



**Kenya (2007): Use of modern
contraceptive methods among sexually
active women aged 20-35 years**

T h e P S I D a s h b o a r d

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Research Division
Population Services International
1120 Nineteenth Street NW, Suite 600
Washington, D.C. 20036

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Contact Information:

Mary Ann Seday,
PSI Kenya
Jumuia Place, Wing B, 2nd Floor
Lenana road
Nairobi, Kenya
Tel: +254 020 2714346 / 2714354
mseday@psikenya.org

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Summary

Background & Research Objectives In 2007, PSI/Kenya conducted a household survey designed to investigate family planning practices for a representative sample of women 20-35 years of age. The 2007 survey was a follow-up to a baseline conducted in 2001, and successive rounds later in 2003 and 2005. All surveys aimed to provide evidence for social marketing decision making for the family planning program and to help measure the effectiveness of various interventions and strategies used to promote informed demand for modern methods of family planning. Collectively, this report presents identified behavioral determinants of use of modern contraceptives among women of reproductive age and illustrates impact of exposure to program activities. The findings are intended to provide guidance for future social marketing interventions on modern methods of family planning.

Description of Intervention Since 2000 PSI/Kenya family planning program has adopted social marketing approaches in order to improve knowledge of, and to promote use of modern contraceptives thereby improving reproductive health of Kenyan women. The program specifically aimed to increased use of oral and injectable contraceptives among women aged 20-35. According to the 2003 Kenya Health and Demographic Survey data, nearly sixteen percent (15.8%) of all women have an unmet need for family planning, 24.5% among married women and 2.7% among unmarried, with only 31.5% of married couples using any modern form of contraceptive¹. The program aimed to bridge this gap through a number of social marketing approaches which include: distribution of *Femiplan* pills and *Femiplan* injectables (PSI/Kenya social marketed brands) via private sector health care system (pharmacies and clinics); supporting family planning providers through retail detailing (providing product support and information) in order to deliver quality reproductive health services and products; developing information and education materials and activities to create demand for hormonal contraceptives at community level, and collaborating with NGOs and institutions in the sales and promotion of *Femiplan* particularly those with functioning Community Based Distribution (CBD) networks. Mass media communication² including sponsoring of debates in TV and radio, and placement of articles in magazines and newspapers was also used to improve knowledge of and increase demand for use of modern contraceptives.

Methodology This report is based on four rounds of cross-sectional data conducted in 2001, 2003, 2005 and 2007 in all provinces of Kenya except North Eastern. A stratified, multi-stage cluster sampling methodology was utilized to gather data at the household level in both urban and rural areas of Kenya. In the first two rounds (2001 and 2003), all women of reproductive age were asked questions on contraception. For the purposes of this report, comparable sub-data sets across the four survey rounds were used for the analysis. The risk group was defined as all urban sexually active, fecund women aged 20-35 years who had not chosen permanent family planning methods.

¹ Central Bureau of Statistics (CBS) [Kenya], Ministry of Health (MOH) [Kenya], and ORC Macro. 2004. *Kenya Demographic and Health Survey 2003*. Calverton, Maryland: CBS, MOH, and ORC Macro.

² Mass media communication was implemented using guidelines from Poisons and Pharmacy Board.

Main Findings

The monitoring table highlights that:

- Key indicators of contraceptive use improved significantly over the time. The use of modern method of contraception more than doubled between 2001 and 2007 (32.1% vs. 66.4%)
- Use of hormonal contraception increased significantly between 2001 and 2003, but stabilized between 2003, 2005 and 2007, with no significant changes in between the years.
- The use of *Femiplan* injection increased 3-fold over the time period (1.4% in 2001 to 4.7% in 2007) while the use of *Femiplan* pills increased 5-fold (from 1.3 % in 2001 to 6.6% in 2007).

The results of segmentation analysis indicate that:

- Users of modern contraception scored higher (on a scale of 1 to 4) than non users on the quality of care scale (mean of 3.43 vs. 3.30 for non users, $p < 0.05$, $OR = 1.78$). This determinant assessed perceived quality of care that women received from the providers of modern contraceptive methods.
- On self-efficacy to use contraceptives, modern contraceptive users scored higher than non users (mean of 2.54 vs. 2.42, $p < 0.05$, $OR = 1.43$).
- Modern contraceptive users scored higher (mean of 2.42) on beliefs scale compared to 2.22 among non users, $p < 0.010$, $OR = 1.85$.
- Women who were current users of modern contraceptive were more likely to report a high score on the scale of threat (mean of 3.23 vs. 3.01, $p < 0.010$, $OR = 1.86$).

The results of evaluation analysis reveal a positive impact in health behavior as a result of exposure to family planning-focused communication activities. For example, in 2005, 45.6% of sexually active urban women, 20-35 were using any modern method of contraception. In 2007, 53.7% of those who had not been exposed practiced this behavior, a statistically insignificant difference from 2005. Among those with low exposure, 60.7% used a modern method of contraception, again statistically insignificant difference compared to 2005. But those with high exposure, 75.1% practiced this behavior, a statistically significant increase. This implies that high exposure leads to behavior change but not low exposure.

