9)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Benin	104 (99 - 110)	55 (46 - 66)	24 (22 - 25)	26 (22 - 31)	45 (41 - 50)	39 (35 - 43)	29 (23 - 37)	1.4 (0.6 - 2.2)	10 (10 - 12)	11 (10 - 13)	14 (11 - 18)
Bhutan	89 (80 - 101)	22 (14 - 36)	2 (2 - 2)	0 (0 - 0)	42 (31 - 55)	32 (26 - 38)	15 (8 - 26)	3.4 (1.1 - 5.6)	1 (1 - 1)	0 (0 - 1)	0 (0 - 0)
Bolivia (Plurinational State of)	84 (80 - 88)	20 (14 - 28)	21 (20 - 22)	5 (4 - 7)	41 (37 - 45)	29 (26 - 33)	13 (9 - 20)	3.7 (2.3 - 5)	10 (9 - 11)	8 (7 - 8)	3 (2 - 5)
Bosnia and Herzegovina	16 (16 - 16)	5 (4 - 6)	1 (1 - 1)	0 (0 - 0)	11 (11 - 12)	7 (7 - 7)	4 (3 - 5)	3.3 (2.4 - 4.1)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Botswana	34 (28 - 42)	28 (9 - 81)	2 (1 - 2)	2 (1 - 5)	18 (14 - 23)	8 (6 - 12)	18 (5 - 62)	0 (-4.1 - 4.1)	1 (1 - 1)	0 (0 - 1)	1 (0 - 4)
Brazil	53 (49 - 56)	13 (11 - 15)	197 (185 - 209)	36 (30 - 42)	26 (23 - 29)	19 (17 - 21)	8 (7 - 10)	3.6 (3 - 4.3)	98 (86 - 109)	66 (58 - 73)	23 (20 - 28)
British Virgin Islands	17 (15 - 21)	10 (5 - 22)	0 (0 - 0)	0 (0 - 0)	10 (7 - 14)	8 (5 - 12)	7 (2 - 13)	2.1 (-0.8 - 4.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Brunei Darussalam	10 (10 - 11)	10 (8 - 12)	0 (0 - 0)	0 (0 - 0)	6 (5 - 6)	5 (4 - 6)	6 (5 - 8)	-0.3 (-1.2 - 0.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Bulgaria	15 (14 - 15)	5 (5 - 6)	2 (2 - 2)	0 (0 - 0)	8 (8 - 8)	8 (7 - 8)	3 (3 - 3)	3.1 (2.8 - 3.5)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Burkina Faso	99 (94 - 104)	52 (40 - 68)	41 (39 - 43)	40 (31 - 53)	46 (41 - 51)	41 (36 - 46)	25 (16 - 40)	1.9 (0.4 - 3.5)	20 (17 - 22)	22 (19 - 25)	20 (12 - 32)
Burundi	103 (94 - 113)	38 (25 - 56)	26 (24 - 28)	16 (11 - 24)	39 (34 - 46)	37 (32 - 42)	20 (12 - 34)	2.1 (0.4 - 3.9)	10 (9 - 12)	10 (8 - 11)	9 (5 - 15)
Cabo Verde	47 (45 - 48)	12 (9 - 15)	1 (1 - 1)	0 (0 - 0)	20 (17 - 23)	19 (17 - 21)	8 (6 - 11)	2.8 (1.7 - 3.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Cambodia	85 (80 - 90)	21 (10 - 43)	33 (31 - 35)	7 (3 - 14)	40 (36 - 45)	35 (31 - 39)	13 (6 - 27)	3.7 (1.3 - 6.1)	16 (14 - 18)	12 (10 - 13)	4 (2 - 9)
Cameroon	85 (80 - 90)	47 (38 - 58)	42 (39 - 44)	44 (36 - 54)	40 (36 - 44)	35 (32 - 40)	26 (19 - 34)	1.4 (0.5 - 2.4)	20 (18 - 22)	22 (20 - 24)	24 (18 - 33)
Canada	7 (7 - 7)	4 (4 - 5)	3 (3 - 3)	2 (2 - 2)	4 (4 - 4)	4 (4 - 4)	3 (3 - 4)	0.8 (0.6 - 1)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)
Central African Republic	115 (107 - 125)	75 (62 - 90)	15 (13 - 16)	17 (14 - 21)	51 (44 - 59)	43 (37 - 50)	32 (23 - 43)	1.5 (0.4 - 2.7)	7 (6 - 8)	7 (6 - 8)	7 (5 - 10)
Chad	112 (105 - 119)	66 (51 - 86)	33 (31 - 35)	48 (37 - 62)	52 (46 - 59)	44 (39 - 50)	32 (21 - 49)	1.5 (0.1 - 2.9)	16 (14 - 18)	19 (16 - 21)	24 (16 - 36)
Chile	16 (16 - 16)	6 (5 - 7)	5 (5 - 5)	1 (1 - 2)	9 (8 - 9)	6 (6 - 6)	4 (3 - 5)	2.2 (1.5 - 3)	3 (2 - 3)	1 (1 - 1)	1 (1 - 1)
China	43 (39 - 46)	5 (5 - 6)	1,175 (1,085 - 1,277)	58 (52 - 65)	30 (26 - 33)	21 (20 - 23)	3 (3 - 4)	7.2 (6.6 - 7.8)	833 (742 - 935)	370 (340 - 403)	35 (30 - 40)
Colombia	29 (27 - 31)	11 (7 - 17)	26 (24 - 27)	8 (5 - 12)	18 (17 - 20)	14 (12 - 15)	7 (4 - 11)	3.1 (1.6 - 4.5)	16 (15 - 18)	12 (11 - 13)	5 (3 - 8)
Comoros	89 (80 - 98)	39 (30 - 51)	2 (1 - 2)	1 (1 - 1)	50 (42 - 60)	40 (28 - 54)	26 (14 - 40)	2.2 (0.6 - 4.1)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)
Congo	60 (53 - 66)	32 (19 - 52)	5 (5 - 6)	6 (3 - 9)	27 (23 - 32)	30 (26 - 35)	18 (10 - 34)	1.3 (-0.8 - 3.3)	3 (2 - 3)	4 (3 - 4)	3 (2 - 6)

Country, regional and global estimates of mortality among children under age 5

Country	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2021	
	1990	2000	2021	1990–2021	1990	2000	2021	Male	Female	Male	Female
Cook Islands (New Zealand)	24 (22 - 27)	18 (16 - 20)	7 (4 - 13)	3.9 (1.9 - 5.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	25 (22 - 28)	23 (20 - 25)	7 (4 - 14)	7 (4 - 13)
Costa Rica	17 (17 - 17)	13 (13 - 13)	8 (7 - 8)	2.6 (2.3 - 2.8)	1 (1 - 1)	1 (1 - 1)	0 (0 - 1)	19 (18 - 19)	15 (14 - 15)	8 (8 - 9)	7 (7 - 8)
Croatia	13 (12 - 13)	8 (8 - 9)	5 (4 - 5)	3.3 (3 - 3.6)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	15 (14 - 15)	11 (11 - 12)	5 (5 - 6)	4 (4 - 5)
Cuba	14 (12 - 15)	9 (8 - 10)	5 (4 - 6)	3.2 (2.3 - 4)	3 (2 - 3)	1 (1 - 1)	1 (0 - 1)	15 (14 - 17)	12 (11 - 13)	5 (4 - 7)	4 (4 - 6)
Cyprus[b]	11 (11 - 12)	7 (6 - 7)	3 (2 - 4)	4.5 (3.4 - 5.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	12 (12 - 13)	10 (9 - 11)	3 (2 - 4)	3 (2 - 4)
Czechia	12 (12 - 12)	5 (5 - 6)	3 (3 - 3)	4.8 (4.5 - 5)	2 (2 - 2)	0 (0 - 1)	0 (0 - 0)	14 (13 - 14)	11 (10 - 11)	3 (3 - 3)	2 (2 - 3)
Côte d'Ivoire	153 (143 - 165)	143 (133 - 155)	75 (56 - 100)	2.3 (1.4 - 3.3)	81 (75 - 87)	103 (95 - 111)	68 (51 - 91)	165 (154 - 178)	141 (131 - 152)	83 (62 - 110)	67 (50 - 90)
Democratic People's Republic of Korea	43 (34 - 56)	60 (47 - 77)	15 (12 - 20)	3.3 (3.3 - 3.3)	18 (14 - 23)	25 (20 - 32)	5 (4 - 7)	47 (37 - 61)	39 (31 - 51)	17 (13 - 22)	14 (11 - 18)
Democratic Republic of the Congo	186 (168 - 205)	160 (145 - 177)	79 (47 - 132)	2.8 (1.1 - 4.4)	293 (264 - 322)	336 (306 - 371)	308 (184 - 510)	194 (174 - 214)	178 (161 - 197)	85 (51 - 143)	72 (43 - 120)
Denmark	9 (9 - 9)	6 (5 - 6)	4 (3 - 4)	2.9 (2.7 - 3.2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	10 (10 - 10)	8 (7 - 8)	4 (4 - 4)	3 (3 - 4)
Djibouti	118 (101 - 137)	101 (86 - 119)	54 (30 - 96)	2.5 (0.6 - 4.5)	2 (2 - 3)	2 (2 - 3)	1 (1 - 2)	126 (107 - 146)	110 (94 - 128)	59 (32 - 104)	49 (27 - 87)
Dominica	16 (15 - 17)	17 (16 - 18)	36 (31 - 42)	-2.5 (-3.1 - -1.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	18 (16 - 19)	15 (14 - 16)	39 (33 - 46)	33 (28 - 39)
Dominican Republic	60 (56 - 64)	40 (37 - 43)	33 (24 - 44)	1.9 (0.9 - 2.9)	13 (12 - 14)	8 (8 - 9)	7 (5 - 9)	64 (60 - 69)	55 (51 - 59)	36 (26 - 48)	30 (22 - 40)
Ecuador	54 (49 - 60)	30 (26 - 33)	12 (11 - 14)	4.7 (4.2 - 5.3)	17 (15 - 19)	9 (8 - 11)	4 (3 - 4)	59 (53 - 66)	48 (43 - 54)	14 (12 - 16)	11 (10 - 13)
Egypt	86 (82 - 90)	47 (44 - 50)	19 (12 - 29)	4.9 (3.5 - 6.3)	163 (155 - 171)	89 (83 - 95)	47 (30 - 72)	85 (81 - 90)	86 (82 - 91)	20 (13 - 31)	18 (11 - 27)
El Salvador	60 (55 - 65)	33 (30 - 37)	12 (7 - 21)	5.1 (3.3 - 6.8)	11 (10 - 12)	6 (5 - 6)	1 (1 - 2)	64 (59 - 71)	55 (50 - 61)	14 (8 - 23)	11 (7 - 19)
Equatorial Guinea	179 (158 - 200)	156 (139 - 177)	77 (42 - 137)	2.7 (0.8 - 4.7)	4 (3 - 4)	4 (4 - 5)	4 (2 - 7)	187 (165 - 211)	169 (149 - 190)	83 (45 - 147)	70 (38 - 126)
Eritrea	153 (140 - 167)	85 (78 - 94)	38 (21 - 69)	4.5 (2.6 - 6.4)	14 (12 - 15)	8 (7 - 8)	4 (2 - 7)	167 (153 - 183)	138 (127 - 152)	43 (24 - 77)	33 (18 - 61)
Estonia	18 (17 - 18)	11 (10 - 12)	2 (2 - 2)	7 (6.4 - 7.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	20 (19 - 21)	15 (15 - 16)	2 (2 - 3)	2 (1 - 2)
Eswatini	68 (60 - 77)	112 (101 - 124)	53 (32 - 86)	0.8 (-0.8 - 2.5)	2 (2 - 3)	4 (3 - 4)	2 (1 - 2)	74 (66 - 84)	62 (54 - 70)	57 (35 - 93)	48 (29 - 79)
Ethiopia	201 (187 - 216)	140 (131 - 151)	47 (36 - 60)	4.7 (3.9 - 5.5)	450 (419 - 484)	405 (378 - 435)	178 (138 - 229)	213 (198 - 230)	188 (174 - 202)	52 (41 - 68)	41 (32 - 53)
Fiji	29 (25 - 34)	23 (22 - 24)	28 (25 - 31)	0.2 (-0.5 - 0.8)	1 (1 - 1)	0 (0 - 0)	1 (0 - 1)	31 (27 - 36)	27 (23 - 31)	30 (27 - 33)	25 (23 - 29)
Finland	7 (6 - 7)	4 (4 - 4)	2 (2 - 2)	3.6 (3.3 - 4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	7 (7 - 8)	6 (6 - 6)	2 (2 - 3)	2 (2 - 2)
France	9 (9 - 9)	5 (5 - 6)	4 (4 - 5)	2.3 (2.1 - 2.6)	7 (7 - 7)	4 (4 - 4)	3 (3 - 3)	10 (10 - 11)	8 (7 - 8)	5 (4 - 5)	4 (4 - 4)
Gabon	92 (80 - 106)	84 (74 - 97)	40 (24 - 67)	2.7 (1 - 4.4)	3 (3 - 4)	3 (3 - 4)	3 (2 - 4)	99 (86 - 115)	85 (73 - 98)	44 (26 - 74)	36 (21 - 60)
Gambia	167 (151 - 184)	114 (104 - 124)	48 (37 - 62)	4 (3.2 - 4.9)	7 (7 - 8)	7 (6 - 7)	4 (3 - 5)	176 (159 - 195)	157 (142 - 174)	53 (41 - 68)	43 (33 - 55)
Georgia	48 (43 - 53)	37 (32 - 42)	9 (8 - 11)	5.2 (4.7 - 5.7)	5 (4 - 5)	2 (2 - 2)	0 (0 - 1)	53 (47 - 59)	42 (37 - 48)	11 (9 - 12)	8 (7 - 10)
Germany	9 (8 - 9)	5 (5 - 5)	4 (3 - 4)	2.8 (2.7 - 2.9)	8 (7 - 8)	4 (4 - 4)	3 (3 - 3)	10 (9 - 10)	7 (7 - 8)	4 (4 - 4)	3 (3 - 3)
Ghana	128 (121 - 135)	100 (95 - 106)	44 (33 - 59)	3.4 (2.5 - 4.4)	78 (74 - 83)	67 (63 - 71)	39 (30 - 52)	135 (128 - 144)	119 (113 - 127)	48 (37 - 65)	39 (30 - 52)
Greece	10 (10 - 11)	6 (6 - 7)	4 (3 - 4)	3.3 (2.9 - 3.7)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	11 (11 - 12)	10 (9 - 10)	4 (4 - 5)	3 (3 - 4)
Grenada	22 (21 - 24)	15 (14 - 17)	16 (13 - 20)	1 (0.4 - 1.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	24 (22 - 26)	21 (19 - 23)	17 (14 - 21)	15 (12 - 18)
Guatemala	80 (76 - 86)	52 (48 - 56)	23 (16 - 32)	4 (3 - 5.1)	28 (26 - 30)	21 (19 - 22)	9 (6 - 12)	86 (81 - 92)	74 (70 - 80)	25 (18 - 35)	21 (15 - 28)
Guinea	233 (218 - 249)	166 (155 - 177)	99 (80 - 123)	2.8 (2.1 - 3.4)	64 (60 - 69)	56 (53 - 60)	45 (37 - 56)	240 (224 - 258)	225 (209 - 241)	106 (86 - 132)	91 (74 - 114)
Guinea-Bissau	223 (200 - 249)	174 (158 - 194)	74 (43 - 122)	3.5 (1.9 - 5.3)	10 (9 - 11)	9 (8 - 10)	5 (3 - 8)	233 (210 - 261)	212 (189 - 237)	80 (46 - 133)	68 (39 - 112)
Guyana	61 (55 - 67)	47 (42 - 52)	28 (16 - 48)	2.5 (0.8 - 4.3)	1 (1 - 2)	1 (1 - 1)	0 (0 - 1)	68 (61 - 75)	54 (48 - 60)	31 (18 - 54)	24 (14 - 42)
Haiti	145 (136 - 155)	104 (96 - 112)	59 (41 - 85)	2.9 (1.7 - 4.1)	37 (35 - 40)	27 (25 - 29)	16 (11 - 23)	154 (143 - 165)	136 (127 - 146)	64 (45 - 93)	53 (37 - 77)
Honduras	58 (54 - 63)	37 (35 - 41)	17 (13 - 22)	4.1 (3.1 - 5)	11 (10 - 12)	8 (8 - 9)	4 (3 - 5)	64 (59 - 69)	53 (48 - 57)	18 (14 - 25)	15 (11 - 20)
Hungary	17 (17 - 18)	10 (10 - 10)	4 (4 - 5)	4.7 (4.3 - 5.1)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	19 (19 - 20)	15 (15 - 16)	4 (4 - 5)	4 (3 - 4)
Iceland	6 (6 - 7)	4 (4 - 5)	3 (2 - 3)	2.9 (2 - 3.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	7 (6 - 8)	6 (5 - 7)	3 (2 - 4)	2 (2 - 3)
India	127 (122 - 131)	92 (88 - 95)	31 (28 - 34)	4.6 (4.2 - 4.9)	3,453 (3,336 - 3,572)	2,580 (2,488 - 2,680)	709 (640 - 784)	123 (118 - 127)	130 (126 - 135)	30 (27 - 34)	31 (28 - 34)
Indonesia	84 (80 - 88)	52 (50 - 55)	22 (17 - 28)	4.3 (3.5 - 5.1)	390 (373 - 409)	244 (231 - 257)	100 (79 - 128)	90 (86 - 95)	77 (74 - 82)	24 (19 - 31)	20 (16 - 26)

Country, regional and global estimates of mortality among children under age 5

Country	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)[a]		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands)[a]		
	1990	2021	1990	2021	1990	2000	2021	1990–2021	1990	2000	2021
Cook Islands (New Zealand)	20 (18 - 22)	6 (3 - 12)	0 (0 - 0)	0 (0 - 0)	13 (10 - 16)	10 (7 - 13)	4 (2 - 8)	4 (1.7 - 6.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Costa Rica	14 (14 - 14)	6 (6 - 7)	1 (1 - 1)	0 (0 - 0)	9 (9 - 9)	8 (7 - 8)	5 (5 - 6)	1.7 (1.4 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Croatia	11 (11 - 11)	4 (4 - 4)	1 (1 - 1)	0 (0 - 0)	8 (8 - 9)	6 (5 - 6)	3 (2 - 3)	3.5 (3 - 3.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Cuba	11 (10 - 12)	4 (3 - 5)	2 (2 - 2)	0 (0 - 1)	7 (6 - 8)	4 (4 - 5)	2 (2 - 3)	3.4 (2.6 - 4.3)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Cyprus[b]	10 (9 - 11)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	4 (3 - 4)	2 (1 - 2)	4.4 (3 - 5.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Czechia	10 (10 - 11)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	7 (7 - 8)	3 (3 - 3)	1 (1 - 2)	5.2 (4.9 - 5.5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Côte d'Ivoire	104 (98 - 111)	56 (44 - 72)	56 (53 - 60)	51 (40 - 66)	49 (44 - 54)	46 (41 - 52)	32 (23 - 45)	1.4 (0.3 - 2.4)	27 (25 - 30)	35 (31 - 39)	30 (22 - 41)
Democratic People's Republic of Korea	33 (26 - 43)	10 (8 - 13)	14 (11 - 18)	3 (3 - 4)	22 (15 - 31)	27 (17 - 41)	8 (5 - 13)	3.2 (2.3 - 4.6)	9 (6 - 13)	11 (7 - 17)	3 (2 - 4)
Democratic Republic of the Congo	120 (111 - 129)	62 (40 - 93)	191 (177 - 206)	246 (157 - 365)	42 (36 - 49)	39 (33 - 45)	26 (15 - 47)	1.5 (-0.4 - 3.5)	69 (59 - 80)	84 (72 - 98)	107 (59 - 188)
Denmark	7 (7 - 8)	3 (3 - 3)	0 (0 - 0)	0 (0 - 0)	4 (4 - 5)	3 (3 - 4)	2 (2 - 3)	1.8 (1.4 - 2.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Djibouti	92 (80 - 105)	46 (26 - 76)	2 (2 - 2)	1 (1 - 2)	49 (41 - 59)	44 (36 - 53)	30 (16 - 55)	1.6 (-0.5 - 3.8)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)
Dominica	13 (12 - 14)	32 (27 - 38)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	13 (12 - 14)	28 (23 - 34)	-3.3 (-4 - -2.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Dominican Republic	46 (43 - 49)	27 (21 - 36)	10 (9 - 11)	6 (4 - 7)	24 (22 - 27)	23 (21 - 26)	23 (17 - 31)	0.2 (-0.9 - 1.2)	5 (5 - 6)	5 (5 - 5)	5 (3 - 6)
Ecuador	42 (39 - 46)	11 (9 - 12)	13 (12 - 14)	3 (3 - 4)	22 (19 - 26)	14 (12 - 17)	7 (6 - 8)	3.9 (3.2 - 4.6)	7 (6 - 8)	5 (4 - 5)	2 (2 - 2)
Egypt	63 (60 - 66)	16 (11 - 24)	119 (114 - 124)	40 (26 - 60)	33 (31 - 36)	22 (21 - 24)	10 (6 - 16)	3.9 (2.4 - 5.3)	63 (59 - 68)	43 (40 - 47)	25 (16 - 39)
El Salvador	46 (43 - 50)	11 (6 - 18)	8 (8 - 9)	1 (1 - 2)	23 (20 - 26)	15 (13 - 17)	6 (3 - 11)	4.3 (2.3 - 6.2)	4 (4 - 5)	2 (2 - 3)	1 (0 - 1)
Equatorial Guinea	121 (108 - 134)	57 (34 - 95)	2 (2 - 3)	3 (2 - 5)	50 (38 - 64)	46 (37 - 58)	28 (13 - 56)	1.8 (-0.6 - 4.5)	1 (1 - 1)	1 (1 - 2)	1 (1 - 3)
Eritrea	94 (87 - 102)	29 (17 - 47)	8 (8 - 9)	3 (2 - 5)	35 (30 - 40)	27 (24 - 31)	17 (9 - 32)	2.3 (0.2 - 4.3)	3 (3 - 4)	2 (2 - 3)	2 (1 - 3)
Estonia	14 (13 - 14)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	10 (9 - 10)	5 (5 - 6)	1 (1 - 1)	7.8 (6.9 - 8.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Eswatini	52 (47 - 57)	41 (27 - 63)	2 (2 - 2)	1 (1 - 2)	23 (19 - 27)	29 (25 - 33)	23 (13 - 40)	-0.1 (-1.9 - 1.8)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)
Ethiopia	120 (112 - 128)	34 (28 - 42)	275 (258 - 294)	132 (107 - 162)	59 (53 - 66)	48 (43 - 54)	26 (20 - 34)	2.6 (1.7 - 3.6)	141 (126 - 157)	145 (130 - 160)	102 (78 - 134)
Fiji	24 (21 - 28)	23 (21 - 26)	1 (0 - 1)	0 (0 - 0)	13 (11 - 16)	10 (9 - 11)	14 (12 - 16)	-0.1 (-1.1 - 0.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Finland	6 (5 - 6)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	2 (2 - 3)	1 (1 - 1)	3.6 (3.2 - 4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
France	7 (7 - 8)	3 (3 - 4)	6 (6 - 6)	2 (2 - 3)	4 (3 - 4)	3 (3 - 3)	3 (2 - 3)	1.2 (0.7 - 1.6)	3 (3 - 3)	2 (2 - 2)	2 (1 - 2)
Gabon	60 (53 - 68)	29 (18 - 45)	2 (2 - 2)	2 (1 - 3)	31 (26 - 37)	28 (23 - 33)	19 (11 - 33)	1.6 (-0.3 - 3.4)	1 (1 - 1)	1 (1 - 1)	1 (1 - 2)
Gambia	81 (76 - 88)	34 (28 - 40)	4 (3 - 4)	3 (2 - 4)	50 (41 - 59)	40 (35 - 46)	25 (19 - 34)	2.2 (1 - 3.3)	2 (2 - 3)	2 (2 - 3)	2 (2 - 3)
Georgia	41 (37 - 45)	8 (8 - 9)	4 (4 - 5)	0 (0 - 0)	25 (22 - 28)	23 (20 - 27)	5 (5 - 6)	4.9 (4.3 - 5.5)	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)
Germany	7 (7 - 7)	3 (3 - 3)	6 (6 - 6)	2 (2 - 2)	3 (3 - 4)	3 (3 - 3)	2 (2 - 2)	1.4 (1.3 - 1.6)	3 (3 - 3)	2 (2 - 2)	2 (2 - 2)
Ghana	80 (76 - 84)	33 (26 - 41)	49 (47 - 52)	29 (23 - 37)	42 (38 - 46)	36 (33 - 39)	23 (17 - 31)	2 (1 - 3)	26 (24 - 29)	25 (23 - 28)	21 (15 - 28)
Greece	9 (9 - 9)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	6 (6 - 7)	4 (4 - 4)	2 (2 - 3)	3.4 (2.9 - 3.9)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Grenada	18 (17 - 19)	14 (12 - 18)	0 (0 - 0)	0 (0 - 0)	12 (11 - 14)	8 (7 - 9)	10 (8 - 13)	0.6 (-0.3 - 1.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Guatemala	60 (56 - 63)	20 (14 - 26)	21 (20 - 22)	7 (5 - 10)	28 (25 - 31)	21 (19 - 24)	11 (8 - 15)	3.1 (1.9 - 4.3)	10 (9 - 11)	9 (8 - 10)	4 (3 - 6)
Guinea	138 (129 - 147)	64 (53 - 77)	39 (36 - 41)	29 (25 - 35)	62 (55 - 69)	46 (41 - 51)	31 (23 - 42)	2.2 (1.2 - 3.3)	18 (16 - 20)	16 (14 - 18)	14 (11 - 19)
Guinea-Bissau	132 (119 - 147)	50 (32 - 77)	6 (5 - 6)	3 (2 - 5)	64 (54 - 74)	55 (47 - 64)	34 (19 - 59)	2 (0.2 - 3.9)	3 (2 - 3)	3 (2 - 3)	2 (1 - 4)
Guyana	47 (43 - 51)	23 (14 - 38)	1 (1 - 1)	0 (0 - 1)	31 (27 - 35)	27 (24 - 31)	17 (9 - 30)	2 (0.1 - 3.9)	1 (1 - 1)	1 (0 - 1)	0 (0 - 0)
Haiti	100 (95 - 107)	45 (33 - 62)	26 (25 - 28)	12 (9 - 17)	39 (34 - 44)	30 (26 - 34)	24 (16 - 37)	1.5 (0.1 - 2.9)	10 (9 - 12)	8 (7 - 9)	7 (4 - 10)
Honduras	45 (42 - 48)	14 (11 - 19)	9 (8 - 9)	3 (2 - 4)	22 (19 - 25)	18 (16 - 20)	10 (7 - 13)	2.7 (1.5 - 3.8)	4 (4 - 5)	4 (4 - 5)	2 (2 - 3)
Hungary	15 (15 - 16)	3 (3 - 4)	2 (2 - 2)	0 (0 - 0)	11 (11 - 12)	6 (6 - 6)	2 (2 - 2)	5.4 (4.9 - 5.9)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Iceland	5 (5 - 6)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (2 - 2)	1 (1 - 2)	3 (1.9 - 4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
India	89 (86 - 92)	25 (23 - 28)	2,423 (2,350 - 2,498)	587 (534 - 643)	57 (54 - 60)	45 (42 - 47)	19 (17 - 21)	3.5 (3.1 - 4)	1,586 (1,501 - 1,674)	1,277 (1,206 - 1,351)	442 (394 - 494)
Indonesia	62 (59 - 64)	19 (15 - 24)	286 (275 - 298)	85 (68 - 107)	31 (28 - 33)	23 (21 - 24)	11 (9 - 15)	3.2 (2.3 - 4.1)	142 (132 - 152)	107 (99 - 114)	51 (39 - 66)

