

# PMA2016/KENYA-R5 SOI

## **SNAPSHOT OF INDICATORS**

## Summary of the sample design for PMA2016/Kenya-R5:

PMA2020 is designed to create sentinel sites for data collection both at the population level and among service delivery points (SDPs). Enumeration areas (EAs) selected in Round 1 are generally used for data collection in Rounds 2-4. In Round 5 and onwards, data collection is conducted in a new selection of EAs to reduce respondent fatigue within communities that have been surveyed multiple times. Households within the EA are randomly sampled during each round. The original Round 1 sample design summary is provided below as are Round 5 updates (scroll down to the "Sample Design" tab).

PMA2016/Kenya-R5, the fifth round of data collection in Kenya, used a multi-stage cluster design with urban/rural and county as strata. The first stage of sampling was at the county level using probability proportional to size procedures to select 11 out of 47 counties: Nairobi, Kilifi, Nandi, Nyamira, Kiambu, Bungoma, Siaya, Kericho, Kitui, Kakamega, and West Pokot. Kakamega and West Pokot were added during this fifth survey round. Within the 11 selected counties, 151 EAs were then selected by the Kenya National Bureau of Statistics. The sample was powered to generate national estimates of all women mCPR with less than 3% margin of error. The survey was also able to generate estimates on family planning services by including a random sample of up to three private service delivery points within each EA's boundary. In addition, three public health service delivery points that serve the EA population were also selected — a dispensary, a health center and a referral hospital, either at the sub-county or county level.

The table below provides a summary of key family planning indicators and their breakdown by respondent background characteristics. Disaggregation by administrative unit was done at the county level.

To view the breakdown by background characteristics of the respondents, please click on the respective indicator link. Distribution of respondents by background characteristics is <u>available here</u>. Additional details on sample design, data collection and processing, response rates, and standard errors are available below the indicator tables.



PMA2020 Standard	Ro	und 5
Family Planning Indicators	All Women	Married Women
Utilization:		
Contraceptive Use		
Contraceptive Prevalence Rate (CPR)	45.6	61.6
Modern Contraceptive Prevalence (mCPR)	44.2	59.9
Traditional Contraceptive Prevalence	1.4	1.7
Contraceptive Method Mix		
Contraceptive method mix (stacked bar charts for all/married women)		
Demand Indicators:		
Unmet need for family planning	12.9	15.2
Demand for family planning	58.5	76.8
Percent of women with demand satisfied by modern contraception	75.6	77.9
Percent of recent births, by intention		
Wanted then	57.1	61.3
Wanted later	27.1	24.7
Wanted no more	15.8	14.0
Access, Equity, Quality and Choice:		
Percent of users who chose their current method by	96.4	96.6



## themselves or jointly with a partner/provider

Percent of users who paid for family planning services	47.5	46.2
Method Information Index Components		
Percent of current users who were informed about other methods	71.1	73.5
Percent of current users who were informed about side effects	60.6	62.4
Percent of current users who were told what to do if they experienced side effects	90.7	91.4
Percent of current users who would return and/or refer others to their provider	91.2	91.1
Percent of women receiving family planning information in the past 12 months	13.4	16.6

#### **Background characteristics of respondents**

#### Percent distribution of background characteristics of women age 15 to 49

Background	Percentage	Weighted	Unweighted number
characteristics	of sample	number	number
Age group			
15–19	21.8	1,285	1,261
20–24	18.4	1,086	1,091
25–29	17.8	1,049	1,042
30–34	14.9	880	871
35–39	10.8	639	646
40–44	9.3	550	580
45–49	6.8	402	403
Marital status			
Married	50.9	3,000	3,014
Living together	8.5	501	487
Divorced	4.6	269	275
Widowed	3.2	189	192
Never married	32.8	1,930	1,923
Parity		, -	, -
None	29.0	1,706	1,713
1-2	29.8	1,755	1,755
3-4	22.0	1,299	1,314
5 or more	19.1	1,124	1,100
Residence	17.1	1,121	1,100
Urban	31.6	1,860	2,064
Rural	68.4	4,032	3,830
Education		7,032	5,050
Never attended	4.8	282	360
Primary	47.8	2,813	2,757
-	2.2	132	138
Secondary	32.7		
Technical/Vocational	9.9	1,924 586	1,869 613
College			157
University	2.6	154	137
Wealth quintile	10.0	1 1 1 1	1 1 1 0
Lowest	18.9	1,111	1,110
Lower	20.6	1,211	1,145
Middle	20.6	1,215	1,181
Higher	18.7	1,100	1,131
Highest	21.3	1,254	1,327
County	0.1		
Bungoma	8.6	506	578
Kericho	10.6	624	571
Kiambu	7.3	433	529
Kilifi	9.4	556	607
Kitui	8.4	493	585
Nairobi	10.7	631	575
Nandi	8.9	523	556
Nyamira	6.7	395	496
Siaya	7.1	417	442
Kakamega	17.2	1,015	521
West Pokot	5.1	299	434
Total	100.0	5,891	5,894



Performance Monitoring and Accountability 2020

#### **Current use of contraception by background characteristics**

Percentage of women age 15 to 49 currently using a contraceptive method, by type and background characteristics

	Any method		Modern	method <sup>1</sup>	Traditional method		
Background characteristic	All women	Married women <sup>2</sup>	All women	Married women <sup>2</sup>	All women	Married women <sup>2</sup>	
Number	5 901		5 901		5 901		
	5,891	3,501	5,891	3,501	5,891	3,501	
Total	45.6	61.6	44.2	59.9	1.4	1.7	
Age group							
15–19	10.2	38.2	9.6	38.2	0.6	0.0	
20–24	51.1	61.5	49.8	60.1	1.4	1.4	
25–29	61.5	67.0	60.2	65.7	1.3	1.3	
30–34	64.7	68.8	63.2	67.1	1.5	1.7	
35–39	59.0	65.1	57.2	63.0	1.8	2.1	
40–44	48.2	55.0	45.9	52.0	2.4	2.9	
45–49	35.6	42.0	34.0	40.0	1.7	2.3	
Marital status							
Married <sup>2</sup>	61.6	na	59.9	na	1.7	na	
Unmarried, sexually active	56.1	na	53.7	na	2.4	na	
Parity							
0-1	26.6	50.9	25.4	49.3	1.2	1.6	
2-3	65.7	70.3	63.9	68.2	1.8	2.0	
4 or more	56.1	59.0	54.7	57.5	1.4	1.6	
Residence	0011	0,710		0,10		110	
Urban	48.3	64.8	46.4	62.5	2.0	2.4	
Rural	44.4	60.2	43.2	58.8	1.1	1.5	
Education		00.2	-15.2	50.0	1.1	1.5	
Never attended	19.7	22.2	19.1	21.5	0.6	0.8	
Primary	47.1	61.2	46.1	60.0	1.1	1.3	
Secondary	58.1	79.9	56.7	78.6	1.1	1.3	
Technical/Vocational	43.1	67.3	41.8	65.4	1.4	1.2	
	43.1 54.9	68.7	51.6	64.6	3.3	4.1	
College	49.9	63.0		59.0	2.3	4.1	
University	49.9	03.0	47.6	39.0	2.3	4.0	
Wealth quintile	24.0	15.0	22.0	44.2	1.0	1.0	
Lowest	34.2	45.6	33.2	44.3	1.0	1.2	
Lower	46.7	63.2	46.1	62.7	0.6	0.5	
Middle	48.6	65.2	47.1	63.1	1.5	2.2	
Higher	50.8	68.8	49.0	66.7	1.7	2.2	
Highest	47.3	65.0	45.3	62.3	2.1	2.8	
County					_		
Bungoma	45.5	63.8	44.9	62.7	0.6	1.0	
Kericho	47.0	65.8	45.4	64.3	1.6	1.5	
Kiambu	44.0	61.7	42.7	59.8	1.3	1.9	
Kilifi	33.0	44.6	31.8	42.7	1.3	2.1	
Kitui	51.5	67.0	50.0	65.4	1.5	1.6	
Nairobi	45.3	62.1	43.2	59.4	2.1	2.7	
Nandi	49.1	67.4	47.5	65.2	1.6	2.2	
Nyamira	55.9	72.6	54.0	70.6	1.8	2.0	
Siaya	47.6	57.9	46.0	56.6	1.7	1.4	
Kakamega	49.4	69.2	48.6	67.8	0.8	1.4	
West Pokot	24.2	27.8	22.9	25.9	1.3	1.9	

