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HIV/AIDS and Unmet Need for Family Planning

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BACKGROUND

It is as yet unclear the extent to which women who are HIV-positive may have needs for contraception that differ from those who are HIV-negative. HIV-positive women may, at least temporarily after diagnosis, adjust their fertility preferences in favor of delaying or limiting a (subsequent) birth (Hoffman et al. 2008; Heys et al. 2009; Yeatman 2009; Bonnenfant et al. 2012; Keogh et al. 2012). For example, a multi-country analysis using nationally representative data from the Demographic and Health Surveys (DHS) found that in five of the eight countries studied HIV-positive women who likely knew their status were significantly less likely to want more children compared with HIV-negative women who likely knew their status (Bankole et al. 2011). In keeping with differences in women's fertility intentions by their HIV status, Johnson and colleagues (2009) found that in three out of the four countries studied HIV-positive women who likely knew their status were more likely to want to limit childbearing by using contraception.

Several longitudinal studies of HIV-positive women found an increase in contraceptive use among women newly diagnosed with HIV (Hoffman et al. 2008; 2011; Nanda et al. 2011; Chi et al. 2012), although their contraceptive use was not necessarily sustained (Hoffman et al. 2008). In contrast, a recent study using DHS data found no difference by HIV status in the rate at which initially non-contracepting women adopted contraception, although in three of the five countries studied women who had had an HIV test—regardless of their HIV status—were quicker to adopt contraception (MacQuarrie et al. 2014).

Wilcher and colleagues have noted that countries with a high prevalence of HIV also have some of the highest levels of unmet need for family planning (2009). HIV-positive women may face even greater barriers to using family planning than other women of reproductive age if they avoid health services to limit inadvertent disclosure of their HIV status (Church and Mayhew 2009) or if they avoid hormonal contraception because of fears related to interactions with antiretroviral therapies or disease progression (Todd et al. 2011; Mbonye et al. 2012). HIV-positive women also face the barriers to using family planning shared by other women of reproductive age. In India, for example, women who were not using contraception following HIV diagnosis cited lack of contraceptive counseling, low acceptability of non-condom contraception, and partner's involvement as reasons (Chakrapani et al. 2011). Qualitative evidence from South Africa and

Uganda suggests that HIV-positive women may not use contraceptives because of concerns about side effects and complications, cost, and body image (Laher et al. 2009; Wanyenze et al. 2013).

This research literature reveals gaps in our understanding of the relationship between HIV status and women's need for and use of contraception. In response to a special request from USAID, the tables described herein present recent DHS data on the need and unmet need for family planning and contraceptive use among HIV-positive and HIV-negative women.

METHODS

This analysis presents findings from 12 countries with HIV prevalence among women age 15-49 greater than 3 percent. Table 1 presents the HIV prevalence and survey characteristics of the surveys included in the analysis. In these countries, HIV prevalence ranges from 3 percent in Togo to 31 percent in Swaziland.

We restrict our analysis to women age 15-49 who have a valid HIV test result. DHS surveys follow a standard protocol for anonymous, informed, and voluntary HIV testing of survey respondents, which undergoes ethical review in the surveyed countries and in the United States. In some surveys, HIV testing is conducted in every household (Swaziland, Zambia, Zimbabwe). In others, it is conducted in every second household (Cameroon, Côte d'Ivoire, Kenya, Lesotho, Namibia, Rwanda, Togo) or every third household (Malawi). In Gabon, HIV testing is conducted in two-thirds of the surveyed households.

The laboratory testing protocol is typically based on an initial ELISA test and a retest of all positive samples with a second ELISA. Between 5 and 10 percent of samples that are negative on the first ELISA test are retested. For samples with discordant results on the two ELISA tests, a third ELISA or a Western Blot is performed. Response rates for HIV testing in the study countries range from 86 percent in Zimbabwe to nearly 100 percent in Rwanda. Women with an indeterminate test result are excluded from analysis. Analytic sample sizes range from 3,640 women in Kenya to 14,706 in Zambia.