Country, regional and global estimates of mortality among children under age 5

Country	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2021	
	1990	2000	2021	1990–2021	1990	2000	2021	Male	Female	Male	Female
Iran (Islamic Republic of)	57 (53 - 62)	36 (33 - 40)	13 (7 - 22)	4.9 (3 - 6.7)	104 (96 - 113)	39 (35 - 43)	16 (9 - 28)	58 (53 - 63)	57 (52 - 62)	13 (7 - 23)	12 (7 - 21)
Iraq	54 (49 - 59)	44 (41 - 49)	25 (18 - 33)	2.5 (1.5 - 3.6)	37 (34 - 40)	39 (35 - 42)	29 (21 - 39)	58 (52 - 63)	50 (45 - 55)	27 (20 - 36)	22 (16 - 30)
Ireland	9 (9 - 9)	7 (7 - 7)	3 (3 - 4)	3.4 (3 - 3.9)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	10 (10 - 11)	8 (8 - 8)	3 (3 - 4)	3 (2 - 3)
Israel	12 (11 - 12)	7 (7 - 7)	3 (3 - 4)	4 (3.8 - 4.2)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)	12 (12 - 13)	11 (11 - 11)	4 (3 - 4)	3 (3 - 3)
Italy	10 (9 - 10)	6 (5 - 6)	3 (2 - 3)	4.2 (4 - 4.4)	5 (5 - 6)	3 (3 - 3)	1 (1 - 1)	11 (10 - 11)	9 (9 - 9)	3 (3 - 3)	2 (2 - 3)
Jamaica	28 (24 - 33)	21 (18 - 25)	12 (6 - 24)	2.6 (0.4 - 4.8)	2 (1 - 2)	1 (1 - 1)	0 (0 - 1)	32 (27 - 37)	24 (20 - 28)	14 (7 - 27)	11 (6 - 21)
Japan	6 (6 - 6)	5 (4 - 5)	2 (2 - 2)	3.3 (3.1 - 3.4)	8 (8 - 8)	5 (5 - 6)	2 (2 - 2)	7 (7 - 7)	6 (6 - 6)	2 (2 - 3)	2 (2 - 2)
Jordan	36 (34 - 38)	27 (25 - 29)	15 (10 - 21)	2.9 (1.7 - 4.1)	4 (4 - 5)	4 (4 - 4)	4 (2 - 5)	38 (36 - 41)	34 (31 - 36)	16 (11 - 23)	13 (9 - 19)
Kazakhstan	52 (47 - 57)	43 (39 - 47)	10 (10 - 11)	5.2 (4.9 - 5.5)	21 (19 - 23)	10 (10 - 11)	4 (4 - 4)	58 (53 - 64)	45 (40 - 50)	12 (11 - 12)	9 (8 - 10)
Kenya	102 (96 - 109)	99 (92 - 106)	37 (30 - 46)	3.3 (2.5 - 4)	100 (94 - 107)	116 (108 - 125)	54 (44 - 67)	108 (101 - 115)	96 (90 - 103)	40 (33 - 50)	34 (27 - 42)
Kiribati	92 (81 - 104)	68 (60 - 77)	48 (26 - 90)	2.1 (0 - 4.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	97 (86 - 111)	85 (75 - 97)	52 (28 - 98)	44 (23 - 81)
Kosovo (UNSCR 1244)[c]	105 (80 - 140)	49 (41 - 58)	10 (9 - 11)	7.6 (6.6 - 8.6)	6 (4 - 7)	2 (1 - 2)	0 (0 - 0)	110 (83 - 148)	99 (75 - 133)	11 (9 - 12)	9 (8 - 11)
Kuwait	18 (18 - 19)	13 (12 - 13)	9 (8 - 10)	2.3 (2 - 2.7)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	19 (19 - 20)	17 (16 - 17)	10 (9 - 11)	8 (7 - 9)
Kyrgyzstan	65 (57 - 73)	50 (45 - 55)	17 (17 - 18)	4.2 (3.8 - 4.7)	9 (8 - 10)	5 (5 - 6)	3 (3 - 3)	70 (62 - 80)	58 (51 - 67)	19 (18 - 21)	15 (14 - 17)
Lao People's Democratic Republic	154 (141 - 168)	107 (98 - 117)	43 (29 - 61)	4.2 (3 - 5.4)	27 (25 - 29)	19 (18 - 21)	7 (5 - 10)	163 (149 - 178)	145 (132 - 159)	47 (32 - 67)	38 (26 - 54)
Latvia	17 (16 - 17)	14 (14 - 15)	4 (3 - 4)	4.9 (4.4 - 5.4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	19 (18 - 20)	15 (14 - 15)	4 (3 - 5)	3 (3 - 4)
Lebanon	32 (29 - 36)	20 (17 - 24)	8 (7 - 10)	4.4 (3.6 - 5.2)	3 (3 - 4)	2 (2 - 2)	1 (1 - 1)	34 (30 - 38)	31 (27 - 35)	9 (7 - 11)	8 (6 - 10)
Lesotho	84 (76 - 94)	107 (98 - 118)	73 (51 - 108)	0.5 (-0.8 - 1.7)	5 (5 - 6)	6 (6 - 7)	4 (3 - 6)	92 (83 - 102)	77 (69 - 86)	79 (55 - 118)	66 (46 - 98)
Liberia	264 (242 - 287)	189 (176 - 204)	76 (56 - 104)	4 (3 - 5)	29 (26 - 31)	22 (20 - 23)	12 (9 - 17)	278 (255 - 303)	249 (228 - 272)	82 (60 - 112)	70 (51 - 96)
Libya	42 (36 - 49)	28 (27 - 30)	11 (6 - 19)	4.4 (2.5 - 6.3)	5 (4 - 6)	3 (3 - 3)	1 (1 - 2)	45 (38 - 53)	38 (32 - 45)	12 (7 - 21)	10 (5 - 17)
Lithuania	15 (15 - 16)	11 (10 - 11)	3 (3 - 4)	4.9 (4.4 - 5.4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	17 (16 - 17)	13 (13 - 14)	4 (3 - 4)	3 (3 - 4)
Luxembourg	9 (8 - 10)	5 (4 - 5)	3 (2 - 4)	3.8 (2.9 - 4.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	8 (7 - 9)	3 (2 - 4)	2 (2 - 3)
Madagascar	156 (146 - 167)	105 (98 - 113)	66 (56 - 80)	2.8 (2.1 - 3.3)	78 (73 - 83)	67 (63 - 72)	58 (49 - 70)	163 (152 - 175)	148 (138 - 159)	71 (60 - 86)	61 (51 - 73)
Malawi	245 (231 - 259)	174 (164 - 185)	42 (26 - 66)	5.7 (4.2 - 7.2)	104 (98 - 109)	85 (81 - 91)	27 (17 - 42)	256 (241 - 271)	233 (220 - 247)	46 (29 - 73)	37 (23 - 58)
Malaysia	17 (16 - 17)	10 (10 - 10)	8 (7 - 8)	2.5 (2.2 - 2.9)	8 (8 - 8)	5 (5 - 6)	4 (3 - 4)	18 (17 - 19)	15 (14 - 16)	8 (7 - 9)	7 (6 - 8)
Maldives	86 (78 - 94)	39 (35 - 43)	6 (5 - 7)	8.6 (8 - 9.2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	91 (83 - 101)	80 (72 - 88)	6 (5 - 8)	5 (5 - 7)
Mali	231 (218 - 246)	188 (177 - 200)	97 (78 - 121)	2.8 (2.1 - 3.5)	94 (89 - 100)	93 (88 - 99)	85 (68 - 106)	240 (226 - 255)	222 (209 - 237)	102 (82 - 128)	92 (73 - 115)
Malta	11 (11 - 12)	8 (7 - 8)	6 (5 - 7)	2.1 (1.5 - 2.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	12 (11 - 13)	10 (9 - 11)	6 (5 - 7)	5 (4 - 6)
Marshall Islands	47 (40 - 56)	42 (36 - 49)	30 (18 - 51)	1.5 (-0.3 - 3.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	52 (44 - 61)	43 (36 - 51)	33 (19 - 57)	26 (15 - 45)
Mauritania	117 (107 - 129)	99 (90 - 108)	40 (31 - 53)	3.4 (2.5 - 4.3)	9 (8 - 10)	10 (9 - 11)	6 (5 - 8)	125 (113 - 138)	109 (99 - 120)	45 (34 - 58)	36 (28 - 48)
Mauritius	23 (22 - 24)	19 (18 - 20)	17 (14 - 20)	1.1 (0.5 - 1.7)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)	26 (25 - 27)	20 (19 - 21)	18 (15 - 22)	15 (12 - 18)
Mexico	45 (42 - 49)	28 (26 - 30)	13 (11 - 16)	4 (3.4 - 4.6)	108 (101 - 116)	67 (62 - 72)	26 (22 - 30)	49 (45 - 53)	42 (38 - 45)	14 (12 - 17)	12 (10 - 14)
Micronesia (Federated States of)	49 (41 - 59)	38 (31 - 49)	25 (11 - 54)	2.2 (-0.3 - 4.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	55 (46 - 66)	43 (36 - 52)	28 (13 - 61)	22 (10 - 47)
Monaco	8 (7 - 9)	5 (5 - 5)	3 (2 - 5)	3.2 (1.6 - 4.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	9 (8 - 10)	7 (6 - 8)	3 (2 - 5)	3 (2 - 4)
Mongolia	107 (99 - 117)	64 (58 - 69)	15 (14 - 16)	6.4 (6 - 6.8)	8 (7 - 9)	3 (3 - 3)	1 (1 - 1)	120 (110 - 131)	94 (86 - 102)	16 (15 - 18)	13 (12 - 14)
Montenegro	16 (16 - 17)	14 (13 - 15)	2 (2 - 3)	6.4 (5.7 - 7.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	17 (16 - 18)	15 (15 - 16)	2 (2 - 3)	2 (2 - 3)
Montserrat	17 (13 - 23)	11 (7 - 17)	5 (2 - 14)	3.8 (0.6 - 6.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	16 (12 - 22)	18 (13 - 24)	5 (2 - 14)	5 (2 - 15)
Morocco	81 (75 - 87)	52 (48 - 58)	18 (12 - 25)	4.8 (3.7 - 6)	58 (54 - 63)	34 (31 - 37)	12 (8 - 17)	85 (79 - 92)	76 (70 - 82)	20 (14 - 28)	16 (11 - 23)
Mozambique[d]	246 (226 - 267)	171 (158 - 185)	70 (45 - 110)	4.1 (2.6 - 5.5)	148 (136 - 161)	127 (117 - 137)	79 (51 - 125)	254 (233 - 277)	236 (216 - 257)	74 (48 - 117)	65 (42 - 102)
Myanmar	115 (106 - 126)	89 (82 - 97)	42 (27 - 63)	3.3 (1.9 - 4.8)	126 (116 - 138)	93 (86 - 101)	39 (25 - 59)	123 (112 - 135)	107 (98 - 118)	46 (29 - 70)	38 (24 - 57)
Namibia	73 (66 - 80)	77 (69 - 87)	39 (21 - 76)	2 (-0.1 - 4)	4 (3 - 4)	4 (4 - 5)	3 (1 - 5)	78 (70 - 86)	68 (61 - 75)	43 (23 - 83)	35 (19 - 68)

Country, regional and global estimates of mortality among children under age 5

Country	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands)a		
	1990	2021	1990	2021	1990	2000	2021	1990–2021	1990	2000	2021
Iran (Islamic Republic of)	45 (41 - 48)	11 (6 - 19)	80 (74 - 86)	13 (7 - 23)	25 (17 - 32)	19 (16 - 23)	8 (4 - 15)	3.6 (1.1 - 6.1)	44 (30 - 57)	21 (17 - 25)	10 (5 - 18)
Iraq	42 (39 - 46)	21 (15 - 27)	29 (27 - 32)	25 (18 - 32)	26 (23 - 29)	24 (21 - 27)	14 (10 - 19)	2 (0.9 - 3.1)	19 (17 - 21)	21 (19 - 24)	17 (12 - 23)
Ireland	8 (7 - 8)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	5 (4 - 5)	4 (4 - 4)	2 (2 - 2)	2.7 (2.1 - 3.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Israel	10 (9 - 10)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	6 (6 - 7)	4 (3 - 4)	2 (2 - 2)	4.1 (3.9 - 4.4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Italy	8 (8 - 9)	2 (2 - 2)	5 (5 - 5)	1 (1 - 1)	6 (6 - 7)	3 (3 - 4)	1 (1 - 2)	4.8 (4.5 - 5.1)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)
Jamaica	23 (20 - 27)	11 (5 - 21)	1 (1 - 2)	0 (0 - 1)	18 (15 - 22)	17 (14 - 20)	10 (5 - 21)	1.8 (-0.5 - 4.1)	1 (1 - 1)	1 (1 - 1)	0 (0 - 1)
Japan	5 (4 - 5)	2 (2 - 2)	6 (6 - 6)	1 (1 - 1)	3 (2 - 3)	2 (2 - 2)	1 (1 - 1)	3.7 (3.5 - 3.9)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)
Jordan	30 (28 - 31)	13 (9 - 18)	4 (3 - 4)	3 (2 - 4)	20 (18 - 22)	16 (15 - 18)	9 (6 - 13)	2.7 (1.3 - 4)	3 (2 - 3)	2 (2 - 3)	2 (1 - 3)
Kazakhstan	44 (40 - 48)	9 (9 - 9)	18 (16 - 19)	4 (4 - 4)	23 (20 - 26)	24 (21 - 27)	5 (5 - 5)	4.9 (4.3 - 5.4)	9 (8 - 10)	6 (5 - 7)	2 (2 - 2)
Kenya	65 (62 - 69)	28 (23 - 33)	65 (61 - 68)	41 (34 - 49)	27 (25 - 30)	27 (25 - 30)	18 (14 - 24)	1.3 (0.4 - 2.2)	28 (25 - 30)	34 (30 - 37)	27 (21 - 35)
Kiribati	67 (60 - 74)	38 (22 - 65)	0 (0 - 0)	0 (0 - 0)	35 (27 - 45)	28 (23 - 34)	21 (9 - 43)	1.7 (-0.8 - 4.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Kosovo (UNSCR 1244)c	88 (67 - 118)	9 (8 - 10)	5 (4 - 6)	0 (0 - 0)	44 (32 - 60)	28 (23 - 33)	7 (6 - 9)	5.7 (4.6 - 6.8)	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)
Kuwait	15 (14 - 15)	7 (7 - 8)	1 (1 - 1)	0 (0 - 0)	10 (9 - 10)	7 (6 - 7)	5 (4 - 6)	2.2 (1.7 - 2.7)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)
Kyrgyzstan	54 (48 - 60)	16 (15 - 16)	7 (7 - 8)	2 (2 - 3)	24 (20 - 29)	20 (17 - 24)	12 (9 - 14)	2.3 (1.4 - 3.3)	3 (3 - 4)	2 (2 - 3)	2 (1 - 2)
Lao People's Democratic Republic	106 (98 - 114)	34 (24 - 47)	19 (18 - 20)	6 (4 - 8)	47 (42 - 54)	38 (34 - 43)	21 (14 - 31)	2.6 (1.3 - 4)	9 (8 - 10)	7 (6 - 8)	3 (2 - 5)
Latvia	13 (13 - 14)	3 (3 - 4)	1 (0 - 1)	0 (0 - 0)	8 (8 - 9)	7 (7 - 8)	2 (2 - 2)	4.5 (3.9 - 5.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Lebanon	27 (24 - 30)	7 (6 - 9)	3 (2 - 3)	1 (0 - 1)	20 (18 - 24)	12 (9 - 14)	5 (3 - 7)	4.7 (3.5 - 6.2)	2 (2 - 2)	1 (1 - 1)	0 (0 - 1)
Lesotho	68 (62 - 75)	57 (41 - 81)	4 (4 - 5)	3 (2 - 5)	39 (34 - 45)	36 (32 - 39)	35 (23 - 54)	0.4 (-1.1 - 1.8)	2 (2 - 3)	2 (2 - 2)	2 (1 - 3)
Liberia	176 (162 - 192)	57 (44 - 75)	19 (18 - 21)	9 (7 - 12)	60 (51 - 69)	48 (43 - 54)	30 (21 - 43)	2.2 (1 - 3.5)	7 (6 - 8)	6 (5 - 7)	5 (3 - 7)
Libya	36 (31 - 41)	9 (5 - 16)	4 (4 - 5)	1 (1 - 2)	21 (18 - 25)	15 (13 - 18)	6 (3 - 11)	4.2 (2.2 - 6.3)	3 (2 - 3)	2 (1 - 2)	1 (0 - 1)
Lithuania	12 (11 - 12)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	8 (7 - 8)	5 (4 - 5)	2 (2 - 2)	4.5 (3.9 - 5.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Luxembourg	7 (7 - 8)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	4 (4 - 5)	2 (2 - 3)	2 (1 - 2)	3 (1.9 - 4.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Madagascar	95 (90 - 101)	45 (39 - 53)	49 (46 - 52)	40 (35 - 47)	39 (35 - 43)	31 (28 - 34)	24 (20 - 30)	1.5 (0.8 - 2.2)	20 (18 - 23)	20 (18 - 22)	22 (18 - 27)
Malawi	142 (135 - 151)	31 (21 - 45)	62 (59 - 66)	20 (13 - 29)	51 (46 - 56)	39 (35 - 42)	19 (12 - 31)	3.1 (1.6 - 4.7)	23 (21 - 25)	20 (18 - 22)	13 (8 - 20)
Malaysia	14 (14 - 15)	6 (6 - 7)	7 (7 - 7)	3 (3 - 4)	8 (6 - 9)	5 (4 - 6)	4 (4 - 5)	1.9 (1.1 - 2.7)	4 (3 - 4)	3 (2 - 3)	2 (2 - 2)
Maldives	63 (58 - 68)	5 (4 - 6)	1 (1 - 1)	0 (0 - 0)	39 (30 - 47)	22 (19 - 26)	4 (3 - 5)	7.3 (6.1 - 8.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mali	120 (115 - 127)	62 (52 - 73)	49 (47 - 52)	55 (47 - 65)	67 (61 - 74)	51 (46 - 56)	33 (25 - 44)	2.2 (1.3 - 3.2)	28 (25 - 31)	27 (24 - 30)	30 (23 - 40)
Malta	10 (9 - 11)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	8 (7 - 8)	5 (5 - 6)	4 (3 - 5)	2.2 (1.5 - 2.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Marshall Islands	38 (33 - 43)	25 (15 - 40)	0 (0 - 0)	0 (0 - 0)	18 (15 - 23)	19 (15 - 23)	14 (7 - 26)	0.9 (-1.3 - 3.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mauritania	71 (66 - 76)	32 (26 - 40)	6 (5 - 6)	5 (4 - 6)	45 (40 - 50)	39 (35 - 44)	23 (17 - 30)	2.2 (1.2 - 3.2)	4 (3 - 4)	4 (4 - 4)	3 (3 - 5)
Mauritius	20 (19 - 21)	15 (13 - 18)	0 (0 - 0)	0 (0 - 0)	15 (14 - 15)	12 (12 - 13)	11 (9 - 13)	1.1 (0.4 - 1.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mexico	36 (34 - 39)	11 (10 - 13)	86 (81 - 92)	22 (19 - 26)	22 (20 - 25)	14 (13 - 16)	8 (7 - 10)	3.3 (2.5 - 4)	54 (48 - 60)	34 (30 - 38)	15 (13 - 18)
Micronesia (Federated States of)	39 (33 - 46)	21 (10 - 42)	0 (0 - 0)	0 (0 - 0)	24 (17 - 33)	20 (13 - 29)	13 (5 - 31)	2 (-0.8 - 4.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Monaco	4 (4 - 5)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (3 - 5)	3 (2 - 4)	2 (1 - 3)	3.2 (1.4 - 5.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mongolia	77 (71 - 83)	13 (12 - 14)	6 (5 - 6)	1 (1 - 1)	30 (26 - 34)	23 (20 - 27)	8 (7 - 9)	4.4 (3.8 - 5)	2 (2 - 2)	1 (1 - 1)	1 (0 - 1)
Montenegro	15 (14 - 16)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	11 (10 - 12)	8 (8 - 9)	1 (1 - 1)	7.8 (6.7 - 9.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Montserrat	15 (11 - 20)	5 (2 - 12)	0 (0 - 0)	0 (0 - 0)	9 (6 - 13)	6 (3 - 10)	3 (1 - 8)	3.9 (0.5 - 7.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Morocco	64 (60 - 67)	15 (11 - 22)	45 (43 - 48)	10 (7 - 14)	37 (33 - 40)	28 (25 - 32)	11 (8 - 16)	3.9 (2.6 - 5.1)	26 (24 - 29)	18 (17 - 21)	7 (5 - 10)
Mozambiqued	163 (150 - 178)	51 (35 - 75)	98 (90 - 106)	59 (40 - 87)	62 (50 - 76)	47 (39 - 57)	28 (17 - 46)	2.6 (0.8 - 4.5)	38 (31 - 47)	37 (30 - 44)	32 (19 - 54)
Myanmar	82 (76 - 89)	34 (22 - 49)	89 (82 - 96)	31 (21 - 45)	48 (41 - 56)	37 (33 - 42)	22 (13 - 34)	2.5 (0.9 - 4.3)	53 (45 - 62)	39 (34 - 44)	20 (12 - 32)
Namibia	49 (45 - 53)	29 (16 - 50)	3 (2 - 3)	2 (1 - 3)	28 (24 - 32)	24 (21 - 27)	19 (10 - 39)	1.2 (-1.1 - 3.4)	2 (1 - 2)	1 (1 - 2)	1 (1 - 3)

Country, regional and global estimates of mortality among children under age 5

Country	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2021	
	1990	2000	2021	1990–2021	1990	2000	2021	Male	Female	Male	Female
Nauru	67 (53 - 85)	43 (37 - 49)	28 (14 - 53)	2.9 (0.5 - 5.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	72 (57 - 92)	62 (48 - 79)	30 (15 - 59)	25 (13 - 48)
Nepal	139 (130 - 148)	79 (74 - 84)	27 (21 - 36)	5.3 (4.4 - 6.1)	100 (94 - 106)	60 (56 - 64)	16 (13 - 22)	140 (131 - 149)	138 (129 - 147)	29 (22 - 39)	25 (19 - 33)
Netherlands	8 (8 - 8)	6 (6 - 6)	4 (4 - 4)	2.3 (2.2 - 2.5)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	9 (9 - 10)	7 (7 - 7)	4 (4 - 5)	4 (3 - 4)
New Zealand	11 (11 - 11)	7 (7 - 8)	5 (4 - 5)	2.8 (2.5 - 3.1)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	12 (12 - 13)	10 (9 - 10)	5 (5 - 6)	4 (4 - 5)
Nicaragua[e]	67 (62 - 72)	39 (35 - 43)	13 (11 - 15)	5.2 (4.7 - 5.8)	10 (9 - 11)	6 (5 - 6)	2 (2 - 2)	73 (67 - 79)	61 (56 - 66)	15 (13 - 17)	12 (10 - 14)
Niger	332 (311 - 354)	229 (212 - 246)	115 (93 - 144)	3.4 (2.7 - 4.1)	144 (135 - 153)	131 (121 - 140)	124 (100 - 156)	333 (312 - 356)	330 (308 - 352)	119 (95 - 149)	111 (89 - 140)
Nigeria	209 (196 - 224)	182 (172 - 194)	111 (82 - 152)	2.1 (1 - 3)	834 (782 - 890)	921 (868 - 980)	852 (629 - 1,173)	220 (206 - 235)	198 (185 - 212)	117 (86 - 161)	104 (77 - 145)
Niue (New Zealand)	25 (21 - 29)	32 (25 - 43)	24 (10 - 57)	0.1 (-2.7 - 2.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	28 (23 - 33)	22 (19 - 27)	27 (11 - 64)	22 (9 - 51)
North Macedonia	37 (36 - 38)	16 (15 - 17)	5 (4 - 7)	6.3 (5.5 - 7)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	39 (38 - 40)	35 (33 - 36)	6 (5 - 7)	5 (4 - 6)
Norway	9 (8 - 9)	5 (5 - 5)	2 (2 - 2)	4.5 (4.1 - 4.8)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)	10 (9 - 10)	8 (7 - 8)	2 (2 - 3)	2 (2 - 2)
Oman	39 (34 - 45)	16 (14 - 19)	10 (9 - 11)	4.3 (3.8 - 4.9)	3 (2 - 3)	1 (1 - 1)	1 (1 - 1)	42 (37 - 48)	36 (31 - 41)	11 (10 - 12)	9 (8 - 10)
Pakistan	140 (135 - 145)	108 (104 - 112)	63 (51 - 79)	2.6 (1.8 - 3.3)	668 (644 - 693)	582 (558 - 605)	399 (319 - 498)	143 (137 - 149)	136 (131 - 142)	68 (54 - 85)	59 (47 - 73)
Palau	35 (30 - 41)	28 (24 - 33)	16 (8 - 34)	2.5 (0 - 5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	39 (33 - 45)	31 (27 - 37)	18 (9 - 38)	14 (7 - 31)
Panama	31 (27 - 35)	26 (22 - 30)	14 (7 - 28)	2.6 (0.3 - 4.9)	2 (2 - 2)	2 (2 - 2)	1 (1 - 2)	34 (30 - 39)	28 (24 - 32)	15 (8 - 31)	12 (6 - 25)
Papua New Guinea	85 (77 - 93)	71 (64 - 79)	43 (29 - 63)	2.2 (0.9 - 3.5)	12 (11 - 13)	13 (12 - 14)	11 (7 - 16)	89 (81 - 98)	80 (73 - 89)	46 (31 - 68)	39 (26 - 58)
Paraguay	46 (41 - 51)	34 (28 - 40)	18 (9 - 38)	3 (0.5 - 5.3)	6 (6 - 7)	5 (4 - 6)	3 (1 - 5)	49 (44 - 55)	42 (37 - 47)	20 (10 - 42)	16 (8 - 35)
Peru	80 (76 - 84)	38 (36 - 40)	14 (11 - 18)	5.6 (4.8 - 6.4)	54 (52 - 57)	24 (23 - 26)	8 (7 - 11)	84 (80 - 89)	76 (72 - 80)	15 (12 - 20)	13 (10 - 16)
Philippines	57 (53 - 61)	38 (35 - 41)	26 (18 - 36)	2.5 (1.4 - 3.7)	113 (106 - 121)	84 (78 - 90)	63 (45 - 90)	62 (58 - 67)	51 (47 - 55)	28 (20 - 40)	23 (16 - 33)
Poland	17 (17 - 18)	9 (9 - 10)	4 (4 - 5)	4.5 (4.3 - 4.6)	10 (9 - 10)	4 (3 - 4)	2 (2 - 2)	19 (19 - 20)	15 (15 - 16)	5 (5 - 5)	4 (4 - 4)
Portugal	15 (14 - 15)	7 (7 - 7)	3 (3 - 3)	5 (4.8 - 5.3)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	16 (16 - 17)	13 (13 - 13)	3 (3 - 4)	3 (3 - 3)
Qatar	21 (20 - 22)	12 (12 - 13)	5 (5 - 6)	4.4 (4 - 4.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	22 (21 - 24)	19 (18 - 21)	6 (5 - 6)	5 (4 - 6)
Republic of Korea	16 (15 - 16)	8 (7 - 8)	3 (3 - 3)	5.4 (5.2 - 5.7)	11 (10 - 11)	5 (4 - 5)	1 (1 - 1)	17 (16 - 18)	14 (13 - 15)	3 (3 - 3)	3 (2 - 3)
Republic of Moldova	33 (29 - 39)	31 (26 - 38)	14 (10 - 20)	2.8 (1.5 - 4)	3 (2 - 3)	2 (1 - 2)	1 (0 - 1)	37 (32 - 43)	30 (25 - 35)	16 (11 - 23)	13 (9 - 18)
Romania	31 (30 - 32)	21 (21 - 22)	6 (6 - 7)	5.1 (4.9 - 5.3)	11 (10 - 11)	5 (5 - 5)	1 (1 - 1)	34 (33 - 35)	28 (27 - 29)	7 (7 - 7)	6 (6 - 6)
Russian Federation	22 (21 - 22)	19 (19 - 20)	5 (5 - 5)	4.7 (4.5 - 4.9)	46 (46 - 47)	25 (24 - 25)	7 (7 - 8)	25 (24 - 25)	18 (18 - 19)	6 (5 - 6)	5 (4 - 5)
Rwanda	150 (140 - 159)	185 (174 - 198)	39 (24 - 66)	4.3 (2.7 - 5.9)	48 (45 - 51)	57 (54 - 61)	16 (10 - 26)	158 (148 - 169)	141 (132 - 151)	43 (26 - 71)	36 (22 - 59)
Saint Kitts and Nevis	30 (28 - 33)	24 (21 - 27)	15 (10 - 22)	2.4 (1 - 3.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	33 (30 - 37)	27 (25 - 30)	16 (11 - 25)	13 (9 - 20)
Saint Lucia	22 (21 - 23)	18 (17 - 20)	25 (21 - 29)	-0.4 (-0.9 - 0.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	24 (23 - 25)	20 (19 - 21)	27 (23 - 32)	22 (19 - 26)
Saint Vincent and the Grenadines	24 (22 - 26)	22 (21 - 24)	14 (10 - 19)	1.8 (0.8 - 2.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	26 (24 - 28)	22 (20 - 24)	15 (11 - 20)	12 (9 - 17)
Samoa	30 (26 - 34)	21 (19 - 24)	17 (12 - 24)	1.9 (0.6 - 3.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	33 (28 - 37)	27 (24 - 31)	18 (13 - 26)	15 (10 - 22)
San Marino	14 (10 - 20)	6 (4 - 8)	2 (1 - 4)	6.7 (4 - 9.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	15 (11 - 22)	12 (9 - 18)	2 (1 - 4)	2 (1 - 3)
Sao Tome and Principe	109 (96 - 123)	82 (73 - 93)	15 (9 - 27)	6.3 (4.5 - 8.2)	1 (0 - 1)	0 (0 - 1)	0 (0 - 0)	115 (102 - 130)	102 (90 - 116)	17 (10 - 30)	14 (8 - 24)
Saudi Arabia	44 (37 - 53)	22 (20 - 24)	7 (5 - 9)	6.1 (4.9 - 7.2)	24 (20 - 28)	13 (12 - 14)	4 (3 - 6)	46 (39 - 55)	42 (36 - 51)	7 (5 - 9)	7 (5 - 9)
Senegal	139 (131 - 146)	130 (122 - 138)	39 (29 - 51)	4.1 (3.2 - 5)	42 (40 - 44)	47 (45 - 50)	21 (16 - 28)	146 (138 - 153)	131 (124 - 138)	42 (32 - 56)	35 (26 - 46)
Serbia	28 (28 - 29)	13 (12 - 13)	5 (5 - 6)	5.3 (5 - 5.5)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	30 (29 - 31)	27 (26 - 27)	6 (6 - 6)	5 (5 - 5)
Seychelles	16 (15 - 18)	14 (13 - 15)	14 (11 - 18)	0.5 (-0.4 - 1.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	18 (16 - 19)	15 (14 - 17)	15 (11 - 20)	13 (10 - 17)
Sierra Leone	261 (241 - 281)	226 (211 - 241)	105 (85 - 128)	2.9 (2.3 - 3.6)	48 (45 - 52)	45 (42 - 48)	27 (22 - 33)	272 (251 - 294)	248 (229 - 268)	111 (91 - 137)	98 (79 - 120)
Singapore	8 (7 - 8)	4 (4 - 4)	2 (2 - 3)	4.2 (3.6 - 4.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	8 (8 - 9)	7 (7 - 7)	2 (2 - 3)	2 (2 - 2)
Slovakia	15 (14 - 15)	10 (10 - 10)	6 (5 - 6)	3.1 (2.9 - 3.3)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	16 (16 - 17)	13 (13 - 13)	6 (6 - 7)	5 (5 - 5)
Slovenia	10 (10 - 11)	5 (5 - 6)	2 (2 - 3)	5 (4.5 - 5.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	11 (11 - 12)	9 (9 - 10)	2 (2 - 3)	2 (2 - 2)
Solomon Islands	38 (33 - 44)	31 (27 - 34)	19 (12 - 30)	2.3 (0.7 - 3.9)	0 (0 - 1)	0 (0 - 1)	0 (0 - 1)	41 (36 - 47)	35 (30 - 40)	20 (13 - 32)	17 (10 - 27)