West Pokot24.227.822.925.91.31.9<sup>1</sup>Modern methods include female and male sterilization, implants, IUD, injectables, pill, emergency contraception, male and female condoms, standard days method, and lactational amenorrhea method

<sup>2</sup>Married includes married women and those who are living with a man

na = not applicable



#### Contraceptive method mix by background characteristics

## Percent distribution of current contraceptive users age 15 to 49, by method type, marital status, and background characteristics

						All users				
					N	umber = 2,687				
Background characteristics	Sterili- zation	Implants	IUD	Inject- ables	Pill	Emergency contraception	Condom	Other modern	Other traditional	Total
Total	4.3	27.6	5.4	42.6	8.3	2.4	5.8	0.8	2.8	100.0
Age group								· · ·		
15–19	0.0	19.2	3.8	28.9	6.2	7.6	27.9	0.0	6.3	100.0
20-24	0.0	26.1	4.1	45.5	8.3	5.2	7.4	1.1	2.2	100.0
25–29	0.9	32.0	4.6	44.0	8.9	2.4	4.6	0.6	2.0	100.0
30–34	2.2	31.3	6.6	42.9	8.7	0.9	4.2	0.8	2.2	100.0
35–39	4.5	26.3	6.8	44.5	11.6	1.0	2.1	0.4	2.8	100.0
40-44	14.0	23.7	6.6	42.1	4.0	0.0	3.4	1.8	4.3	100.0
45–49	29.5	16.6	4.0	31.1	6.0	1.5	5.5	1.1	4.9	100.0
Marital status										
Married <sup>1</sup>	4.8	29.4	5.7	44.8	8.3	0.6	3.0	0.8	2.6	100.0
Unmarried, sexually	0.6	14.3	3.8	36.3	7.8	10.7	21.2	1.0	4.3	100.0
active										
Parity										
0-1	0.1	19.1	4.2	39.9	9.2	8.2	14.3	0.5	4.3	100.0
2–3	1.7	30.4	7.3	44.0	10.3	0.3	3.0	0.9	2.3	100.0
4 or more	10.3	30.8	4.1	43.0	5.5	0.6	2.6	1.0	2.3	100.0
Residence										
Urban	2.9	25.6	7.2	35.7	12.2	5.2	6.5	1.1	3.7	100.0
Rural	5.0	28.6	4.4	46.0	6.4	1.1	5.5	0.7	2.4	100.0
Education										
Never attended	1.5	42.4	4.9	35.3	3.5	5.5	3.8	0.0	3.1	100.0
Primary	6.2	28.5	5.1	46.7	6.8	0.4	3.6	0.7	2.0	100.0
Secondary	2.8	24.6	5.7	47.6	11.6	0.0	5.5	0.0	2.3	100.0
Technical/vocational	2.9	27.2	3.9	43.1	8.7	3.4	7.1	0.7	2.9	100.0
College	1.4	26.3	8.9	30.7	11.8	5.1	8.5	1.7	5.5	100.0
University	1.1	12.9	11.3	15.1	16.3	15.2	20.5	3.0	4.6	100.0
Wealth quintile								0.0		
Lowest	3.4	29.0	4.0	50.0	4.2	0.8	5.0	1.2	2.4	100.0
Lower	4.8	28.4	5.3	47.1	6.3	0.9	5.6	0.3	1.4	100.0
Middle	6.6	26.5	3.9	45.5	7.8	1.3	4.8	0.4	3.1	100.0
Higher	2.9	30.6	3.1	41.4	9.2	3.4	5.3	1.1	3.0	100.0
Highest	3.5	24.1	9.9	31.6	12.7	5.2	8.0	1.2	4.0	100.0
County										
Bungoma	9.7	31.5	2.6	41.8	5.2	0.4	6.5	0.9	1.4	100.0
Kericho	6.3	20.1	3.8	53.5	4.8	3.1	4.5	0.6	3.3	100.0
Kiambu	3.8	23.9	11.0	29.3	19.4	6.7	2.2	1.5	2.2	100.0
Kilifi	0.8	31.9	12.1	28.7	9.9	4.5	6.8	1.3	4.0	100.0
Kitui	3.5	28.7	2.9	42.1	8.0	1.7	9.3	1.1	2.7	100.0
Nairobi	1.9	22.4	4.1	41.9	14.0	5.0	6.2	0.6	4.0	100.0
Nandi	2.4	16.7	4.8	55.4	10.0	1.7	5.2	0.9	2.9	100.0
Nyamira	2.2	18.8	1.7	66.9	3.4	0.8	2.8	0.9	2.5	100.0
Siaya	3.0	47.4	2.4	30.8	1.6	2.0	8.2	1.0	3.5	100.0
Kakamega	6.2	32.0	8.4	35.7	8.8	1.2	6.0	0.0	1.7	100.0
West Pokot	4.5	40.6	2.7	34.6	3.8	0.0	5.7	2.7	5.4	100.0