Programmatic Recommendations

Results of this evaluation study results recommend that:

- There is a need to scale up family planning social marketing interventions and activities so as to maintain the improving trends in modern contraceptive use.
- Based on the segmentation results on use of modern contraceptives, future communication efforts on uptake of modern contraceptive methods of family planning should address the following proxy determinants of contraceptive use: Quality of care, self-efficacy, beliefs about contraception, and threat posed by mistimed and unwanted pregnancy.
 - Social marketing interventions need to collaborate with FP providers to improve on quality of care. These interventions would provide women with opportunities to seek from family planning services.
 - IE & C activities that help women improve their feelings of self efficacy in using modern contraceptive methods should be designed. Such activities should increase women's understanding of how to use family planning methods effectively and communicate the benefits of doing so. In so doing, this will help build confidence, independent thinking, and willingness to follow indications for a chosen contraceptive method.
 - Family planning programs should reinforce dissemination of accurate family planning information through behavior change communication campaigns. This should be done in order to eliminate any false beliefs and misconceptions about modern contraceptive methods. This approach will empower and motivate women to make informed reproductive health choices.
 - Women's should be sensitized about the problems that come with unplanned/unwanted pregnancies in order to motivate them to use modern contraceptives.
- Family planning-focused communication activities should be intensified in order to reach a large population of women at risk of unwanted pregnancies. A multi-media approach is likely to be more effective since there is enough evidence that suggest high exposure can lead to desired behavior change.

Monitoring Table

Trends and Levels of Indicators for Family Planning: Percentages and Mean Scores for Behaviors, Behavioral Determinants, and Exposure in Kenya (2000, 2003, 2005 and 2007)

Risk: Sexually active^a urban women aged 20 to 35.

Behavior: Currently using modern methods of family planning.

INDICATORS	2001 N=323	2003 N=264	2005 N=544	2007 N=642	Sig.
BEHAVIOR/USE	%	%	%	%	*, **, ***
• Currently using any method of family planning	39.2 ^a	57.4 ^b	53.3 ^b	71.1 ^c	***
• Currently using modern method of family planning	32.1 ^a	55.1 ^b	46.4 ^b	66.4 ^c	***
• Currently using hormonal method of family planning ∞	27.0 ^a	48.8 ^b	34.0 ^a	57.9 ^b	***
OPPORTUNITY	% or mean scores	% or mean scores	% or mean scores	% or mean scores	% or mean scores
<i>Availability</i>	-	-	3.35	-	-
<i>Femiplan Brand Appeal</i>	-	-	2.98	-	-
<i>Social norms</i>	-	-	3.43	-	-
<i>Quality of care-provider treatment</i>	-	-	4.24	3.32	***
In some places around here, you only get contraceptives that providers want to give you.	-	-	2.99	-	-
<i>Quality of care-services</i>	-	-	3.50	3.18	***
ABILITY	% or mean scores	% or mean scores	% or mean scores	% or mean scores	% or mean scores
<i>Knowledge</i>	-	-	8.37	-	-
<i>Self Efficacy</i>	-	-	3.06	-	-
<i>Self Efficacy –use</i>	-	-	-	2.44	-
<i>Self Efficacy -negotiation skills</i>	-	-	-	3.26	-
You do not know how to tell your friends that you are using a contraceptive method R	-	-	-	3.22	-
You are nervous about asking for contraceptives in some places. R	-	-	-	3.28	-
MOTIVATION	% or mean scores	% or mean scores	% or mean scores	% or mean scores	% or mean scores
Beliefs	-	-	2.43	2.24	***
Attitudes	-	-	3.21	-	-
Subjective norms	-	-	3.09	-	-
Locus of control	-	-	3.67	-	-
You can take care of yourself, you can avoid unwanted pregnancies	-	-	-	3.74	-
If you take the right action, you can avoid unwanted pregnancies	-	-	-	3.81	-
It is up to your partner to make sure that you use contraception R	-	-	-	2.65	-

You could get pregnant even if you do your best to prevent it R	-	-	-	3.17	-
Threat	-	-	3.67	3.18	***
Family planning issues are not really for people like you R	-	-	3.47	-	-
You are the kind of person who is likely to get pregnant if you are not careful R	-	-	1.53	-	-
Outcome expectation	-	-	3.38	-	-
The use of contraceptives will affect the quality of your sexual intercourse R	-	-	2.57	-	-
There are women here who never use contraception and have never had any pregnancy problems R	-	-	1.96	-	-
Even if you use contraception, you can still get pregnant R	-	-	2.44	-	-
If women like you want to avoid pregnancies they have other ways than using contraception R	-	-	2.03	-	-
Contraceptives are not effective against unwanted pregnancies R	-	-	-	3.36	-
Using contraceptives is the best way to avoid getting pregnant	-	-	-	3.47	-
The contraceptives we have in this country are not effective in preventing unwanted pregnancies R	-	-	-	3.40	-
Women who use contraceptives can still become pregnant if they stop using them	-	-	-	3.78	-
EXPOSURE	%	%	%	%	
• Ever heard of femiplan	25.5 ^a	85.6 ^b	59.2 ^c	87.0 ^b	***
• Ever read a Femiplan brochure	-	-	52.4	42.0	***

- a. α Sexually active is defined as having had sex in the last 12 months. Pregnant women and those using permanent methods of family planning were excluded.
- b. ∞ (Hormonals) Log Frame indicator
- c. * = $p < .05$; ** = $p < .01$; *** = $p < .001$.
- d. Mean scores are measured on a Likert scale responses: 1 (Strongly Disagree), 2 (Disagree) 3 (Agree) 4 (Strongly Agree).
- e. R – reverse coded item
- f. The percentages and means presented in the table were controlled for design variable(cluster) and demographic characteristics such as age, education and marital status.