Country	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)[a]		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands)[a]		
	1990	2021	1990	2021	1990	2000	2021	1990–2021	1990	2000	2021
Nauru	51 (42 - 63)	23 (12 - 42)	0 (0 - 0)	0 (0 - 0)	32 (22 - 43)	26 (21 - 31)	18 (8 - 36)	1.9 (-0.8 - 4.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Nepal	96 (91 - 102)	23 (18 - 29)	70 (67 - 74)	14 (11 - 18)	58 (53 - 63)	39 (36 - 43)	16 (12 - 22)	4.1 (3.2 - 5)	43 (40 - 47)	30 (27 - 32)	10 (7 - 13)
Netherlands	7 (7 - 7)	4 (3 - 4)	1 (1 - 1)	1 (1 - 1)	5 (4 - 5)	4 (4 - 4)	3 (3 - 3)	1.8 (1.5 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 1)
New Zealand	9 (9 - 9)	4 (4 - 4)	1 (1 - 1)	0 (0 - 0)	4 (4 - 5)	4 (3 - 4)	3 (2 - 3)	1.7 (1.1 - 2.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Nicaragua[e]	51 (48 - 54)	11 (10 - 13)	8 (7 - 8)	2 (1 - 2)	23 (20 - 26)	17 (15 - 19)	7 (6 - 9)	3.7 (3.1 - 4.3)	4 (3 - 4)	2 (2 - 3)	1 (1 - 1)
Niger	134 (126 - 142)	60 (51 - 70)	60 (56 - 63)	66 (57 - 78)	55 (49 - 62)	44 (39 - 50)	34 (26 - 44)	1.6 (0.6 - 2.5)	25 (23 - 29)	27 (24 - 30)	39 (30 - 51)
Nigeria	124 (117 - 132)	71 (54 - 94)	502 (473 - 533)	549 (422 - 725)	50 (45 - 55)	46 (42 - 51)	35 (25 - 49)	1.1 (0 - 2.3)	207 (185 - 230)	248 (224 - 273)	276 (196 - 390)
Niue (New Zealand)	21 (18 - 25)	20 (9 - 45)	0 (0 - 0)	0 (0 - 0)	13 (10 - 18)	17 (11 - 26)	13 (5 - 33)	0.2 (-2.8 - 3.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
North Macedonia	33 (32 - 34)	5 (4 - 6)	1 (1 - 1)	0 (0 - 0)	17 (16 - 18)	9 (9 - 10)	3 (3 - 4)	5.2 (4.4 - 6)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Norway	7 (7 - 7)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	3 (3 - 3)	1 (1 - 1)	3.6 (3.2 - 4.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Oman	32 (28 - 36)	9 (8 - 10)	2 (2 - 2)	1 (1 - 1)	17 (15 - 21)	7 (6 - 9)	5 (3 - 6)	4.3 (3.3 - 5.7)	1 (1 - 1)	0 (0 - 1)	0 (0 - 1)
Pakistan	107 (103 - 111)	53 (43 - 64)	518 (501 - 535)	333 (273 - 405)	64 (60 - 69)	57 (54 - 61)	39 (31 - 49)	1.6 (0.8 - 2.4)	320 (298 - 341)	313 (295 - 333)	251 (199 - 315)
Palau	30 (26 - 35)	15 (7 - 32)	0 (0 - 0)	0 (0 - 0)	19 (14 - 25)	15 (10 - 21)	9 (4 - 20)	2.6 (-0.2 - 5.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Panama	26 (23 - 29)	12 (6 - 23)	2 (2 - 2)	1 (0 - 2)	18 (14 - 21)	15 (11 - 18)	8 (4 - 16)	2.7 (0.2 - 5)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)
Papua New Guinea	62 (57 - 68)	34 (24 - 48)	9 (8 - 9)	9 (6 - 12)	32 (28 - 36)	30 (26 - 35)	21 (13 - 32)	1.3 (-0.1 - 2.8)	5 (4 - 5)	6 (5 - 6)	5 (3 - 8)
Paraguay	36 (33 - 40)	16 (8 - 31)	5 (5 - 5)	2 (1 - 4)	22 (19 - 25)	18 (15 - 22)	10 (5 - 21)	2.7 (0.1 - 5.1)	3 (3 - 4)	3 (2 - 3)	1 (1 - 3)
Peru	57 (54 - 59)	11 (9 - 14)	38 (37 - 40)	6 (5 - 8)	28 (26 - 30)	16 (15 - 18)	7 (6 - 9)	4.4 (3.5 - 5.2)	19 (18 - 20)	10 (10 - 11)	4 (3 - 5)
Philippines	40 (38 - 42)	20 (14 - 28)	80 (76 - 85)	51 (36 - 69)	19 (17 - 21)	17 (15 - 18)	12 (8 - 18)	1.4 (0.2 - 2.7)	39 (36 - 43)	37 (34 - 41)	31 (21 - 44)
Poland	15 (15 - 16)	4 (4 - 4)	8 (8 - 9)	1 (1 - 1)	11 (11 - 11)	6 (6 - 6)	3 (3 - 3)	4.5 (4.3 - 4.7)	6 (6 - 6)	2 (2 - 2)	1 (1 - 1)
Portugal	12 (11 - 12)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	7 (7 - 8)	3 (3 - 4)	2 (2 - 2)	4.7 (4.3 - 5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Qatar	18 (17 - 19)	5 (4 - 5)	0 (0 - 0)	0 (0 - 0)	11 (9 - 14)	7 (6 - 7)	3 (3 - 4)	4 (3 - 4.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Republic of Korea	13 (13 - 14)	2 (2 - 3)	9 (9 - 10)	1 (1 - 1)	7 (6 - 8)	3 (3 - 4)	1 (1 - 2)	5.4 (4.8 - 6)	5 (4 - 6)	2 (2 - 2)	0 (0 - 0)
Republic of Moldova	28 (24 - 32)	12 (9 - 17)	2 (2 - 3)	0 (0 - 1)	19 (16 - 22)	21 (17 - 25)	11 (7 - 16)	1.8 (0.4 - 3.2)	1 (1 - 2)	1 (1 - 1)	0 (0 - 1)
Romania	24 (24 - 25)	5 (5 - 5)	8 (8 - 8)	1 (1 - 1)	16 (13 - 20)	10 (9 - 12)	3 (3 - 4)	5.1 (4.1 - 6.2)	5 (4 - 6)	2 (2 - 3)	1 (1 - 1)
Russian Federation	17 (17 - 18)	4 (4 - 4)	36 (35 - 37)	6 (5 - 6)	11 (8 - 14)	9 (8 - 10)	2 (2 - 2)	5.4 (4.3 - 6.6)	22 (17 - 28)	12 (10 - 13)	3 (2 - 3)
Rwanda	92 (87 - 97)	30 (19 - 45)	29 (28 - 31)	12 (8 - 18)	41 (37 - 45)	44 (39 - 48)	18 (10 - 30)	2.7 (1 - 4.4)	13 (12 - 15)	15 (13 - 16)	7 (4 - 12)
Saint Kitts and Nevis	25 (23 - 28)	12 (8 - 19)	0 (0 - 0)	0 (0 - 0)	19 (17 - 22)	17 (14 - 19)	10 (6 - 15)	2.2 (0.7 - 3.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Saint Lucia	18 (17 - 19)	22 (19 - 26)	0 (0 - 0)	0 (0 - 0)	12 (11 - 13)	12 (11 - 13)	13 (10 - 16)	-0.2 (-1 - 0.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Saint Vincent and the Grenadines	20 (18 - 21)	13 (9 - 17)	0 (0 - 0)	0 (0 - 0)	13 (11 - 14)	13 (12 - 15)	8 (6 - 12)	1.3 (0.1 - 2.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Samoa	25 (22 - 28)	14 (10 - 20)	0 (0 - 0)	0 (0 - 0)	13 (10 - 18)	9 (7 - 11)	7 (4 - 10)	2.2 (0.4 - 4.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
San Marino	12 (9 - 18)	2 (1 - 3)	0 (0 - 0)	0 (0 - 0)	7 (5 - 12)	3 (2 - 4)	1 (0 - 2)	7.2 (3.9 - 11.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Sao Tome and Principe	69 (62 - 77)	12 (7 - 21)	0 (0 - 0)	0 (0 - 0)	26 (20 - 33)	22 (17 - 27)	8 (4 - 14)	4 (1.7 - 6.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Saudi Arabia	35 (31 - 42)	6 (4 - 8)	19 (17 - 22)	4 (3 - 5)	22 (16 - 29)	12 (9 - 14)	3 (2 - 5)	6.1 (4.5 - 8.1)	12 (9 - 16)	7 (6 - 8)	2 (1 - 3)
Senegal	71 (68 - 74)	29 (24 - 36)	22 (21 - 23)	16 (13 - 19)	40 (37 - 44)	38 (35 - 42)	21 (15 - 29)	2.1 (1 - 3.1)	13 (12 - 14)	15 (13 - 16)	12 (8 - 16)
Serbia	24 (24 - 25)	5 (4 - 5)	2 (2 - 2)	0 (0 - 0)	17 (16 - 19)	8 (7 - 8)	4 (3 - 4)	5.1 (4.6 - 5.5)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)
Seychelles	14 (13 - 15)	12 (9 - 16)	0 (0 - 0)	0 (0 - 0)	11 (10 - 12)	9 (8 - 10)	9 (6 - 12)	0.7 (-0.3 - 1.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Sierra Leone	155 (146 - 164)	78 (66 - 91)	29 (27 - 31)	20 (17 - 24)	52 (46 - 60)	48 (43 - 55)	31 (23 - 40)	1.7 (0.7 - 2.7)	10 (9 - 12)	10 (9 - 11)	8 (6 - 11)
Singapore	6 (6 - 6)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	2 (1 - 2)	1 (1 - 1)	5.5 (4.6 - 6.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Slovakia	13 (12 - 13)	5 (4 - 5)	1 (1 - 1)	0 (0 - 0)	9 (8 - 9)	5 (5 - 5)	3 (3 - 3)	3.6 (3.4 - 3.9)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Slovenia	9 (8 - 9)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	6 (5 - 6)	3 (3 - 4)	1 (1 - 2)	4.9 (4.3 - 5.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Solomon Islands	31 (28 - 35)	16 (10 - 25)	0 (0 - 0)	0 (0 - 1)	15 (12 - 18)	13 (11 - 15)	8 (4 - 12)	2.2 (0.3 - 4.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)

Country, regional and global estimates of mortality among children under age 5

Country	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2021	
	1990	2000	2021	1990–2021	1990	2000	2021	Male	Female	Male	Female
Somalia	180 (150 - 224)	173 (136 - 231)	112 (51 - 248)	1.5 (-0.8 - 3.9)	62 (52 - 77)	70 (56 - 94)	80 (37 - 175)	187 (155 - 232)	173 (143 - 214)	117 (53 - 260)	105 (48 - 234)
South Africa	62 (56 - 69)	71 (67 - 75)	33 (30 - 36)	2.1 (1.6 - 2.5)	78 (70 - 86)	72 (68 - 76)	39 (36 - 42)	67 (60 - 74)	57 (51 - 63)	35 (32 - 39)	30 (28 - 33)
South Sudan	251 (206 - 296)	182 (155 - 213)	99 (35 - 229)	3 (0.1 - 6.5)	65 (54 - 76)	54 (46 - 63)	31 (11 - 73)	257 (210 - 305)	245 (200 - 290)	104 (36 - 240)	94 (33 - 218)
Spain	9 (9 - 9)	5 (5 - 6)	3 (3 - 3)	3.6 (3.4 - 3.8)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	10 (10 - 10)	8 (8 - 8)	3 (3 - 4)	3 (3 - 3)
Sri Lanka	23 (22 - 23)	17 (16 - 17)	7 (5 - 9)	3.9 (3 - 4.9)	8 (8 - 8)	6 (5 - 6)	2 (2 - 3)	25 (24 - 25)	21 (20 - 21)	7 (5 - 10)	6 (4 - 8)
State of Palestine	45 (42 - 49)	30 (28 - 33)	15 (11 - 21)	3.6 (2.5 - 4.6)	4 (4 - 5)	4 (3 - 4)	2 (2 - 3)	47 (44 - 51)	42 (39 - 46)	16 (12 - 22)	13 (10 - 19)
Sudan	132 (122 - 143)	104 (96 - 114)	55 (37 - 81)	2.8 (1.6 - 4.1)	119 (110 - 128)	102 (93 - 110)	83 (56 - 121)	140 (129 - 151)	124 (114 - 134)	60 (41 - 88)	50 (34 - 73)
Suriname	45 (39 - 53)	31 (27 - 37)	17 (11 - 28)	3.1 (1.5 - 4.7)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)	50 (42 - 58)	40 (34 - 47)	19 (12 - 31)	15 (10 - 25)
Sweden	7 (7 - 7)	4 (4 - 4)	2 (2 - 3)	3.4 (3.1 - 3.6)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	8 (7 - 8)	6 (6 - 6)	3 (2 - 3)	2 (2 - 2)
Switzerland	8 (8 - 8)	6 (5 - 6)	4 (4 - 4)	2.4 (2.2 - 2.7)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	9 (9 - 9)	7 (7 - 7)	4 (4 - 4)	4 (3 - 4)
Syrian Arab Republic	37 (33 - 41)	23 (21 - 26)	22 (12 - 31)	1.6 (0.5 - 3.8)	16 (15 - 18)	11 (10 - 13)	9 (5 - 13)	40 (36 - 44)	34 (30 - 37)	24 (13 - 34)	20 (10 - 28)
Tajikistan	103 (93 - 112)	84 (75 - 93)	31 (18 - 54)	3.8 (2 - 5.5)	23 (21 - 25)	17 (15 - 19)	8 (5 - 14)	110 (100 - 121)	94 (86 - 104)	35 (21 - 61)	27 (16 - 48)
Thailand	37 (35 - 39)	22 (20 - 24)	8 (7 - 11)	4.8 (3.9 - 5.4)	40 (38 - 43)	19 (17 - 21)	5 (5 - 7)	41 (38 - 44)	33 (31 - 36)	9 (8 - 12)	7 (6 - 10)
Timor-Leste	176 (158 - 194)	111 (101 - 122)	51 (33 - 76)	4 (2.6 - 5.4)	5 (5 - 6)	4 (3 - 4)	2 (1 - 2)	182 (164 - 203)	168 (151 - 187)	55 (36 - 82)	46 (30 - 70)
Togo	148 (137 - 159)	120 (112 - 129)	63 (47 - 83)	2.8 (1.8 - 3.7)	23 (21 - 25)	22 (21 - 24)	17 (13 - 22)	156 (145 - 169)	138 (128 - 149)	68 (51 - 89)	57 (43 - 76)
Tonga	22 (19 - 26)	17 (15 - 20)	11 (6 - 19)	2.2 (0.3 - 4.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	25 (21 - 30)	19 (16 - 23)	12 (7 - 22)	10 (5 - 17)
Trinidad and Tobago	30 (25 - 35)	28 (21 - 39)	16 (7 - 42)	2 (-1.1 - 4.8)	1 (1 - 1)	1 (0 - 1)	0 (0 - 1)	33 (27 - 38)	28 (23 - 33)	18 (7 - 45)	15 (6 - 38)
Tunisia	55 (49 - 63)	30 (26 - 34)	16 (14 - 19)	3.9 (3.3 - 4.6)	12 (11 - 14)	5 (4 - 6)	3 (3 - 4)	59 (52 - 67)	52 (46 - 59)	18 (15 - 21)	15 (13 - 18)
Turkmenistan	79 (70 - 91)	70 (61 - 80)	41 (27 - 63)	2.1 (0.7 - 3.5)	10 (9 - 12)	8 (7 - 9)	6 (4 - 9)	89 (78 - 102)	69 (60 - 80)	47 (31 - 71)	35 (23 - 54)
Turks and Caicos Islands	14 (11 - 18)	9 (7 - 11)	4 (3 - 8)	3.7 (1.8 - 5.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	17 (13 - 21)	11 (9 - 14)	5 (3 - 8)	4 (2 - 7)
Tuvalu	53 (44 - 63)	42 (38 - 46)	21 (12 - 37)	2.9 (1 - 4.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	57 (48 - 68)	48 (40 - 58)	23 (13 - 41)	19 (11 - 34)
Türkiye	74 (69 - 80)	38 (35 - 41)	9 (8 - 11)	6.8 (6.2 - 7.4)	105 (98 - 112)	53 (49 - 57)	11 (10 - 13)	77 (71 - 82)	72 (67 - 77)	10 (8 - 11)	8 (7 - 10)
Uganda	183 (172 - 194)	146 (138 - 155)	42 (29 - 60)	4.7 (3.6 - 5.9)	155 (146 - 165)	163 (154 - 173)	69 (48 - 98)	195 (183 - 207)	170 (160 - 182)	47 (32 - 66)	37 (26 - 53)
Ukraine	19 (17 - 22)	18 (17 - 20)	8 (8 - 9)	2.7 (2.4 - 3.2)	13 (12 - 15)	7 (7 - 8)	3 (3 - 3)	21 (19 - 24)	17 (15 - 20)	9 (8 - 10)	7 (7 - 8)
United Arab Emirates	17 (14 - 19)	11 (11 - 12)	6 (5 - 7)	3.1 (2.3 - 3.8)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)	19 (16 - 22)	14 (12 - 17)	7 (6 - 8)	6 (5 - 7)
United Kingdom	9 (9 - 9)	7 (6 - 7)	4 (4 - 4)	2.6 (2.4 - 2.8)	7 (7 - 7)	5 (4 - 5)	3 (3 - 3)	10 (10 - 11)	8 (8 - 8)	5 (4 - 5)	4 (4 - 4)
United Republic of Tanzania	167 (157 - 177)	130 (122 - 139)	47 (32 - 70)	4.1 (2.8 - 5.3)	184 (173 - 196)	180 (169 - 192)	106 (72 - 158)	173 (162 - 184)	161 (150 - 171)	51 (34 - 76)	43 (29 - 65)
United States	11 (11 - 11)	8 (8 - 9)	6 (6 - 7)	1.9 (1.7 - 2.1)	45 (45 - 46)	34 (33 - 34)	23 (22 - 24)	12 (12 - 13)	10 (10 - 10)	7 (6 - 7)	6 (5 - 6)
Uruguay	23 (22 - 23)	17 (17 - 17)	6 (5 - 6)	4.4 (4.1 - 4.7)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	25 (25 - 26)	20 (20 - 21)	6 (6 - 7)	5 (5 - 6)
Uzbekistan[f]	70 (62 - 79)	61 (53 - 70)	14 (13 - 16)	5.2 (4.6 - 5.7)	48 (43 - 54)	34 (30 - 39)	11 (10 - 13)	79 (70 - 89)	61 (54 - 69)	16 (14 - 18)	12 (11 - 14)
Vanuatu	36 (30 - 43)	29 (24 - 34)	23 (13 - 42)	1.4 (-0.6 - 3.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	39 (32 - 47)	33 (27 - 40)	25 (14 - 45)	21 (12 - 38)
Venezuela (Bolivarian Republic of)	30 (29 - 30)	22 (21 - 22)	24 (18 - 33)	0.6 (-0.3 - 1.6)	17 (16 - 17)	12 (12 - 13)	11 (8 - 15)	33 (32 - 33)	27 (26 - 27)	26 (19 - 36)	22 (16 - 30)
Viet Nam	52 (48 - 56)	30 (26 - 34)	21 (18 - 23)	3 (2.5 - 3.4)	98 (90 - 107)	43 (36 - 49)	30 (27 - 35)	60 (55 - 65)	43 (40 - 47)	24 (21 - 27)	17 (15 - 19)
Yemen	126 (118 - 135)	95 (87 - 103)	62 (28 - 132)	2.3 (-0.1 - 4.9)	82 (77 - 87)	70 (64 - 76)	62 (28 - 132)	132 (123 - 141)	121 (113 - 129)	66 (29 - 141)	58 (26 - 122)
Zambia	182 (171 - 194)	156 (145 - 167)	58 (41 - 80)	3.7 (2.6 - 4.8)	63 (59 - 68)	68 (63 - 73)	38 (27 - 53)	191 (178 - 203)	174 (163 - 186)	62 (44 - 87)	53 (37 - 74)
Zimbabwe	80 (73 - 87)	96 (88 - 105)	50 (34 - 72)	1.5 (0.3 - 2.8)	28 (26 - 31)	39 (35 - 42)	24 (17 - 35)	86 (78 - 94)	73 (66 - 80)	54 (37 - 78)	45 (31 - 65)

Country, regional and global estimates of mortality among children under age 5

Country	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands)a		
	1990	2021	1990	2021	1990	2000	2021	1990–2021	1990	2000	2021
Somalia	109 (92 - 132)	71 (37 - 146)	37 (32 - 45)	52 (27 - 105)	45 (35 - 60)	45 (33 - 63)	36 (14 - 91)	0.8 (-2.1 - 3.7)	16 (12 - 21)	19 (14 - 27)	27 (10 - 68)
South Africa	48 (44 - 52)	26 (24 - 29)	60 (55 - 65)	31 (29 - 34)	22 (18 - 26)	17 (15 - 22)	11 (9 - 13)	2.2 (1.4 - 3)	27 (23 - 32)	17 (14 - 21)	13 (11 - 15)
South Sudan	149 (123 - 176)	64 (27 - 135)	38 (32 - 45)	20 (8 - 41)	64 (44 - 86)	56 (42 - 74)	40 (12 - 105)	1.5 (-2.1 - 5.6)	17 (12 - 23)	17 (13 - 23)	12 (4 - 33)
Spain	7 (7 - 8)	3 (2 - 3)	3 (3 - 3)	1 (1 - 1)	5 (5 - 5)	3 (3 - 3)	2 (2 - 2)	3.3 (3 - 3.6)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)
Sri Lanka	19 (19 - 20)	6 (4 - 8)	7 (7 - 7)	2 (1 - 2)	14 (13 - 14)	10 (9 - 10)	4 (3 - 5)	4.1 (3.1 - 5.2)	5 (5 - 5)	3 (3 - 3)	1 (1 - 2)
State of Palestine	36 (34 - 39)	13 (9 - 18)	3 (3 - 4)	2 (1 - 3)	23 (20 - 25)	17 (15 - 19)	9 (7 - 13)	2.9 (1.6 - 4)	2 (2 - 2)	2 (2 - 2)	1 (1 - 2)
Sudan	82 (77 - 88)	39 (28 - 53)	74 (69 - 79)	59 (43 - 81)	43 (38 - 48)	37 (33 - 42)	27 (18 - 40)	1.5 (0.2 - 2.9)	39 (35 - 44)	37 (33 - 42)	41 (27 - 61)
Suriname	39 (34 - 45)	15 (10 - 25)	0 (0 - 1)	0 (0 - 0)	21 (13 - 27)	17 (13 - 21)	11 (6 - 18)	2.1 (-0.5 - 4.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Sweden	6 (6 - 6)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	4 (3 - 4)	2 (2 - 2)	1 (1 - 1)	3.1 (2.8 - 3.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Switzerland	7 (6 - 7)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	4 (4 - 4)	3 (3 - 4)	3 (3 - 3)	1.2 (0.9 - 1.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Syrian Arab Republic	30 (27 - 33)	18 (10 - 25)	13 (12 - 15)	8 (4 - 10)	17 (14 - 19)	12 (11 - 14)	11 (6 - 16)	1.4 (0 - 3.5)	7 (6 - 8)	6 (5 - 7)	5 (2 - 7)
Tajikistan	81 (75 - 88)	28 (16 - 46)	18 (17 - 20)	7 (4 - 12)	31 (26 - 37)	28 (24 - 33)	14 (7 - 24)	2.7 (0.7 - 4.8)	7 (6 - 8)	6 (5 - 7)	4 (2 - 6)
Thailand	30 (29 - 32)	7 (6 - 9)	33 (31 - 35)	5 (4 - 6)	21 (17 - 24)	12 (9 - 15)	5 (3 - 7)	4.8 (3.6 - 6.1)	23 (18 - 26)	11 (8 - 13)	3 (2 - 4)
Timor-Leste	132 (120 - 145)	43 (29 - 62)	4 (4 - 4)	1 (1 - 2)	57 (49 - 68)	39 (34 - 45)	22 (13 - 37)	3 (1.3 - 4.9)	2 (2 - 2)	1 (1 - 2)	1 (0 - 1)
Togo	91 (85 - 97)	43 (34 - 55)	14 (14 - 15)	12 (9 - 15)	44 (39 - 49)	37 (33 - 41)	24 (17 - 33)	1.9 (0.9 - 3.1)	7 (6 - 8)	7 (6 - 8)	7 (5 - 9)
Tonga	19 (16 - 22)	10 (5 - 17)	0 (0 - 0)	0 (0 - 0)	10 (8 - 13)	7 (6 - 9)	5 (2 - 9)	2.3 (0.1 - 4.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Trinidad and Tobago	27 (23 - 31)	15 (6 - 36)	1 (1 - 1)	0 (0 - 1)	20 (16 - 24)	18 (13 - 26)	10 (4 - 27)	2.1 (-1.1 - 5)	1 (0 - 1)	0 (0 - 1)	0 (0 - 0)
Tunisia	43 (39 - 48)	14 (12 - 17)	10 (9 - 11)	3 (2 - 3)	28 (24 - 32)	18 (16 - 22)	12 (10 - 14)	2.8 (2.1 - 3.6)	6 (5 - 7)	3 (3 - 4)	2 (2 - 3)
Turkmenistan	65 (58 - 73)	36 (24 - 52)	8 (7 - 9)	5 (3 - 7)	27 (22 - 32)	30 (25 - 36)	23 (15 - 36)	0.4 (-1.1 - 2)	3 (3 - 4)	3 (3 - 4)	3 (2 - 5)
Turks and Caicos Islands	11 (9 - 14)	4 (2 - 7)	0 (0 - 0)	0 (0 - 0)	8 (5 - 10)	5 (3 - 7)	2 (1 - 5)	3.8 (1.6 - 6.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Tuvalu	41 (36 - 48)	18 (10 - 31)	0 (0 - 0)	0 (0 - 0)	28 (22 - 35)	24 (21 - 28)	10 (5 - 18)	3.5 (1.3 - 5.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Türkiye	56 (52 - 59)	8 (7 - 9)	78 (74 - 83)	10 (8 - 11)	32 (29 - 35)	19 (17 - 21)	5 (4 - 6)	6.2 (5.4 - 6.9)	45 (41 - 50)	26 (23 - 29)	6 (5 - 7)
Uganda	107 (101 - 113)	31 (23 - 41)	93 (89 - 98)	52 (38 - 69)	40 (35 - 44)	33 (29 - 36)	19 (13 - 28)	2.4 (1.1 - 3.7)	36 (32 - 40)	38 (34 - 42)	32 (21 - 47)
Ukraine	16 (15 - 19)	7 (7 - 7)	11 (10 - 13)	2 (2 - 2)	12 (10 - 14)	11 (9 - 13)	5 (2 - 7)	2.9 (1.4 - 6.4)	8 (7 - 9)	4 (4 - 5)	2 (1 - 2)
United Arab Emirates	14 (12 - 17)	5 (5 - 6)	1 (1 - 1)	1 (0 - 1)	8 (7 - 10)	6 (5 - 7)	3 (3 - 4)	2.8 (1.9 - 3.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
United Kingdom	8 (8 - 8)	4 (3 - 4)	6 (6 - 6)	2 (2 - 3)	4 (4 - 5)	4 (4 - 4)	3 (3 - 3)	1.5 (1.3 - 1.7)	4 (3 - 4)	3 (2 - 3)	2 (2 - 2)
United Republic of Tanzania	100 (95 - 106)	34 (25 - 47)	113 (107 - 119)	77 (56 - 107)	40 (36 - 44)	34 (31 - 37)	20 (13 - 30)	2.2 (0.9 - 3.5)	46 (42 - 50)	49 (45 - 54)	46 (31 - 69)
United States	9 (9 - 10)	5 (5 - 6)	38 (38 - 39)	20 (19 - 21)	6 (6 - 6)	5 (4 - 5)	3 (3 - 4)	1.8 (1.6 - 2)	24 (23 - 25)	19 (18 - 19)	12 (11 - 13)
Uruguay	20 (20 - 21)	5 (5 - 5)	1 (1 - 1)	0 (0 - 0)	12 (9 - 13)	8 (8 - 9)	4 (3 - 5)	3.4 (2.4 - 4.2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Uzbekistanf	58 (52 - 64)	13 (11 - 14)	40 (36 - 44)	10 (9 - 12)	30 (26 - 35)	28 (23 - 33)	8 (1 - 14)	4.4 (2.4 - 11.1)	21 (18 - 25)	15 (13 - 18)	6 (1 - 11)
Vanuatu	30 (25 - 35)	20 (11 - 34)	0 (0 - 0)	0 (0 - 0)	17 (13 - 23)	12 (9 - 15)	10 (5 - 19)	1.7 (-0.7 - 4.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Venezuela (Bolivarian Republic of)	25 (24 - 25)	21 (16 - 28)	14 (14 - 14)	10 (7 - 13)	13 (12 - 14)	11 (10 - 12)	15 (12 - 20)	-0.5 (-1.4 - 0.3)	7 (7 - 8)	6 (6 - 7)	7 (5 - 9)
Viet Nam	37 (35 - 40)	16 (15 - 19)	70 (66 - 75)	24 (21 - 27)	24 (21 - 27)	15 (12 - 18)	11 (8 - 13)	2.6 (1.7 - 3.7)	45 (40 - 52)	21 (18 - 25)	15 (12 - 20)
Yemen	89 (84 - 94)	47 (23 - 90)	58 (55 - 62)	47 (23 - 90)	44 (40 - 48)	37 (34 - 41)	28 (13 - 61)	1.4 (-1.1 - 4)	30 (27 - 32)	28 (25 - 31)	29 (13 - 62)
Zambia	108 (102 - 114)	40 (30 - 53)	38 (36 - 40)	27 (20 - 35)	37 (33 - 40)	35 (32 - 39)	25 (17 - 35)	1.3 (0.1 - 2.5)	13 (12 - 15)	16 (14 - 18)	16 (11 - 24)
Zimbabwe	51 (47 - 55)	36 (26 - 48)	18 (17 - 19)	17 (13 - 23)	23 (21 - 26)	28 (25 - 31)	25 (17 - 37)	-0.2 (-1.6 - 1.1)	8 (7 - 9)	12 (11 - 13)	12 (8 - 18)