<sup>1</sup>Married includes married women and those who are living with a man



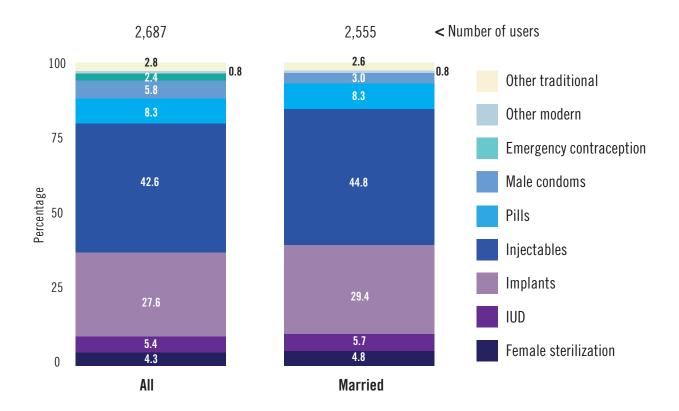
					I	Married users	l			
					I	Number = 2,555	;			
Background characteristics Total	Sterili- zation <b>4.8</b>	Implants <b>29.4</b>	IUD 5.7	Inject- ables <b>44.8</b>	Pill <b>8.3</b>	Emergency contraception <b>0.6</b>	Condom <b>3.0</b>	Other modern <b>0.8</b>	Other traditional <b>2.6</b>	Total <b>100.0</b>
<b>Age group</b> 15–19	0.0	31.9	0.0	54.4	1.9	0.0	11.8	0.0	0.0	100.0
20–24 25–29	$\begin{array}{c} 0.0\\ 1.1 \end{array}$	30.1 34.5	4.7 4.6	50.7 44.9	7.5 9.0	1.6 0.6	3.0 2.8	0.6 0.7	1.9 1.8	100.0 100.0
30–34	2.2	31.2	6.9	43.9	8.9	0.4	3.5	0.8	2.2	100.0
35–39 40–44	4.6 15.0	27.5 22.7	7.2 7.6	43.8 41.4	11.7 4.7	0.1 0.0	1.7 1.9	0.5 1.7	3.0 5.0	100.0 100.0
45–49 Marital status	29.7	14.9	2.9	34.6	4.9	1.7	4.7	1.2	5.5	100.0
Married <sup>1</sup> Unmarried, sexually active	na na	na na	na na	na na	na na	na na	na na	na na	na na	na na
<b>Parity</b> 0-1 2-3 4 or more	0.0 1.5 10.4	23.3 31.2 30.3	4.9 7.2 4.5	51.5 43.3 43.5	9.3 10.4 5.5	2.5 0.0 0.5	5.2 3.0 1.9	0.0 0.9 1.0	3.2 2.5 2.5	100.0 100.0 100.0
<b>Residence</b> Urban Rural	3.1 5.6	27.1 30.5	8.1 4.6	39.4 47.2	13.4 6.0	1.6 0.2	3.0 3.0	0.9 0.7	3.3 2.3	100.0 100.0
Education	5.0	50.5	<b>+.</b> 0	77.2	0.0	0.2	5.0	0.7	2.5	100.0
Never attended Primary Secondary Technical/vocational College University	0.0 6.6 3.1 3.7 1.6 1.9	43.9 29.2 24.3 29.3 30.6 20.0	5.5 4.9 6.4 4.5 10.4 15.8	36.1 47.5 50.0 46.7 32.2 16.5	2.6 6.5 12.2 8.8 13.0 22.3	4.3 0.4 0.0 0.6 0.3 7.8	4.2 2.4 2.5 2.9 4.8 9.4	0.0 0.7 0.0 0.9 1.3 0.0	3.4 1.8 1.5 2.7 5.6 6.3	100.0 100.0 100.0 100.0 100.0 <i>100.0</i>
Wealth quintile		21.2	2.6	<b>- - - -</b>	•		<b>.</b> (			100.0
Lowest Lower Middle Higher Highest	4.2 4.9 7.0 3.5 4.2	31.3 29.2 27.9 32.9 26.6	3.6 5.6 4.0 3.6 11.0	51.6 49.0 47.0 44.2 33.6	2.6 6.4 6.8 9.2 15.0	0.7 0.4 0.2 0.7 1.3	2.4 3.3 3.3 1.8 3.8	1.5 0.3 0.5 1.5 0.4	2.1 0.9 3.3 2.6 4.2	100.0 100.0 100.0 100.0 100.0
County										
Bungoma Kericho Kiambu Kilifi	10.9 7.7 4.1 1.1	33.7 22.1 23.8 37.0	3.0 4.7 12.9 12.2	42.5 56.1 30.5 30.0	5.8 4.1 22.5 10.3	0.0 1.2 0.3 0.4	1.6 1.2 2.0 3.0	0.8 0.7 2.0 1.2	1.6 2.2 2.0 4.8	100.0 100.0 100.0 100.0
Kiini Kitui Nairobi	3.6 2.1	31.3 24.6	3.3 3.8	45.1 46.9	7.3 14.7	0.4 0.0 1.6	6.5 2.0	0.9 0.4	4.8 2.1 3.9	100.0 100.0 100.0
Nandi Nyamira	2.2 1.8	18.0 19.1	6.4 1.9	57.8 69.8	8.3 2.5	0.4 0.0	3.2 1.9	0.4 1.1	3.2 1.8	100.0 100.0
Siaya Kakamega West Pokot	3.6 6.8 5.8	51.2 33.5 38.7	2.4 7.9 3.4	32.5 36.4 32.4	2.1 8.9 3.4	0.0 1.4 0.0	4.6 3.2 7.2	1.4 0.0 2.3	2.4 2.0 6.9	100.0 100.0 100.0

<sup>1</sup>Married includes married women and those who are living with a man

na = not applicable



## Current Method Mix Among All and Married Contraceptive Users (Age 15-49)





#### Unmet need for family planning

Percentage of women age 15 to 49 with unmet need for family planning, by marital status and background characteristics

Background characteristics		All women			Married women <sup>1</sup>	
Number		5,891			3,501	
	For spacing	For limiting	Total	For spacing	For limiting	Total
Total	7.9	5.0	12.9	8.4	6.8	15.2
Age group						
15–19	8.7	1.6	10.3	20.9	6.3	27.2
20–24	11.6	2.5	14.1	12.9	3.1	16.0
25–29	11.1	3.5	14.5	11.4	3.9	15.2
30–34	6.4	6.3	12.7	7.1	6.6	13.7
35–39	5.6	10.1	15.7	6.1	10.5	16.6
40-44	3.5	11.5	15.0	3.4	14.1	17.5
45–49	0.5	6.2	6.7	0.6	7.0	7.7
Marital status	0.4	6.0	15.0			
Married <sup>1</sup>	8.4	6.8	15.2	na	na	na
Unmarried, sexually active	30.4	4.4	34.8	na	na	na
Parity	0.0		10 7	10.0	<b>A</b> 4	10 (
0-1	8.8	1.6	10.5	10.2	2.4	12.6
2–3	7.7	4.3	12.1	8.5	4.3	12.8
4 or more	6.8	10.8	17.6	7.5	11.4	18.9
Residence						
Urban	6.4	3.8	10.2	5.8	5.7	11.4
Rural	8.6	5.5	14.2	9.6	7.3	16.9
Education						
Never attended	15.9	8.2	24.1	18.8	9.1	27.9
Primary	7.9	6.6	14.5	8.9	8.4	17.3
Secondary	4.2	1.9	6.1	1.1	2.2	3.3
Technical/vocational	7.7	3.2	10.9	6.9	4.8	11.6
College	6.2	2.5	8.7	5.8	4.0	9.8
University	6.2	2.7	8.9	4.6	5.8	10.4
Wealth quintile	0.2	2	012	110	510	1011
Lowest	11.1	8.3	19.4	13.3	10.8	24.1
Lower	10.1	4.9	15.0	10.6	6.1	16.8
Middle	6.9	4.4	11.3	7.0	5.7	10.3
Higher	6.0	4.6	10.5	5.1	7.2	12.7
6	5.7	3.0	8.6	5.7	4.5	12.3
Highest	5.7	5.0	0.0	5.7	4.5	10.5
County	11.0	56	167	10.0	0.2	10.1
Bungoma Kaniaha	11.2	5.6	16.7	10.8	8.3	19.1
Kericho	8.8	4.6	13.4	9.0	6.5	15.6
Kiambu	4.4	5.0	9.4	3.3	7.7	11.1
Kilifi	14.1	3.7	17.8	19.0	5.3	24.3
Kitui	5.3	5.3	10.7	3.9	7.6	11.5
Nairobi	7.2	3.4	10.6	7.6	5.4	13.0
Nandi	6.3	5.3	11.6	5.7	6.7	12.5
Nyamira	4.9	4.4	9.3	4.2	5.7	9.9
Siaya	7.5	6.7	14.1	9.1	9.6	18.7
Kakamega	6.4	5.5	11.8	6.2	6.6	12.9
West Pokot	12.8	5.9	18.7	16.0	6.3	22.3