Additional logical frame indicators

INDICATORS	2001 N=323	2003 N=264	2005 N=544	2007 N=642	Sig.
BEHAVIOR/USE	%	%	%	%	*, **, ***
• Currently using injectables	16.0 ^a	31.1 ^b	24.6 ^b	33.8 ^b	*
• Currently using oral contraceptives	4.9 ^a	18.5 ^b	8.4 ^a	18.0 ^b	***
• Currently using Femiplan pill or injection	0.2 ^a	11.7 ^b	2.5 ^a	11.4 ^b	NS
• Currently using Femiplan injection	1.4 ^a	1.3 ^a	1.6 ^a	4.7 ^b	***
• Currently using Femiplan pill	1.3 ^a	12.9 ^b	0.7 ^a	6.6 ^c	**
OPPORTUNITY	% or mean scores	% or mean scores	% or mean scores	% or mean scores	% or mean scores
<i>Availability</i>	-	-	3.35	-	-
• It is not difficult to obtain contraceptives	-	14.3	-	-	-
• Oral contraceptives are found nearby	-	-	-	30.4	-
• Injectables are found nearby	-	-	-	28.1	-
• Source of oral contraceptives is easy to reach	-	-	29.0	-	-
• Source of injectables is easy to reach	-	-	27.8	-	-
<i>Brand attributes</i>					
• Femiplan pill is affordable	-	56.0 ^a	78.1 ^b	77.9 ^b	***
ABILITY	% or mean scores	% or mean scores	% or mean scores	% or mean scores	% or mean scores
• Women make decisions about using fp	57.6	57.7	-	-	***
• A woman can use fp without her partners knowledge	55.6	49.4	-	-	***
• Do you think it is difficult to use oral contraceptives?(NOT)	-	12.1	-	-	-
• Do you think it is difficult to use injectables?(NOT)	-	12.8	-	-	-
MOTIVATION	% or mean scores	% or mean scores	% or mean scores	% or mean scores	% or mean scores
• Oral pills are effective	40.9 ^a	84.3 ^b	67.7 ^c	49.9 ^a	***
• Inject able contraceptives are effective	61.1 ^a	72.4 ^a	81.3 ^{ab}	72.2 ^a	***

a. Sexually active is defined as having had sex in the last 12 months. Pregnant women and those using permanent methods of family planning were excluded.

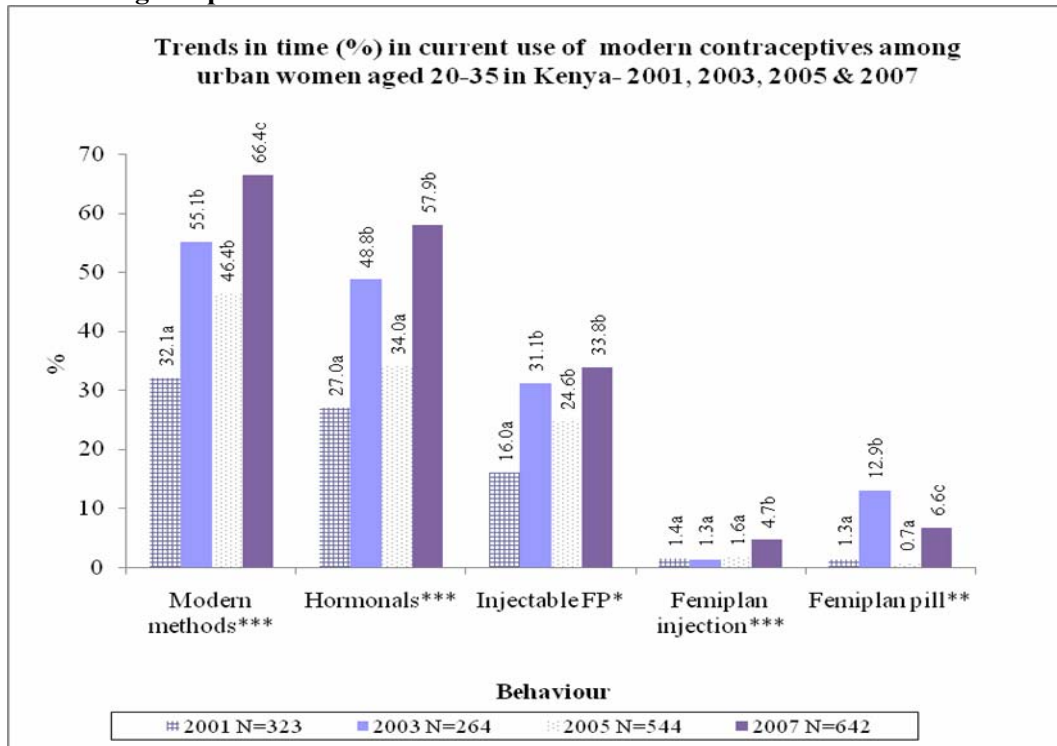
b. * = $p < .05$; ** = $p < .01$; *** = $p < .001$.

c. Mean scores are measured on a Likert scale responses: 1 (Strongly Disagree), 2 (Disagree) 3 (Agree) 4 (Strongly Agree).

d. R – reverse coded item

e. The percentages and means presented in the table were controlled for design variable(cluster) and demographic characteristics such as age, education and marital status.