Table 1. Sampling profile of Demographic and Health Surveys included in the analysis

Country	Year	Eligibility of women interviewed	Number of women interviewed	Sampling for HIV testing through DHS	Response rate for HIV testing, women age 15-49	Number of women age 15-49 with a valid HIV test result[1]	HIV prevalence among women age 15-49	HIV prevalence 95% CI
Cameroon	2011	all women age 15-49	15,426	eligible women in every second household	97.2	7,253	5.6	4.9 – 6.3
Côte d'Ivoire	2011-12	all women age 15-49	10,060	eligible women in every second household	90.0	4,655	4.6	3.8 – 5.4
Gabon	2012	all women age 15-49	8,422	eligible women in two of every three households	97.3	5,489	5.8	4.6 – 7.0
Kenya	2008-09	all women age 15-49	8,444	eligible women in every second household	90.3	3,811	8.0	6.7 – 9.3
Lesotho	2009	all women age 15-49	7,624	eligible women in every second household	95.8	3,849	26.7	24.8 – 28.6
Malawi	2010	all women age 15-49	23,020	eligible women in one-third of households	93.5	7,396	12.9	11.6 – 14.2
Namibia	2013	all women age 15-49	9,176	women age 15-64 in every second household	90.5[2]	4,984	16.9	15.3 – 18.5
Rwanda	2010	all women age 15-49	13,671	eligible women in every second household	99.6	6,952	3.7	3.2 – 4.2
Swaziland	2006-07	all women age 15-49; plus those age 12-14 and age 50+ in one-half of households	4,987	all eligible women	87.2	4,584	31.1	29.3 – 32.9
Togo	2013-14	all women age 15-49	9,480	eligible women in every second household	98.0	4,807	3.1	2.5 – 3.7
Zambia	2013-14	all women age 15-49	16,411	all eligible women	94.0	15,433	15.1	14.0 – 16.1
Zimbabwe	2010-11	all women age 15-49	9,171	all eligible women	86.1	7,852	17.7	16.6 – 18.8

[1] Women with an indeterminate test result are dropped from the analysis.
[2] Women age 15-64. Analysis uses women age 15-49.
Source: Sampling eligibility, sample sizes, and response rates are from DHS Final Reports, available at: www.dhsprogram.com.
HIV prevalence rates are from StatCompiler, accessed on October 9, 2015 and available at: www.statcompiler.com.

Table 2 presents data on the need for family planning—with three categories: (1) the percentage of women with no need for family planning, (2) the percentage with a met need, and (3) the percentage with unmet need. Women with no need are defined as those who want a child within two years, are not sexually active, or are infecund. Women with a met need for family planning are defined as those who are currently using contraception, be it a modern or a traditional method, to avoid becoming pregnant. Women with an unmet need for family planning are defined as those who do not want to become pregnant in the next two years but are not using contraception. We do not distinguish between unmet need for spacing and for limiting births. The analysis uses the revised DHS definition of unmet need (Bradley et al. 2012).

Table 3 presents data on the percentage of women currently using contraception—both the proportion using any method and the proportion using a modern method. Modern contraceptive methods include female and male sterilization, IUD, implants, injectables, contraceptive pills, male condom, female condom, and emergency contraception. Traditional methods are periodic abstinence, withdrawal, and folkloric methods.

Both Tables 2 and 3 present their data by women's HIV status. For both HIV-positive and HIV-negative women, the tables further disaggregate the results by HIV testing experience—the percentage of women with an HIV test in the previous 12 months and the percentage without an HIV test in the previous 12 months. The latter group includes women who have never had an HIV test and those whose most recent HIV test occurred more than 12 months before the survey.

The timing of the most recent HIV test is established by a direct question[1] to respondents in the survey. In Lesotho and in Malawi, however, some women whose most recent HIV test was conducted in the course of antenatal care were not asked this question about the timing of that HIV test. This affects 398 women in Lesotho and 1,951 women in Malawi. For these women, we estimate the time since HIV test based on the assumption that the HIV test occurred in the fifth month of pregnancy, as this pregnancy month is both the modal and median time of first antenatal care visit in both surveys. Because of this assumption, there may be some misclassification of women across the 12 months cut-off.

All data are weighted to adjust for sampling probability and non-response, using the HIV sampling weight available in DHS datasets and the svy commands available in Stata 14 are used to account for the complex (stratified, clustered) sampling design. The analysis tables present both point estimates and 95 percent confidence intervals based on robust standard errors. In two surveys there are fewer than 50 unweighted cases in the category "HIV positive and tested in the last 12 months," for which point estimates are presented in parentheses, indicating they should be interpreted with caution. The surveys with few cases in this category are Côte d'Ivoire (unweighted n=40) and Togo (unweighted n=28).

[1] This question takes one of two forms: (1) "How many months ago was your most recent HIV test?" or (2) "When was the last time you were tested [for HIV]?".

RESULTS

Need for Family Planning

The analysis shows that the need for family planning appears to be greater for HIV-positive women than for HIV-negative women. Table 2 shows that in 8 of the 12 surveys a greater proportion of HIV-negative women than HIV-positive women have no need for family planning, while in the other 4 surveyed countries—Gabon, Kenya, Malawi, and Togo—HIV-positive women are more likely to have no need for family planning. These differences are slight, at less than one percentage point, in Cameroon, Côte d'Ivoire, Kenya, and Zambia but are more sizable elsewhere. In Swaziland for example, 35 percent of HIV-positive women have no need for family compared with 50 percent of HIV-negative women.