<sup>1</sup>Married includes married women and those who are living with a man

na = not applicable



#### Need and demand for family planning

Percentage of women age 15 to 49 with met need, unmet need, and total demand for family planning, and percentage of demand for family planning satisfied with modern methods, by marital status and background characteristics

<b>Background characterist</b>	Background characteristics			en		Married women <sup>2</sup>				
Number	Number					3,501				
	Met	need	5,891			Met	need	,		
	Any method	Modern method <sup>1</sup>	Unmet need	Total demand	Demand satisfied by modern method	Any method	Modern method <sup>1</sup>	Unmet need	Total demand	Demand satisfied by modern method
Total	45.6	44.2	12.9	58.5	75.6	61.6	59.9	15.2	76.8	77.9
Age group										
15–19	10.2	9.6	10.3	20.6	46.7	38.2	38.2	27.2	65.4	58.5
20–24	51.1	49.8	14.1	65.2	76.3	61.5	60.1	16.0	77.5	77.6
25–29	61.5	60.2	14.5	76.0	79.1	67.0	65.7	15.2	82.2	79.9
30–34	64.7	63.2	12.7	77.4	81.6	68.8	67.1	13.7	82.5	81.3
35–39	59.0	57.2	15.7	74.7	76.6	65.1	63.0	16.6	81.7	77.2
40–44	48.2	45.9	15.0	63.3	72.5	55.0	52.0	17.5	72.4	71.8
45–49	35.6	34.0	6.7	42.3	80.1	42.0	40.0	7.7	49.7	80.0
Marital status										
Married <sup>2</sup>	61.6	59.9	15.2	76.8	77.9	na	na	na	na	na
Unmarried, sexually	56.1	53.7	34.8	90.9	59.1	na	na	na	na	na
active										
Parity										
0-1	26.6	25.4	10.5	37.0	68.7	50.9	49.3	12.6	63.5	77.6
2-3	65.7	63.9	12.1	77.7	82.2	70.3	68.2	12.8	83.1	82.2
4 or more	56.1	54.7	17.6	73.7	74.2	59.0	57.5	18.9	77.9	73.7
Residence	0.011	0.117	1,10			0,710	0,10	1015	1115	
Urban	48.3	46.4	10.2	58.5	79.2	64.8	62.5	11.4	76.3	81.8
Rural	44.4	43.2	14.2	58.5	73.9	60.2	58.8	16.9	77.1	76.2
Education		73.2	17.4	50.5	15.9	00.2	50.0	10.9	//.1	70.2
Never attended	19.7	19.1	24.1	43.8	43.6	22.2	21.5	27.9	50.2	42.8
Primary	47.1	46.1	14.5	61.7	74.7	61.2	60.0	17.3	78.5	76.3
Secondary	58.1	56.7	6.1	64.2	88.4	79.9	78.6	3.3	83.2	94.6
Technical/Vocational	43.1	41.8	10.9	54.0	77.4	67.3	65.4	11.6	79.0	82.8
College	43.1 54.9	51.6	10.9 8.7	63.6	81.1	68.7	64.6	9.8	79.0 78.5	82.8
University	49.9	47.6	8.7 8.9	58.8	80.9	63.0	59.0	9.8 10.4	78.5	82.2
Wealth quintile	49.9	47.0	0.9	50.0	80.9	05.0	39.0	10.4	73.4	80.4
Lowest	34.2	33.2	19.4	53.6	62.0	45.6	44.3	24.1	69.7	63.6
	46.7	46.1	19.4	61.7	02.0 74.6	63.2	62.7	16.8	80.0	78.4
Lower Middle	48.6	40.1	11.3	59.9	74.0	65.2	63.1	10.3	77.9	81.0
	48.0 50.8	47.1	11.5	61.3	80.0	68.8	66.7	12.7	81.1	81.0
Higher	47.3	49.0 45.3	8.6	55.9	80.0 80.8	65.0	62.3	12.5	75.2	82.6
Highest	47.3	45.5	0.0	55.9	00.0	05.0	02.5	10.5	13.2	82.0
County	15 5	44.0	167	62.2	70.1	62.0	607	10.1	010	75 7
Bungoma Kariaha	45.5	44.9 45.4	16.7	62.2	72.1	63.8 65.8	62.7	19.1 15.6	82.8 81.3	75.7 79.1
Kericho	47.0	45.4 42.7	13.4	60.4	75.2	65.8 61.7	64.3	15.6		79.1 82.2
Kiambu Kilifi	44.0 33.0	42.7	9.4 17.8	53.4	80.0	61.7 44.6	59.8 42.7	11.1 24.3	72.8 68.9	
		31.8		50.8	62.3 80.3				68.9 78.5	61.6 83.3
Kitui Nairahi	51.5	50.0	10.7	62.2	80.3	67.0 62.1	65.4 50.4	11.5		
Nairobi	45.3	43.2	10.6	55.9	77.3	62.1	59.4	13.0	75.1	79.1
Nandi	49.1	47.5	11.6	60.6	78.3	67.4 72.6	65.2	12.5	79.9	81.7
Nyamira	55.9	54.0	9.3	65.1	83.0	72.6	70.6	9.9	82.5	85.6
Siaya	47.6	46.0	14.1	61.7	74.4	57.9	56.6	18.7	76.6	73.8
Kakamega	49.4	48.6	11.8	61.3	79.3	69.2	67.8	12.9	82.1	82.6
West Pokot	24.2	22.9	18.7	42.9	53.3 les pill emerge	27.8	25.9	22.3	50.1	51.6

 $^{1}$ Modern methods include female and male sterilization, implants, IUD, injectables, pill, emergency contraception, male and female condoms, standard days method, and lactational amenorrhea method  $^{2}$ Married includes married women and those who are living with a man na = not applicable



#### **Pregnancy intentions**

Unintended births among women age 15 to 49 with one or more births in the previous 5 years or who are currently pregnant: Percent distribution reporting last or current pregnancy was wanted then, wanted later or not wanted at all, by marital status and background characteristics