Monitoring Graph



Segmentation Table 1: Determinants of modern contraceptive use among women aged 20-35 years in Kenya, 2007

Risk: Sexually active^a urban women aged 20 to 35.

Behavior: Using modern contraceptive

INDICATORS	Currently using modern 53.6% (N=399)	Not using modern 46.4% (N=244)	OR	Sig.
OPPORTUNITY				
Quality of care-provider treatment	3.43	3.30	1.78	*
ABILITY				
Self efficacy-use	2.54	2.42	1.43	*
MOTIVATION				
Belief	2.42	2.22	1.85	**
Locus of control				
• If you take the right action, you can avoid unwanted pregnancies R	3.73	3.93	0.40	**
• You could get pregnant even if you do your best to prevent it R	3.23	2.92	1.37	*
Threat	3.23	3.01	1.86	**
Outcome expectations				
• Women who use contraceptives can still become pregnant if they stop using them	3.81	3.70	2.05	*
• Using contraceptives is the best way to avoid getting pregnant	3.46	3.33	1.47	*
POPULATION CHARACTERISTICS				
• Marital status (Married vs Single)	79.3	64.9	2.66	***
• Had sex at least weekly in last 12 months	69.5	42.1	9.37	***
• Wants children soon vs wants no more/wants later	12.4	22.8	0.203	**

a. *a Sexually active is defined as having had sex in the last 12 months. Pregnant women and those using permanent methods of family planning were excluded.*

b. **=p<0.05; **=p<0.01; ***=p<0.001. Hosmer and Lemeshow Test: Chi-square=12.896, df=8, Sig=.115;*

c. *Omnibus Test: Chi-square=325.776, df=148, p<0.001; R squares: Cox & Snell R-square=.420, Nagelkerke R-square=.569*

d. *Each variable is adjusted for all other variables in the model; cluster and socio demographic characteristics.*

e. *R reversed item*

f. *Modern birth spacing methods include: Daily pill, IUD, implant, injectable, condom, emergency contraception (other modern fp not reported by this population)*

Segmentation Table 2: Determinants of hormonal contraceptive use among women aged 20-35 years in Kenya, 2007

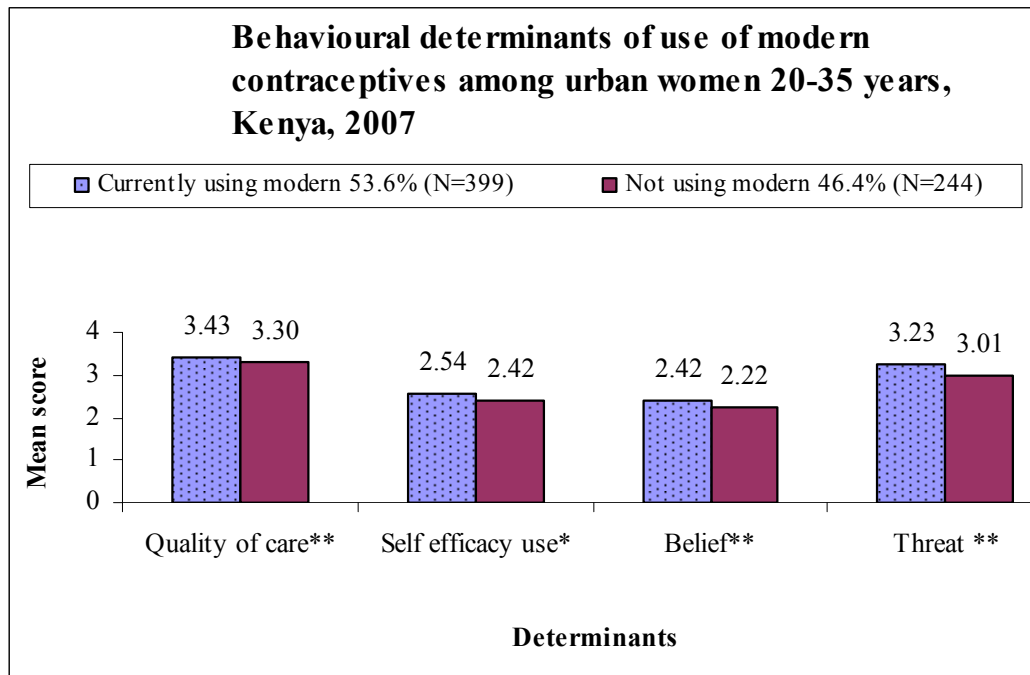
Risk: Sexually active^a urban women aged 20 to 35.