Among HIV-negative women, in all 12 surveys the proportion with no need for family planning is higher among women who *have not tested* for HIV in the previous 12 months compared with those who *have tested* for HIV in the last 12 months. The difference ranges from 1.8 percentage points in Gabon to 22.2 percentage points in Swaziland. Among HIV-positive women, the findings are more mixed. Five surveys (Cameroon, Côte d'Ivoire[2], Kenya, Malawi, and Rwanda) show the need for family planning to be higher among HIV-positive women who *have not tested* for HIV in the last 12 months, and seven surveys (Gabon, Lesotho, Namibia, Swaziland, Togo[3], Zambia, and Zimbabwe) show the need for family planning to be higher among women who *have tested* for HIV. Where the need for family planning is greater among those who have not tested, the range is from a 0.7 percentage point difference in Cameroon to 8.5 percentage points in Côte d'Ivoire[4]. Where the need for family is greater among those who have tested for HIV, the range is from a 0.8 percentage point difference in Gabon to 9.5 percentage points in Zimbabwe.

[2] Figure is based on 40 unweighted cases and should be interpreted with caution.
[3] Figure is based on 28 unweighted cases and should be interpreted with caution.
[4] Figure is based on 40 unweighted cases and should be interpreted with caution.

Table 2. Need for family planning among women age 15-49 by HIV status and testing experience, percentages (95% confidence intervals in brackets)

	Cameroon 2011				Côte d'Ivoire 2011-12				Gabon 2012				Kenya 2008-09			
	No need	Met need	Unmet Need	Weighted n	No need	Met need	Unmet Need	Weighted n	No need	Met need	Unmet Need	Weighted n	No need	Met need	Unmet Need	Weighted n
HIV-positive																
Tested in last 12 months	60.1 [50.8 - 68.8]	22.5 [15.4 - 31.8]	17.3 [11.4 -25.6]	128	(63.3) [42.6 - 80.1]	(13.7) [4.04 - 37.5]	(23.0) [10.8 - 42.3]	36	48.5 [34.9 - 62.2]	22.9 [13.4 - 36.2]	28.7 [17.1 - 44.0]	112	55.7 [42.3 - 68.3]	31.8 [21.1 - 45.0]	12.5 [7.1 - 21.1]	119
Did not test in last 12 months	59.4 [53.3 - 65.2]	24.2 [19.1 - 30.3]	16.4 [12.2 - 21.7]	270	54.8 [46.3 - 63.0]	25.3 [17.2 - 35.6]	19.9 [13.7 - 28.2]	171	49.3 [38.0 - 60.7]	41.9 [31.2 - 53.5]	8.8 [4.7 - 15.8]	205	48.1 [36.5 - 59.8]	26.3 [18.2 - 36.5]	25.6 [16.9 - 36.8]	172
Subtotal	59.4 [54.3 - 64.4]	23.9 [19.5 - 28.9]	16.7 [13.3 - 20.7]	402	56.2 [48.2 - 63.9]	23.4 [16.5 - 32.1]	20.4 [14.7 - 27.6]	207	49.0 [40.7 - 57.4]	35.2 [26.4 - 45.1]	15.8 [11.1 - 22.0]	317	51.2 [42.4 - 59.8]	28.6 [21.8 - 36.5]	20.2 [14.4 - 27.6]	291
HIV-negative																
Tested in last 12 months	50.1 [46.6 - 53.6]	31.7 [28.7 - 35.0]	18.2 [15.9 - 20.7]	1,553	51.2 [46.4 - 56.0]	24.0 [19.6 - 29.14	24.7 [20.4 - 29.6]	650	42.2 [38.3 - 46.2]	30.6 [26.3 - 35.2]	27.2 [24.1 - 30.6]	1,677	40.3 [35.8 - 45.0]	36.8 [31.5 - 42.4]	22.9 [19.0 - 27.4]	987
Did not test in last 12 months	63.5 [61.7 - 65.2]	19.7 [18.3 - 21.2]	16.9 [15.7 - 18.1]	5,165	58.4 [56.0 - 60.7]	19.5 [17.4 - 21.8]	22.1 [19.9 - 24.5]	3,579	44.0 [41.2 - 46.9]	36.7 [33.2 - 40.3]	19.3 [17.3 - 21.6]	3,414	52.9 [50.3 - 55.4]	30.8 [28.4 - 33.3]	16.4 [14.4 - 18.6]	2,318
Subtotal	60.3 [58.6 - 61.9]	22.5 [21.1 - 24.1]	17.2 [16.1 - 18.3]	6,796	57.1 [55.0 - 59.1]	20.1 [18.2 - 22.2]	22.8 [20.8 - 25.0]	4,293	43.5 [40.9 - 46.0]	34.6 [31.4 - 38.0]	22.0 [20.1 - 24.0]	5,121	49.2 [47.0 - 51.5]	32.4 [30.1 - 34.8]	18.3 [16.4 - 20.5]	3,349
Total	60.2 [58.6 - 61.8]	22.6 [21.2 - 24.1]	17.2 [16.1 - 18.2]	7,198	57.0 [55.0 - 59.0]	20.2 [18.3 - 22.3]	22.7 [20.8 - 24.8]	4,500	43.8 [41.3 - 46.3]	34.6 [31.3 - 38.1]	21.6 [19.8 - 23.6]	5,438	49.4 [47.1 - 51.7]	32.1 [29.9 - 34.4]	18.5 [16.5 - 20.6]	3,640