Background characteristics	All w	omen with	1 or more bi	irths	Married women with 1 or more births				
Number		2,6	16			2,18	80		
Tumber	Wanted	Wanted	Wanted		Wanted	Wanted	Wanted no		
	then	later	no more	Total	then	later	more	Total	
Total	57.1	27.1	15.8	100.0	61.3	24.7	14.0	100.0	
Age group									
15–19	32.3	50.3	17.4	100.0	52.7	37.5	9.7	100.0	
20-24	54.2	33.2	12.6	100.0	61.8	27.5	10.7	100.0	
25–29	62.8	26.4	10.8	100.0	63.4	26.3	10.3	100.0	
30–34	63.6	20.4	15.9	100.0	64.2	20.7	15.2	100.0	
35–39	55.1	21.7	23.1	100.0	56.7	24.3	19.0	100.0	
40-44	54.7	10.0	35.3	100.0	56.3	11.6	32.1	100.0	
45-49	40.7	10.2	49.2	100.0	40.3	12.2	47.4	100.0	
Marital status	10.7	10.2	17.2	100.0	10.5	12.2	17.1	100.0	
Married <sup>1</sup>	61.3	24.7	14.0	100.0	na	na	na	na	
Unmarried, sexually	45.5	39.6	14.9	100.0	na	na	na	na	
active	-13.5	57.0	14.9	100.0	IIa	па	IIa	na	
Parity									
0–1	56.2	32.7	11.1	100.0	70.3	22.8	6.9	100.0	
2-3	65.9	25.0	9.1	100.0	67.7	22.8 24.5	7.8	100.0	
4 or more	47.4	23.0 24.6	28.0	100.0	48.0	24.3 26.1	26.0	100.0	
Residence	47.4	24.0	28.0	100.0	48.0	20.1	20.0	100.0	
	(27)	21.0	16.2	100.0	(( 5	10.0	147	100.0	
Urban	62.7	21.0	16.3	100.0	66.5	18.8	14.7	100.0	
Rural	54.7	29.7	15.6	100.0	59.1	27.1	13.7	100.0	
Education		22.0	11.4	100.0	(5.2	25.1	07	100.0	
Never attended	64.7	23.9	11.4	100.0	65.2	25.1	9.7	100.0	
Primary	52.0	28.4	19.6	100.0	55.5	27.3	17.1	100.0	
Secondary	77.4	16.5	6.0	100.0	77.9	15.3	6.8	100.0	
Technical/Vocational	57.6	28.6	13.9	100.0	64.2	22.6	13.2	100.0	
College	68.5	21.7	9.8	100.0	72.7	19.6	7.7	100.0	
University	68.2	25.3	6.5	100.0	72.5	21.4	6.1	100.0	
Wealth quintile									
Lowest	48.9	27.8	23.3	100.0	53.4	26.7	19.8	100.0	
Lower	54.5	30.5	15.0	100.0	58.0	28.6	13.4	100.0	
Middle	54.7	30.5	14.8	100.0	60.8	25.9	13.3	100.0	
Higher	60.7	25.0	14.3	100.0	63.0	23.9	13.1	100.0	
Highest	69.2	20.3	10.5	100.0	73.7	16.9	9.4	100.0	
County									
Bungoma	38.8	38.6	22.6	100.0	42.1	35.1	22.8	100.0	
Kericho	54.1	29.7	16.3	100.0	59.2	27.5	13.3	100.0	
Kiambu	82.2	10.1	7.7	100.0	86.5	8.9	4.6	100.0	
Kilifi	65.3	28.7	6.0	100.0	69.5	26.4	4.1	100.0	
Kitui	68.7	11.2	20.1	100.0	74.1	9.3	16.6	100.0	
Nairobi	64.0	22.4	13.6	100.0	66.1	21.3	12.6	100.0	
Nandi	61.7	17.1	21.2	100.0	68.3	13.0	18.6	100.0	
Nyamira	71.7	21.9	6.4	100.0	79.0	16.0	5.0	100.0	
Siaya	44.6	45.8	9.6	100.0	50.1	40.8	9.2	100.0	
-	43.5	43.8 31.9	9.0 24.6	100.0	46.3	40.8 31.0	22.7	100.0	
Kakamega Waat Dakat									
West Pokot	60.7	26.5	12.8	100.0	64.3	25.0	10.7	100.0	

<sup>1</sup>Married includes married women and those who are living with a man na = not applicable



Performance Monitoring and Accountability 2020

#### **Contraceptive choice**

Percent distribution of women age 15 to 49 who are currently using modern contraception<sup>1</sup> reporting on who decided on the contraceptive method, by background characteristics

	or provider	partner alone/other	Total
1,324	1,183	95	2,601
50.9	45.5	3.6	100.0
51.5	41.7	6.8	100.0
			100.0
			100.0
			100.0
			100.0
			100.0
			100.0
15.0	51.2	2.0	100.0
45.2	51.4	3.4	100.0
			100.0
75.0	<i>22.</i> ¬	1.0	100.0
	39.0		100.0
50.1			100.0
47.8	48.3	3.9	100.0
59.8	37.7	2.5	100.0
46.5	49.3	4.2	100.0
59.5	37.5	3.0	100.0
50.8	45.5	3.6	100.0
54.0	46.0	0.0	100.0
51.1	44.7	4.1	100.0
49.2	46.8		100.0
46.5	52.3		100.0
50.2	46.3	3.6	100.0
			100.0
			100.0
			100.0
			100.0
5511	11.2		100.0
24.6	74.0	1.4	100.0
			100.0
			100.0
			100.0
			100.0
			100.0
			100.0
			100.0
			100.0
			100.0
			100.0
	$\begin{array}{c} 51.5\\ 53.2\\ 50.4\\ 51.1\\ 50.0\\ 51.2\\ 43.8\\ \\ 45.2\\ 73.6\\ \\ \hline \\ 56.0\\ 50.1\\ 47.8\\ \\ \hline \\ 59.8\\ 46.5\\ \\ \hline \\ 59.5\\ 50.8\\ 54.0\\ 51.1\\ 49.2\\ 46.5\\ \\ \hline \\ 59.5\\ 50.8\\ 54.0\\ 51.1\\ 49.2\\ 46.5\\ \\ \hline \\ 59.5\\ 50.8\\ 54.0\\ 51.1\\ 49.2\\ 46.5\\ \\ \hline \\ 59.5\\ 50.8\\ 54.0\\ 51.1\\ 49.2\\ 46.5\\ \\ \hline \\ 59.5\\ 50.8\\ 54.0\\ 51.1\\ 49.2\\ 46.5\\ \\ \hline \\ 59.3\\ 73.1\\ 52.8\\ 31.8\\ 55.9\\ 56.2\\ 54.4\\ \end{array}$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

<sup>1</sup>Modern methods include female and male sterilization, implants, IUD, injectables, pill, emergency contraception, male and female condoms, standard days method, and lactational amenorrhea method

<sup>2</sup>Married includes married women and those who are living with a man



#### Payment for family planning

Percentage of women age 15 to 49 currently using a modern contraceptive method<sup>1</sup> who paid fees for services, by marital status and background characteristics

