



USAID
FROM THE AMERICAN PEOPLE

WOMEN'S MARITAL STATUS, CONTRACEPTIVE USE, AND UNMET NEED IN SUB-SAHARAN AFRICA, LATIN AMERICA, AND THE CARIBBEAN

DHS COMPARATIVE REPORTS 44



July 2017

This publication was produced for review by the United States Agency for International Development (USAID). The report was prepared by Wenjuan Wang, Sarah Staveteig, Rebecca Winter, and Courtney Allen.

DHS Comparative Reports No. 44

**Women's Marital Status, Contraceptive Use, and Unmet
Need in Sub-Saharan Africa, Latin America, and the
Caribbean**

Wenjuan Wang¹

Sarah Staveteig²

Rebecca Winter³

Courtney Allen¹

ICF

Rockville, Maryland, USA

July 2017

¹ The DHS Program, ICF

² The DHS Program, Avenir Health

³ DC Department of Health

Corresponding author: Wenjuan Wang, International Health and Development, ICF, 530 Gaither Road, Suite 500, Rockville, MD 20850, USA; Telephone: +1 301-407-6500; Fax: +1 301-407-6501; E-mail: wenjuan.wang@icf.com

Acknowledgments: The authors would like to thank Soumya Alva for reviewing this report and providing helpful comments; Trevor Croft for providing guidance on calendar data; Tom Pullum for guiding the research effort; and Shireen Assaf for helpful discussions of the Stata programs used for this report.

Editor: Bryant Robey

Document Production: Audrey Shenett

This study was carried out with support provided by the United States Agency for International Development (USAID) through The DHS Program (#AID0AA-C-13-00095). The views expressed are those of the authors and do not necessarily reflect the views of USAID or the United States Government.

The DHS Program assists countries worldwide in the collection and use of data to monitor and evaluate population, health, and nutrition programs. For additional information about the DHS Program, contact: DHS Program, ICF, 530 Gaither Road, Suite 500, Rockville, MD 20850, USA. Phone: +1 301-407-6500; Fax: +1 301-407-6501; Email: reports@dhsprogram.com; Internet: www.dhsprogram.com.

Recommended citation:

Wang, Wenjuan, Sarah Staveteig, Rebecca Winter, and Courtney Allen. 2017. *Women's Marital Status, Contraceptive Use, and Unmet Need in Sub-Saharan Africa, Latin America, and the Caribbean*. DHS Comparative Reports No. 44. Rockville, Maryland, USA: ICF.

Contents

Tables	v
Figures.....	vi
Preface.....	vii
Abstract.....	ix
1. Introduction.....	1
2. Data and Methods	5
2.1. Data	5
2.2. Measures.....	5
2.3. Analysis	7
2.4. Limitations.....	8
3. Results	9
3.1 Socioeconomic Profiles of Women by Marital Status.....	9
3.2 Contraceptive Use and Marital Status	15
3.3 Unmet Need for Family Planning and Marital Status.....	31
3.4 Contraceptive Use and Unmet Need among Polygynous Women	48
4. Discussion and Conclusions.....	57
References.....	61
Appendix Tables	64

Tables

Table 1	DHS surveys included in the analysis	5
Table 2	Percent distribution of currently married women by background characteristics	12
Table 3	Percent distribution of never-married women by background characteristics	13
Table 4	Percent distribution of formerly married women by background characteristics.....	14
Table 5	Contraceptive prevalence for sexually active currently married, never-married, and formerly married women, by women's age.....	26
Table 6	Contraceptive prevalence for sexually active currently married, never-married, and formerly married women, by number of living children	27
Table 7	Contraceptive prevalence for sexually active currently married, never-married, and formerly married women, by women's education.....	28
Table 8	Contraceptive prevalence among sexually active currently married, never-married, and formerly married women, by wealth quintile	29
Table 9	Contraceptive prevalence among sexually active currently married, never-married, and formerly married women, by employment status	30
Table 10	Contraceptive prevalence among sexually active currently married, never-married, and formerly married women, by residence	31
Table 11	Percentage of sexually active currently married, never-married, and formerly married women with an unmet need for family planning, by women's age.....	40
Table 12	Percentage of sexually active currently married, never-married, and formerly married women with an unmet need for family planning, by number of living children	41
Table 13	Percentage of sexually active currently married, never-married, and formerly married women with an unmet need for family planning, by women's education.....	42
Table 14	Percentage of sexually active currently married, never-married, and formerly married women with an unmet need for family planning, by household wealth quintile.....	43
Table 15	Percentage of sexually active currently married, never-married, and formerly married women with an unmet need for family planning, by women's employment status	44
Table 16	Percentage of sexually active currently married, never-married, and formerly married women with an unmet need for family planning, by residence.....	45
Appendix Table 1	Unweighted number of women who were sexually active in last month, by marital status	63
Appendix Table 2	Modern contraceptive prevalence (mCPR) among unmarried sexually active women based on calendar data and women's report of "current use"	64