Country, regional and global estimates of mortality among children under age 5

Estimates of mortality among children under age 5 by Sustainable Development Goal region[g]

Region	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2021	
	1990	2000	2021	1990–2021	1990	2000	2021	Male	Female	Male	Female
Sub-Saharan Africa	181 (177 - 185)	153 (150 - 156)	74 (67 - 86)	2.9 (2.4 - 3.2)	3,806 (3,731 - 3,890)	3,930 (3,855 - 4,020)	2,822 (2,573 - 3,298)	190 (186 - 194)	171 (168 - 175)	79 (72 - 93)	68 (62 - 80)
Northern Africa and Western Asia	76 (74 - 77)	50 (49 - 52)	26 (22 - 34)	3.5 (2.6 - 4)	709 (693 - 727)	470 (457 - 484)	296 (249 - 385)	79 (77 - 81)	72 (71 - 74)	28 (23 - 36)	24 (20 - 31)
Northern Africa	86 (83 - 89)	59 (56 - 61)	28 (23 - 37)	3.6 (2.7 - 4.2)	399 (386 - 412)	258 (247 - 269)	167 (136 - 215)	89 (86 - 92)	83 (80 - 86)	31 (25 - 39)	26 (21 - 33)
Western Asia	66 (63 - 68)	43 (41 - 44)	23 (17 - 36)	3.4 (2 - 4.4)	310 (300 - 322)	212 (205 - 221)	128 (93 - 199)	69 (66 - 71)	62 (60 - 65)	25 (18 - 38)	21 (15 - 33)
Central and Southern Asia	125 (122 - 128)	91 (89 - 94)	35 (33 - 39)	4.1 (3.8 - 4.3)	5,090 (4,970 - 5,214)	3,780 (3,683 - 3,885)	1,336 (1,229 - 1,464)	123 (120 - 127)	126 (123 - 130)	36 (33 - 40)	34 (32 - 38)
Central Asia	70 (67 - 75)	61 (57 - 65)	18 (16 - 22)	4.4 (3.7 - 4.9)	111 (105 - 117)	74 (70 - 80)	32 (28 - 39)	78 (74 - 83)	62 (59 - 66)	20 (18 - 25)	16 (14 - 19)
Southern Asia	127 (124 - 130)	92 (90 - 95)	36 (33 - 40)	4 (3.7 - 4.3)	4,979 (4,859 - 5,104)	3,706 (3,609 - 3,811)	1,303 (1,196 - 1,432)	125 (122 - 128)	129 (125 - 132)	37 (34 - 41)	35 (32 - 39)
Eastern and South-Eastern Asia	57 (54 - 60)	39 (38 - 41)	15 (13 - 17)	4.4 (4 - 4.8)	2,362 (2,249 - 2,493)	1,211 (1,173 - 1,255)	356 (323 - 404)	60 (57 - 64)	53 (51 - 57)	16 (14 - 18)	13 (12 - 15)
Eastern Asia	51 (47 - 55)	34 (33 - 36)	7 (6 - 8)	6.5 (6.1 - 6.9)	1,509 (1,396 - 1,636)	664 (630 - 703)	97 (89 - 107)	53 (49 - 58)	49 (45 - 53)	7 (7 - 8)	6 (6 - 7)
South-Eastern Asia	72 (70 - 74)	48 (47 - 50)	23 (20 - 27)	3.6 (3.1 - 4.1)	854 (830 - 880)	547 (530 - 566)	258 (227 - 305)	78 (76 - 81)	66 (64 - 68)	26 (23 - 30)	21 (18 - 24)
Latin America and the Caribbean	55 (53 - 57)	33 (32 - 34)	16 (15 - 18)	4 (3.7 - 4.2)	650 (631 - 669)	382 (372 - 393)	155 (146 - 171)	59 (58 - 61)	50 (49 - 52)	17 (16 - 19)	14 (13 - 16)
Oceania	33 (31 - 36)	31 (28 - 34)	20 (15 - 28)	1.6 (0.5 - 2.6)	17 (16 - 18)	17 (15 - 18)	14 (10 - 19)	35 (33 - 38)	31 (29 - 33)	22 (16 - 30)	18 (14 - 26)
Australia and New Zealand	10 (9 - 10)	6 (6 - 7)	4 (4 - 4)	2.9 (2.7 - 3.1)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	11 (10 - 11)	8 (8 - 9)	4 (4 - 4)	4 (3 - 4)
Oceania (exc. Australia and New Zealand)	71 (65 - 76)	61 (55 - 67)	39 (28 - 55)	1.9 (0.8 - 3)	14 (13 - 15)	15 (13 - 16)	12 (9 - 17)	74 (68 - 81)	67 (61 - 73)	42 (30 - 59)	36 (26 - 51)
Europe and Northern America	14 (14 - 14)	10 (10 - 10)	5 (5 - 5)	3.3 (3.2 - 3.4)	199 (196 - 202)	113 (112 - 114)	56 (55 - 57)	16 (16 - 16)	12 (12 - 13)	6 (5 - 6)	5 (4 - 5)
Europe	16 (16 - 16)	11 (10 - 11)	4 (4 - 4)	4.1 (4 - 4.2)	150 (148 - 153)	77 (76 - 78)	31 (30 - 31)	18 (17 - 18)	14 (14 - 14)	5 (5 - 5)	4 (4 - 4)
Northern America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.9 (1.7 - 2)	49 (48 - 50)	36 (35 - 36)	25 (24 - 26)	12 (12 - 12)	10 (10 - 10)	7 (6 - 7)	6 (5 - 6)
World	**93 (92 - 95)**	**76 (75 - 78)**	**38 (36 - 42)**	**2.9 (2.5 - 3.1)**	**12,832 (12,652 - 13,037)**	**9,903 (9,777 - 10,055)**	**5,034 (4,778 - 5,566)**	**95 (94 - 97)**	**90 (89 - 92)**	**40 (38 - 45)**	**36 (34 - 40)**

Country, regional and global estimates of mortality among children under age 5

Estimates of mortality among children under age 5 by Sustainable Development Goal region[g] (continued)

Region	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)[a]		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands)[a]		
	1990	2021	1990	2021	1990	2000	2021	1990–2021	1990	2000	2021
Sub-Saharan Africa	108 (106 - 110)	50 (46 - 57)	2,312 (2,271 - 2,358)	1,951 (1,797 - 2,207)	46 (44 - 48)	41 (39 - 42)	27 (24 - 32)	1.7 (1.1 - 2)	1,004 (965 - 1,050)	1,093 (1,053 - 1,141)	1,067 (961 - 1,267)
Northern Africa and Western Asia	56 (55 - 57)	20 (18 - 25)	524 (514 - 535)	235 (202 - 290)	31 (29 - 32)	23 (22 - 24)	13 (11 - 17)	2.6 (1.8 - 3.2)	290 (279 - 302)	219 (211 - 228)	155 (131 - 200)
Northern Africa	62 (60 - 64)	22 (19 - 28)	287 (279 - 295)	131 (110 - 162)	34 (32 - 35)	26 (25 - 28)	15 (12 - 20)	2.5 (1.7 - 3.2)	157 (149 - 165)	117 (111 - 124)	91 (74 - 117)
Western Asia	50 (48 - 51)	18 (14 - 26)	237 (230 - 244)	103 (78 - 147)	28 (26 - 29)	20 (19 - 21)	11 (8 - 18)	2.8 (1.5 - 3.8)	133 (127 - 141)	102 (97 - 107)	65 (48 - 99)
Central and Southern Asia	89 (87 - 91)	29 (27 - 32)	3,632 (3,556 - 3,710)	1,108 (1,027 - 1,202)	56 (54 - 59)	45 (43 - 47)	22 (20 - 24)	3 (2.7 - 3.4)	2,332 (2,234 - 2,431)	1,903 (1,825 - 1,984)	828 (755 - 915)
Central Asia	58 (55 - 61)	16 (14 - 19)	91 (87 - 96)	29 (25 - 34)	28 (25 - 30)	27 (24 - 29)	10 (6 - 13)	3.4 (2.3 - 5)	44 (40 - 48)	32 (29 - 36)	17 (11 - 24)
Southern Asia	90 (88 - 92)	30 (28 - 33)	3,541 (3,465 - 3,619)	1,079 (998 - 1,173)	57 (55 - 60)	46 (44 - 48)	22 (20 - 25)	3 (2.7 - 3.4)	2,288 (2,190 - 2,386)	1,870 (1,792 - 1,951)	811 (739 - 897)
Eastern and South-Eastern Asia	44 (42 - 46)	12 (11 - 13)	1,830 (1,741 - 1,934)	277 (251 - 312)	28 (26 - 30)	20 (19 - 21)	7 (6 - 8)	4.4 (3.8 - 4.8)	1,185 (1,092 - 1,291)	625 (590 - 662)	170 (150 - 197)
Eastern Asia	40 (37 - 44)	5 (5 - 5)	1,209 (1,119 - 1,311)	65 (59 - 71)	28 (25 - 31)	20 (18 - 21)	3 (3 - 4)	7 (6.4 - 7.6)	853 (762 - 955)	387 (356 - 420)	39 (34 - 45)
South-Eastern Asia	52 (51 - 54)	19 (17 - 22)	621 (607 - 638)	213 (187 - 246)	28 (26 - 29)	21 (20 - 22)	12 (10 - 14)	2.8 (2.1 - 3.3)	332 (317 - 349)	238 (226 - 249)	130 (111 - 158)
Latin America and the Caribbean	44 (42 - 45)	14 (13 - 15)	515 (501 - 529)	132 (124 - 144)	23 (22 - 24)	16 (15 - 17)	9 (8 - 10)	3 (2.6 - 3.3)	272 (258 - 286)	187 (178 - 197)	87 (80 - 98)
Oceania	25 (24 - 27)	16 (13 - 22)	13 (12 - 14)	11 (9 - 15)	13 (12 - 15)	14 (12 - 15)	10 (7 - 14)	0.9 (-0.3 - 1.9)	7 (6 - 8)	7 (7 - 8)	7 (5 - 10)
Australia and New Zealand	8 (8 - 8)	3 (3 - 3)	2 (2 - 3)	1 (1 - 1)	5 (4 - 5)	4 (3 - 4)	2 (2 - 3)	2.1 (1.8 - 2.3)	1 (1 - 2)	1 (1 - 1)	1 (1 - 1)
Oceania (exc. Australia and New Zealand)	53 (49 - 56)	31 (23 - 43)	10 (10 - 11)	10 (7 - 13)	27 (24 - 30)	26 (23 - 29)	19 (13 - 28)	1.1 (-0.2 - 2.4)	5 (5 - 6)	6 (6 - 7)	6 (4 - 9)
Europe and Northern America	12 (12 - 12)	4 (4 - 4)	163 (162 - 166)	47 (46 - 48)	7 (7 - 8)	5 (5 - 5)	3 (3 - 3)	3.2 (2.9 - 3.4)	102 (96 - 108)	60 (58 - 62)	30 (29 - 32)
Europe	13 (13 - 13)	4 (4 - 4)	122 (120 - 125)	25 (25 - 26)	8 (8 - 9)	6 (5 - 6)	2 (2 - 3)	3.9 (3.5 - 4.3)	76 (70 - 82)	40 (39 - 42)	17 (16 - 18)
Northern America	9 (9 - 9)	5 (5 - 6)	41 (41 - 42)	21 (20 - 23)	6 (5 - 6)	4 (4 - 5)	3 (3 - 3)	1.7 (1.5 - 1.9)	26 (25 - 26)	20 (20 - 21)	13 (13 - 14)
World	**65 (64 - 66)**	**28 (27 - 31)**	**8,989 (8,866 - 9,132)**	**3,760 (3,594 - 4,058)**	**37 (35 - 38)**	**31 (30 - 32)**	**18 (17 - 19)**	**2.4 (2 - 2.6)**	**5,191 (5,032 - 5,368)**	**4,095 (3,988 - 4,211)**	**2,345 (2,212 - 2,599)**

Country, regional and global estimates of mortality among children under age 5

Estimates of mortality among children under age 5 by UNICEF region[g]

Region	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2021	
	1990	2000	2021	1990–2021	1990	2000	2021	Male	Female	Male	Female
Sub-Saharan Africa	179 (175 - 183)	151 (148 - 155)	73 (67 - 85)	2.9 (2.4 - 3.2)	3,925 (3,850 - 4,010)	4,032 (3,956 - 4,122)	2,904 (2,655 - 3,385)	188 (184 - 192)	169 (166 - 173)	78 (72 - 91)	67 (62 - 79)
West and Central Africa	197 (191 - 203)	168 (163 - 173)	91 (79 - 111)	2.5 (1.8 - 2.9)	2,040 (1,978 - 2,107)	2,205 (2,141 - 2,276)	1,894 (1,640 - 2,290)	206 (199 - 213)	187 (181 - 193)	97 (84 - 118)	85 (74 - 104)
Eastern and Southern Africa	163 (159 - 167)	135 (131 - 139)	53 (48 - 63)	3.6 (3.1 - 4)	1,885 (1,841 - 1,936)	1,827 (1,783 - 1,879)	1,010 (919 - 1,204)	172 (167 - 176)	154 (150 - 158)	57 (52 - 69)	48 (44 - 58)
Middle East and North Africa	66 (64 - 68)	43 (42 - 45)	22 (18 - 30)	3.6 (2.5 - 4.2)	560 (546 - 577)	340 (330 - 351)	214 (175 - 292)	68 (66 - 70)	64 (62 - 66)	24 (19 - 32)	20 (16 - 28)
South Asia	130 (127 - 134)	93 (91 - 96)	37 (34 - 41)	4.1 (3.7 - 4.3)	4,875 (4,756 - 4,999)	3,667 (3,570 - 3,772)	1,287 (1,180 - 1,414)	128 (125 - 132)	132 (129 - 136)	38 (35 - 42)	36 (33 - 40)
East Asia and Pacific	57 (54 - 60)	39 (38 - 41)	15 (13 - 17)	4.3 (3.9 - 4.7)	2,379 (2,266 - 2,510)	1,228 (1,189 - 1,271)	370 (337 - 418)	60 (57 - 63)	53 (50 - 56)	16 (15 - 18)	13 (12 - 15)
Latin America and Caribbean	55 (53 - 57)	33 (32 - 34)	16 (15 - 18)	4 (3.7 - 4.2)	650 (631 - 669)	382 (372 - 393)	155 (146 - 171)	59 (58 - 61)	50 (49 - 52)	17 (16 - 19)	14 (13 - 16)
North America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.9 (1.7 - 2)	49 (48 - 50)	36 (35 - 36)	25 (24 - 26)	12 (12 - 12)	10 (10 - 10)	7 (6 - 7)	6 (5 - 6)
Europe and Central Asia	31 (30 - 32)	21 (21 - 22)	8 (7 - 8)	4.5 (4.2 - 4.7)	394 (385 - 406)	218 (212 - 226)	78 (74 - 86)	34 (33 - 35)	28 (27 - 29)	8 (8 - 9)	7 (6 - 7)
Eastern Europe and Central Asia	47 (45 - 48)	35 (34 - 37)	11 (10 - 12)	4.7 (4.3 - 5)	337 (327 - 348)	188 (181 - 195)	61 (57 - 69)	51 (49 - 53)	43 (41 - 44)	12 (11 - 14)	10 (9 - 11)
Western Europe	10 (10 - 11)	6 (6 - 6)	4 (4 - 4)	3.4 (3.3 - 3.4)	58 (58 - 58)	30 (30 - 31)	17 (17 - 17)	12 (12 - 12)	9 (9 - 9)	4 (4 - 4)	3 (3 - 3)
World	**93 (92 - 95)**	**76 (75 - 78)**	**38 (36 - 42)**	**2.9 (2.5 - 3.1)**	**12,832 (12,652 - 13,037)**	**9,903 (9,777 - 10,055)**	**5,034 (4,778 - 5,566)**	**95 (94 - 97)**	**90 (89 - 92)**	**40 (38 - 45)**	**36 (34 - 40)**

Estimates of mortality among children under age 5 by World Health Organization region[g]

Region	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2021	
	1990	2000	2021	1990–2021	1990	2000	2021	Male	Female	Male	Female
Africa	176 (173 - 180)	150 (147 - 153)	72 (65 - 84)	2.9 (2.4 - 3.2)	3,783 (3,708 - 3,864)	3,883 (3,809 - 3,968)	2,762 (2,513 - 3,212)	185 (181 - 189)	167 (164 - 171)	77 (70 - 90)	66 (60 - 78)
Americas	43 (42 - 44)	26 (26 - 27)	13 (12 - 14)	3.8 (3.6 - 4)	698 (679 - 718)	418 (408 - 429)	180 (171 - 196)	46 (45 - 48)	39 (38 - 40)	14 (14 - 16)	12 (11 - 13)
Eastern Mediterranean	104 (102 - 107)	81 (79 - 84)	45 (40 - 55)	2.7 (2.1 - 3.1)	1,462 (1,430 - 1,498)	1,189 (1,158 - 1,228)	831 (731 - 1,010)	107 (105 - 110)	101 (99 - 104)	48 (42 - 59)	42 (37 - 51)
Europe	31 (30 - 32)	21 (21 - 22)	8 (7 - 8)	4.5 (4.2 - 4.8)	396 (386 - 407)	219 (213 - 227)	79 (74 - 86)	34 (33 - 35)	28 (27 - 29)	8 (8 - 9)	7 (6 - 7)
South-East Asia	119 (116 - 122)	84 (81 - 86)	29 (26 - 31)	4.6 (4.3 - 4.9)	4,690 (4,572 - 4,814)	3,348 (3,253 - 3,451)	961 (888 - 1,047)	118 (115 - 121)	120 (117 - 124)	29 (27 - 32)	28 (26 - 31)
Western Pacific	52 (49 - 55)	35 (33 - 36)	12 (10 - 13)	4.8 (4.3 - 5.2)	1,799 (1,687 - 1,927)	843 (809 - 883)	219 (198 - 250)	54 (51 - 59)	49 (46 - 53)	13 (11 - 14)	10 (9 - 12)
World	**93 (92 - 95)**	**76 (75 - 78)**	**38 (36 - 42)**	**2.9 (2.5 - 3.1)**	**12,832 (12,652 - 13,037)**	**9,903 (9,777 - 10,055)**	**5,034 (4,778 - 5,566)**	**95 (94 - 97)**	**90 (89 - 92)**	**40 (38 - 45)**	**36 (34 - 40)**

Country, regional and global estimates of mortality among children under age 5

Estimates of mortality among children under age 5 by UNICEF region[g] (continued)

Region	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)[a]		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands)[a]		
	1990	2021	1990	2021	1990	2000	2021	1990–2021	1990	2000	2021
Sub-Saharan Africa	107 (105 - 109)	50 (46 - 56)	2,386 (2,345 - 2,433)	2,010 (1,855 - 2,269)	45 (44 - 47)	40 (39 - 42)	27 (24 - 32)	1.7 (1.1 - 2)	1,043 (1,004 - 1,089)	1,130 (1,090 - 1,179)	1,108 (1,000 - 1,308)
West and Central Africa	114 (111 - 118)	61 (54 - 72)	1,211 (1,178 - 1,247)	1,280 (1,125 - 1,498)	48 (46 - 51)	43 (41 - 46)	31 (26 - 38)	1.5 (0.8 - 2)	525 (497 - 554)	596 (565 - 630)	652 (556 - 806)
Eastern and Southern Africa	100 (98 - 103)	38 (35 - 43)	1,175 (1,150 - 1,204)	730 (672 - 838)	43 (41 - 45)	38 (36 - 40)	23 (21 - 28)	2 (1.3 - 2.4)	519 (496 - 546)	534 (511 - 561)	455 (408 - 553)
Middle East and North Africa	50 (49 - 52)	18 (15 - 23)	428 (418 - 438)	176 (147 - 227)	28 (26 - 30)	21 (21 - 22)	12 (10 - 16)	2.7 (1.8 - 3.4)	239 (222 - 255)	170 (163 - 178)	117 (96 - 157)
South Asia	92 (90 - 94)	31 (28 - 33)	3,461 (3,386 - 3,539)	1,066 (985 - 1,158)	59 (56 - 61)	46 (44 - 48)	23 (21 - 25)	3 (2.7 - 3.4)	2,243 (2,148 - 2,340)	1,850 (1,772 - 1,930)	802 (729 - 886)
East Asia and Pacific	44 (41 - 46)	12 (11 - 13)	1,843 (1,754 - 1,947)	288 (262 - 323)	28 (26 - 30)	20 (19 - 21)	7 (6 - 8)	4.3 (3.7 - 4.8)	1,192 (1,099 - 1,298)	632 (598 - 669)	177 (157 - 205)
Latin America and Caribbean	44 (42 - 45)	14 (13 - 15)	515 (501 - 529)	132 (124 - 144)	23 (22 - 24)	16 (15 - 17)	9 (8 - 10)	3 (2.6 - 3.3)	272 (258 - 286)	187 (178 - 197)	87 (80 - 98)
North America	9 (9 - 9)	5 (5 - 6)	41 (41 - 42)	21 (20 - 23)	6 (5 - 6)	5 (4 - 5)	3 (3 - 3)	1.7 (1.5 - 1.9)	26 (25 - 26)	20 (20 - 21)	13 (13 - 14)
Europe and Central Asia	25 (24 - 25)	7 (6 - 7)	315 (309 - 323)	67 (63 - 73)	14 (13 - 15)	10 (10 - 11)	4 (3 - 5)	4 (3.3 - 4.7)	176 (168 - 185)	105 (101 - 110)	41 (33 - 50)
Eastern Europe and Central Asia	37 (37 - 39)	9 (9 - 10)	266 (260 - 274)	52 (49 - 59)	20 (19 - 22)	17 (16 - 18)	6 (4 - 7)	4.2 (3.4 - 5.2)	145 (137 - 155)	88 (84 - 93)	31 (23 - 39)
Western Europe	9 (9 - 9)	3 (3 - 3)	49 (48 - 49)	14 (14 - 14)	6 (5 - 6)	3 (3 - 4)	2 (2 - 2)	2.9 (2.8 - 3)	31 (30 - 31)	17 (17 - 17)	10 (10 - 11)
World	**65 (64 - 66)**	**28 (27 - 31)**	**8,989 (8,866 - 9,132)**	**3,760 (3,594 - 4,058)**	**37 (35 - 38)**	**31 (30 - 32)**	**18 (17 - 19)**	**2.4 (2 - 2.6)**	**5,191 (5,032 - 5,368)**	**4,095 (3,988 - 4,211)**	**2,345 (2,212 - 2,599)**

Estimates of mortality among children under age 5 by World Health Organization region[g] (continued)

Region	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)[a]		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands)[a]		
	1990	2021	1990	2021	1990	2000	2021	1990–2021	1990	2000	2021
Africa	106 (104 - 108)	49 (45 - 56)	2,307 (2,266 - 2,352)	1,916 (1,761 - 2,161)	45 (43 - 47)	40 (39 - 42)	27 (24 - 31)	1.7 (1.1 - 2)	1,006 (968 - 1,051)	1,086 (1,046 - 1,133)	1,054 (949 - 1,243)
Americas	34 (33 - 35)	11 (11 - 12)	556 (543 - 571)	153 (145 - 166)	18 (17 - 19)	13 (12 - 14)	7 (7 - 8)	2.9 (2.5 - 3.2)	298 (284 - 312)	208 (198 - 217)	101 (94 - 112)
Eastern Mediterranean	77 (76 - 79)	36 (32 - 42)	1,086 (1,065 - 1,109)	662 (589 - 777)	44 (42 - 46)	39 (38 - 41)	25 (22 - 30)	1.8 (1.2 - 2.3)	635 (606 - 664)	586 (564 - 611)	469 (410 - 567)
Europe	25 (24 - 25)	6 (6 - 7)	316 (310 - 324)	67 (63 - 73)	14 (13 - 15)	10 (10 - 11)	4 (3 - 5)	4 (3.3 - 4.7)	177 (169 - 186)	106 (101 - 111)	42 (34 - 50)
South-East Asia	84 (82 - 86)	24 (22 - 26)	3,303 (3,228 - 3,380)	797 (741 - 860)	53 (51 - 55)	41 (39 - 43)	17 (16 - 19)	3.6 (3.3 - 3.9)	2,110 (2,017 - 2,205)	1,645 (1,569 - 1,722)	579 (528 - 637)
Western Pacific	41 (38 - 43)	9 (8 - 10)	1,418 (1,329 - 1,520)	163 (147 - 185)	27 (24 - 30)	19 (18 - 20)	6 (5 - 7)	5.1 (4.4 - 5.6)	964 (872 - 1,067)	463 (432 - 497)	99 (87 - 117)
World	**65 (64 - 66)**	**28 (27 - 31)**	**8,989 (8,866 - 9,132)**	**3,760 (3,594 - 4,058)**	**37 (35 - 38)**	**31 (30 - 32)**	**18 (17 - 19)**	**2.4 (2 - 2.6)**	**5,191 (5,032 - 5,368)**	**4,095 (3,988 - 4,211)**	**2,345 (2,212 - 2,599)**

Country, regional and global estimates of mortality among children under age 5

Estimates of mortality among children under age 5 by World Bank region[g]