Background characteristics	All modern	Married <sup>2</sup> modern
Number	contraceptive users <sup>1</sup>	contraceptive users <sup>1</sup>
Total	2,606 47.5	2,096 46.2
Age group	47.5	40.2
15–19	52.9	50.0
20-24	55.3	53.1
25-29	49.1	47.2
30-34	45.4	45.2
35–39	44.4	45.6
40-44	42.4	42.7
45-49	30.6	31.6
Marital status		
Married <sup>2</sup>	46.2	na
Unmarried, sexually active	58.0	na
Parity	-	
0-1	59.4	59.3
2-3	45.9	45.6
4 or more	40.4	41.2
Residence		
Urban	51.1	50.0
Rural	45.7	44.6
Education		
Never attended	38.1	37.4
Primary	45.5	45.7
Secondary	39.6	37.3
Technical/Vocational	51.3	49.5
College	45.4	42.5
University	63.2	56.7
Wealth quintile		
Lowest	40.9	40.4
Lower	46.0	46.0
Middle	49.4	49.5
Higher	51.1	48.0
Highest	47.8	45.4
County		
Bungoma	30.3	28.8
Kericho	63.8	62.7
Kiambu	51.6	51.0
Kilifi	38.5	37.7
Kitui	59.2	61.0
Nairobi	51.9	50.5
Nandi	56.7	56.3
Nyamira	43.6	43.9
Siaya	40.4	36.2
Kakamega	39.6	38.4
West Pokot	44.7	40.7

<sup>1</sup>Modern methods include female and male sterilization, implants, IUD, injectables, pill, emergency contraception, male and female condoms, standard days method, and lactational amenorrhea method

<sup>2</sup>Married includes married women and those who are living with a man

na = not applicable



#### **Method information index**

Percentage of current modern<sup>1</sup> contraceptive users who reported whether provider informed them about other methods, side effects and, if informed of side effects, what to do, by marital status and background characteristics<sup>2</sup>

		med about		ned about	Told what to do if		
<b>Background characteristics</b>		r methods		e effects	experienced side effects		
	All users	Married users <sup>3</sup>	All users	Married users <sup>3</sup>	All users	Married users <sup>3</sup>	
Number	2,606	2,096	2,602	2,092	1,576	1,305	
Total	71.1	73.5	60.6	62.4	90.7	91.4	
Age group							
15–19	50.6	45.1	48.1	39.8	86.6		
20-24	65.0	69.3	52.5	55.1	89.6	92.9	
25–29	74.6	76.3	59.8	60.1	90.1	89.4	
30–34	71.6	72.3	62.1	62.9	93.2	93.4	
35–39	73.6	74.3	69.2	71.5	91.3	90.9	
40–44	76.7	78.0	64.7	66.2	90.0	91.2	
45–49	78.6	78.2	70.0	69.8	90.1	88.8	
Marital status							
Married <sup>3</sup>	73.5	na	62.4	na	91.4	na	
Unmarried, sexually active	59.4	na	48.0	na	90.9	na	
Parity							
0-1	63.4	70.1	53.3	56.0	88.1	91.2	
2–3	75.1	75.8	64.2	65.5	92.0	92.0	
4 or more	72.0	72.3	61.8	61.6	91.0	90.9	
Residence							
Urban	70.7	75.3	60.8	65.5	90.8	91.4	
Rural	71.3	72.7	60.4	61.0	90.7	91.5	
Education	, 110		0011	0110	,	5110	
Never attended	61.3	59.6	54.7	54.6	96.7	99.2	
Primary	70.1	70.9	60.2	60.0	89.6	90.1	
Secondary	75.8	75.9	62.4	60.6	85.6	86.2	
Technical/Vocational	70.7	74.5	59.9	63.4	92.1	92.2	
College	79.4	85.0	64.5	70.2	93.3	94.6	
University	61.8	76.8	61.0	78.6	85.8	93.2	
Wealth quintile	01.0	70.0	01.0	70.0	02.0	,,,,	
Lowest	64.1	67.0	58.3	60.0	90.7	92.6	
Lower	68.7	70.4	56.8	57.4	92.9	93.0	
Middle	73.2	73.5	62.1	62.3	90.8	91.1	
Higher	72.8	75.1	58.5	60.9	88.8	88.9	
Highest	72.8	79.9	66.1	71.2	90.5	91.7	
6	74.2	19.9	00.1	/1.2	90.5	91.7	
County Bungoma	79.0	79.7	65.4	66.0	93.6	95.1	
Kericho	60.9	65.2	49.1	52.3	83.6	83.9	
Kiambu	00.9 74.0	78.7	49.1 72.5	52.5 77.5	93.1	93.5	
Kilifi	74.0 68.7	78.7	72.3 67.5	73.0	93.1 94.3	95.5 95.5	
	81.7	82.5	67.5 78.4	73.0 79.2	94.3 94.1	95.5 95.5	
Kitui Nairobi	81.7 65.2		78.4 57.6	79.2 62.7	94.1 88.5		
		71.5				88.3	
Nandi	82.3	84.3	69.8 40.7	73.0	91.6	90.9	
Nyamira	58.1	57.9	40.7	42.5	86.8	86.2	
Siaya	70.8	72.7	61.4	58.7	93.0	95.1	
Kakamega	72.0	74.1	55.2	56.6	89.6	91.4	
West Pokot	64.9	71.2	53.8	55.1	84.3	85.2	

<sup>1</sup>Modern methods include female and male sterilization, implants, IUD, injectables, pill, emergency contraception, male and female condoms, standard days method, and lactational amenorrhea method

<sup>2</sup>"Informed about other methods" asked of all current contraceptive users, "informed about side effects" asked of current modern contraceptive users, and "told what to do if experienced side effects" asked of current modern contraceptive users who indicated they were told about side effects.

<sup>3</sup>Married includes married women and those who are living with a man

(XX) = Estimate generated from less than 25 unweighted observations

(XX) = Estimate generated from less than 5 unweighted observations



Performance Monitoring and Accountability 2020

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#### Perceived quality of care for family planning

Percentage of current modern<sup>1</sup> contraceptive users who would return, would refer a friend/relative, or would return and refer friend/relative to provider, by background characteristics

Background characteristics	Percent who would return to provider	Percent who would refer relative/friend	Percent who would return and refer friend/relative	
Number	2,599	2,599	2,598	
Total	93.6	95.1	91.2	
Age group	2010	70.1	71.2	
15–19	91.8	91.6	89.4	
20–24	92.7	94.1	90.3	
25-29	94.7	95.9	92.1	
30–34	92.2	94.8	90.7	
35–39	96.1	96.1	93.7	
40-44	92.3	95.5	89.3	
45–49	94.3	95.3	91.4	
Marital status	2110	2010	2111	
Married <sup>2</sup>	93.5	95.4	91.1	
Unmarried, sexually active	94.6	93.1	91.7	
Parity	2.110	2011	21.1	
0-1	92.8	92.9	90.1	
2–3	94.3	96.3	92.3	
4 or more	93.4	95.2	90.8	
Residence				
Urban	93.8	94.2	91.5	
Rural	93.4	95.5	91.0	
Education				
Never attended	93.1	94.2	88.8	
Primary	93.4	95.6	91.3	
Secondary	98.7	94.8	94.8	
Technical/Vocational	93.9	94.8	91.4	
College	93.7	93.6	90.7	
University	88.5	94.2	87.8	
Wealth quintile	0010		0110	
Lowest	91.1	93.5	88.1	
Lower	94.3	95.4	91.9	
Middle	95.3	96.3	92.9	
Higher	92.5	94.6	89.7	
Highest	93.7	94.9	92.3	
County			20	
Bungoma	97.7	97.0	96.2	
Kericho	91.6	95.0	88.8	
Kiambu	97.1	96.6	95.8	
Kilifi	98.1	96.7	96.7	
Kitui	97.3	97.2	95.0	
Nairobi	91.7	93.6	90.9	
Nandi	91.7 97.9	95.0 95.4	90.9 94.5	
Nyamira	89.9	93.4 94.9	94.5 86.6	
Siaya	89.9 94.3	94.9 94.8	92.8	
Siaya Kakamega				
e	87.9	92.8	84.5	
West Pokot	96.0	94.7	92.4	