Behavior: Using hormonal contraceptive

INDICATORS	Currently using hormonals 53.6% (N=344)	Not using hormonal 46.4% (N=298)	OR	Sig.
OPPORTUNITY				
Quality of care-provider treatment	3.38	3.15	2.16	***
MOTIVATION				
Belief	2.39	2.26	1.47	*
Outcome expectations				
<ul style="list-style-type: none"> Women who use contraceptives can still become pregnant if they stop using them 	3.81	3.70	2.13	*
POPULATION CHARACTERISTICS				
<ul style="list-style-type: none"> Marital status (Married vs Single) 	81.6	65.4	4.66	***
<ul style="list-style-type: none"> Had sex often in last 12 months 	71.1	47.7	5.03	***
<ul style="list-style-type: none"> Wants children soon vs wants no more/wants later 	4.6	28.1	0.10	***

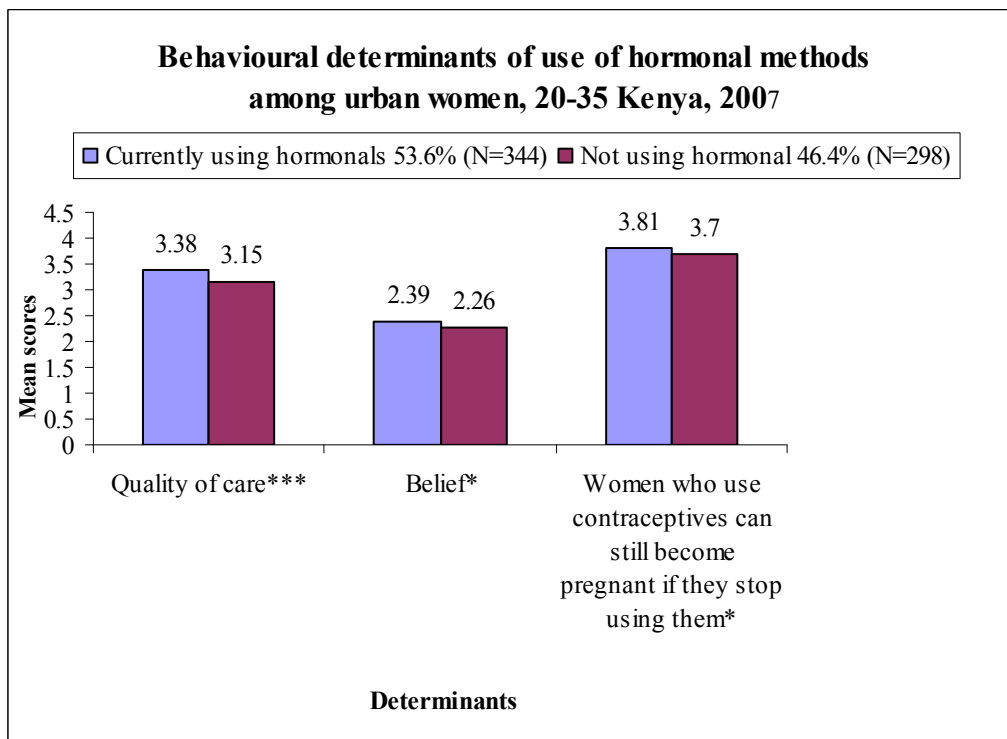
- a. Sexually active is defined as having had sex in the last 12 months. Pregnant women and those using permanent methods of family planning were excluded.*
- b. *= $p < 0.05$; **= $p < 0.01$; ***= $p < 0.001$.*
- c. Hosmer and Lemeshow Test: Chi-square=12.367=7, df=8, Sig=.1364 Omnibus Test: Chi-square=325.303, df=143, $p < 0.001$; R squares: Cox & Snell R-square=.409, Nagelkerke R-square=.547*
- d. Each variable is adjusted for all other variables in the model; cluster and socio demographic characteristics.*
- e. Hormonal birth spacing methods include: Daily pill, injection, (implant)norplant and emergency contraception*

Segmentation Graph 1:



*=p<0.05; **=p<0.01; ***=p<0.001

Segmentation Graph 2:



*=p<0.05; **=p<0.01; ***=p<0.001

Evaluation results for effectiveness of Femiplan campaigns on family planning among women aged 20-35, Kenya 2005-2007