	Lesotho 2009				Malawi 2010				Namibia 2013				Rwanda 2010			
	No need	Met need	Unmet Need	Weighted n	No need	Met need	Unmet Need	Weighted n	No need	Met need	Unmet Need	Weighted n	No need	Met need	Unmet Need	Weighted n
HIV-positive																
Tested in last 12 months	40.5 [35.2 - 46.1]	46.9 [41.3 - 52.6]	12.6 [9.8 - 16.0]	465	48.1 [40.6 - 55.7]	29.0 [22.6 - 36.4]	22.8 [15.4 - 32.5]	303	26.8 [21.9 - 32.4]	59.6 [53.8 - 65.3]	13.6 [9.9 - 18.3]	342	54.0 [44.6 - 63.1]	35.0 [27.0 - 44.0]	11.0 [6.5 - 18.1]	113
Did not test in last 12 months	42.7 [37.7 - 47.8]	40.2 [35.2 - 45.5]	17.1 [13.9 - 20.7]	546	44.7 [40.0 - 49.6]	37.6 [32.8 - 42.7]	17.7 [14.1 - 22.0]	606	34.2 [28.2 - 40.9]	58.5 [52.1 - 64.7]	7.2 [4.8 - 10.8]	330	53.1 [44.3 - 61.7]	39.0 [30.8 - 47.8]	7.9 [4.6 - 13.2]	142
Subtotal	41.7 [38.2 - 45.3]	43.3 [39.8 - 46.9]	15.0 [12.8 - 17.5]	1,010	45.8 [41.9 - 49.7]	34.7 [30.8 - 38.9]	19.5 [16.1 - 23.5]	911	31.0 [26.7 - 35.7]	58.6 [54.1 - 63.0]	10.4 [8.2 - 13.3]	683	53.7 [47.3 - 59.9]	37.1 [31.2 - 43.3]	9.3 [6.3 - 13.3]	257
HIV-negative																
Tested in last 12 months	42.0 [38.7 - 45.4]	36.2 [33.29 - 39.4]	21.7 [19.0 - 24.7]	1,234	40.1 [37.6 - 42.5]	36.4 [33.9 - 39.1]	23.5 [21.3 - 25.9]	2,330	31.9 [29.4 - 34.5]	51.9 [49.1 - 54.6]	16.3 [14.4 - 18.4]	1,708	56.7 [54.7 - 58.7]	30.0 [28.1 - 31.9]	13.3 [12.0 - 14.7]	2,566
Did not test in last 12 months	58.6 [55.5 - 61.6]	29.0 [26.5 - 31.5]	12.5 [10.7 - 14.5]	1,534	46.9 [44.8 - 49.0]	35.9 [33.9 - 37.9]	17.3 [15.8 - 18.9]	3,808	46.8 [43.4 - 50.1]	44.9 [41.5 - 48.3]	8.3 [6.9 - 10.0]	1,608	62.8 [61.1 - 64.5]	27.3 [25.8 - 28.9]	9.9 [9.0 - 11.0]	4,056
Subtotal	51.2 [48.6 - 53.8]	32.2 [30.2 - 34.3]	16.6 [14.8 - 18.6]	2,768	44.2 [42.7 - 45.8]	36.2 [34.5 - 37.8]	19.6 [18.4 - 20.9]	6,168	38.8 [36.8 - 40.9]	48.7 [46.6 - 50.8]	12.5 [11.2 - 14.0]	3,367	60.3 [59.1 - 61.6]	28.5 [27.3 - 29.7]	11.2 [10.4 - 12.0]	6,658
Total	48.7 [46.5 - 50.8]	35.2 [33.3 - 37.1]	16.2 [14.7 - 17.8]	3,778	44.4 [43.0 - 46.0]	36.0 [34.4 - 37.6]	19.6 [18.4 - 20.8]	7,079	37.5 [35.6 - 39.4]	50.4 [48.5 - 52.2]	12.2 [10.9 - 13.5]	4,051	60.1 [58.8 - 61.4]	28.8 [27.6 - 30.0]	11.1 [10.3 - 12.0]	6,915