<sup>1</sup>Modern methods include female and male sterilization, implants, IUD, injectables, pill, emergency contraception, male and female condoms, standard days method, and lactational amenorrhea method

<sup>2</sup>Married includes married women and those who are living with a man



#### Knowledge of family planning

Percentage of women age 15 to 49 who reported receiving family planning information from a health worker in the past 12 months, by marital status and background characteristics

Background characteristics	Visited by health worker who discussed family planning		Visited facility and provider discussed family planning		Either visited by health worker or visited facility and discussed family planning	
Number	All women <b>5,891</b>	Married women <sup>1</sup> <b>3,501</b>	All women <b>5,891</b>	Married women <sup>1</sup> 3,501	All women <b>5,891</b>	Married women <sup>1</sup> 3,501
Total	13.4	16.6	26.2	34.0	32.1	40.8
Age group						
15–19	8.1	22.6	10.4	34.1	15.0	41.6
20-24	11.7	13.3	29.0	35.3	33.4	40.3
25-29	16.3	17.5	33.1	35.8	40.0	43.4
30-34	15.9	16.9	35.8	39.0	40.0	45.5
35-39	15.8	17.2	32.8	35.6	39.3	42.3
40-44	15.8	17.2	52.8 24.0	26.5	39.3	42.5 34.1
40-44 45-49						
	14.5	16.5	22.2	22.9	29.3	30.3
Marital status	16.6		24.0		40.0	
Married <sup>1</sup>	16.6	na	34.0	na	40.8	na
Unmarried sexually	11.2	na	19.6	na	24.5	na
active						
Parity						
0-1	9.4	13.7	17.6	33.0	22.0	37.9
2–3	14.0	15.0	32.6	34.3	39.0	41.2
4 or more	18.9	19.3	33.1	34.1	41.0	41.7
Residence						
Urban	11.1	13.2	24.8	33.2	30.1	39.0
Rural	14.4	18.0	26.8	34.4	33.0	41.6
Education						
Never attended	7.9	9.2	21.0	23.9	24.9	28.1
Primary	15.0	18.7	28.0	34.8	34.4	42.3
Secondary	7.8	7.1	32.6	34.5	35.8	37.9
Technical/Vocational	11.8	14.4	23.3	33.2	29.1	39.6
College	14.6	18.4	29.0	39.7	34.6	46.2
University	13.2	15.4	20.5	29.3	25.7	36.0
Wealth quintile	13.2	15.4	20.5	27.5	23.1	50.0
Lowest	11.9	15.3	26.2	34.1	30.8	39.2
Lower	15.6	19.9	20.2	36.8	35.6	44.5
Middle	15.6	19.9	29.1	30.8	32.5	38.6
Higher	14.3	17.1	26.6	35.1	32.7	42.5
Highest	9.6	11.7	24.1	33.5	28.8	39.1
County	10.0	05.0	21.6	45 1	20.0	52.0
Bungoma	19.0	25.0	31.6	45.1	38.8	53.9
Kericho	10.0	11.4	18.1	24.7	23.2	30.4
Kiambu	6.4	8.4	20.9	28.0	23.9	31.2
Kilifi	9.4	13.7	23.9	34.3	27.8	38.9
Kitui	11.8	14.7	27.8	36.5	34.4	44.2
Nairobi	12.2	15.2	24.8	33.4	30.9	41.1
Nandi	4.7	3.6	21.9	30.0	24.6	31.5
Nyamira	23.1	28.1	33.8	41.6	42.4	51.3
Siaya	20.7	23.5	42.2	47.1	52.5	57.2
Kakamega	17.3	20.3	26.8	32.9	33.2	40.6
West Pokot	12.6	14.3	18.7	20.4	24.2	26.9

<sup>1</sup>Married includes married women and those who are living with a man



Performance Monitoring and Accountability 2020

Variable	Estimation	Base population
Currently using a modern method	Proportion	All women ages 15–49 Married women ages 15–49
Currently using a traditional method	Proportion	All women ages 15–49 Married women ages 15–49
Currently using any contraceptive method	Proportion	All women ages 15–49 Married women ages 15–49
Currently using injectables	Proportion	All women ages 15–49 Married women ages 15–49
Currently using male condoms	Proportion	All women ages 15–49 Married women ages 15–49
Currently using implants	Proportion	All women ages 15–49 Married women ages 15–49
Chose method by self or jointly in past 12 months	Proportion	All women ages 15–49 Married women ages 15–49
Paid fees for family planning services in past 12 months	Proportion	All women ages 15–49 Married women ages 15–49
Informed by provider about other methods	Proportion	All women ages 15–49 Married women ages 15–49
Informed by provider about side effects	Proportion	All women ages 15–49 Married women ages 15–49
Satisfied with provider: Would return and refer friend/relative to provider	Proportion	All women ages 15–49 Married women ages 15–49
Visited by health worker who talked about family planning information in past 12 months	Proportion	All women ages 15–49 Married women ages 15–49

## List of indicators for sampling errors, PMA2016/Kenya Round 5





## The PMA2016/Kenya-R5 Survey in Detail

## Sample Design

#### **Round 1 Sample Design**

The PMA2020 survey collects data annually at the national, urban and rural, and, in some countries, selected sub-national levels, to allow for the estimation of key indicators to monitor progress in family planning. The resident enumerator (RE) model enables replication of the surveys twice a year for the first two years, and annually each subsequent year, to track progress.

PMA2014/Kenya Round 1 used a multi-stage cluster design with urban/rural and county as strata. The first stage of sampling was at the county level using probability proportional to size procedures to select nine out of 47 counties: Nairobi, Kilifi, Nandi, Nyamira, Kiambu, Bungoma, Siaya, Kericho and Kitui. Within the nine selected counties, 120 enumeration areas (EAs) were selected proportional to size with urban/rural stratification. The sample was powered to generate national and urban/rural estimates of all woman mCPR with less than 3% margin of error.

In each selected EA, field supervisors randomly selected up to three private service delivery points (SDPs) to be interviewed by an RE using the SDP questionnaire. The field supervisors themselves administered the SDP questionnaires at an additional three public SDPs that serve each EA - the lowest, second-lowest and third-lowest level public health SDPs designated to serve each EA (a dispensary, a health center and a referral hospital), either at the sub-county or county level.

#### **Round 5 Sample Update**

A new selection of 120 EAs in the original nine counties (Nairobi, Kilifi, Nandi, Nyamira, Kiambu, Bungoma, Siaya, Kericho, and Kitui) was done by the Kenya National Bureau of Statistics by randomly selecting EAs from the list of EAs that were geographically adjacent to Round 1-4 EAs. In two additional counties, Kakamega and West Pokot, the Kenya National Bureau of Statistics drew 31 new EAs from the master sampling using the same strategy as in Round 1.