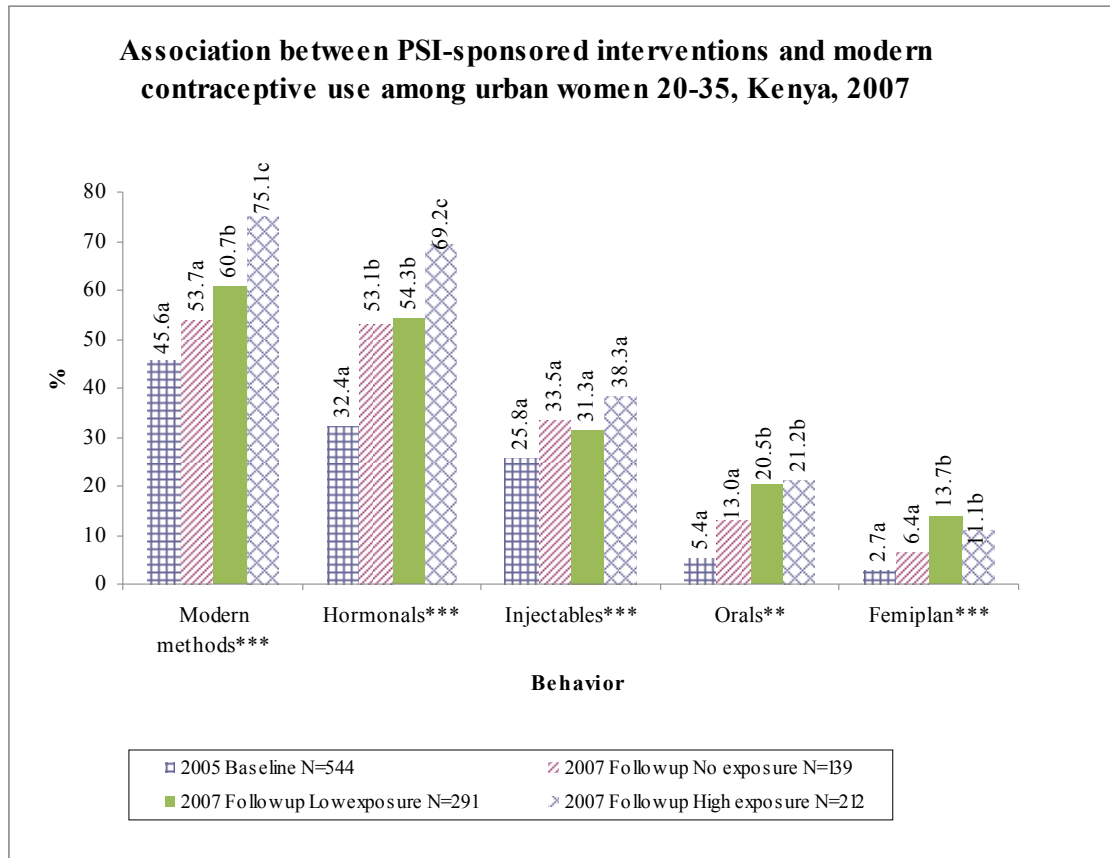
Risk Group: Sexually active^a urban women aged 20 to 35.

Behavior: Using modern contraceptive

INDICATORS	Baseline 2005	Follow up 2007 Exposure levels N=642			Sig.
	None N=544	None N=130	Low N=291	High N=212	
BEHAVIOR/USE	%	%	%	%	
• Currently using any method of family planning	50.3 ^a	65.9 ^a	66.6 ^{ab}	82.4 ^c	***
• Currently using modern method	45.6 ^a	53.7 ^a	60.7 ^b	75.1 ^c	***
• Currently using hormonal method	32.4 ^a	53.1 ^b	54.3 ^b	69.2 ^c	***
• Currently using injectable method	25.8 ^a	33.5 ^a	31.3 ^a	38.3 ^a	***
• Currently using oral method	5.4 ^a	13.0 ^a	20.5 ^b	21.2 ^b	***
• Currently using Femiplan pill/injection	2.7 ^a	6.4 ^a	13.7 ^b	11.1 ^b	***
• Currently using Femiplan injection	0.4 ^a	3.0 ^a	6.1 ^b	4.2 ^a	***
• Currently using Femiplan pill	2.3 ^a	3.4 ^a	7.6 ^a	6.9 ^a	***
OPPORTUNITY					
<i>Quality of care-treatment</i>	4.24 ^a	3.31 ^b	3.35 ^b	3.25 ^b	***
<i>Quality of care-services</i>	3.49 ^a	3.05 ^b	3.13 ^b	3.35 ^a	***
MOTIVATION					
Beliefs	2.42 ^a	2.08 ^b	2.24 ^b	2.44 ^a	***
Threat	3.58 ^a	3.10 ^b	3.23 ^b	3.27 ^b	***

- *a. Sexually active is defined as having had sex in the last 12 months. Pregnant women and those using permanent methods of family planning were excluded.*
- *a,b,c: Proportions and means with different superscripts are significantly different at $p < 0.05$ or better; proportions and means with the same superscript are not significantly different.*
- ** $p < .05$, ** $p < .01$, *** $p < .001$*
- *Results of UNIANOVA analysis are shown, with controls including socio-demographic variables age, education, marital status, social economic status, and religiosity.*
- *Channels are*
 - *Radio outlet*
 - *newspaper or magazines posters*
 - *billboards from people from an NGO*
 - *from health or community health works wall branding*
- *Exposure levels defined as heard or seen Femiplan information*
 - *Baseline not exposed=Reference category is the exposure levels before the campaign was aired*
 - *Follow up(No exposure)= Not seen or heard the campaign at all*
 - *Follow up (Low exposure)=Reported seeing or hearing the campaign in 1-4 channels*
 - *Follow up (High exposure)= Reported seeing or hearing the campaign in 5 or more channels*

Evaluation Graph



Summary table of program effect

The summary table combines the results from the monitoring and evaluation tables to aid in the interpretation of possible program effect. The monitoring column shows the direction of the indicator as observed on the monitoring table. The evaluation column shows the difference between follow-up not exposed and follow-up high exposure categories, as shown in the Evaluation table.