Region	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2021	
	1990	2000	2021	1990–2021	1990	2000	2021	Male	Female	Male	Female
East Asia and Pacific	57 (54 - 60)	39 (38 - 41)	15 (13 - 17)	4.3 (3.9 - 4.7)	2,379 (2,266 - 2,510)	1,228 (1,189 - 1,271)	370 (337 - 418)	60 (57 - 63)	53 (50 - 56)	16 (15 - 18)	13 (12 - 15)
Europe and Central Asia	31 (30 - 32)	21 (21 - 22)	8 (7 - 8)	4.5 (4.2 - 4.7)	394 (385 - 405)	218 (212 - 226)	78 (73 - 86)	34 (33 - 35)	28 (27 - 29)	8 (8 - 9)	7 (6 - 7)
Latin America and the Caribbean	55 (53 - 57)	33 (32 - 34)	16 (15 - 18)	4 (3.7 - 4.2)	650 (631 - 669)	382 (372 - 393)	155 (146 - 171)	59 (58 - 61)	50 (49 - 52)	17 (16 - 19)	14 (13 - 16)
Middle East and North Africa	66 (64 - 68)	44 (42 - 45)	22 (18 - 30)	3.6 (2.5 - 4.2)	563 (549 - 579)	343 (333 - 354)	215 (176 - 293)	68 (66 - 70)	64 (62 - 66)	24 (19 - 32)	20 (17 - 28)
North America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.9 (1.7 - 2)	49 (48 - 50)	36 (35 - 36)	25 (24 - 26)	12 (12 - 12)	10 (10 - 10)	7 (6 - 7)	6 (5 - 6)
South Asia	130 (127 - 134)	93 (91 - 96)	37 (34 - 41)	4.1 (3.7 - 4.3)	4,875 (4,756 - 4,999)	3,667 (3,570 - 3,772)	1,287 (1,180 - 1,414)	128 (125 - 132)	132 (129 - 136)	38 (35 - 42)	36 (33 - 40)
Sub-Saharan Africa	179 (175 - 183)	151 (148 - 155)	73 (67 - 85)	2.9 (2.4 - 3.2)	3,922 (3,847 - 4,007)	4,030 (3,954 - 4,120)	2,903 (2,654 - 3,384)	188 (184 - 192)	170 (166 - 173)	78 (72 - 91)	67 (62 - 79)
Low income	185 (182 - 190)	146 (143 - 150)	67 (62 - 80)	3.3 (2.7 - 3.6)	2,436 (2,386 - 2,493)	2,387 (2,338 - 2,449)	1,628 (1,491 - 1,930)	194 (190 - 198)	177 (173 - 181)	72 (66 - 86)	62 (57 - 74)
Lower-middle income	120 (118 - 122)	93 (91 - 95)	44 (40 - 49)	3.3 (2.9 - 3.5)	7,792 (7,658 - 7,934)	6,196 (6,084 - 6,320)	3,008 (2,766 - 3,398)	122 (119 - 124)	118 (116 - 121)	46 (42 - 52)	41 (38 - 47)
Upper-middle income	52 (50 - 55)	35 (34 - 36)	12 (11 - 13)	4.8 (4.5 - 5)	2,408 (2,294 - 2,538)	1,201 (1,166 - 1,242)	328 (315 - 351)	55 (52 - 58)	49 (47 - 52)	13 (12 - 14)	11 (10 - 12)
High income	13 (13 - 13)	8 (8 - 8)	5 (5 - 5)	3.1 (3 - 3.3)	180 (176 - 185)	106 (105 - 108)	58 (56 - 61)	14 (14 - 14)	12 (11 - 12)	5 (5 - 6)	4 (4 - 5)
World	**93 (92 - 95)**	**76 (75 - 78)**	**38 (36 - 42)**	**2.9 (2.5 - 3.1)**	**12,832 (12,652 - 13,037)**	**9,903 (9,777 - 10,055)**	**5,034 (4,778 - 5,566)**	**95 (94 - 97)**	**90 (89 - 92)**	**40 (38 - 45)**	**36 (34 - 40)**

Estimates of mortality among children under age 5 by United Nations Population Division region[g]

Region	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
	1990	2000	2021	1990–2021	1990	2000	2021	Male	Female	Male	Female
Sub-Saharan Africa	181 (177 - 185)	153 (150 - 156)	74 (67 - 86)	2.9 (2.4 - 3.2)	3,806 (3,731 - 3,889)	3,930 (3,855 - 4,020)	2,822 (2,573 - 3,297)	190 (186 - 194)	171 (168 - 175)	79 (72 - 93)	68 (62 - 80)
Africa	164 (161 - 168)	140 (137 - 143)	68 (62 - 79)	2.9 (2.4 - 3.1)	4,204 (4,129 - 4,290)	4,188 (4,112 - 4,279)	2,989 (2,739 - 3,474)	172 (169 - 176)	156 (153 - 159)	73 (67 - 85)	63 (57 - 73)
Asia	89 (87 - 91)	68 (66 - 69)	27 (25 - 29)	3.9 (3.6 - 4.1)	7,762 (7,599 - 7,946)	5,204 (5,099 - 5,320)	1,820 (1,708 - 1,986)	90 (88 - 92)	88 (86 - 91)	28 (26 - 31)	26 (24 - 28)
Europe	16 (16 - 16)	11 (10 - 11)	4 (4 - 4)	4.1 (4 - 4.2)	150 (148 - 153)	77 (76 - 78)	31 (30 - 31)	18 (17 - 18)	14 (14 - 14)	5 (5 - 5)	4 (4 - 4)
Latin America and the Caribbean	55 (53 - 57)	33 (32 - 34)	16 (15 - 18)	4 (3.7 - 4.2)	650 (631 - 669)	382 (372 - 393)	155 (146 - 171)	59 (58 - 61)	50 (49 - 52)	17 (16 - 19)	14 (13 - 16)
Northern America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.9 (1.7 - 2)	49 (48 - 50)	36 (35 - 36)	25 (24 - 26)	12 (12 - 12)	10 (10 - 10)	7 (6 - 7)	6 (5 - 6)
Oceania	33 (31 - 36)	31 (28 - 34)	20 (15 - 28)	1.6 (0.5 - 2.6)	17 (16 - 18)	17 (15 - 18)	14 (10 - 19)	35 (33 - 38)	31 (29 - 33)	22 (16 - 30)	18 (14 - 26)
World	**93 (92 - 95)**	**76 (75 - 78)**	**38 (36 - 42)**	**2.9 (2.5 - 3.1)**	**12,832 (12,652 - 13,037)**	**9,903 (9,777 - 10,055)**	**5,034 (4,778 - 5,566)**	**95 (94 - 97)**	**90 (89 - 92)**	**40 (38 - 45)**	**36 (34 - 40)**

Country, regional and global estimates of mortality among children under age 5

Estimates of mortality among children under age 5 by World Bank region[g] (continued)

Region	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)[a]		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands)[a]		
	1990	2021	1990	2021	1990	2000	2021	1990–2021	1990	2000	2021
East Asia and Pacific	44 (41 - 46)	12 (11 - 13)	1,843 (1,754 - 1,947)	288 (262 - 323)	28 (26 - 30)	20 (19 - 21)	7 (6 - 8)	4.3 (3.7 - 4.8)	1,192 (1,099 - 1,298)	632 (598 - 669)	177 (157 - 205)
Europe and Central Asia	25 (24 - 25)	7 (6 - 7)	315 (309 - 323)	67 (63 - 73)	14 (13 - 15)	10 (10 - 11)	4 (3 - 5)	4 (3.3 - 4.7)	176 (168 - 185)	105 (101 - 110)	41 (33 - 50)
Latin America and the Caribbean	44 (42 - 45)	14 (13 - 15)	515 (501 - 529)	132 (124 - 144)	23 (22 - 24)	16 (15 - 17)	9 (8 - 10)	3 (2.6 - 3.3)	272 (258 - 286)	187 (178 - 197)	87 (80 - 98)
Middle East and North Africa	51 (49 - 52)	18 (15 - 23)	430 (420 - 440)	177 (148 - 228)	28 (26 - 30)	21 (21 - 22)	12 (10 - 16)	2.7 (1.8 - 3.4)	240 (224 - 256)	171 (164 - 179)	117 (97 - 158)
North America	9 (9 - 9)	5 (5 - 6)	41 (41 - 42)	21 (20 - 23)	6 (5 - 6)	5 (4 - 5)	3 (3 - 3)	1.7 (1.5 - 1.9)	26 (25 - 26)	20 (20 - 21)	13 (13 - 14)
South Asia	92 (90 - 94)	31 (28 - 33)	3,461 (3,386 - 3,539)	1,066 (985 - 1,158)	59 (56 - 61)	46 (44 - 48)	23 (21 - 25)	3 (2.7 - 3.4)	2,243 (2,148 - 2,340)	1,850 (1,772 - 1,930)	802 (729 - 886)
Sub-Saharan Africa	107 (105 - 109)	50 (46 - 56)	2,384 (2,343 - 2,431)	2,009 (1,854 - 2,268)	45 (44 - 47)	40 (39 - 42)	27 (24 - 32)	1.7 (1.1 - 2)	1,042 (1,003 - 1,088)	1,129 (1,089 - 1,177)	1,107 (1,000 - 1,308)
Low income	110 (108 - 113)	47 (43 - 54)	1,481 (1,454 - 1,512)	1,159 (1,064 - 1,328)	49 (47 - 51)	42 (40 - 44)	27 (24 - 32)	1.9 (1.3 - 2.3)	670 (644 - 702)	713 (686 - 745)	665 (599 - 806)
Lower-middle income	83 (82 - 84)	33 (31 - 36)	5,421 (5,338 - 5,509)	2,282 (2,132 - 2,509)	48 (46 - 50)	39 (38 - 40)	21 (20 - 24)	2.6 (2.3 - 2.9)	3,179 (3,071 - 3,289)	2,676 (2,588 - 2,768)	1,481 (1,367 - 1,652)
Upper-middle income	42 (40 - 44)	10 (9 - 10)	1,924 (1,834 - 2,028)	260 (250 - 277)	26 (24 - 29)	19 (18 - 20)	6 (6 - 7)	4.8 (4.4 - 5.1)	1,243 (1,149 - 1,348)	642 (609 - 678)	160 (150 - 176)
High income	11 (10 - 11)	4 (4 - 4)	149 (146 - 152)	49 (48 - 51)	7 (6 - 7)	4 (4 - 5)	3 (3 - 3)	2.9 (2.6 - 3.1)	92 (88 - 96)	57 (55 - 59)	32 (30 - 34)
World	**65 (64 - 66)**	**28 (27 - 31)**	**8,989 (8,866 - 9,132)**	**3,760 (3,594 - 4,058)**	**37 (35 - 38)**	**31 (30 - 32)**	**18 (17 - 19)**	**2.4 (2 - 2.6)**	**5,191 (5,032 - 5,368)**	**4,095 (3,988 - 4,211)**	**2,345 (2,212 - 2,599)**

Estimates of mortality among children under age 5 by United Nations Population Division region[g] (continued)

Region	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)[a]		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands)[a]		
	1990	2021	1990	2021	1990	2000	2021	1990–2021	1990	2000	2021
Sub-Saharan Africa	108 (106 - 110)	50 (46 - 57)	2,312 (2,271 - 2,358)	1,951 (1,797 - 2,207)	46 (44 - 48)	41 (39 - 42)	27 (24 - 32)	1.7 (1.1 - 2)	1,004 (965 - 1,050)	1,093 (1,053 - 1,141)	1,067 (961 - 1,267)
Africa	100 (98 - 102)	47 (43 - 53)	2,599 (2,558 - 2,646)	2,082 (1,928 - 2,343)	43 (42 - 45)	39 (37 - 40)	26 (23 - 30)	1.7 (1.2 - 2)	1,161 (1,120 - 1,208)	1,210 (1,169 - 1,259)	1,157 (1,051 - 1,361)
Asia	65 (64 - 67)	22 (21 - 24)	5,699 (5,582 - 5,832)	1,488 (1,402 - 1,604)	41 (39 - 43)	34 (32 - 35)	16 (15 - 17)	3.1 (2.7 - 3.3)	3,650 (3,509 - 3,803)	2,629 (2,539 - 2,725)	1,063 (986 - 1,169)
Europe	13 (13 - 13)	4 (4 - 4)	122 (120 - 125)	25 (25 - 26)	8 (8 - 9)	6 (5 - 6)	2 (2 - 3)	3.9 (3.5 - 4.3)	76 (70 - 82)	40 (39 - 42)	17 (16 - 18)
Latin America and the Caribbean	44 (42 - 45)	14 (13 - 15)	515 (501 - 529)	132 (124 - 144)	23 (22 - 24)	16 (15 - 17)	9 (8 - 10)	3 (2.6 - 3.3)	272 (258 - 286)	187 (178 - 197)	87 (80 - 98)
Northern America	9 (9 - 9)	5 (5 - 6)	41 (41 - 42)	21 (20 - 23)	6 (5 - 6)	5 (4 - 5)	3 (3 - 3)	1.7 (1.5 - 1.9)	26 (25 - 26)	20 (20 - 21)	13 (13 - 14)
Oceania	25 (24 - 27)	16 (13 - 22)	13 (12 - 14)	11 (9 - 15)	13 (12 - 15)	14 (12 - 15)	10 (7 - 14)	0.9 (-0.3 - 1.9)	7 (6 - 8)	7 (7 - 8)	7 (5 - 10)
World	**65 (64 - 66)**	**28 (27 - 31)**	**8,989 (8,866 - 9,132)**	**3,760 (3,594 - 4,058)**	**37 (35 - 38)**	**31 (30 - 32)**	**18 (17 - 19)**	**2.4 (2 - 2.6)**	**5,191 (5,032 - 5,368)**	**4,095 (3,988 - 4,211)**	**2,345 (2,212 - 2,599)**

Country, regional and global estimates of mortality among children, adolescents and youth under age 25

Country	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands)[a]		Sex-specific probability of dying among children aged 5–14 years (per 1,000 children aged 5)				Probability of dying among children aged 15–24 years (per 1,000 children aged 15)		Number of deaths among children aged 15–24 (thousands)[a]		Sex-specific probability of dying among children aged 15–24 years (per 1,000 children aged 15)			
	1990	2021	1990	2021	1990 Male	1990 Female	2021 Male	2021 Female	1990	2021	1990	2021	1990 Male	1990 Female	2021 Male	2021 Female
Afghanistan	19 (9 - 40)	4 (1 - 8)	6 (3 - 12)	4 (2 - 8)	20 (13 - 42)	19 (12 - 42)	5 (3 - 10)	3 (2 - 6)	54 (28 - 126)	30 (16 - 60)	11 (6 - 27)	27 (14 - 52)	49 (26 - 115)	59 (31 - 139)	23 (12 - 48)	38 (20 - 74)
Albania	6 (6 - 7)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	7 (7 - 8)	5 (5 - 5)	2 (2 - 2)	2 (1 - 2)	8 (8 - 8)	4 (3 - 4)	1 (0 - 1)	0 (0 - 0)	11 (11 - 12)	4 (4 - 5)	4 (4 - 5)	3 (2 - 3)
Algeria	9 (8 - 10)	3 (3 - 3)	6 (6 - 7)	2 (2 - 3)	10 (10 - 11)	8 (7 - 8)	3 (3 - 3)	3 (2 - 3)	11 (10 - 13)	5 (5 - 6)	6 (5 - 7)	3 (3 - 3)	14 (12 - 16)	8 (7 - 10)	7 (6 - 7)	4 (3 - 4)
Andorra	3 (2 - 4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (2 - 3)	1 (1 - 1)	1 (1 - 1)	9 (7 - 11)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	13 (10 - 16)	5 (4 - 7)	5 (3 - 6)	2 (1 - 2)
Angola	55 (43 - 71)	16 (12 - 20)	19 (15 - 24)	15 (12 - 20)	56 (44 - 72)	55 (42 - 70)	16 (12 - 21)	15 (12 - 20)	63 (49 - 80)	30 (23 - 38)	14 (11 - 18)	19 (15 - 25)	53 (39 - 70)	73 (55 - 94)	38 (28 - 49)	22 (15 - 30)
Anguilla	3 (2 - 4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	4 (3 - 5)	2 (2 - 3)	1 (1 - 2)	1 (1 - 1)	10 (8 - 13)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	14 (11 - 18)	4 (4 - 8)	7 (5 - 9)	3 (2 - 4)
Antigua and Barbuda	3 (2 - 3)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (2 - 3)	2 (1 - 2)	1 (1 - 2)	14 (6 - 30)	4 (4 - 9)	0 (0 - 0)	0 (0 - 0)	19 (10 - 43)	5 (5 - 18)	8 (5 - 14)	3 (2 - 6)
Argentina	3 (3 - 4)	1 (1 - 2)	2 (2 - 2)	1 (1 - 1)	4 (4 - 4)	3 (3 - 3)	2 (1 - 2)	1 (1 - 1)	9 (8 - 9)	7 (6 - 7)	5 (4 - 5)	5 (4 - 5)	12 (11 - 12)	6 (5 - 6)	9 (9 - 10)	4 (3 - 4)
Armenia	3 (3 - 4)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	3 (2 - 3)	2 (2 - 2)	2 (1 - 2)	7 (6 - 7)	5 (5 - 6)	0 (0 - 0)	0 (0 - 0)	9 (9 - 10)	4 (4 - 4)	8 (7 - 9)	3 (2 - 3)
Australia	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 8)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	11 (11 - 12)	4 (4 - 4)	5 (5 - 6)	2 (2 - 3)
Austria	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 8)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	12 (12 - 12)	4 (3 - 4)	4 (4 - 5)	2 (1 - 2)
Azerbaijan	6 (5 - 6)	3 (3 - 3)	1 (1 - 1)	1 (1 - 1)	6 (6 - 7)	5 (5 - 5)	4 (3 - 4)	3 (2 - 3)	7 (6 - 7)	8 (7 - 9)	1 (1 - 1)	1 (1 - 1)	9 (9 - 10)	4 (4 - 4)	11 (10 - 12)	5 (4 - 6)
Bahamas	4 (4 - 5)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	5 (4 - 6)	3 (3 - 4)	3 (2 - 4)	2 (1 - 2)	12 (11 - 14)	10 (8 - 12)	0 (0 - 0)	0 (0 - 0)	17 (15 - 19)	7 (7 - 9)	16 (13 - 19)	5 (3 - 6)
Bahrain	4 (3 - 4)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 5)	3 (3 - 3)	2 (2 - 3)	1 (1 - 2)	6 (5 - 7)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	8 (7 - 9)	4 (3 - 4)	5 (4 - 6)	3 (2 - 4)
Bangladesh	24 (22 - 27)	5 (4 - 6)	74 (67 - 82)	14 (11 - 17)	24 (22 - 27)	25 (22 - 28)	5 (4 - 7)	4 (3 - 5)	24 (21 - 26)	8 (7 - 9)	49 (45 - 54)	27 (22 - 31)	22 (19 - 24)	26 (23 - 29)	9 (7 - 11)	7 (5 - 9)
Barbados	3 (2 - 4)	2 (1 - 3)	0 (0 - 0)	0 (0 - 0)	3 (2 - 4)	2 (2 - 3)	2 (1 - 3)	1 (1 - 2)	10 (9 - 11)	6 (3 - 10)	0 (0 - 0)	0 (0 - 0)	13 (12 - 16)	6 (5 - 8)	7 (4 - 14)	4 (2 - 8)
Belarus	4 (4 - 4)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	5 (5 - 5)	3 (3 - 3)	1 (1 - 1)	1 (1 - 1)	11 (11 - 12)	4 (3 - 5)	2 (2 - 2)	0 (0 - 0)	17 (17 - 18)	5 (5 - 6)	6 (5 - 7)	2 (2 - 2)
Belgium	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (7 - 8)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	11 (11 - 11)	4 (4 - 4)	4 (3 - 4)	2 (1 - 2)
Belize	5 (4 - 6)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	4 (3 - 4)	3 (2 - 4)	2 (2 - 3)	9 (7 - 11)	11 (9 - 15)	0 (0 - 0)	0 (0 - 0)	12 (10 - 16)	5 (4 - 7)	17 (12 - 22)	6 (4 - 9)
Benin	42 (36 - 48)	19 (14 - 25)	6 (5 - 7)	7 (5 - 9)	42 (36 - 48)	41 (35 - 48)	19 (14 - 26)	18 (14 - 25)	28 (23 - 35)	22 (14 - 36)	3 (2 - 3)	6 (4 - 9)	30 (23 - 37)	27 (22 - 34)	24 (15 - 41)	19 (12 - 32)
Bhutan	17 (11 - 26)	7 (4 - 13)	0 (0 - 0)	0 (0 - 0)	17 (14 - 31)	16 (12 - 24)	8 (5 - 14)	7 (4 - 12)	31 (18 - 51)	12 (6 - 24)	0 (0 - 1)	0 (0 - 0)	33 (20 - 58)	28 (19 - 46)	15 (8 - 31)	8 (4 - 18)
Bolivia (Plurinational State of)	12 (10 - 14)	4 (2 - 7)	2 (2 - 2)	1 (1 - 2)	12 (11 - 14)	11 (9 - 13)	5 (3 - 8)	3 (2 - 6)	23 (19 - 28)	10 (4 - 22)	3 (3 - 4)	2 (1 - 5)	27 (21 - 33)	20 (16 - 24)	13 (6 - 31)	6 (3 - 15)
Bosnia and Herzegovina	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	7 (6 - 7)	4 (3 - 6)	1 (0 - 1)	0 (0 - 0)	9 (9 - 10)	4 (3 - 4)	6 (4 - 9)	2 (1 - 3)
Botswana	19 (15 - 24)	7 (5 - 10)	1 (1 - 1)	0 (0 - 1)	19 (16 - 25)	19 (15 - 24)	8 (6 - 12)	6 (4 - 8)	39 (30 - 51)	11 (6 - 18)	1 (1 - 1)	0 (0 - 1)	39 (29 - 52)	39 (29 - 52)	14 (8 - 24)	7 (4 - 13)
Brazil	4 (4 - 4)	2 (2 - 2)	14 (14 - 15)	7 (6 - 7)	5 (5 - 5)	3 (3 - 3)	3 (2 - 3)	2 (2 - 2)	13 (13 - 14)	12 (11 - 13)	39 (38 - 40)	40 (38 - 43)	20 (19 - 21)	7 (6 - 7)	19 (18 - 21)	4 (4 - 5)
British Virgin Islands	3 (3 - 4)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	4 (3 - 5)	3 (2 - 3)	3 (2 - 3)	2 (1 - 2)	11 (8 - 14)	8 (6 - 10)	0 (0 - 0)	0 (0 - 0)	15 (12 - 20)	6 (5 - 9)	11 (8 - 15)	5 (3 - 7)
Brunei Darussalam	4 (3 - 5)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	5 (4 - 6)	3 (2 - 4)	2 (2 - 3)	2 (1 - 2)	12 (10 - 15)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	17 (14 - 21)	7 (5 - 8)	4 (3 - 5)	2 (2 - 3)
Bulgaria	4 (4 - 4)	2 (1 - 2)	0 (0 - 1)	0 (0 - 0)	5 (5 - 5)	3 (3 - 3)	2 (2 - 2)	1 (1 - 2)	8 (8 - 8)	6 (5 - 6)	1 (1 - 1)	0 (0 - 0)	11 (11 - 12)	5 (5 - 5)	7 (7 - 9)	3 (3 - 4)
Burkina Faso	38 (32 - 44)	17 (9 - 28)	10 (9 - 12)	11 (6 - 18)	39 (33 - 45)	37 (32 - 43)	18 (11 - 30)	16 (10 - 27)	38 (32 - 44)	18 (9 - 37)	6 (6 - 7)	8 (4 - 16)	34 (28 - 40)	41 (34 - 49)	21 (10 - 44)	14 (7 - 31)
Burundi	59 (49 - 73)	19 (11 - 36)	10 (9 - 12)	7 (4 - 13)	60 (50 - 75)	58 (47 - 72)	20 (12 - 38)	18 (12 - 35)	73 (44 - 128)	17 (9 - 32)	8 (5 - 13)	4 (2 - 7)	62 (36 - 112)	84 (52 - 147)	22 (12 - 42)	12 (7 - 23)
Cabo Verde	6 (5 - 7)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	7 (6 - 8)	5 (4 - 6)	2 (2 - 3)	2 (1 - 2)	10 (8 - 11)	6 (4 - 7)	0 (0 - 0)	0 (0 - 0)	13 (11 - 16)	6 (5 - 7)	8 (6 - 10)	3 (3 - 5)
Cambodia	32 (26 - 40)	4 (2 - 7)	8 (7 - 10)	1 (1 - 2)	32 (26 - 40)	32 (26 - 41)	5 (3 - 9)	4 (2 - 6)	37 (29 - 47)	8 (4 - 16)	6 (5 - 8)	2 (1 - 4)	42 (32 - 54)	32 (26 - 41)	11 (6 - 22)	5 (3 - 11)
Cameroon	32 (28 - 36)	21 (15 - 28)	11 (10 - 12)	16 (11 - 21)	32 (28 - 37)	32 (28 - 36)	22 (16 - 30)	20 (14 - 27)	31 (26 - 36)	29 (19 - 43)	7 (6 - 8)	15 (10 - 23)	33 (27 - 39)	29 (24 - 34)	32 (21 - 48)	26 (16 - 40)
Canada	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	2 (2 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (7 - 8)	5 (4 - 5)	3 (3 - 3)	2 (2 - 2)	11 (11 - 11)	4 (4 - 4)	6 (6 - 7)	3 (3 - 3)
Central African Republic	30 (23 - 37)	23 (15 - 36)	2 (2 - 3)	4 (3 - 6)	30 (24 - 38)	30 (23 - 37)	22 (15 - 34)	25 (17 - 38)	45 (37 - 55)	38 (14 - 103)	2 (2 - 3)	5 (2 - 12)	41 (33 - 52)	48 (39 - 60)	41 (16 - 109)	36 (13 - 101)
Chad	49 (41 - 59)	23 (17 - 30)	8 (7 - 10)	11 (9 - 15)	50 (43 - 61)	49 (40 - 59)	23 (17 - 30)	23 (17 - 30)	57 (47 - 69)	34 (19 - 60)	7 (6 - 8)	11 (7 - 20)	69 (55 - 86)	45 (37 - 55)	38 (21 - 69)	29 (17 - 54)
Chile	3 (3 - 3)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	4 (4 - 4)	2 (2 - 3)	1 (1 - 2)	1 (1 - 1)	8 (8 - 8)	6 (5 - 6)	2 (2 - 2)	2 (1 - 2)	12 (12 - 13)	4 (4 - 4)	8 (7 - 9)	3 (3 - 4)
China	7 (6 - 8)	2 (1 - 3)	147 (125 - 174)	32 (21 - 49)	8 (7 - 10)	6 (5 - 7)	2 (1 - 3)	1 (1 - 2)	9 (7 - 11)	4 (2 - 7)	218 (177 - 276)	61 (32 - 117)	11 (9 - 14)	6 (5 - 8)	5 (3 - 10)	1 (1 - 4)
Colombia	5 (4 - 5)	2 (2 - 2)	4 (3 - 4)	2 (2 - 2)	6 (5 - 6)	4 (3 - 4)	3 (3 - 3)	2 (2 - 2)	26 (22 - 31)	10 (10 - 11)	18 (15 - 21)	9 (9 - 10)	37 (31 - 44)	15 (12 - 18)	17 (15 - 18)	4 (4 - 5)
Comoros	16 (13 - 22)	5 (3 - 8)	0 (0 - 0)	0 (0 - 0)	17 (13 - 23)	16 (13 - 21)	6 (4 - 9)	4 (3 - 6)	24 (17 - 36)	8 (5 - 12)	0 (0 - 0)	0 (0 - 0)	29 (20 - 45)	19 (14 - 28)	10 (6 - 16)	5 (3 - 9)

Country, regional and global estimates of mortality among children, adolescents and youth under age 25