All households, health service delivery points and key landmarks in each EA were listed and mapped by the REs to create a frame for the second stage of the sampling process. Field supervisors randomly selected 42 households using a phone-based random number-generating application. A household roster was completed and all eligible women age 15-49 were approached and asked to provide informed consent (and assent if aged 15-17) to participate in the study.

The majority of SDPs are repeated in each round, forming a panel survey. If an EA had more than three private SDPs identified during the listing process, then a new, random sample of three private SDPs is selected during each round.



## Questionnaires

PMA2020 uses standardized questionnaires for households, females and SDPs to gather data about households and individual females that are comparable across program countries and consistent with existing national surveys. Prior to launching the survey in each country, local experts review and modify these questionnaires to ensure all questions are appropriate to each setting. Three questionnaires were used to collect data from the PMA2016/Kenya-R5 survey: the household questionnaire, the female questionnaire and the service delivery point (SDP) questionnaire. These questionnaires were based on model surveys designed by PMA2020 staff at the Bill & Melinda Gates Institute for Population and Reproductive Health at the Johns Hopkins Bloomberg School of Public Health in Baltimore and fieldwork materials of the 2008-09 Kenyan Demographic and Health Survey (KDHS).

All PMA2020 questionnaires are administered using Open Data Kit (ODK) software and Android smartphones. The PMA2015/Kenya-R5 questionnaires appeared in Kiswahili in addition to English. Female resident enumerators in each enumeration area (EA) administered the household and female questionnaires in selected households.

The household questionnaire gathers basic information about the household, such as ownership of livestock and durable goods, as well as characteristics of the dwelling unit, including wall, floor and roof materials, water sources, and sanitation facilities. This information is used to construct a wealth quintile index.

The first section of the household questionnaire, the household roster, lists basic demographic information about all usual members of the household and visitors who stayed with the household the night before the interview. This roster is used to identify eligible respondents for the female questionnaire. In addition to the roster, the household questionnaire also gathers data that are used to measure key water, sanitation, and hygiene (WASH) indicators, including regular sources and uses of water, sanitation facilities used and prevalence of open defecation by household members.

The female questionnaire is used to collect information from all women age 15 to 49 who were listed on the household roster at selected households. The female questionnaire gathers specific information on: education; fertility and fertility preferences; family planning access, choice and use; quality of family planning services; exposure to family planning messaging in the media; and the burden of collecting water on women.

The SDP questionnaire collected information about the provision and quality of reproductive health services and products, integration of health services, and water and sanitation within the health facility.



## Training, Data Collection and Processing

#### Training

The PMA2016/Kenya-R5 fieldwork started with a two-week training of approximately 30 new field staff from the newly added counties of Kakamega and West Pokot. The two-week training and the refresher training were hold in October 2016. For both sets of trainings, staff from the International Centre for Reproductive Health Kenya (ICRH-K), PMA2020/Kenya's implementing partner, led the training with support from PMA2020 staff from the Bill & Melinda Gates Institute for Population and Reproductive Health of the Johns Hopkins Bloomberg School of Public Health.

This 10-day training was followed by a three-day refresher training for the returning field staff. The objective of the refresher training was to address the gaps and errors identified during Round 3 data collection, to understand the questionnaire changes for Round 4, to refresh the knowledge and skills on questionnaire content and the art of asking questions through paired interviews. In addition, field staff were also reminded of key survey protocols they needed to abide by, including consent administration and research ethics. Both trainings both took place in Machakos county, Kenya.

For the two-week training, all training participants were given comprehensive instruction on how to complete the household, female, and service delivery point (SDP) questionnaires. In addition to PMA2020 survey training, all participants received training on contraceptive methods by a Kenyan obstetrician/gynecologist.

Throughout the two-week training, REs and supervisors were evaluated based on their performance on several written and phone-based assessments, mock field exercises and class participation. The training included three days of mock field exercises, during which participants entered a mock enumeration area (EA) to practice listing, mapping and conducting household, female and SDP interviews; recording all responses on their project phones; and submitting to a practice cloud server—a centralized data storage system. The RE trainings were conducted primarily in English, some small group sessions were conducted in Kiswahili.

For the refresher trainings, all training participants were given instructions on survey changes to the tools since the previous round. The REs and supervisors were all evaluated based on their performance on phone-based assessments. Similar to the two-week training, the three-day refresher trainings were conducted primarily in English.

#### **Data Collection and Processing**

Data collection was conducted between November and December 2016. Unlike traditional paper-andpencil surveys, PMA2020 uses ODK Collect, an open-source software application, to collect data on



mobile phones. All the questionnaires were programmed using this software and installed onto all project smartphones. The ODK questionnaire forms are programmed with automatic skip-patterns and built-in response constraints to reduce data entry errors.

The ODK application enabled REs and supervisors to collect and transfer survey data to a central ODK Aggregate cloud server. This instantaneous aggregation of data also allowed for concurrent data processing and course corrections while PMA2020 was still active in the field. Throughout data collection, central staff at ICRH-K in Kenya and the data manager at the Gates Institute at Johns Hopkins in Baltimore routinely monitored the incoming data and notified field staff of any potential errors, missing data or problems found with form submissions on the central server. The use of mobile phones combined data collection and data entry into one step; therefore, data entry was completed when the last interview form was uploaded at the end of data collection in December.

Once all data were on the server, data analysts cleaned and de-identified the data, applied survey weights, and prepared the final data set for analysis using Stata® software. Data analysis for preliminary findings was conducted between January and March 2016. The preliminary results were released to the public in June and the national dissemination workshop of the results from the survey round was held on July 14, 2016 at Crowne Plaza Hotel, Nairobi, Kenya.



#### **Response Rates**

The table below shows response rates for household and female respondents by residence (rural/urban) for PMA2016/Kenya-R5. A total of 6,343 households were selected for the Round 5 survey; 6,239 households were found to be occupied at the time of the fieldwork. Of the occupied households, 6,073 (97.3%) consented to a household-level interview. The response rate at the household level was higher in rural (99.1%) than in urban (94.4%) areas.

In the occupied households that provided an interview, a total of 5,961 eligible women age 15 to 49 years were identified. Overall, 98.9% of the eligible women were available and consented to the interview. The female response rate was slightly higher in the rural (99.2%) relative to the urban (98.2%) enumeration areas (EAs). Only de facto females are included in the analyses; the final completed de facto female sample size was 5,894.

	PMA2	PMA2016/Kenya-R5		
Result	Urban	Rural	Total	
Household interviews				
Households selected	2.436	3,907	6,343	
Households occupied	2,372	3,867	6,239	
Households interviewed	2,239	3,834	6,073	
Household response rate <sup>*</sup> (%)	94.4	99.1	97.3	
Interviews with women age 15 to 49				
Number of eligible women <sup>**</sup>	2,102	3,859	5,961	
Number of eligible women interviewed	2,064	3,830	5,894	
Eligible women response rate <sup>†</sup> (%)	98.2	99.2	98.9	

\*Household response rate=number of household interviews/households occupied

\*\*Eligible women response rates include only women identified in completed household interviews

<sup>†</sup>Eligible women response rate = eligible women interviewed/eligible women