	Change over time (Monitoring)	Association with program exposure (Evaluation)	Programmatic effect
BEHAVIOR/USE	Trend	Trend	
• Currently using modern method of family planning	+	+	Positive
• Currently using hormonal method of family planning	+	+	Positive
OPPORTUNITY			
Quality of care-provider treatment	-	-	Negative
Quality of care-services	-	-	Negative
MOTIVATION			
Beliefs	-	-	Negative
Threat	-	-	Negative

Population Characteristics

	2001	2003	2005	2007
<u>Age</u>				
20-25	48.0	46.6	40.1	44.4
26-30	52.0	53.4	59.9	55.6
<u>Education</u>				
None/primary	46.4	48.9	52.9	51.9
Secondary+	53.6	51.1	47.1	48.1
<u>Married</u>				
Single	34.3	23.5	25.9	24.9
Married	65.7	76.5	74.1	75.1
<u>Religiosity</u>				
Not/Somehow	-	-	57.6	54.8
Very religious	-	-	42.4	45.2
<u>No of children</u>				
0-2	-	-	76.7	75.7
3+	-	-	23.3	24.3
<u>SES</u>				
Low	-	-	23.2	29.0
Middle	-	-	41.4	34.3
High	-	-	35.4	36.7

Reliability Analysis

δ 2005 γ 2007	2005 N=544	2007 N=542
OPPORTUNITY	Standardized Cronbach's Alpha	
<i>Femiplan pill Brand appeal (2005 only)</i> <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)</i>	0.798	-
a. Femiplan pills are better than others. b. Femiplan Pills are easier to use than other contraceptives. c. The Femiplan brand contraceptives are for women like you d. Femiplan pills are no better than the other brands R e. You would prefer to buy Femiplan pills than others		
<i>Quality of care(quality of service from provider)</i> <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)</i>	0.702	0.832
a. Family planning providers around here treat clients very badly $\delta \gamma \mathbf{R}$ b. When you go to family planning clinics here, you can talk to providers freely without fearing someone else would be told whatever you said. $\delta \gamma$ c. Providers around here often do not give clients the methods they choose $\delta \mathbf{R}$ d. Women don't like the way they are treated in family planning clinics around here $\delta \gamma \mathbf{R}$ e. Family planning sellers make women like you feel bad when buying contraceptives $\delta \mathbf{R}$ f. Family planning providers around here treat clients very badly $\gamma \mathbf{R}$ g. Women don't like the way they are treated in family planning clinics around here $\gamma \mathbf{R}$ h. Family planning sellers make women like you feel bad when buying contraceptives. $\gamma \mathbf{R}$		
<i>Quality of care-quality of product(2005)</i>	0.732	0.739
a. If you go to a family planning clinic here, they will give all the information you need to choose the type of method you want δ b. In family planning clinics here, you get any contraceptive method you want. $\delta \gamma$ c. All methods of family planning are available in clinics around here δ d. In some places around here, you only get contraceptives that providers want to give you. $\delta \mathbf{R}$ e. In family planning clinics here, you get any contraceptive method you want. f. Family planning services here are of very good quality γ g. FP clinics around here give you all information you need to choose the type of contraceptives you want γ h. Family planning services here are as good as those obtained from other places γ		
<i>Social norms (2005 only)</i> <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)</i>	0.758	-

<ul style="list-style-type: none"> a. Using family planning in this community is synonymous of loose sexual behavior R b. In this community using a method to avoid a pregnancy is not permitted. R c. Family planning is considered as a very bad practice in this community R d. In this community, family planning should be used only by older women who want no more children R 		
ABILITY		
Availability: (2005 only) <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)</i>	0.805	-
<ul style="list-style-type: none"> a. Contraceptives are difficult to get around here. R b. Contraceptives are always available when needed. c. There is a place nearby where you can always get contraceptives when you need. d. Sometimes women like you cannot get their contraceptives when they need them most. R e. Contraceptives are easily available around here at all times. f. Most women like you are worried because they do not have contraceptives nearby. R g. There are a lot of different contraceptive methods available that women like you can get. 		
Social support: (2005 only) <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)</i>	0.792	-
<ul style="list-style-type: none"> a. Contraceptives are for use by loose women, not those who are married or have a regular partner. R b. If you decide to use contraception, your husband's parents would support your decision. R c. Your family is all positive about the use of contraception d. Your husband's/partner's family is positive about the use of contraception. e. If you used contraception and have any problem, your husband/partner's family would support you f. If you used contraception and have any problem, your family would support you. g. Your husband/partner always reminds you to use contraceptives. 		