(Continued)

Table 2. – *(Continued)*

	Swaziland 2006-07				Togo 2013-14				Zambia 2013-14				Zimbabwe 2010-11			
	No need	Met need	Unmet Need	Weighted n	No need	Met need	Unmet Need	Weighted n	No need	Met need	Unmet Need	Weighted n	No need	Met need	Unmet Need	Weighted n
HIV-positive																
Tested in last 12 months	33.6 [29.3 - 38.2]	45.9 [41.1 - 50.7]	20.5 [16.3 - 25.50]	402	(56.4) [36.7 - 74.3]	(23.7) [11.0 - 43.7]	(19.9) [8.8 - 39.0]	30	46.0 [42.5 - 49.6]	38.7 [35.0 - 42.6]	15.2 [12.9 - 17.8]	1,029	38.4 [33.8 - 43.1]	47.9 [43.0 - 52.8]	13.8 [11.0 - 17.2]	477
Did not test in last 12 months	36.1 [32.9 - 39.5]	45.5 [41.9 - 49.2]	18.4 [16.0 - 21.0]	957	62.2 [51.1 - 72.2]	14.5 [8.9 - 22.9]	23.3 [14.8 - 34.7]	116	49.2 [45.7 - 52.7]	36.7 [33.3 - 40.2]	14.1 [11.7 - 16.9]	1,165	47.9 [44.4 - 51.5]	42.5 [39.2 - 46.0]	9.6 [7.7 - 11.9]	800
Subtotal	35.3 [32.7 - 38.0]	45.7 [42.9 - 49.0]	18.9 [16.9 - 21.2]	1,378	60.5 [50.5 - 69.8]	16.2 [11.1 - 23.2]	23.2 [15.7 - 32.8]	147	47.4 [45.1 - 49.9]	38.0 [35.7 - 40.4]	14.6 [12.9 - 16.5]	2,216	44.4 [41.5 - 47.3]	44.4 [41.5 - 47.2]	11.3 [9.6 - 13.3]	1,295
HIV-negative																
Tested in last 12 months	32.9 [29.1 - 36.9]	45.2 [41.1 - 49.5]	21.9 [18.9 - 25.2]	646	52.7 [48.3 - 57.0]	20.0 [16.9 - 23.5]	27.4 [24.0 - 31.0]	761	40.1 [38.5 - 41.8]	40.2 [38.6 - 41.9]	19.7 [18.4 - 21.0]	5,913	35.3 [32.9 - 37.7]	50.5 [48.0 - 53.0]	14.3 [12.6 - 16.1]	2,144
Did not test in last 12 months	55.1 [52.9 - 57.3]	31.2 [29.2 - 33.3]	13.7 [12.4 - 15.2]	2,384	55.4 [53.4 - 57.4]	19.8 [18.1 - 21.6]	24.8 [23.1 - 26.6]	3,789	55.1 [53.6 - 56.6]	30.3 [28.9 - 31.8]	14.6 [13.6 - 15.7]	6,467	54.2 [52.4 - 56.1]	36.9 [35.1 - 38.7]	8.9 [8.0 - 9.9]	3,739
Subtotal	50.3 [48.3 - 52.2]	34.2 [32.3 - 36.1]	15.6 [14.2 - 17.0]	3,045	54.9 [53.1 - 56.6]	19.8 [18.3 - 21.5]	25.3 [23.8 - 26.9]	4,584	47.8 [46.6 - 49.0]	35.1 [33.9 - 36.3]	17.1 [16.2 - 18.0]	12,490	47.7 [46.1 - 49.2]	41.5 [39.9 - 43.0]	10.9 [10.0 - 11.8]	6,018
Total	45.6 [44.0 - 47.2]	37.8 [36.1 - 40.0]	16.6 [15.4 - 17.9]	4,423	55.0 [53.3 - 56.8]	19.7 [18.2 - 21.4]	25.3 [23.8 - 26.8]	4,731	47.7 [46.7 - 48.8]	35.5 [34.5 - 36.6]	16.7 [15.9 - 17.5]	14,706	47.1 [45.7 - 48.5]	42.0 [40.6 - 43.4]	10.9 [10.1 - 11.8]	7,313

Notes:
Figures in parentheses are based on 25-49 unweighted cases and should be interpreted with caution. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
Figures presented here are based on the subsample of women who have a valid HIV test result and will deviate slightly from those published in DHS Final Reports.
Figures are based on the revised definition of unmet need (Bradley et al. 2012).