Country	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands)[a]		Sex-specific probability of dying among children aged 5–14 years (per 1,000 children aged 5)				Probability of dying among children aged 15–24 years (per 1,000 children aged 15)		Number of deaths among children aged 15–24 (thousands)[a]		Sex-specific probability of dying among children aged 15–24 years (per 1,000 children aged 15)			
					1990		2021						1990		2021	
	1990	2021	1990	2021	Male	Female	Male	Female	1990	2021	1990	2021	Male	Female	Male	Female
Congo	31 (16 - 52)	7 (4 - 11)	2 (1 - 3)	1 (1 - 2)	31 (23 - 55)	30 (22 - 53)	8 (5 - 13)	6 (3 - 9)	58 (31 - 94)	15 (8 - 31)	3 (2 - 5)	2 (1 - 3)	52 (32 - 85)	64 (39 - 106)	19 (9 - 39)	11 (5 - 24)
Cook Islands (New Zealand)	5 (4 - 6)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	6 (5 - 8)	4 (3 - 5)	2 (2 - 3)	1 (1 - 2)	17 (14 - 22)	9 (3 - 21)	0 (0 - 0)	0 (0 - 0)	25 (20 - 31)	9 (7 - 12)	13 (7 - 32)	5 (2 - 14)
Costa Rica	3 (3 - 3)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (2 - 3)	2 (2 - 2)	1 (1 - 2)	6 (6 - 7)	7 (6 - 7)	0 (0 - 0)	1 (0 - 1)	9 (8 - 9)	4 (4 - 4)	10 (9 - 11)	3 (3 - 4)
Croatia	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	10 (10 - 10)	4 (4 - 4)	1 (1 - 1)	0 (0 - 0)	15 (15 - 16)	5 (4 - 5)	6 (5 - 6)	2 (2 - 2)
Cuba	4 (4 - 5)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	5 (4 - 5)	3 (3 - 3)	2 (2 - 2)	2 (1 - 2)	11 (10 - 11)	5 (4 - 5)	2 (2 - 2)	1 (1 - 1)	13 (13 - 13)	8 (8 - 8)	6 (6 - 7)	3 (3 - 4)
Cyprus[b]	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	1 (1 - 2)	1 (1 - 2)	1 (1 - 1)	6 (6 - 7)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	9 (8 - 10)	3 (3 - 4)	4 (3 - 5)	2 (1 - 2)
Czechia	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	7 (7 - 7)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	10 (10 - 10)	4 (4 - 4)	5 (5 - 5)	2 (2 - 2)
Côte d'Ivoire	28 (23 - 33)	24 (16 - 38)	10 (8 - 11)	18 (12 - 28)	28 (24 - 33)	27 (23 - 32)	23 (16 - 37)	24 (16 - 39)	32 (26 - 37)	26 (13 - 52)	7 (6 - 8)	15 (7 - 29)	32 (26 - 39)	31 (25 - 38)	29 (14 - 59)	23 (11 - 49)
Democratic People's Republic of Korea	8 (6 - 11)	3 (3 - 4)	3 (2 - 4)	1 (1 - 1)	9 (7 - 12)	7 (6 - 9)	4 (3 - 5)	3 (2 - 4)	15 (11 - 19)	9 (7 - 11)	7 (5 - 9)	3 (2 - 4)	20 (15 - 26)	9 (7 - 12)	12 (9 - 15)	5 (4 - 8)
Democratic Republic of the Congo	37 (28 - 50)	20 (14 - 28)	37 (29 - 49)	55 (39 - 76)	37 (30 - 51)	36 (29 - 51)	20 (14 - 29)	20 (14 - 28)	46 (29 - 78)	36 (19 - 68)	31 (20 - 52)	67 (36 - 124)	45 (29 - 77)	47 (31 - 81)	36 (20 - 69)	36 (19 - 70)
Denmark	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	1 (0 - 1)	5 (5 - 6)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	8 (7 - 8)	3 (3 - 3)	3 (3 - 4)	2 (1 - 2)
Djibouti	26 (20 - 33)	12 (10 - 16)	0 (0 - 1)	0 (0 - 0)	26 (20 - 34)	26 (20 - 33)	13 (10 - 17)	12 (9 - 15)	42 (32 - 53)	25 (20 - 32)	0 (0 - 1)	1 (0 - 1)	40 (30 - 52)	44 (33 - 57)	31 (22 - 41)	20 (13 - 29)
Dominica	4 (3 - 5)	3 (2 - 5)	0 (0 - 0)	0 (0 - 0)	5 (4 - 7)	3 (2 - 4)	4 (2 - 6)	2 (1 - 4)	7 (5 - 9)	6 (4 - 11)	0 (0 - 0)	0 (0 - 0)	10 (8 - 13)	4 (5 - 17)	9 (5 - 17)	3 (2 - 7)
Dominican Republic	7 (6 - 8)	3 (2 - 5)	1 (1 - 1)	1 (0 - 1)	8 (7 - 10)	6 (5 - 7)	4 (2 - 6)	3 (2 - 4)	13 (9 - 18)	12 (6 - 23)	2 (1 - 3)	2 (1 - 5)	18 (12 - 25)	8 (6 - 12)	17 (9 - 33)	7 (3 - 14)
Ecuador	7 (7 - 7)	2 (2 - 3)	2 (2 - 2)	1 (1 - 1)	8 (8 - 8)	6 (6 - 7)	3 (2 - 3)	2 (2 - 2)	14 (14 - 15)	9 (8 - 9)	3 (3 - 3)	3 (3 - 3)	19 (18 - 20)	10 (9 - 10)	12 (11 - 13)	5 (4 - 5)
Egypt	11 (11 - 11)	4 (4 - 4)	16 (16 - 16)	10 (9 - 10)	12 (11 - 12)	10 (10 - 10)	5 (5 - 5)	3 (3 - 3)	12 (12 - 13)	8 (7 - 9)	13 (13 - 14)	14 (13 - 16)	14 (13 - 15)	10 (10 - 11)	11 (9 - 12)	5 (4 - 6)
El Salvador	6 (6 - 6)	4 (3 - 4)	1 (1 - 1)	0 (0 - 0)	7 (7 - 8)	5 (5 - 6)	4 (4 - 5)	3 (3 - 3)	29 (28 - 30)	10 (9 - 12)	3 (3 - 3)	1 (1 - 1)	48 (46 - 50)	10 (9 - 11)	17 (15 - 19)	3 (3 - 4)
Equatorial Guinea	35 (27 - 45)	15 (12 - 20)	0 (0 - 1)	1 (0 - 1)	35 (27 - 45)	35 (27 - 45)	16 (12 - 21)	15 (11 - 20)	41 (32 - 52)	24 (19 - 31)	0 (0 - 0)	1 (0 - 1)	39 (29 - 52)	43 (32 - 56)	30 (22 - 39)	18 (12 - 27)
Eritrea	41 (34 - 51)	7 (4 - 15)	3 (2 - 3)	1 (0 - 1)	42 (35 - 52)	40 (33 - 50)	8 (4 - 17)	6 (3 - 13)	49 (39 - 63)	20 (16 - 26)	2 (2 - 3)	2 (1 - 2)	44 (33 - 59)	55 (41 - 71)	27 (19 - 35)	14 (9 - 20)
Estonia	5 (5 - 5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	6 (5 - 6)	4 (3 - 4)	1 (1 - 1)	1 (1 - 1)	13 (13 - 14)	3 (3 - 4)	0 (0 - 0)	0 (0 - 0)	20 (19 - 21)	6 (6 - 7)	4 (4 - 5)	3 (2 - 3)
Eswatini	11 (6 - 20)	11 (5 - 22)	0 (0 - 0)	0 (0 - 1)	12 (7 - 22)	10 (6 - 20)	12 (8 - 27)	10 (6 - 20)	29 (23 - 37)	24 (18 - 30)	0 (0 - 1)	1 (0 - 1)	31 (23 - 40)	27 (20 - 36)	22 (16 - 31)	25 (17 - 34)
Ethiopia	74 (59 - 92)	7 (4 - 11)	101 (82 - 124)	22 (13 - 33)	77 (63 - 96)	70 (56 - 88)	8 (5 - 13)	6 (4 - 9)	73 (61 - 90)	16 (9 - 29)	67 (56 - 82)	41 (23 - 72)	82 (66 - 103)	65 (53 - 80)	21 (12 - 38)	11 (6 - 21)
Fiji	12 (9 - 15)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	12 (10 - 16)	11 (8 - 14)	6 (5 - 7)	4 (3 - 5)	16 (9 - 25)	10 (9 - 12)	0 (0 - 0)	0 (0 - 0)	21 (13 - 34)	11 (7 - 17)	12 (10 - 14)	8 (6 - 10)
Finland	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 9)	4 (4 - 5)	1 (1 - 1)	0 (0 - 0)	12 (12 - 13)	4 (4 - 4)	7 (6 - 7)	3 (2 - 3)
France	2 (2 - 2)	1 (1 - 1)	2 (1 - 2)	1 (1 - 1)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (7 - 8)	3 (3 - 3)	6 (6 - 7)	2 (2 - 2)	11 (11 - 12)	4 (4 - 4)	4 (4 - 4)	2 (1 - 2)
Gabon	18 (12 - 27)	12 (6 - 24)	0 (0 - 1)	0 (0 - 1)	19 (13 - 28)	18 (12 - 27)	12 (6 - 25)	11 (5 - 23)	23 (16 - 32)	15 (6 - 33)	0 (0 - 1)	0 (0 - 1)	26 (19 - 37)	20 (13 - 28)	19 (9 - 42)	11 (5 - 26)
Gambia	33 (26 - 42)	10 (8 - 13)	1 (1 - 1)	1 (1 - 1)	33 (26 - 42)	32 (25 - 42)	11 (8 - 14)	9 (7 - 11)	39 (31 - 50)	18 (14 - 23)	1 (1 - 1)	1 (1 - 1)	38 (29 - 50)	40 (31 - 53)	23 (18 - 30)	13 (9 - 18)
Georgia	4 (3 - 4)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 5)	3 (3 - 3)	2 (2 - 2)	1 (1 - 2)	9 (9 - 9)	7 (7 - 8)	1 (1 - 1)	0 (0 - 0)	13 (12 - 14)	5 (4 - 5)	10 (9 - 11)	4 (3 - 4)
Germany	2 (2 - 2)	1 (1 - 1)	2 (2 - 2)	1 (1 - 1)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	6 (6 - 7)	3 (3 - 3)	7 (7 - 7)	2 (2 - 2)	9 (9 - 9)	4 (3 - 4)	4 (3 - 4)	2 (1 - 2)
Ghana	25 (22 - 29)	10 (8 - 14)	12 (10 - 13)	8 (6 - 11)	26 (22 - 30)	24 (21 - 28)	11 (8 - 15)	9 (7 - 13)	30 (18 - 50)	14 (7 - 28)	9 (5 - 14)	9 (5 - 17)	32 (20 - 54)	28 (17 - 49)	17 (10 - 34)	11 (6 - 24)
Greece	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	1 (1 - 1)	5 (7 - 7)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	10 (10 - 10)	3 (3 - 3)	4 (4 - 4)	1 (1 - 2)
Grenada	5 (4 - 6)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	6 (4 - 7)	4 (3 - 4)	5 (3 - 7)	3 (2 - 4)	11 (9 - 13)	6 (4 - 9)	0 (0 - 0)	0 (0 - 0)	15 (12 - 18)	7 (5 - 9)	8 (5 - 12)	3 (2 - 6)
Guatemala	13 (12 - 13)	3 (3 - 4)	3 (3 - 3)	1 (1 - 1)	13 (12 - 13)	13 (12 - 13)	4 (3 - 4)	3 (3 - 3)	20 (20 - 21)	15 (11 - 19)	3 (3 - 4)	5 (4 - 7)	25 (24 - 26)	15 (15 - 16)	21 (16 - 27)	8 (6 - 11)
Guinea	43 (37 - 51)	18 (13 - 25)	7 (6 - 9)	7 (5 - 9)	44 (37 - 52)	43 (36 - 51)	18 (14 - 25)	18 (13 - 25)	33 (27 - 42)	31 (17 - 55)	4 (3 - 5)	9 (5 - 16)	33 (26 - 42)	34 (27 - 42)	32 (17 - 59)	30 (16 - 54)
Guinea-Bissau	45 (17 - 104)	8 (3 - 20)	1 (1 - 3)	1 (0 - 1)	47 (36 - 123)	44 (34 - 117)	14 (9 - 21)	12 (8 - 19)	47 (36 - 60)	24 (18 - 31)	1 (1 - 1)	1 (1 - 1)	42 (32 - 56)	51 (39 - 67)	27 (19 - 35)	21 (15 - 29)
Guyana	5 (5 - 6)	5 (3 - 6)	0 (0 - 0)	0 (0 - 0)	6 (6 - 7)	4 (4 - 5)	5 (4 - 7)	4 (3 - 5)	14 (14 - 15)	17 (10 - 26)	0 (0 - 0)	0 (0 - 0)	19 (18 - 20)	10 (9 - 11)	23 (14 - 37)	10 (6 - 17)
Haiti	28 (23 - 33)	12 (8 - 18)	5 (4 - 6)	3 (2 - 4)	28 (23 - 33)	27 (23 - 33)	12 (8 - 19)	12 (8 - 18)	41 (32 - 52)	17 (10 - 29)	5 (4 - 7)	4 (2 - 7)	36 (27 - 46)	47 (36 - 61)	20 (12 - 35)	14 (8 - 25)
Honduras	9 (8 - 11)	5 (3 - 8)	1 (1 - 2)	1 (1 - 2)	10 (8 - 12)	8 (7 - 9)	5 (4 - 9)	4 (3 - 7)	19 (15 - 25)	10 (8 - 13)	2 (1 - 2)	2 (2 - 3)	26 (20 - 33)	14 (9 - 17)	14 (11 - 19)	6 (4 - 9)
Hungary	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 8)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	12 (12 - 13)	5 (4 - 5)	5 (4 - 5)	2 (2 - 2)
Iceland	2 (2 - 2)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 3)	2 (1 - 2)	1 (0 - 1)	0 (0 - 1)	7 (6 - 7)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	4 (3 - 4)	4 (3 - 5)	1 (1 - 2)

Country, regional and global estimates of mortality among children, adolescents and youth under age 25

Country	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands)[a]		Sex-specific probability of dying among children aged 5–14 years (per 1,000 children aged 5)				Probability of dying among children aged 15–24 years (per 1,000 children aged 15)		Number of deaths among children aged 15–24 (thousands)[a]		Sex-specific probability of dying among children aged 15–24 years (per 1,000 children aged 15)			
					1990		**2021**						**1990**		**2021**	
	1990	**2021**	**1990**	**2021**	**Male**	**Female**	**Male**	**Female**	**1990**	**2021**	**1990**	**2021**	**Male**	**Female**	**Male**	**Female**
India	21 (20 - 22)	4 (4 - 5)	442 (422 - 464)	100 (88 - 113)	20 (19 - 21)	22 (20 - 23)	5 (4 - 5)	4 (3 - 4)	25 (23 - 27)	8 (7 - 10)	424 (390 - 459)	216 (190 - 244)	22 (20 - 24)	29 (26 - 31)	10 (8 - 11)	7 (6 - 8)
Indonesia	13 (12 - 15)	5 (4 - 7)	59 (53 - 65)	22 (17 - 32)	14 (12 - 15)	13 (12 - 15)	6 (4 - 8)	4 (3 - 5)	13 (10 - 15)	10 (5 - 20)	47 (40 - 56)	43 (21 - 88)	15 (12 - 18)	10 (8 - 13)	13 (7 - 28)	6 (3 - 12)
Iran (Islamic Republic of)	14 (11 - 17)	3 (3 - 4)	22 (18 - 26)	4 (4 - 5)	14 (11 - 17)	14 (11 - 17)	4 (3 - 4)	3 (2 - 3)	22 (16 - 32)	10 (7 - 13)	22 (16 - 32)	11 (8 - 14)	27 (18 - 40)	17 (12 - 25)	14 (10 - 18)	5 (4 - 8)
Iraq	11 (7 - 15)	5 (3 - 10)	5 (4 - 7)	6 (3 - 11)	11 (8 - 16)	10 (7 - 14)	6 (4 - 12)	4 (3 - 8)	11 (9 - 14)	8 (6 - 11)	4 (3 - 5)	7 (6 - 9)	16 (12 - 20)	7 (5 - 9)	11 (8 - 15)	5 (3 - 7)
Ireland	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	0 (0 - 1)	6 (6 - 6)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	9 (9 - 9)	3 (3 - 3)	3 (3 - 3)	1 (1 - 1)
Israel	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	5 (5 - 5)	3 (3 - 3)	0 (0 - 0)	0 (0 - 0)	7 (7 - 8)	3 (3 - 3)	4 (4 - 4)	1 (1 - 2)
Italy	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	1 (0 - 1)	6 (6 - 6)	2 (2 - 2)	6 (6 - 6)	1 (1 - 1)	10 (9 - 10)	3 (3 - 3)	3 (3 - 3)	1 (1 - 1)
Jamaica	4 (3 - 6)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	5 (4 - 7)	3 (3 - 4)	3 (2 - 4)	2 (2 - 3)	13 (10 - 17)	9 (7 - 11)	1 (1 - 1)	0 (0 - 1)	19 (14 - 24)	8 (6 - 11)	13 (10 - 16)	4 (3 - 7)
Japan	2 (2 - 2)	1 (1 - 1)	3 (3 - 3)	1 (1 - 1)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)	5 (5 - 5)	3 (3 - 3)	9 (9 - 9)	3 (3 - 4)	7 (7 - 7)	3 (3 - 3)	4 (4 - 4)	2 (2 - 2)
Jordan	5 (4 - 6)	2 (1 - 4)	0 (0 - 1)	1 (0 - 1)	6 (5 - 7)	4 (3 - 5)	3 (2 - 5)	2 (1 - 3)	10 (7 - 12)	7 (5 - 9)	1 (1 - 1)	1 (1 - 2)	13 (10 - 17)	6 (4 - 7)	9 (7 - 12)	4 (3 - 6)
Kazakhstan	6 (6 - 6)	3 (2 - 3)	2 (2 - 2)	1 (1 - 1)	7 (7 - 7)	4 (4 - 4)	3 (3 - 3)	2 (2 - 2)	14 (14 - 14)	7 (7 - 8)	4 (4 - 4)	2 (2 - 2)	19 (18 - 19)	9 (8 - 9)	10 (9 - 10)	5 (4 - 5)
Kenya	16 (14 - 19)	9 (5 - 16)	12 (10 - 14)	12 (7 - 22)	17 (14 - 20)	16 (13 - 18)	10 (6 - 18)	8 (5 - 15)	23 (19 - 28)	16 (8 - 30)	11 (9 - 14)	17 (9 - 32)	25 (20 - 31)	21 (17 - 27)	19 (10 - 37)	12 (6 - 24)
Kiribati	15 (12 - 20)	9 (7 - 12)	0 (0 - 0)	0 (0 - 0)	16 (12 - 20)	15 (12 - 19)	10 (8 - 13)	8 (6 - 10)	22 (17 - 28)	16 (12 - 20)	0 (0 - 0)	0 (0 - 0)	28 (21 - 36)	15 (11 - 21)	21 (16 - 28)	10 (6 - 14)
Kosovo (UNSCR 1244)[c]	7 (6 - 9)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	8 (7 - 11)	6 (5 - 8)	2 (2 - 3)	2 (1 - 2)	13 (10 - 17)	6 (5 - 8)	1 (0 - 1)	0 (0 - 0)	18 (14 - 23)	8 (6 - 10)	8 (6 - 11)	3 (2 - 5)
Kuwait	5 (4 - 5)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	5 (5 - 6)	4 (3 - 4)	2 (2 - 2)	2 (1 - 2)	12 (11 - 13)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	20 (18 - 22)	3 (3 - 4)	7 (6 - 8)	3 (2 - 3)
Kyrgyzstan	6 (5 - 6)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	7 (7 - 7)	4 (4 - 5)	3 (3 - 4)	2 (2 - 2)	11 (11 - 12)	7 (7 - 8)	1 (1 - 1)	1 (1 - 1)	15 (14 - 16)	7 (7 - 8)	9 (8 - 10)	6 (5 - 6)
Lao People's Democratic Republic	42 (29 - 59)	7 (4 - 10)	5 (4 - 7)	1 (1 - 2)	42 (33 - 61)	41 (31 - 59)	8 (5 - 12)	6 (4 - 9)	28 (15 - 46)	12 (6 - 22)	2 (1 - 4)	2 (1 - 3)	31 (19 - 56)	24 (15 - 39)	14 (7 - 27)	10 (5 - 20)
Latvia	5 (5 - 6)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	7 (7 - 7)	4 (4 - 4)	1 (1 - 1)	1 (1 - 1)	14 (13 - 14)	5 (5 - 6)	1 (1 - 1)	0 (0 - 0)	21 (20 - 22)	6 (6 - 7)	8 (7 - 9)	3 (3 - 4)
Lebanon	6 (5 - 8)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	7 (6 - 9)	5 (4 - 7)	2 (2 - 3)	2 (1 - 2)	48 (38 - 62)	5 (4 - 7)	3 (3 - 4)	1 (0 - 1)	87 (67 - 112)	7 (5 - 10)	8 (6 - 10)	3 (2 - 5)
Lesotho	16 (13 - 20)	8 (6 - 12)	1 (1 - 1)	0 (0 - 1)	17 (13 - 21)	16 (12 - 20)	9 (7 - 13)	7 (5 - 10)	30 (16 - 48)	27 (15 - 47)	1 (1 - 2)	1 (1 - 2)	33 (19 - 53)	27 (16 - 45)	31 (17 - 56)	22 (12 - 39)
Liberia	32 (24 - 43)	17 (11 - 27)	2 (2 - 3)	2 (2 - 4)	31 (25 - 43)	32 (25 - 43)	18 (13 - 29)	16 (10 - 26)	117 (83 - 166)	28 (19 - 43)	6 (4 - 8)	3 (2 - 4)	188 (131 - 275)	41 (28 - 59)	30 (20 - 47)	25 (16 - 40)
Libya	8 (6 - 11)	3 (1 - 7)	1 (1 - 1)	0 (0 - 0)	9 (7 - 13)	7 (5 - 9)	3 (2 - 9)	2 (1 - 6)	10 (8 - 13)	6 (5 - 8)	1 (1 - 1)	1 (1 - 1)	14 (11 - 18)	6 (4 - 8)	8 (6 - 11)	3 (2 - 5)
Lithuania	4 (4 - 4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	5 (5 - 6)	3 (3 - 3)	1 (1 - 2)	1 (1 - 1)	12 (12 - 13)	5 (5 - 6)	1 (1 - 1)	0 (0 - 0)	18 (18 - 19)	6 (5 - 6)	8 (7 - 8)	3 (2 - 3)
Luxembourg	2 (1 - 2)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	1 (1 - 2)	0 (0 - 1)	0 (0 - 0)	10 (9 - 11)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	14 (12 - 15)	5 (4 - 6)	3 (2 - 4)	1 (1 - 2)
Madagascar	36 (31 - 42)	21 (15 - 32)	12 (11 - 14)	16 (11 - 23)	36 (31 - 43)	35 (30 - 42)	22 (15 - 33)	21 (15 - 31)	31 (26 - 38)	22 (10 - 50)	8 (6 - 9)	13 (6 - 29)	32 (26 - 39)	31 (26 - 38)	25 (11 - 57)	19 (9 - 45)
Malawi	38 (34 - 42)	12 (10 - 15)	11 (10 - 12)	7 (6 - 9)	38 (34 - 43)	38 (34 - 42)	13 (11 - 17)	11 (9 - 14)	41 (34 - 48)	18 (11 - 28)	7 (6 - 9)	7 (5 - 12)	38 (31 - 46)	43 (36 - 51)	23 (14 - 36)	14 (8 - 23)
Malaysia	5 (5 - 5)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	6 (6 - 6)	4 (4 - 4)	2 (2 - 2)	1 (1 - 2)	11 (10 - 13)	6 (5 - 6)	4 (3 - 4)	3 (3 - 3)	16 (15 - 18)	6 (6 - 7)	8 (7 - 8)	3 (3 - 3)
Maldives	9 (8 - 10)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	8 (7 - 9)	2 (1 - 2)	1 (1 - 2)	13 (12 - 14)	3 (3 - 4)	0 (0 - 0)	0 (0 - 0)	14 (13 - 16)	11 (10 - 13)	4 (3 - 6)	2 (2 - 3)
Mali	40 (35 - 45)	21 (16 - 28)	11 (9 - 12)	14 (11 - 18)	40 (36 - 46)	39 (34 - 45)	21 (16 - 29)	21 (16 - 28)	36 (30 - 44)	21 (14 - 33)	6 (5 - 7)	9 (6 - 14)	33 (27 - 41)	40 (33 - 48)	23 (15 - 37)	19 (12 - 30)
Malta	1 (1 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	1 (1 - 2)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)	5 (4 - 5)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	6 (5 - 8)	2 (2 - 3)	3 (2 - 4)	1 (1 - 2)
Marshall Islands	9 (7 - 11)	6 (5 - 8)	0 (0 - 0)	0 (0 - 0)	10 (8 - 13)	8 (6 - 10)	7 (5 - 9)	5 (4 - 6)	15 (12 - 20)	12 (9 - 15)	0 (0 - 0)	0 (0 - 0)	21 (16 - 27)	9 (7 - 13)	17 (12 - 22)	7 (5 - 11)
Mauritania	20 (16 - 24)	8 (5 - 12)	1 (1 - 1)	1 (1 - 1)	20 (16 - 24)	20 (16 - 24)	9 (6 - 14)	7 (5 - 10)	20 (14 - 29)	14 (9 - 24)	1 (1 - 1)	1 (1 - 2)	26 (18 - 38)	15 (10 - 22)	16 (10 - 27)	12 (8 - 21)
Mauritius	3 (3 - 4)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	3 (3 - 3)	2 (2 - 2)	1 (1 - 2)	9 (8 - 9)	7 (7 - 9)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	7 (6 - 8)	11 (10 - 13)	5 (4 - 6)
Mexico	5 (5 - 5)	2 (2 - 3)	11 (11 - 11)	5 (5 - 6)	6 (6 - 6)	4 (4 - 4)	3 (3 - 3)	2 (2 - 2)	12 (11 - 12)	12 (11 - 13)	20 (19 - 20)	26 (24 - 28)	17 (16 - 17)	7 (6 - 7)	18 (17 - 20)	6 (5 - 7)
Micronesia (Federated States of)	9 (7 - 12)	5 (4 - 7)	0 (0 - 0)	0 (0 - 0)	10 (8 - 13)	8 (6 - 10)	6 (5 - 8)	4 (3 - 5)	16 (12 - 20)	11 (9 - 14)	0 (0 - 0)	0 (0 - 0)	21 (16 - 27)	10 (7 - 13)	15 (11 - 20)	6 (4 - 10)
Monaco	2 (1 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 3)	1 (1 - 2)	1 (1 - 1)	1 (1 - 1)	6 (5 - 8)	3 (3 - 4)	0 (0 - 0)	0 (0 - 0)	9 (7 - 12)	4 (3 - 5)	5 (3 - 6)	2 (1 - 3)
Mongolia	11 (10 - 12)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	12 (11 - 13)	10 (9 - 11)	4 (4 - 4)	2 (2 - 3)	16 (15 - 17)	7 (6 - 8)	1 (1 - 1)	0 (0 - 0)	21 (19 - 23)	12 (10 - 13)	10 (8 - 11)	4 (4 - 5)
Montenegro	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	6 (6 - 7)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	9 (8 - 10)	4 (3 - 5)	5 (4 - 7)	2 (2 - 3)
Montserrat	3 (3 - 4)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (3 - 5)	3 (2 - 4)	2 (1 - 3)	1 (1 - 2)	11 (8 - 14)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	15 (12 - 19)	6 (5 - 8)	7 (5 - 9)	3 (2 - 4)
Morocco	9 (8 - 11)	2 (1 - 4)	6 (6 - 7)	2 (1 - 3)	10 (9 - 12)	8 (7 - 10)	3 (2 - 5)	2 (1 - 3)	12 (10 - 15)	5 (2 - 11)	6 (5 - 7)	3 (1 - 6)	16 (13 - 19)	9 (7 - 11)	7 (3 - 15)	3 (1 - 7)

Country, regional and global estimates of mortality among children, adolescents and youth under age 25