Self Efficacy³ <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)</i>	0.667	USE- 0.692 NEGOTIA
a. Using contraceptives all the time is difficult for you. δ R b. If you forget your pill one or two days, you know what to do. δ γ R c. It is not really up to you whether a contraceptive method is used or not. δ R d. You are nervous about discussing contraceptives with your husband/partner. δ γ R e. You do not know how to tell your friends that you are using a contraceptive method. δ γ R f. You can convince your partner to allow you to use a contraceptive method. γ δ g. If your partner opposes the use of contraceptive methods, you are unable to convince him that it's good for you. δ γ R h. You know how to correctly use birth control pills. δ γ i. You are nervous about asking for contraceptives in some places δ γ R j. You could always keep an extra pack of pills to ensure you have constant supply) γ k. You can still take your pills even though you know they have some side effects γ		
Knowledge index(2005 only) <i>True(1) False(0) Don't know(8)</i>	Range 2- 29 Mean 8.365	-
a. Only older women can use contraception. R b. Some contraceptives are to be taken everyday. c. There is no contraceptive method suitable for you. R d. Some contraceptives can induce bleeding. R e. If you stop using a contraceptive method, you can get pregnant again. f. Contraceptives can sometimes give you headaches. R g. Contraceptives can sometimes affect the quality of sexual relations with your partner. R h. All contraceptives are medicines R i. Contraceptives can sometimes make you gain weight. R j. Anybody can use any kind of contraceptive method.		

³ The 2005 self efficacy items were measured as one dimension.
In 2007, b, h, j, k were measured as **self efficacy use** while d, e, f, g, I were measured as **self efficacy negotiation/convince**.

MOTIVATION		
<i>Attitudes(2005 only)</i> <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)</i>	0.739	-
<ul style="list-style-type: none"> a. Using a contraceptive method would give you guilty feelings. R b. Using contraception is immoral. R c. You would feel embarrassed to discuss contraception with your friends R d. There is nothing wrong about a woman using contraception. e. You would feel better if you used a contraceptive method. f. Contraceptives are good for women who don't want to have children right away. g. There are a lot of stories around about contraceptives that make you wonder if they really are worth using R 		

Beliefs <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)'. </i>	0.879	0.850
a. Use of a contraceptive pill can make a woman permanently infertile. $\delta \gamma \mathbf{R}$ b. Use of a contraceptive injection can make a woman permanently infertile. $\delta \gamma \mathbf{R}$ c. People who use contraception end-up with health problems. $\delta \gamma \mathbf{R}$ d. Contraceptives can harm your womb. $\delta \gamma \mathbf{R}$ e. Contraceptives decrease sexual pleasure. $\delta \mathbf{R}$ f. Contraceptives reduces sexual urge. $\gamma \mathbf{R}$ g. Contraceptives can give you deformed babies $\gamma \mathbf{R}$ h. Contraceptives can cause cancer $\delta. \gamma \mathbf{R}$ i. Contraceptives can make you sterile. $\delta \mathbf{R}$ j. Contraceptive are dangerous. $\delta. \gamma \mathbf{R}$ k. Children born by a woman who used contraceptives can have many things wrong with them. $\delta. \mathbf{R}$		
Locus of control <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)</i>	0.750	unaccep table
a. Using contraception is the best way for you to avoid unwanted pregnancies $\delta.$ b. You are in control of your health $\delta.$ c. You can take care of yourself, you can avoid unwanted pregnancies $\delta \gamma$ d. If you take the right action, you can avoid unwanted pregnancies. $\delta \gamma$ e. It is up to your partner to make sure that you use contraception $\mathbf{R} \gamma$ f. You could get pregnant even if you do your best to prevent it $\gamma \mathbf{R}$		
Subjective norms <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)</i>	0.684	-
a. Your parents would approve of your using family planning methods δ b. Your partner would not approve of you using family planning methods. $\delta \mathbf{R}$ c. Your best friends would encourage you to use family planning methods $\delta.$ d. Your partner would not be willing to help you make decisions about family planning $\delta \mathbf{R}$		

<p>Threat direction 4-1 <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)</i></p>	0.739	0.844
<p>a. Thinking about unwanted pregnancies makes you feel anxious δ R b. Thinking about getting pregnant makes you feel anxious γ c. If you get pregnant at a time you did not intend, you would really be unhappy γ δ d. If you get pregnant tomorrow, you would really be unhappy γ e. Everyday, you take precautions to avoid an unwanted pregnancy δ f. Everyday, you take precautions to avoid getting pregnant γ g. Family planning issues are not really for people like you. δ h. You would do whatever is possible to avoid an unwanted pregnancy. δ γ i. You are the kind of person who is likely to get pregnant if you are not careful δ j. You are actively trying to get a baby γ k. Getting pregnant would be one of the worst thing that could happen to you right now γ l. It would not be a big problem for you if you were pregnant now γ R</p>		
<p>Outcome Expectations <i>Strongly agree (4) agree (3) disagree (2) strongly disagree (1)</i></p>	0.734	unaccep table
<p>a. Contraceptives are not effective against unwanted pregnancies. δ γ R b. The use of contraceptives will affect the quality of your sexual intercourse. δ R c. You are more likely to get an unwanted pregnancy if you don't use contraception δ. d. The contraceptives we have in this country are not effective in preventing unwanted pregnancies δ γ R e. If you stop your contraception you can still get pregnant if you want δ f. There are women here who never use contraception and have never had any pregnancy problems. δ R g. Even if you use contraception, you can still get pregnant. δ R h. If women like you want to avoid pregnancies they have other ways than using contraception. δ R i. Using contraceptives is the best way to avoid getting pregnant γ j. Women who use contraceptives can still become pregnant if they stop using them. γ</p>		