Unmet Need for Family Planning

Among HIV-positive women, unmet need for family planning ranges from 9 percent in Rwanda to 23 percent in Togo. Among HIV-negative women, the range is from 11 percent in Zimbabwe to 25 percent in Togo. In six of the eight surveys in which the total need for family planning is greater among HIV-positive women, met need is higher and unmet need is lower among HIV-positive women than among HIV-negative women (Cameroon, Côte d'Ivoire, Lesotho, Namibia, Rwanda, and Zambia). In the other two surveys in this category, Swaziland and Zimbabwe, levels of unmet need and met need both are higher for HIV-positive women than for HIV-negative women.

Among the four surveys in which the total need for family planning is higher among HIV-negative women, in two of them—Malawi and Togo—levels of both unmet need and met need are higher among HIV-negative women than HIV-positive women. Among the other two surveys in this category, in Gabon unmet need is higher and met need is lower among HIV-negative women than HIV-positive women, while Kenya demonstrates the converse pattern: unmet need is lower and met need is higher among HIV-negative women than HIV-positive women.

These data indicate that in most surveys, while HIV-positive women have greater levels of need for family planning compared with HIV-negative women, a substantial part of this need is being met. In 11 of the 12 surveys, met need exceeds unmet need among HIV-positive women. Among HIV-positive women, only in Togo is unmet need, at 23 percent, greater than met need, at 16 percent. Among HIV-negative women, met need also exceeds unmet need, except in Togo and Côte d'Ivoire.

Among HIV-positive women, in 9 of the 12 surveys unmet need is higher among women who have had an HIV test in the last 12 months compared with women who have not had a recent HIV test. The difference is greatest in Gabon, where 29 percent of HIV-positive women who have tested for HIV in the last 12 months have an unmet need for family planning compared with 9 percent of HIV-positive women who have not had a recent HIV test. The difference is much smaller in Cameroon and Zambia, at approximately one percentage point. The three surveyed countries in which the level of unmet need among HIV-positive women who have not tested recently for HIV

is higher than among those who have tested are Kenya, Lesotho, and Togo[5], with the difference ranging from 3 to 13 percentage points. Among HIV-negative women, unmet need is consistently higher among women who have tested for HIV in the past 12 months compared with those who have not.

Use of Contraception

As Table 3 shows, current contraceptive use among HIV-positive women ranges from 16 percent in Togo to 59 percent in Namibia. Among HIV-negative women, the range is from 20 percent in Togo and Côte d'Ivoire to 49 percent in Namibia. In 9 of the 12 surveys, contraceptive prevalence is higher among HIV-positive women than among HIV-negative women, from a 0.7 percentage point difference in Gabon to 11.5 percentage points in Swaziland. In the three surveys in which contraceptive prevalence is higher among HIV-negative women (Kenya, Malawi, and Togo), the differences are generally smaller.

There is no clear pattern of contraceptive use by testing experience among HIV-positive women: in 7 of the 12 surveys, current use of contraception is higher among women who have tested for HIV in the last 12 months, while in the others it is higher among women who have not tested. Among the former surveys, the difference is greatest in Côte d'Ivoire and Togo, where the small number of HIV-positive women testing for HIV in the last 12 months requires that we interpret this comparison with caution. Among the latter surveys, the difference is greatest in Gabon and Malawi. With the exception of Gabon, contraceptive use is higher among HIV-negative women who have tested for HIV in the last 12 months than among HIV-negative women who have not tested.

[5] Figure is based on 28 unweighted cases and should be interpreted with caution.

Table 3. Current use of contraception among women age 15-49 by HIV status and testing experience, percentages (95% confidence intervals in brackets)