Country	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands)[a]		Sex-specific probability of dying among children aged 5–14 years (per 1,000 children aged 5)				Probability of dying among children aged 15–24 years (per 1,000 children aged 15)		Number of deaths among children aged 15–24 (thousands)[a]		Sex-specific probability of dying among children aged 15–24 years (per 1,000 children aged 15)			
	1990	2021	1990	2021	1990 Male	1990 Female	2021 Male	2021 Female	1990	2021	1990	2021	1990 Male	1990 Female	2021 Male	2021 Female
Mozambique[d]	61 (44-82)	13 (8-23)	23 (17-30)	12 (7-20)	63 (49-84)	59 (46-81)	14 (9-24)	13 (8-22)	38 (30-48)	30 (14-62)	10 (8-13)	19 (9-40)	39 (31-50)	37 (28-47)	32 (16-67)	28 (12-62)
Myanmar	29 (21-41)	4 (2-7)	29 (21-40)	4 (2-7)	29 (23-43)	29 (22-41)	5 (3-9)	3 (2-6)	27 (18-42)	11 (6-20)	22 (16-35)	10 (5-19)	31 (21-52)	22 (16-34)	15 (8-27)	7 (3-14)
Namibia	14 (12-18)	13 (9-19)	1 (0-1)	1 (1-1)	15 (12-19)	14 (11-17)	13 (9-20)	12 (8-19)	28 (23-33)	21 (11-41)	1 (1-1)	1 (1-2)	32 (26-39)	23 (18-28)	26 (13-52)	16 (8-33)
Nauru	12 (9-15)	6 (4-7)	0 (0-0)	0 (0-0)	13 (10-16)	11 (9-14)	7 (5-9)	5 (3-6)	18 (14-24)	12 (9-15)	0 (0-0)	0 (0-0)	25 (19-32)	12 (9-16)	16 (12-21)	7 (4-10)
Nepal	26 (23-30)	5 (3-8)	14 (12-16)	3 (2-5)	26 (23-30)	26 (23-30)	6 (4-9)	4 (3-7)	20 (17-25)	10 (6-17)	8 (6-9)	6 (4-11)	21 (17-26)	20 (16-25)	12 (7-21)	8 (5-15)
Netherlands	2 (2-2)	1 (1-1)	0 (0-0)	0 (0-0)	2 (2-2)	1 (1-2)	1 (1-1)	1 (1-1)	5 (4-5)	2 (2-2)	1 (1-1)	1 (0-1)	6 (6-6)	3 (3-3)	3 (3-3)	2 (1-2)
New Zealand	3 (2-3)	1 (1-1)	0 (0-0)	0 (0-0)	3 (3-3)	2 (2-2)	1 (1-1)	1 (1-1)	11 (11-12)	5 (4-5)	1 (1-1)	0 (0-0)	17 (16-17)	5 (5-6)	6 (6-7)	3 (3-4)
Nicaragua[e]	7 (6-9)	3 (2-7)	1 (1-1)	0 (0-1)	8 (7-11)	6 (5-8)	4 (2-8)	3 (1-5)	23 (18-29)	9 (7-11)	2 (2-3)	1 (1-1)	31 (24-40)	14 (10-19)	13 (9-17)	5 (3-8)
Niger	64 (56-74)	33 (25-43)	16 (14-18)	25 (20-32)	67 (59-77)	61 (53-71)	32 (25-43)	33 (25-44)	39 (32-48)	26 (13-53)	6 (5-8)	13 (7-25)	38 (29-47)	41 (33-50)	27 (14-55)	26 (12-55)
Nigeria	38 (33-44)	20 (15-26)	104 (91-118)	116 (90-152)	39 (33-45)	38 (32-44)	20 (16-27)	19 (14-25)	38 (28-53)	23 (13-27)	67 (51-91)	75 (54-108)	38 (27-54)	38 (28-53)	20 (13-29)	17 (11-25)
Niue (New Zealand)	5 (4-7)	5 (4-6)	0 (0-0)	0 (0-0)	6 (5-8)	4 (3-5)	6 (5-8)	4 (3-5)	11 (9-14)	11 (8-14)	0 (0-0)	0 (0-0)	15 (11-19)	6 (4-8)	18 (12-25)	7 (5-10)
North Macedonia	3 (3-4)	2 (1-2)	0 (0-0)	0 (0-0)	4 (4-4)	3 (2-3)	2 (1-2)	1 (1-2)	7 (5-6)	3 (3-4)	0 (0-0)	0 (0-0)	7 (6-8)	3 (3-4)	4 (3-5)	2 (2-3)
Norway	2 (2-2)	1 (1-1)	0 (0-0)	0 (0-0)	2 (2-2)	1 (1-2)	1 (1-1)	1 (1-1)	6 (6-6)	3 (3-3)	0 (0-0)	0 (0-0)	9 (9-9)	3 (3-3)	4 (4-5)	2 (2-2)
Oman	8 (6-10)	2 (2-3)	0 (0-0)	0 (0-0)	8 (7-11)	7 (5-8)	3 (2-4)	2 (1-2)	10 (8-13)	6 (5-7)	0 (0-0)	0 (0-0)	13 (10-17)	5 (3-6)	8 (6-10)	3 (2-5)
Pakistan	14 (13-15)	8 (5-13)	42 (40-45)	43 (27-71)	14 (13-15)	14 (13-15)	8 (5-14)	7 (5-12)	21 (18-25)	11 (5-24)	45 (39-52)	53 (25-109)	23 (20-27)	19 (16-22)	16 (7-34)	6 (3-13)
Palau	7 (5-9)	4 (3-5)	0 (0-0)	0 (0-0)	8 (6-10)	6 (4-7)	4 (3-6)	3 (2-4)	16 (13-20)	17 (17-47)	0 (0-0)	0 (0-0)	22 (18-28)	8 (6-11)	28 (17-46)	29 (17-49)
Panama	5 (5-5)	3 (3-3)	0 (0-0)	0 (0-0)	6 (5-6)	4 (4-4)	3 (3-4)	3 (2-3)	11 (11-12)	10 (9-10)	1 (1-1)	1 (1-1)	16 (15-17)	6 (6-7)	14 (13-15)	5 (4-6)
Papua New Guinea	14 (11-18)	8 (6-10)	2 (1-2)	2 (1-2)	15 (12-19)	14 (11-18)	9 (7-12)	7 (6-9)	21 (16-27)	15 (11-19)	2 (1-2)	3 (2-4)	27 (20-34)	14 (11-19)	16 (12-21)	13 (9-17)
Paraguay	7 (6-9)	3 (1-5)	1 (1-1)	0 (0-1)	8 (7-10)	6 (5-7)	3 (2-6)	2 (1-4)	17 (13-22)	11 (8-14)	1 (1-2)	1 (1-2)	22 (17-29)	11 (8-15)	15 (11-19)	6 (4-9)
Peru	10 (9-11)	2 (2-4)	6 (5-6)	1 (1-2)	11 (9-12)	9 (8-10)	3 (2-4)	2 (1-3)	18 (16-21)	6 (3-13)	8 (7-9)	4 (2-8)	23 (20-27)	13 (11-15)	9 (4-20)	3 (2-7)
Philippines	8 (8-9)	5 (4-5)	13 (12-14)	11 (10-11)	9 (9-10)	7 (7-8)	5 (5-6)	4 (3-4)	14 (13-16)	9 (8-11)	17 (16-19)	20 (18-22)	18 (17-20)	10 (9-12)	13 (11-15)	6 (5-7)
Poland	3 (3-3)	1 (1-1)	2 (2-2)	0 (0-0)	3 (3-3)	2 (2-2)	1 (1-1)	1 (1-1)	8 (8-9)	5 (5-5)	4 (4-5)	2 (2-2)	13 (13-13)	4 (3-4)	7 (7-7)	3 (2-3)
Portugal	4 (4-4)	1 (1-1)	1 (1-1)	0 (0-0)	5 (4-5)	3 (3-3)	1 (1-1)	1 (1-1)	11 (11-11)	3 (3-3)	2 (2-2)	0 (0-0)	17 (17-17)	5 (5-5)	4 (4-4)	2 (2-2)
Qatar	4 (3-5)	1 (1-2)	0 (0-0)	0 (0-0)	5 (4-5)	3 (3-4)	1 (1-2)	1 (1-1)	7 (6-8)	3 (3-4)	0 (0-0)	0 (0-0)	9 (8-10)	4 (3-4)	4 (4-5)	2 (1-2)
Republic of Korea	4 (4-5)	1 (1-1)	4 (4-4)	0 (0-0)	5 (5-5)	4 (3-4)	1 (1-1)	1 (1-1)	9 (9-9)	3 (3-3)	8 (8-8)	2 (2-2)	12 (12-13)	5 (5-6)	4 (3-4)	2 (2-3)
Republic of Moldova	5 (5-6)	2 (2-3)	0 (0-0)	0 (0-0)	7 (6-7)	4 (4-4)	3 (3-3)	2 (2-2)	13 (12-13)	7 (6-8)	1 (1-1)	0 (0-0)	19 (18-19)	7 (6-7)	10 (9-11)	4 (3-5)
Romania	5 (5-5)	2 (2-2)	2 (2-2)	0 (0-0)	6 (6-7)	4 (4-4)	2 (2-2)	1 (1-2)	9 (8-9)	5 (5-5)	3 (3-3)	1 (1-1)	12 (12-12)	5 (5-6)	7 (7-7)	3 (3-3)
Russian Federation	5 (5-5)	2 (2-2)	12 (11-12)	3 (3-3)	7 (7-7)	4 (3-4)	2 (2-2)	1 (1-2)	14 (14-14)	8 (7-8)	28 (27-28)	11 (10-12)	21 (20-21)	7 (7-7)	11 (10-12)	4 (4-5)
Rwanda	62 (51-74)	15 (8-30)	14 (12-17)	5 (3-10)	64 (54-77)	59 (49-72)	16 (10-32)	14 (9-30)	67 (52-86)	9 (5-16)	9 (7-12)	2 (1-4)	73 (54-96)	61 (47-79)	12 (7-21)	7 (4-13)
Saint Kitts and Nevis	5 (4-6)	3 (2-4)	0 (0-0)	0 (0-0)	4 (4-7)	4 (3-5)	3 (3-4)	2 (2-3)	7 (5-11)	16 (9-26)	0 (0-0)	0 (0-0)	10 (6-16)	4 (3-7)	23 (13-39)	8 (5-16)
Saint Lucia	5 (4-6)	3 (2-4)	0 (0-0)	0 (0-0)	5 (4-7)	4 (3-5)	3 (2-5)	2 (2-3)	11 (10-13)	9 (6-13)	0 (0-0)	0 (0-0)	16 (14-18)	7 (6-8)	12 (9-17)	5 (3-8)
Saint Vincent and the Grenadines	4 (3-4)	5 (3-7)	0 (0-0)	0 (0-0)	4 (4-5)	3 (2-4)	5 (4-8)	4 (3-5)	9 (8-10)	14 (9-21)	0 (0-0)	0 (0-0)	12 (11-14)	5 (4-6)	19 (12-28)	8 (5-14)
Samoa	5 (3-8)	2 (2-4)	0 (0-0)	0 (0-0)	6 (4-10)	4 (3-7)	3 (2-4)	2 (1-3)	25 (8-77)	7 (4-13)	0 (0-0)	0 (0-0)	29 (12-90)	21 (8-68)	9 (5-16)	5 (3-10)
San Marino	3 (2-4)	1 (1-1)	0 (0-0)	0 (0-0)	3 (3-4)	2 (2-3)	1 (0-1)	0 (0-1)	9 (7-12)	2 (2-3)	0 (0-0)	0 (0-0)	13 (10-17)	5	3 (2-4)	1 (1-2)
Sao Tome and Principe	22 (17-28)	3 (3-4)	0 (0-0)	0 (0-0)	22 (17-28)	21 (17-27)	4 (3-5)	3 (2-4)	24 (7-83)	18 (8-38)	0 (0-0)	0 (0-0)	29 (13-107)	19 (8-68)	24 (11-49)	12 (5-28)
Saudi Arabia	8 (7-11)	2 (1-2)	3 (3-4)	1 (1-1)	9 (7-12)	7 (6-10)	2 (1-2)	1 (1-2)	14 (6-44)	8 (6-16)	4 (2-14)	5 (3-8)	18 (10-62)	9 (5-27)	14 (9-23)	5 (3-8)
Senegal	34 (29-39)	8 (5-11)	8 (7-9)	4 (2-5)	34 (30-40)	34 (29-39)	9 (7-14)	6 (4-9)	25 (21-31)	12 (7-19)	4 (3-4)	4 (2-6)	27 (22-34)	23 (19-29)	14 (9-23)	9 (6-15)
Serbia	3 (3-3)	1 (1-1)	0 (0-0)	0 (0-0)	4 (3-4)	3 (2-3)	1 (1-1)	1 (1-1)	7 (7-7)	4 (4-4)	1 (1-1)	0 (0-0)	10 (9-10)	4 (4-4)	6 (5-6)	2 (2-3)
Seychelles	4 (3-5)	1 (1-4)	0 (0-0)	0 (0-0)	4 (3-6)	3 (2-4)	2 (2-5)	1 (1-3)	8 (7-10)	8 (5-13)	0 (0-0)	0 (0-0)	12 (10-15)	4 (4-6)	12 (8-20)	4 (2-6)
Sierra Leone	42 (23-105)	25 (18-36)	5 (3-12)	5 (4-8)	42 (30-112)	41 (28-111)	24 (18-35)	26 (19-37)	57 (28-552)	34 (19-50)	5 (2-57)	6 (3-9)	50 (28-570)	65 (37-717)	36 (22-56)	31 (19-46)

Country, regional and global estimates of mortality among children, adolescents and youth under age 25

Country	Probability of dying among children aged 5–14 years (per 1,000 children aged 5) 1990	2021	Number of deaths among children aged 5–14 (thousands)[a] 1990	2021	Sex-specific probability of dying among children aged 5–14 years (per 1,000 children aged 5) 1990 Male	1990 Female	2021 Male	2021 Female	Probability of dying among children aged 15–24 years (per 1,000 children aged 15) 1990	2021	Number of deaths among children aged 15–24 (thousands)[a] 1990	2021	Sex-specific probability of dying among children aged 15–24 years (per 1,000 children aged 15) 1990 Male	1990 Female	2021 Male	2021 Female
Singapore	2 (2-3)	1 (1-1)	0 (0-0)	0 (0-0)	3 (3-3)	2 (2-2)	1 (1-1)	1 (0-1)	6 (6-6)	2 (2-2)	0 (0-0)	0 (0-0)	8 (8-9)	4 (3-4)	3 (2-3)	1 (1-2)
Slovakia	3 (2-3)	1 (1-1)	0 (0-0)	0 (0-0)	3 (3-3)	2 (2-2)	1 (1-2)	1 (1-1)	7 (7-7)	4 (4-4)	1 (1-1)	0 (0-0)	10 (10-10)	4 (3-4)	6 (5-6)	2 (2-3)
Slovenia	2 (2-2)	1 (1-1)	0 (0-0)	0 (0-0)	3 (3-3)	2 (2-2)	1 (1-1)	1 (0-1)	9 (8-9)	3 (2-3)	0 (0-0)	0 (0-0)	13 (12-13)	4 (4-5)	4 (3-4)	2 (1-2)
Solomon Islands	7 (6-10)	4 (3-5)	0 (0-0)	0 (0-0)	8 (7-11)	5 (5-8)	5 (4-6)	3 (3-4)	14 (11-18)	9 (7-12)	0 (0-0)	0 (0-0)	19 (14-24)	8 (6-11)	13 (9-17)	6 (4-9)
Somalia	39 (30-50)	25 (19-32)	8 (6-10)	12 (10-16)	39 (31-51)	39 (30-50)	25 (19-32)	25 (19-32)	55 (43-70)	40 (32-52)	7 (6-9)	14 (11-18)	48 (35-64)	62 (47-81)	39 (27-54)	42 (29-58)
South Africa	7 (5-11)	6 (5-6)	7 (6-10)	6 (6-7)	9 (6-13)	6 (5-9)	6 (6-7)	5 (4-5)	21 (17-27)	20 (18-22)	18 (13-23)	19 (17-21)	29 (22-37)	14 (10-18)	24 (21-28)	15 (13-18)
South Sudan	54 (42-69)	22 (17-28)	7 (6-9)	8 (6-10)	55 (42-70)	52 (40-67)	22 (17-29)	22 (17-28)	68 (53-87)	37 (29-48)	5 (5-8)	6 (6-10)	56 (41-74)	80 (60-104)	37 (25-51)	38 (26-53)
Spain	2 (2-2)	1 (1-1)	1 (1-1)	0 (0-0)	3 (3-3)	2 (2-2)	1 (1-1)	1 (1-1)	8 (8-9)	2 (2-2)	6 (5-6)	1 (1-1)	13 (12-13)	4 (4-4)	3 (2-3)	1 (1-1)
Sri Lanka	6 (6-7)	2 (1-2)	2 (2-2)	1 (0-1)	7 (7-7)	6 (5-6)	2 (1-2)	1 (1-2)	21 (20-21)	4 (3-6)	7 (7-7)	1 (1-2)	29 (27-30)	13 (12-14)	6 (4-9)	2 (2-4)
State of Palestine	5 (4-7)	3 (2-6)	0 (0-0)	1 (0-1)	6 (5-8)	4 (4-6)	4 (3-7)	3 (2-5)	12 (9-15)	8 (6-10)	0 (0-1)	1 (1-1)	17 (13-23)	5 (5-8)	11 (8-14)	4 (3-6)
Sudan	26 (21-33)	8 (5-13)	17 (14-21)	9 (6-15)	26 (21-33)	26 (21-33)	9 (6-15)	7 (4-11)	45 (35-58)	26 (20-33)	18 (14-23)	22 (17-29)	42 (32-56)	47 (36-62)	31 (22-42)	20 (13-29)
Suriname	5 (5-6)	4 (3-5)	0 (0-0)	0 (0-0)	6 (6-7)	4 (4-5)	4 (3-4)	4 (3-5)	14 (13-16)	11 (9-14)	0 (0-0)	0 (0-0)	19 (17-20)	9 (9-12)	13 (11-16)	10 (8-12)
Sweden	1 (1-2)	1 (1-1)	0 (0-0)	0 (0-0)	2 (2-2)	1 (1-1)	1 (1-1)	1 (1-1)	5 (5-5)	3 (3-4)	1 (1-1)	0 (0-0)	7 (7-8)	3 (3-3)	5 (4-5)	2 (2-2)
Switzerland	2 (2-2)	1 (1-1)	0 (0-0)	0 (0-0)	2 (2-2)	2 (1-2)	1 (1-1)	1 (1-1)	8 (8-9)	3 (3-3)	1 (1-1)	0 (0-0)	12 (12-13)	4 (4-5)	4 (3-4)	2 (1-2)
Syrian Arab Republic	10 (8-11)	5 (3-7)	4 (3-4)	2 (2-4)	10 (9-12)	9 (7-10)	5 (4-8)	4 (3-6)	14 (10-23)	9 (4-22)	4 (3-6)	4 (2-10)	18 (12-29)	11 (8-17)	14 (7-33)	4 (2-11)
Tajikistan	8 (8-8)	2 (2-2)	1 (1-1)	0 (0-0)	9 (9-10)	6 (6-6)	2 (2-2)	2 (2-2)	11 (11-12)	4 (4-4)	1 (1-1)	1 (1-1)	13 (13-14)	10 (9-10)	5 (5-5)	3 (3-4)
Thailand	6 (6-7)	4 (4-4)	7 (7-7)	3 (3-4)	7 (7-8)	5 (5-6)	5 (5-6)	3 (3-3)	16 (15-16)	12 (11-14)	19 (18-20)	11 (10-12)	23 (22-25)	8 (7-9)	18 (16-21)	6 (5-7)
Timor-Leste	26 (21-34)	9 (7-12)	0 (0-1)	0 (0-0)	26 (21-34)	26 (21-34)	10 (8-13)	8 (6-11)	21 (10-43)	31 (15-70)	0 (0-1)	1 (0-2)	27 (14-56)	8 (8-30)	25 (13-57)	37 (20-86)
Togo	33 (28-40)	12 (8-16)	4 (3-4)	3 (2-4)	34 (29-41)	32 (27-39)	12 (9-17)	11 (8-16)	25 (20-31)	17 (9-33)	2 (2-2)	3 (1-5)	27 (21-35)	22 (17-28)	20 (10-38)	15 (7-30)
Tonga	3 (2-5)	2 (2-3)	0 (0-0)	0 (0-0)	4 (3-6)	3 (2-4)	3 (2-4)	2 (1-2)	7 (5-10)	6 (6-12)	0 (0-0)	0 (0-0)	9 (6-14)	4 (2-5)	12 (8-18)	4 (3-7)
Trinidad and Tobago	4 (4-4)	2 (2-3)	0 (0-0)	0 (0-0)	5 (4-5)	3 (3-4)	2 (2-3)	2 (2-2)	11 (10-11)	14 (10-20)	0 (0-0)	0 (0-0)	14 (13-15)	7 (7-8)	21 (15-30)	7 (5-10)
Tunisia	7 (6-7)	3 (3-4)	1 (1-2)	1 (1-1)	8 (7-9)	6 (5-6)	4 (3-4)	3 (2-3)	9 (7-11)	8 (6-10)	2 (1-2)	1 (1-2)	12 (9-15)	6 (4-7)	11 (8-15)	4 (3-6)
Turkmenistan	7 (7-8)	4 (3-5)	1 (1-1)	0 (0-1)	8 (8-9)	6 (6-7)	4 (3-5)	3 (2-4)	13 (13-13)	10 (7-15)	1 (1-1)	1 (1-2)	16 (15-17)	10 (9-11)	12 (7-18)	9 (6-13)
Turks and Caicos Islands	3 (2-4)	1 (1-2)	0 (0-0)	0 (0-0)	3 (3-4)	2 (2-3)	1 (1-2)	1 (1-1)	9 (7-12)	5 (4-7)	0 (0-0)	0 (0-0)	13 (10-17)	5 (4-7)	8 (6-10)	2 (2-5)
Tuvalu	10 (8-12)	5 (4-6)	0 (0-0)	0 (0-0)	11 (8-14)	9 (7-11)	5 (4-7)	4 (3-5)	16 (13-19)	10 (8-13)	0 (0-0)	0 (0-0)	22 (17-29)	10 (7-13)	14 (11-19)	6 (4-8)
Türkiye	9 (7-11)	2 (2-2)	12 (10-14)	2 (2-3)	10 (8-12)	8 (7-10)	2 (2-2)	1 (1-2)	16 (11-25)	4 (3-4)	18 (12-27)	5 (4-6)	20 (15-33)	10 (7-16)	5 (5-6)	2 (2-3)
Uganda	29 (25-33)	13 (9-19)	15 (13-17)	17 (12-24)	29 (25-34)	29 (25-33)	14 (10-20)	12 (9-18)	48 (40-56)	29 (16-48)	17 (15-20)	28 (17-48)	44 (37-54)	51 (42-60)	32 (18-57)	23 (13-41)
Ukraine	4 (4-5)	2 (2-2)	3 (3-3)	1 (1-1)	6 (6-6)	3 (3-3)	2 (2-2)	1 (1-1)	12 (11-12)	6 (6-7)	8 (8-8)	3 (3-3)	17 (17-18)	6 (6-6)	9 (9-10)	3 (3-4)
United Arab Emirates	4 (3-5)	2 (1-2)	0 (0-0)	0 (0-0)	4 (3-5)	3 (2-4)	2 (1-2)	1 (1-2)	7 (6-9)	5 (4-6)	0 (0-0)	0 (0-1)	9 (7-11)	4 (3-5)	6 (5-8)	3 (2-4)
United Kingdom	2 (2-2)	1 (1-1)	1 (1-1)	1 (1-1)	2 (2-2)	1 (1-2)	1 (1-1)	1 (1-1)	6 (6-6)	3 (3-4)	5 (5-5)	2 (2-3)	8 (8-8)	3 (3-3)	4 (4-5)	2 (2-2)
United Republic of Tanzania	27 (24-32)	13 (8-23)	21 (19-25)	22 (15-40)	28 (24-33)	27 (23-32)	13 (9-26)	12 (9-21)	28 (23-34)	17 (9-35)	14 (12-17)	22 (12-42)	29 (23-37)	26 (21-33)	20 (11-41)	15 (8-29)
United States	2 (2-2)	1 (1-1)	8 (8-9)	6 (5-6)	3 (3-3)	2 (2-2)	2 (1-2)	1 (1-1)	10 (10-10)	8 (8-9)	37 (36-38)	38 (35-41)	15 (14-15)	5 (5-5)	12 (11-13)	5 (4-5)
Uruguay	3 (3-3)	1 (1-2)	0 (0-0)	0 (0-0)	4 (4-4)	2 (2-3)	2 (1-2)	1 (1-1)	8 (8-9)	9 (8-10)	0 (0-0)	0 (0-1)	11 (11-12)	5 (5-6)	14 (12-15)	4 (4-5)
Uzbekistan	7 (7-7)	3 (3-3)	4 (3-4)	2 (2-2)	8 (8-8)	6 (5-6)	4 (3-4)	3 (3-3)	11 (11-11)	7 (7-8)	4 (4-5)	4 (4-4)	14 (13-14)	9 (8-9)	8 (7-9)	7 (6-7)
Vanuatu	7 (6-9)	5 (4-6)	0 (0-0)	0 (0-0)	8 (6-10)	7 (5-8)	6 (5-8)	4 (3-5)	13 (10-17)	11 (8-14)	0 (0-0)	0 (0-0)	19 (15-24)	8 (6-11)	15 (11-19)	7 (4-10)
Venezuela (Bolivarian Republic of)	4 (4-5)	4 (3-4)	2 (2-2)	2 (2-2)	5 (5-6)	4 (3-4)	4 (4-5)	3 (2-3)	12 (12-13)	27 (20-37)	5 (5-5)	13 (10-17)	18 (17-19)	6 (6-7)	44 (32-60)	9 (6-13)
Viet Nam	10 (9-14)	3 (2-4)	18 (15-21)	4 (3-5)	11 (9-14)	9 (8-11)	3 (3-5)	2 (2-3)	12 (9-17)	6 (5-8)	16 (12-21)	9 (7-11)	17 (13-24)	8 (6-11)	9 (7-11)	3 (2-5)
Yemen	18 (16-21)	7 (4-12)	8 (7-9)	8 (3-10)	19 (16-22)	18 (15-21)	8 (5-14)	6 (4-10)	16 (12-20)	22 (17-27)	4 (3-5)	15 (11-19)	21 (16-27)	10 (7-13)	34 (26-45)	8 (5-12)
Zambia	27 (23-31)	10 (6-15)	6 (6-7)	6 (4-8)	27 (23-31)	27 (23-31)	11 (8-17)	9 (6-13)	49 (42-57)	20 (13-32)	8 (7-9)	8 (5-12)	43 (36-51)	55 (46-65)	25 (16-39)	16 (9-26)
Zimbabwe	13 (11-16)	11 (7-16)	4 (4-5)	5 (3-7)	14 (11-17)	13 (10-15)	12 (7-17)	11 (7-16)	22 (18-26)	24 (14-39)	4 (4-5)	8 (5-13)	24 (20-29)	20 (16-24)	27 (16-45)	21 (12-35)

Country, regional and global estimates of mortality among children, adolescents and youth under age 25

Estimates of mortality among children, adolescents and youth under age 25 by Sustainable Development Goal region[g]

Region	Probability of dying among children aged 5–14 years (per 1,000 children aged 5) 1990	2021	Number of deaths among children aged 5–14 years (thousands)[a] 1990	2021	Sex-specific probability of dying among children aged 5–14 years (per 1,000 children aged 5) 1990 Male	1990 Female	2021 Male	2021 Female	Probability of dying among children aged 15–24 years (per 1,000 children aged 15) 1990	2021	Number of deaths among children aged 15–24 years (thousands)[a] 1990	2021	Sex-specific probability of dying among children aged 15–24 years (per 1,000 children aged 15) 1990 Male	1990 Female	2021 Male	2021 Female
Sub-Saharan Africa	38 (36-40)	16 (15-18)	535 (512-572)	484 (454-546)	39 (35-41)	37 (33-39)	16 (15-19)	15 (14-17)	41 (39-52)	22 (20-27)	394 (372-497)	498 (460-604)	42 (39-52)	40 (37-51)	25 (22-30)	19 (17-24)
Northern Africa and Western Asia	11 (10-12)	4 (4-5)	84 (80-90)	44 (39-54)	12 (11-13)	10 (9-11)	5 (4-6)	3 (3-4)	15 (14-19)	9 (9-11)	88 (81-106)	87 (80-98)	19 (16-23)	11 (10-14)	13 (12-15)	6 (5-7)
Northern Africa	13 (12-14)	4 (4-6)	48 (46-53)	24 (20-30)	13 (12-15)	12 (11-13)	5 (3-6)	4 (2-5)	16 (15-18)	11 (9-13)	46 (42-51)	45 (40-53)	18 (17-20)	15 (13-17)	14 (12-16)	7 (6-10)
Western Asia	9 (8-10)	4 (3-5)	36 (33-39)	20 (16-27)	10 (9-11)	8 (7-9)	4 (3-6)	3 (2-4)	14 (12-20)	9 (8-10)	42 (36-59)	42 (37-50)	19 (15-28)	6 (6-12)	13 (11-15)	4 (4-5)
Central and Southern Asia	19 (19-20)	5 (4-5)	611 (589-636)	173 (154-204)	19 (18-20)	20 (19-21)	5 (4-6)	4 (3-5)	24 (23-26)	9 (8-11)	578 (544-620)	349 (307-421)	22 (21-24)	26 (24-28)	11 (9-13)	7 (7-9)
Central Asia	7 (6-7)	3 (3-3)	8 (8-8)	4 (4-4)	8 (8-8)	5 (5-5)	3 (3-3)	2 (2-2)	12 (12-12)	7 (7-8)	11 (11-12)	8 (8-9)	15 (15-16)	9 (9-9)	8 (8-9)	6 (5-6)
Southern Asia	20 (19-21)	5 (4-5)	603 (581-628)	169 (150-200)	19 (18-20)	20 (20-21)	5 (4-6)	4 (3-5)	25 (23-27)	9 (8-11)	566 (533-609)	341 (299-412)	23 (21-25)	27 (25-29)	11 (9-14)	8 (7-9)
Eastern and South-Eastern Asia	9 (8-10)	2 (2-3)	298 (274-329)	82 (70-103)	9 (8-11)	8 (7-9)	3 (3-4)	2 (2-3)	10 (9-12)	6 (5-8)	377 (336-440)	169 (132-244)	13 (11-15)	7 (6-8)	8 (6-11)	3 (3-5)
Eastern Asia	7 (6-8)	2 (1-3)	157 (134-184)	34 (23-51)	8 (6-9)	6 (5-7)	2 (1-3)	1 (1-2)	8 (7-11)	4 (2-7)	242 (202-301)	69 (40-126)	11 (9-14)	6 (5-7)	5 (3-10)	2 (1-4)
South-Eastern Asia	13 (12-15)	4 (4-5)	141 (131-156)	48 (42-58)	14 (11-15)	13 (10-14)	5 (4-6)	3 (3-4)	15 (14-17)	10 (7-14)	135 (124-153)	100 (78-147)	19 (17-22)	11 (10-13)	14 (10-19)	4 (4-8)
Latin America and the Caribbean	6 (6-6)	3 (3-3)	59 (58-61)	28 (27-31)	7 (6-7)	5 (5-5)	3 (3-3)	2 (2-3)	15 (14-15)	12 (11-12)	127 (124-132)	124 (119-133)	21 (20-21)	9 (8-9)	18 (17-19)	5 (5-6)
Oceania	6 (5-7)	4 (3-4)	3 (2-3)	2 (2-3)	6 (5-7)	5 (4-6)	4 (3-5)	3 (3-4)	11 (10-12)	8 (7-9)	5 (5-6)	5 (4-6)	16 (14-17)	7 (6-8)	9 (8-11)	6 (5-7)
Australia and New Zealand	2 (2-2)	1 (1-1)	1 (1-1)	0 (0-0)	2 (2-2)	2 (2-2)	1 (1-1)	1 (1-1)	8 (8-8)	4 (4-4)	3 (3-3)	1 (1-2)	12 (12-12)	4 (4-5)	6 (5-6)	2 (2-3)
Oceania (exc. Australia and New Zealand)	13 (11-16)	7 (6-9)	2 (2-2)	2 (2-3)	13 (11-16)	12 (10-15)	8 (7-10)	6 (5-8)	19 (16-24)	14 (11-17)	2 (2-3)	3 (3-4)	25 (20-31)	13 (10-17)	16 (12-20)	12 (9-15)
Europe and Northern America	3 (3-3)	1 (1-1)	42 (42-42)	15 (15-15)	4 (4-4)	2 (2-2)	1 (1-1)	1 (1-1)	9 (9-9)	6 (5-6)	133 (132-134)	71 (68-75)	13 (13-14)	5 (4-5)	8 (8-8)	3 (3-3)
Europe	3 (3-3)	1 (1-1)	33 (33-33)	9 (9-9)	4 (4-4)	2 (2-2)	1 (1-1)	1 (1-1)	9 (9-9)	4 (4-4)	93 (93-94)	32 (31-33)	13 (13-13)	4 (4-4)	6 (6-6)	2 (2-2)
Northern America	2 (2-2)	1 (1-1)	9 (9-9)	6 (6-6)	3 (3-3)	2 (2-2)	1 (1-2)	1 (1-1)	10 (9-10)	8 (8-9)	40 (39-41)	40 (37-43)	14 (14-15)	5 (5-5)	12 (11-13)	4 (4-5)
World	**14 (14-15)**	**6 (6-7)**	**1,632 (1,595-1,690)**	**829 (795-910)**	**15 (14-15)**	**14 (13-15)**	**7 (6-7)**	**6 (5-6)**	**17 (16-18)**	**11 (10-12)**	**1,702 (1,653-1,840)**	**1,303 (1,252-1,473)**	**19 (18-20)**	**15 (14-16)**	**13 (12-15)**	**8 (8-9)**