	Cameroon 2011			Côte d'Ivoire 2011-12			Gabon 2012			Kenya 2008-09			Lesotho 2009			Malawi 2010		
	Any method	Any modern method	Weighted n	Any method	Any modern method	Weighted n	Any method	Any modern method	Weighted n	Any method	Any modern method	Weighted n	Any method	Any modern method	Weighted n	Any method	Any modern method	Weighted n
HIV-positive																		
Tested in last 12 months	22.5 [15.4 - 31.7]	15.1 [9.3 - 23.6]	128	(13.7) [4.0 - 37.5]	(12.4) [3.2 - 37.3]	36	22.8 [13.4 - 36.0]	13.3 [6.6 - 25.1]	112	31.8 [21.1 - 45.0]	28.9 [18.5 - 42.1]	119	46.9 [41.3 - 52.6]	45.6 [40.1 - 51.2]	465	28.8 [22.5 - 36.1]	27.3 [21.2 - 34.5]	305
Did not test in last 12 months	24.2 [19.0 - 30.2]	13.5 [10.1 - 17.7]	270	25.3 [17.2 - 35.6]	20.7 [13.3 - 30.7]	171	41.9 [31.2 - 53.5]	29.3 [19.0 - 42.3]	205	26.3 [18.2 - 36.5]	23.5 [15.7 - 33.5]	172	40.2 [35.2 - 45.5]	39.1 [34.0 - 44.5]	546	37.6 [32.8 - 42.7]	35.5 [30.8 - 40.4]	606
Subtotal	23.9 [19.5 - 28.9]	14.1 [11.0 - 18.0]	402	23.4 [16.5 - 32.1]	19.4 [13.1 - 27.8]	207	35.1 [26.3 - 4.5]	23.6 [16.0 - 33.5]	317	28.6 [21.8 - 36.5]	25.7 [19.1 - 33.7]	291	43.3 [39.8 - 46.9]	42.1 [38.5 - 45.7]	1,010	34.6 [30.7 - 38.8]	32.7 [28.9 - 36.8]	913
HIV-negative																		
Tested in last 12 months	31.7 [28.6 - 0.34.9]	23.2 [20.6 - 26.0]	1,556	24.0 [19.6 - 29.1]	17.7 [14.1 - 22.1]	650	30.4 [26.2 - 35.1]	23.0 [19.5 - 27.0]	1,684	36.8 [31.5 - 42.4]	33.2 [27.9 - 39.0]	987	36.2 [33.2 - 39.4]	35.1 [32.1 - 38.3]	1,234	36.4 [33.9 - 39.0]	33.3 [30.7 - 35.9]	2,333
Did not test in last 12 months	19.6 [18.2 - 21.1]	13.5 [12.4 - 14.7]	5,182	19.5 [17.4 - 21.7]	13.5 [12.0 - 15.2]	3,587	36.5 [33.0 - 40.1]	25.1 [22.4 - 28.0]	3,427	30.8 [28.4 - 33.3]	26.2 [23.9 - 28.6]	2,319	29.0 [26.5 - 31.5]	28.0 [25.6 - 30.6]	1,534	35.8 [33.9 - 37.8]	32.8 [30.9 - 34.8]	3,814
Subtotal	22.5 [21.0 - 24.0]	15.8 [14.7 - 17.1]	6,817	20.1 [18.1 - 22.1]	14.2 [12.7 - 15.7]	4,301	34.4 [31.2 - 37.8]	24.4 [21.9 - 27.0]	5,142	32.4 [30.1 - 34.8]	28.2 [26. - 30.5]	3,350	32.2 [30.2 - 34.3]	31.2 [29.2 - 33.3]	2,768	36.1 [34.5 - 37.8]	33.0 [31.4 - 34.7]	6,177
Total	22.6 [21.1 - 24.1]	15.7 [14.6 - 16.9]	7,219	20.2 [18.3 - 22.3]	14.4 [13.0 - 15.9]	4,509	34.5 [31.2 - 38.0]	24.3 [21.8 - 27.0]	5,459	32.1 [29.9 - 34.4]	28.0 [25.9 - 30.1]	3,641	35.2 [33.3 - 37.1]	34.1 [32.2 - 36.0]	3,778	35.9 [34.4 - 37.5]	33.0 [31.5 - 34.6]	7,090