Estimates of mortality among children, adolescents and youth under age 25 by UNICEF region[g]

Region	Probability of dying among children aged 5–14 years (per 1,000 children aged 5) 1990	2021	Number of deaths among children aged 5–14 years (thousands)[a] 1990	2021	Sex-specific probability of dying among children aged 5–14 years (per 1,000 children aged 5) 1990 Male	1990 Female	2021 Male	2021 Female	Probability of dying among children aged 15–24 years (per 1,000 children aged 15) 1990	2021	Number of deaths among children aged 15–24 years (thousands)[a] 1990	2021	Sex-specific probability of dying among children aged 15–24 years (per 1,000 children aged 15) 1990 Male	1990 Female	2021 Male	2021 Female
Sub-Saharan Africa	37 (35-40)	15 (14-18)	553 (529-590)	493 (463-556)	38 (35-41)	36 (33-39)	16 (15-18)	15 (13-17)	41 (39-52)	22 (21-27)	412 (390-515)	520 (483-628)	42 (39-51)	40 (37-51)	25 (22-30)	19 (17-24)
West and Central Africa	37 (35-41)	19 (17-23)	259 (244-282)	309 (279-357)	38 (33-41)	36 (32-40)	20 (17-23)	19 (16-22)	39 (34-61)	23 (20-31)	178 (159-275)	263 (229-342)	40 (34-58)	38 (33-61)	25 (20-32)	22 (17-29)
Eastern and Southern Africa	37 (34-41)	12 (11-14)	294 (274-321)	184 (169-217)	38 (34-42)	36 (32-40)	12 (10-15)	11 (9-13)	43 (40-47)	21 (19-26)	234 (220-255)	257 (232-317)	45 (41-49)	41 (39-45)	25 (22-31)	17 (15-22)
Middle East and North Africa	11 (10-12)	4 (3-5)	75 (71-80)	36 (33-44)	12 (11-12)	10 (9-11)	4 (4-5)	3 (3-4)	15 (13-18)	9 (8-10)	73 (66-88)	68 (63-79)	19 (16-23)	10 (9-13)	13 (11-15)	5 (4-6)
South Asia	20 (19-21)	5 (4-6)	581 (560-606)	165 (145-196)	20 (19-21)	21 (20-22)	5 (5-6)	4 (4-5)	25 (23-27)	9 (8-11)	544 (510-585)	330 (289-401)	22 (21-24)	27 (25-30)	11 (9-14)	8 (7-9)
East Asia and Pacific	9 (8-10)	3 (2-3)	301 (277-332)	84 (72-106)	10 (8-11)	8 (7-8)	3 (3-4)	2 (2-3)	10 (9-12)	6 (5-8)	382 (341-445)	174 (137-249)	13 (11-15)	7 (6-8)	8 (6-11)	3 (3-5)
Latin America and Caribbean	6 (6-6)	3 (3-3)	59 (58-61)	28 (27-31)	7 (6-7)	5 (5-5)	3 (3-3)	2 (2-3)	15 (14-15)	12 (11-12)	127 (124-132)	124 (119-133)	21 (20-21)	9 (8-9)	18 (17-19)	5 (5-6)
North America	2 (2-2)	1 (1-1)	9 (9-9)	6 (6-6)	3 (3-3)	2 (2-2)	1 (1-2)	1 (1-1)	10 (9-10)	8 (8-9)	40 (39-41)	40 (37-43)	14 (14-15)	5 (5-5)	12 (11-13)	4 (4-5)
Europe and Central Asia	4 (4-4)	1 (1-1)	54 (52-56)	16 (16-16)	5 (5-5)	3 (3-4)	2 (2-2)	1 (1-1)	10 (9-10)	4 (4-5)	124 (119-134)	47 (45-48)	14 (13-15)	5 (5-6)	6 (6-6)	3 (3-3)
Eastern Europe and Central Asia	6 (6-6)	2 (2-2)	41 (39-44)	12 (12-13)	7 (7-8)	5 (4-5)	2 (2-2)	2 (2-2)	12 (12-14)	6 (6-6)	77 (71-86)	31 (30-33)	18 (16-20)	7 (6-8)	8 (8-9)	4 (4-4)
Western Europe	2 (2-2)	1 (1-1)	13 (13-13)	4 (4-4)	3 (3-3)	2 (2-2)	1 (1-1)	1 (1-1)	7 (7-7)	3 (3-3)	48 (48-48)	15 (15-16)	10 (10-11)	4 (4-4)	4 (4-4)	2 (2-2)
World	**14 (14-15)**	**6 (6-7)**	**1,632 (1,595-1,690)**	**829 (795-910)**	**15 (14-15)**	**14 (13-15)**	**7 (6-7)**	**6 (5-6)**	**17 (16-18)**	**11 (10-12)**	**1,702 (1,653-1,840)**	**1,303 (1,252-1,473)**	**19 (18-20)**	**15 (14-16)**	**13 (12-15)**	**8 (8-9)**

Country, regional and global estimates of mortality among children, adolescents and youth under age 25

Estimates of mortality among children, adolescents and youth under age 25 by World Health Organization region[g]

Region	Probability of dying among children aged 5–14 years (per 1,000 children aged 5) 1990	2021	Number of deaths among children aged 5–14 years (thousands)[a] 1990	2021	Sex-specific probability of dying among children aged 5–14 years (per 1,000 children aged 5) 1990 Male	1990 Female	2021 Male	2021 Female	Probability of dying among children aged 15–24 years (per 1,000 children aged 15) 1990	2021	Number of deaths among children aged 15–24 years (thousands)[a] 1990	2021	Sex-specific probability of dying among children aged 15–24 years (per 1,000 children aged 15) 1990 Male	1990 Female	2021 Male	2021 Female
Africa	36 (34 - 39)	15 (14 - 17)	534 (510 - 570)	474 (444 - 535)	37 (34 - 40)	35 (32 - 38)	16 (14 - 18)	15 (13 - 17)	39 (37 - 50)	21 (20 - 26)	392 (371 - 495)	487 (449 - 593)	41 (38 - 50)	38 (35 - 48)	24 (21 - 29)	19 (16 - 23)
Americas	5 (5 - 5)	2 (2 - 2)	68 (67 - 70)	34 (33 - 37)	6 (5 - 6)	4 (4 - 4)	3 (2 - 3)	2 (2 - 2)	13 (13 - 13)	10 (10 - 11)	167 (164 - 172)	164 (158 - 174)	19 (18 - 19)	8 (7 - 8)	16 (15 - 17)	5 (5 - 6)
Eastern Mediterranean	14 (13 - 15)	6 (5 - 8)	142 (136 - 152)	102 (87 - 133)	14 (13 - 15)	13 (12 - 14)	7 (5 - 9)	5 (4 - 7)	21 (19 - 24)	13 (11 - 18)	147 (137 - 174)	180 (150 - 248)	23 (21 - 28)	18 (16 - 21)	17 (13 - 23)	9 (8 - 13)
Europe	4 (4 - 4)	1 (1 - 1)	54 (52 - 57)	16 (16 - 17)	5 (5 - 5)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	10 (9 - 10)	4 (4 - 5)	125 (120 - 135)	47 (46 - 48)	14 (13 - 15)	5 (5 - 6)	6 (6 - 6)	3 (3 - 3)
South-East Asia	20 (19 - 20)	4 (4 - 5)	631 (608 - 658)	148 (135 - 166)	19 (18 - 20)	20 (19 - 21)	5 (4 - 5)	4 (3 - 4)	23 (21 - 24)	9 (8 - 10)	583 (549 - 624)	318 (284 - 374)	21 (20 - 23)	24 (22 - 26)	11 (9 - 13)	7 (6 - 8)
Western Pacific	7 (6 - 8)	2 (2 - 3)	203 (180 - 230)	53 (43 - 71)	8 (7 - 9)	6 (5 - 7)	3 (2 - 3)	2 (1 - 2)	9 (8 - 11)	5 (3 - 7)	287 (246 - 346)	106 (78 - 164)	12 (10 - 14)	6 (5 - 8)	6 (4 - 10)	3 (2 - 4)
World	**14 (14 - 15)**	**6 (6 - 7)**	**1,632 (1,595 - 1,690)**	**829 (795 - 910)**	**15 (14 - 15)**	**14 (13 - 15)**	**7 (6 - 7)**	**6 (5 - 6)**	**17 (16 - 18)**	**11 (10 - 12)**	**1,702 (1,653 - 1,840)**	**1,303 (1,252 - 1,473)**	**19 (18 - 20)**	**15 (14 - 16)**	**13 (12 - 15)**	**8 (8 - 9)**

Estimates of mortality among children, adolescents and youth under age 25 by World Bank region[g]

Region	Probability of dying among children aged 5–14 years (per 1,000 children aged 5) 1990	2021	Number of deaths among children aged 5–14 years (thousands)[a] 1990	2021	Sex-specific probability of dying among children aged 5–14 years (per 1,000 children aged 5) 1990 Male	1990 Female	2021 Male	2021 Female	Probability of dying among children aged 15–24 years (per 1,000 children aged 15) 1990	2021	Number of deaths among children aged 15–24 years (thousands)[a] 1990	2021	Sex-specific probability of dying among children aged 15–24 years (per 1,000 children aged 15) 1990 Male	1990 Female	2021 Male	2021 Female
East Asia and Pacific	9 (8 - 10)	3 (2 - 3)	301 (277 - 332)	84 (72 - 106)	10 (8 - 11)	8 (7 - 8)	3 (3 - 4)	2 (2 - 3)	10 (9 - 12)	6 (5 - 8)	382 (341 - 445)	174 (137 - 249)	13 (11 - 15)	7 (6 - 8)	8 (6 - 11)	3 (3 - 5)
Europe and Central Asia	4 (4 - 4)	1 (1 - 1)	54 (52 - 56)	16 (16 - 16)	5 (5 - 5)	3 (3 - 4)	2 (2 - 2)	1 (1 - 1)	10 (9 - 10)	4 (4 - 5)	124 (119 - 134)	47 (45 - 48)	14 (13 - 15)	5 (5 - 6)	6 (6 - 6)	3 (3 - 3)
Latin America and the Caribbean	6 (6 - 6)	3 (3 - 3)	59 (58 - 61)	28 (27 - 31)	7 (6 - 7)	5 (5 - 5)	3 (3 - 3)	2 (2 - 3)	15 (14 - 15)	12 (11 - 12)	127 (124 - 132)	124 (119 - 133)	21 (20 - 21)	9 (8 - 9)	18 (17 - 19)	5 (5 - 6)
Middle East and North Africa	11 (10 - 12)	4 (3 - 5)	75 (71 - 81)	36 (33 - 44)	12 (11 - 12)	10 (9 - 11)	4 (4 - 5)	3 (3 - 4)	15 (13 - 18)	9 (8 - 10)	73 (66 - 88)	69 (63 - 79)	19 (17 - 23)	10 (9 - 13)	13 (11 - 15)	5 (4 - 6)
North America	2 (2 - 2)	1 (1 - 1)	9 (9 - 9)	6 (6 - 6)	3 (3 - 3)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	10 (9 - 10)	8 (8 - 9)	40 (39 - 41)	40 (37 - 43)	14 (14 - 15)	5 (5 - 5)	12 (11 - 13)	5 (4 - 5)
South Asia	20 (19 - 21)	5 (4 - 6)	581 (560 - 606)	165 (145 - 196)	20 (19 - 21)	20 (20 - 22)	5 (5 - 6)	4 (4 - 5)	25 (23 - 27)	9 (8 - 11)	544 (510 - 585)	330 (289 - 401)	22 (21 - 24)	27 (25 - 30)	11 (9 - 14)	7 (7 - 9)
Sub-Saharan Africa	37 (35 - 40)	15 (15 - 18)	552 (529 - 590)	493 (463 - 555)	38 (35 - 41)	36 (33 - 39)	16 (15 - 18)	15 (13 - 17)	41 (39 - 52)	22 (21 - 27)	411 (390 - 515)	520 (482 - 627)	42 (39 - 51)	40 (37 - 51)	25 (22 - 30)	19 (17 - 24)
Low income	41 (38 - 45)	14 (13 - 16)	352 (332 - 386)	273 (254 - 310)	42 (37 - 46)	40 (35 - 44)	15 (13 - 17)	13 (12 - 15)	46 (43 - 64)	24 (22 - 31)	271 (255 - 376)	351 (315 - 445)	47 (44 - 62)	44 (41 - 64)	27 (24 - 34)	21 (18 - 28)
Lower-middle income	19 (19 - 20)	7 (6 - 8)	992 (966 - 1,026)	461 (428 - 519)	19 (18 - 20)	19 (18 - 20)	7 (7 - 8)	6 (6 - 7)	23 (22 - 24)	11 (10 - 12)	876 (838 - 930)	641 (597 - 743)	22 (21 - 24)	23 (21 - 24)	13 (11 - 15)	8 (7 - 9)
Upper-middle income	7 (6 - 7)	2 (2 - 3)	249 (226 - 277)	79 (69 - 98)	8 (7 - 9)	5 (5 - 6)	3 (2 - 3)	2 (2 - 2)	11 (10 - 12)	7 (6 - 9)	429 (389 - 491)	226 (197 - 283)	14 (13 - 17)	7 (6 - 8)	10 (9 - 12)	4 (3 - 5)
High income	3 (3 - 3)	1 (1 - 1)	37 (36 - 38)	14 (14 - 15)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 8)	5 (5 - 6)	122 (119 - 131)	72 (69 - 77)	11 (11 - 12)	4 (4 - 4)	7 (7 - 8)	3 (3 - 3)
World	**14 (14 - 15)**	**6 (6 - 7)**	**1,632 (1,595 - 1,690)**	**829 (795 - 910)**	**15 (14 - 15)**	**14 (13 - 15)**	**7 (6 - 7)**	**6 (5 - 6)**	**17 (16 - 18)**	**11 (10 - 12)**	**1,702 (1,653 - 1,840)**	**1,303 (1,252 - 1,473)**	**19 (18 - 20)**	**15 (14 - 16)**	**13 (12 - 15)**	**8 (8 - 9)**

Country, regional and global estimates of mortality among children, adolescents and youth under age 25

Estimates of mortality among children, adolescents and youth under age 25 by United Nations Population Division region[g]

Region	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 years (thousands)[a]		Sex-specific probability of dying among children aged 5–14 years (per 1,000 children aged 5)				Probability of dying among children aged 15–24 years (per 1,000 children aged 15)		Number of deaths among children aged 15–24 years (thousands)[a]		Sex-specific probability of dying among children aged 15–24 years (per 1,000 children aged 15)			
					1990		2021						1990		2021	
	1990	2021	1990	2021	Male	Female	Male	Female	1990	2021	1990	2021	Male	Female	Male	Female
Sub-Saharan Africa	38 (36 - 40)	16 (15 - 18)	535 (512 - 572)	484 (454 - 546)	39 (35 - 41)	37 (33 - 39)	16 (15 - 19)	15 (14 - 17)	41 (39 - 52)	22 (20 - 27)	394 (372 - 497)	498 (460 - 604)	42 (39 - 52)	40 (37 - 51)	25 (22 - 30)	19 (17 - 24)
Africa	32 (31 - 34)	14 (13 - 16)	584 (560 - 621)	508 (478 - 571)	33 (30 - 35)	31 (29 - 34)	15 (13 - 17)	13 (12 - 15)	35 (34 - 44)	20 (19 - 25)	997 (418 - 543)	543 (506 - 651)	37 (35 - 44)	34 (32 - 43)	23 (21 - 27)	17 (16 - 21)
Asia	14 (13 - 14)	4 (3 - 4)	945 (913 - 986)	276 (253 - 316)	14 (13 - 14)	13 (13 - 14)	4 (4 - 5)	3 (3 - 4)	15 (15 - 17)	8 (7 - 9)	997 (947 - 1,083)	560 (508 - 669)	17 (16 - 18)	14 (13 - 15)	10 (9 - 12)	6 (5 - 7)
Europe	3 (3 - 3)	1 (1 - 1)	33 (33 - 33)	9 (9 - 9)	4 (4 - 4)	2 (2 - 3)	1 (1 - 1)	1 (1 - 1)	9 (9 - 9)	4 (4 - 4)	93 (93 - 94)	32 (31 - 33)	13 (13 - 13)	4 (4 - 4)	6 (6 - 6)	2 (2 - 2)
Latin America and the Caribbean	6 (6 - 6)	3 (3 - 3)	59 (58 - 61)	28 (27 - 31)	7 (6 - 7)	5 (5 - 5)	3 (3 - 3)	2 (2 - 3)	15 (14 - 15)	12 (11 - 12)	127 (124 - 132)	124 (119 - 133)	21 (20 - 21)	9 (8 - 9)	17 (17 - 19)	5 (5 - 6)
Northern America	2 (2 - 2)	1 (1 - 1)	9 (9 - 9)	6 (6 - 6)	3 (3 - 3)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	10 (9 - 10)	8 (8 - 9)	40 (39 - 41)	40 (37 - 43)	14 (14 - 15)	5 (5 - 5)	12 (11 - 13)	5 (4 - 5)
Oceania	6 (5 - 7)	4 (3 - 4)	3 (2 - 3)	2 (2 - 3)	6 (5 - 7)	5 (4 - 6)	4 (3 - 5)	3 (3 - 4)	11 (10 - 12)	8 (7 - 9)	5 (5 - 6)	5 (4 - 6)	16 (14 - 17)	7 (6 - 8)	9 (8 - 11)	6 (5 - 7)
World	**14 (14 - 15)**	**6 (6 - 7)**	**1,632 (1,595 - 1,690)**	**829 (795 - 910)**	**15 (14 - 15)**	**14 (13 - 15)**	**7 (6 - 7)**	**6 (5 - 6)**	**17 (16 - 18)**	**11 (10 - 12)**	**1,702 (1,653 - 1,840)**	**1,303 (1,252 - 1,473)**	**19 (18 - 20)**	**15 (14 - 16)**	**13 (12 - 15)**	**8 (8 - 9)**

Definitions

Under-five mortality rate: Probability of dying between birth and exactly 5 years of age, expressed per 1,000 live births.
Infant mortality rate: Probability of dying between birth and exactly 1 year of age, expressed per 1,000 live births.
Neonatal mortality rate: Probability of dying in the first 28 days of life, expressed per 1,000 live births.
Probability of dying among children aged 5–14 years: Probability of dying among children aged 5–14 years expressed per 1,000 children aged 5.
Probability of dying at age 15–24 years: Probability of dying among youth aged 15–24 years expressed per 1,000 youth aged 15.
Probability of dying among adolescents aged 10–19 years: Probability of dying among adolescents aged 10–19 years expressed per 1,000 adolescents aged 10.

Note: Values in parentheses represent the 90 per cent uncertainty intervals. Estimates are generated by the United Nations Inter-agency Group for Child Mortality Estimation to ensure comparability; they are not necessarily the official statistics of United Nations Member States, which may use alternative rigorous methods.
a. Number of deaths are rounded to thousands. A zero indicates that the number of deaths is below 500. Unrounded number of deaths are available at <www.childmortality.org> for download.
b. Some UN IGME indicators are calculated using population and live birth numbers from the World Population Prospects: The 2022 revision (WPP). WPP numbers for Cyprus refer to the whole country. However, the underlying data sent by the Health Monitoring Unit of the Cyprus Ministry of Health capture only the government-controlled area, whereas according to Eurostat, the population on 1 January 2022 was 904,705 (https://ec.europa.eu/eurostat/databrowser/view/tps00001).
c. All references to Kosovo in the UN IGME estimates should be understood to be in the context of United Nations Security Council resolution 1244 (1999).
d. UNAIDS estimates for Mozambique were not available at the time of publication.
e. The UN IGME estimates are not the official statistics of Nicaragua. The most recent national official estimates of neonatal, infant and under-five mortality rates available to the UN IGME come from the vital registration system for 2020, with a rate of 7.0, 10.7 and 12.6 deaths per 1,000 live births, respectively. Following a request from the Government of Nicaragua and per the objectives of the UN IGME, the UN IGME will continue to assess all data sources in the country relevant to child mortality estimation.
f. The most recent official national estimates of neonatal, infant and under-five mortality rates in Uzbekistan are from the vital registration system, with a rate of 5.9, 9.2 and 12.3 deaths per 1,000 live births for both sexes, respectively, in 2021. The most recent official sex-specific estimates from the vital registration system for infant and under-five mortality for males are 10.1 and 13.4 deaths per 1,000 live births and 8.2 and 11.1 deaths per 1,000 live births, respectively, in 2021.
g. The sum of the number of deaths by region may differ from the world total because of rounding.

Regional classifications

The regional classifications that are referred to in the report and for which aggregate data are provided in the statistical table are Sustainable Development Goal regions (see below). Aggregates presented for member organizations of the United Nations Inter-agency Group for Child Mortality Estimation may differ and regional classifications with the same name from different member organizations (e.g., "Sub-Saharan Africa") may include different countries.

Whether a country belongs to the group of Least developed countries (LDC), Landlocked developing countries (LLDC) and/or Small island developing States (SIDS) is indicated in the brackets after the country name.

Sub-Saharan Africa

Angola (LDC), Benin (LDC), Botswana (LLDC), Burkina Faso (LDC, LLDC), Burundi (LDC, LLDC), Cabo Verde (SIDS), Cameroon, Central African Republic (LDC, LLDC), Chad (LDC, LLDC), Comoros (LDC, SIDS), Congo, Côte d'Ivoire, Democratic Republic of the Congo (LDC), Djibouti (LDC), Equatorial Guinea (LDC), Eritrea (LDC), Eswatini (LLDC), Ethiopia (LDC, LLDC), Gabon, Gambia (LDC), Ghana, Guinea (LDC), Guinea-Bissau (LDC, SIDS), Kenya, Lesotho (LDC, LLDC), Liberia (LDC), Madagascar (LDC), Malawi (LDC, LLDC), Mali (LDC, LLDC), Mauritania (LDC), Mauritius (SIDS), Mozambique (LDC), Namibia, Niger (LDC, LLDC), Nigeria, Rwanda (LDC, LLDC), Sao Tome and Principe (SIDS), Senegal (LDC), Seychelles (SIDS), Sierra Leone (LDC), Somalia (LDC), South Africa, South Sudan (LDC, LLDC), Togo (LDC), Uganda (LDC, LLDC), United Republic of Tanzania (LDC), Zambia (LDC, LLDC), Zimbabwe (LLDC)

Northern Africa and Western Asia

Northern Africa

Algeria, Egypt, Libya, Morocco, Sudan (LDC), Tunisia

Western Asia

Armenia (LLDC), Azerbaijan, Bahrain, Cyprus, Georgia, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, State of Palestine, Syrian Arab Republic, Türkiye, United Arab Emirates, Yemen (LDC)

Central and Southern Asia

Central Asia

Kazakhstan (LLDC), Kyrgyzstan (LLDC), Tajikistan (LLDC), Turkmenistan (LLDC), Uzbekistan (LLDC)

Southern Asia

Afghanistan (LDC, LLDC), Bangladesh (LDC), Bhutan (LLDC), India, Iran (Islamic Republic of), Maldives (SIDS), Nepal (LDC, LLDC), Pakistan, Sri Lanka

Eastern and South-Eastern Asia

Eastern Asia

China, Democratic People's Republic of Korea, Japan, Mongolia (LLDC), Republic of Korea

South-Eastern Asia

Brunei Darussalam, Cambodia (LDC), Indonesia, Lao People's Democratic Republic (LDC, LLDC), Malaysia, Myanmar (LDC), Philippines, Singapore (SIDS), Thailand, Timor-Leste (LDC, SIDS), Viet Nam

Latin America and the Caribbean

Antigua and Barbuda (SIDS), Argentina, Bahamas (SIDS), Barbados (SIDS), Belize (SIDS), Bolivia (Plurinational State of) (LLDC), Brazil, Chile, Colombia, Costa Rica, Cuba (SIDS), Dominica (SIDS), Dominican Republic (SIDS), Ecuador, El Salvador, Grenada (SIDS), Guatemala, Guyana (SIDS), Haiti (LDC, SIDS), Honduras, Jamaica (SIDS), Mexico, Nicaragua, Panama, Paraguay (LLDC), Peru, Saint Kitts and Nevis (SIDS), Saint Lucia (SIDS), Saint Vincent and the Grenadines (SIDS), Suriname (SIDS), Trinidad and Tobago (SIDS), Uruguay, Venezuela (Bolivarian Republic of)

Oceania

Australia and New Zealand

Australia, New Zealand

Oceania (excluding Australia and New Zealand)

Cook Islands (New Zealand) (SIDS), Fiji (SIDS), Kiribati (LDC, SIDS), Marshall Islands (SIDS), Micronesia (Federated States of) (SIDS), Nauru (SIDS), Niue (New Zealand) (SIDS), Palau (SIDS), Papua New Guinea (SIDS), Samoa (SIDS), Solomon Islands (LDC, SIDS), Tonga (SIDS), Tuvalu (LDC, SIDS), Vanuatu (LDC, SIDS)

Europe and Northern America

Europe

Albania, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, North Macedonia (LLDC), Norway, Poland, Portugal, Republic of Moldova (LLDC), Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom of Great Britain and Northern Ireland

Northern America

Canada, United States of America

The United Nations Inter-agency Group for Child Mortality Estimation (UN IGME) was formed in 2004 to share data on child mortality, improve methods for child mortality estimation, report on progress towards child survival goals and enhance country capacity to produce timely and properly assessed estimates of child mortality. The UN IGME is led by United Nations Children's Fund and includes the World Health Organization, the World Bank Group and the United Nations Department of Economic and Social Affairs, Population Division, as full members.

The UN IGME's independent Technical Advisory Group, comprising leading academic scholars and independent experts in demography and biostatistics, provides technical guidance on estimation methods, technical issues and strategies for data analysis and data quality assessment.

The UN IGME updates its child mortality estimates annually after reviewing newly available data and assessing data quality. This report contains the latest UN IGME estimates of child mortality at the country, regional and global levels. Country-specific estimates and the data used to derive them are available at <www.childmortality.org>.