	Namibia 2013			Rwanda 2010			Swaziland 2006-07			Togo 2013-14			Zambia 2013-14			Zimbabwe 2010-11		
	Any method	Any modern method	Weighted n	Any method	Any modern method	Weighted n	Any method	Any modern method	Weighted n	Any method	Any modern method	Weighted n	Any method	Any modern method	Weighted n	Any method	Any modern method	Weighted n
HIV-positive																		
Tested in last 12 months	59.6 [53.8 - 65.3]	59.6 [53.8 - 65.3]	342	35.0 [27.0 - 44.0]	34.4 [26.4 - 43.4]	113	45.9 [41.1 - 50.7]	44.6 [39.8 - 49.6]	402	(23.7) [11.0 - 43.7]	(16.0) [6.5 - 34.3]	30	38.7 [35.0 - 42.6]	37.2 [33.5 - 41.0]	1,029	47.9 [43.0 - 52.8]	47.2 [42.3 - 52.1]	477
Did not test in last 12 months	58.5 [52.1 - 64.7]	58.5 [52.1 - 64.7]	330	39.0 [30.8 - 47.8]	36.0 [28.1 - 44.8]	142	45.5 [41.9 - 49.2]	43.5 [40.0 - 47.1]	957	14.5 [8.9 - 22.9]	11.6 [6.7 - 19.1]	116	36.7 [33.3 - 40.2]	35.5 [32.1 - 39.1]	1,165	42.5 [39.2 - 45.9]	41.9 [38.7 - 45.2]	800
Subtotal	58.6 [54.1 - 63.0]	58.6 [54.1 - 63.0]	683	37.1 [31.2 - 43.3]	35.2 [29.4 - 41.5]	257	45.7 [42.9 - 48.7]	44.0 [41.1 - 46.9]	1,378	16.2 [11.1 - 23.2]	12.4 [7.8 - 19.1]	147	38.0 [35.7 - 40.4]	36.5 [34.2 - 38.9]	2,216	44.4 [41.5 - 47.2]	43.7 [40.9 - 46.5]	1,295
HIV-negative																		
Tested in last 12 months	51.9 [49.1 - 54.6]	51.4 [48.6 - 54.1]	1,708	30.0 [28.1 - 31.9]	26.7 [25.0 - 28.6]	2,566	45.2 [41.1 - 49.5]	43.8 [39.7 - 48.0]	646	19.9 [16.9 - 23.4]	16.4 [13.7 - 19.7]	763	40.2 [38.5 - 41.8]	37.6 [36.0 - 39.3]	5,920	50.5 [48.0 - 53.0]	49.9 [47.4 - 52.4]	2,144
Did not test in last 12 months	44.9 [41.5 - 48.3]	44.4 [41.0 - 47.8]	1,608	27.3 [25.8 - 28.9]	23.5 [22.0 - 25.1]	4,057	31.2 [29.2 - 33.2]	29.7 [27.8 - 31.7]	2,385	19.8 [18.1 - 21.6]	17.2 [15.8 - 18.8]	3,794	30.3 [28.8 - 31.7]	27.0 [25.6 - 28.5]	6,474	36.9 [35.1 - 38.7]	36.2 [34.4 - 38.0]	3,739
Subtotal	48.7 [46.6 - 50.8]	48.2 [46.1 - 50.3]	3,367	28.5 [27.3 - 29.7]	24.9 [23.8 - 26.1]	6,660	34.2 [32.3 - 36.1]	32.7 [30.9 - 34.6]	3,046	19.8 [18.3 - 21.5]	17.1 [15.8 - 18.6]	4,590	35.1 [33.9 - 36.3]	32.2 [31.0 - 33.4]	12,503	41.5 [39.9 - 43.0]	40.8 [39.2 - 42.4]	6,018
Total	50.4 [48.5 - 52.2]	49.9 [48.1 - 51.8]	4,051	28.8 [27.6 - 30.0]	25.3 [24.1 - 26.5]	6,917	37.8 [36.1 - 39.6]	36.2 [34.5 - 38.0]	4,424	19.7 [18.1 - 21.3]	17.0 [15.6 - 18.5]	4,737	35.5 [34.5 - 36.6]	32.8 [31.8 - 33.9]	14,719	42.0 [40.6 - 43.4]	41.3 [39.9 - 42.8]	7,313

Notes:

Figures in parentheses are based on 25-49 unweighted cases and should be interpreted with caution. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Figures presented here are based on the subsample of women who have a valid HIV test result and will deviate slightly from those published in DHS Final Reports.

Modern methods comprise the majority of contraceptive use. Overall, patterns of modern method use are similar to those for any contraceptive use, although in Gabon, Cameroon, and Côte d'Ivoire a substantial portion of contraceptive use appears to be traditional methods. In nearly all surveys where use of any contraception is higher among HIV-positive women, use of a modern method is also higher among HIV-positive women. Similarly, in the surveys where any contraceptive use is higher among HIV-negative women, so too is modern method use. The two exceptions are Cameroon and Gabon. In these surveys, a slightly larger proportion of HIV-positive women than HIV-negative women use contraception, but a slightly smaller proportion of HIV-positive women use a modern method compared with HIV-negative women.

The pattern of modern method use by women's HIV testing experience mirrors that of any method use, for HIV-positive and HIV-negative women alike, but with two exceptions. In Cameroon, use of a modern method is slightly higher among HIV-positive women who have tested in the last 12 months compared with those who have not tested (15 percent versus 14 percent), and in Togo modern method use is higher among HIV-negative women who have not tested for HIV in the last 12 months compared with HIV-negative women who have tested (17 percent versus 16 percent)—in contrast to the patterns for any contraceptive use. In both cases, the differences are small and unlikely to be statistically significant, given their overlapping confidence intervals. Overall, the results in Table 3 indicate higher levels of contraceptive use among HIV-positive women in nine surveys, and higher use of modern method use among HIV-positive women in seven surveys, with mixed patterns of contraceptive use by testing experience.

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