Figures

Figure 1	Percent distribution of all women by marital status.....	10
Figure 2	Contraceptive prevalence among sexually active currently married women.....	16
Figure 3	Contraceptive prevalence among sexually active never-married women	18
Figure 4	Contraceptive prevalence among sexually active formerly married women	20
Figure 5	Contraceptive prevalence among sexually active women by marital status, most recent survey only.....	22
Figure 6	Method mix among sexually active women who use modern contraception by marital status, most recent survey only	24
Figure 7	Percent distribution of sexually active currently married women by unmet need status	32
Figure 8	Percent distribution of sexually active never-married women by unmet need status	34
Figure 9	Percent distribution of sexually active formerly married women by unmet need status.....	36
Figure 10	Percentage of sexually active women with demand for family planning satisfied, by marital status	38
Figure 11	Odds ratios of sexually active never-married women compared with sexually active currently married women from multivariable regressions of demand satisfied.....	46
Figure 12	Odds ratios of sexually active formerly married women compared with sexually active currently married women from multivariable regressions of demand satisfied.....	47
Figure 13	Percentage of married women in polygynous marriages	48
Figure 14a	Percent distribution of women for each marriage type by age.....	49
Figure 14b	Percent distribution of women for each marriage type by number of children.....	49
Figure 14c	Percent distribution of women for each marriage type by education.....	50
Figure 14d	Percent distribution of women for each marriage type by wealth.....	50
Figure 14e	Percent distribution of women for each marriage type by employment status	51
Figure 14f	Percent distribution of women for each marriage type by urban-rural residence	51
Figure 15	Contraceptive prevalence among sexually active currently married women, by marriage type	52
Figure 16	Method mix among sexually active currently married women who use modern contraception, by marriage type.....	53
Figure 17	Percent distribution of sexually active currently married women according to the status of unmet need for family planning, by marriage type.....	54
Figure 18	Odds ratios of polygyny compared with monogamy from multivariable regressions of any contraceptive use.....	55
Figure 19	Odds ratios of polygyny compared with monogamy from multivariable regressions of modern contraceptive use	55

Preface

The Demographic and Health Surveys (DHS) Program is one of the principal sources of international data on fertility, family planning, maternal and child health, nutrition, mortality, environmental health, HIV/AIDS, malaria, and provision of health services.

One of the objectives of The DHS Program is to provide policymakers and program managers in low- and middle-income countries with easily accessible data on levels and trends for a wide range of health and demographic indicators. DHS Comparative Reports provide such information, usually for a large number of countries, in each report. These reports are largely descriptive, without multivariate methods, but where possible they include confidence intervals, statistical tests, or both.

The topics in the DHS Comparative Reports series are selected by The DHS Program in consultation with the U.S. Agency for International Development.

It is hoped that the DHS Comparative Reports will be useful to researchers, policymakers, and survey specialists, particularly those engaged in work in low- and middle-income countries.

Sunita Kishor

Director, The DHS Program

Abstract

This comparative report analyzes contraceptive use and unmet need for family planning among sexually active women age 15-49 in 21 countries of sub-Saharan Africa, Latin America, and the Caribbean. Sexually active unmarried women are an important and increasing sub-population typically excluded from large-scale studies of contraception and unmet need. In this study we disaggregate sexually active women into three marital groups: currently married, never-married, and formerly married.

Overall, countries in Latin America and the Caribbean have the highest levels of contraceptive use and lowest levels of unmet need for family planning. Differentials in contraceptive use and unmet need by women's marital status are negligible in this region. Family planning practices vary substantially within sub-Saharan Africa. Western African and Central African countries generally have lower contraceptive prevalence than Eastern and Southern African countries. A considerable proportion of women in Central and West Africa have no need for family planning. Sub-Saharan Africa as a whole shows greater variation in contraceptive use by marital status. Never-married women usually have the highest contraceptive prevalence, and currently married women have the lowest. Women in sub-Saharan Africa rely on a very limited number of modern methods, and the predominant method differs by their marital status. While never-married women tend to use condoms, currently married and formerly married women are more likely to use injectables or pills. The differences in contraceptive use and unmet need by individual and household characteristics are largely consistent across the three marriage groups. Regression results indicate that in a number of countries, compared with currently married women, never-married women are significantly more likely to have their demand for contraceptive use satisfied, but formerly married women are less likely. We also found that women in polygynous marriages are less likely to use a contraceptive method compared with women in monogamous marriages. Both groups share a similar method mix.

While the findings about never-married women are somewhat encouraging, when taken as a whole these results underscore the importance of ensuring equitable access to family planning among all marital groups, particularly in countries where nonmarital sex may be stigmatized, and of anticipating the particular contraceptive needs of unmarried women. The results for polygynous versus monogamous women suggest the importance of demand generation activities in areas where polygyny is prevalent.

Key words: Marital status, contraceptive prevalence, unmet need for family planning, demand satisfied, polygynous marriage, sub-Saharan Africa, Latin America, and the Caribbean

1. Introduction

Among the proximate determinants, contraceptive use has the greatest effect on fertility (Bongaarts and Potter 1983; Becker and Costenbader 2001), and contraceptive use is one of the most cost-effective health behaviors due to its positive impact on maternal and infant health outcomes (Creanga et al. 2011). Family planning programs are an ideal and distinctive public health intervention because of their capacity to affect both individual and population-level outcomes. As well as improving maternal and child survival, contraceptive use has been shown to have beneficial spillover effects on poverty reduction, environmental sustainability, gender equality, and women's empowerment (Carr et al. 2012; Cleland et al. 2006; Singh et al. 2009). The ability to plan and space children not only benefits women's health but also gives women the possibility to participate in non-domestic activities, to join the labor force, and to take advantage of educational opportunities (Cleland et al. 2006; Tsui, McDonald-Mosley, and Burke 2010).

Although there is a wealth of literature on contraceptive use, relatively few studies investigate contraceptive use by women's marital status. For global estimations of contraceptive use and unmet need for family planning, unmarried women—an important and increasing population—are often left out of research due to lack of data, particularly in Asia and North Africa (United Nations Department of Economic and Social Affairs 2015). Thus it is difficult to compare various regional and global estimates of contraceptive use and unmet need. Some studies have included sexually active unmarried women (Howse 2014; Howse and Nanitashvili 2014; Ross and Winfrey 2002) while others have focused solely on married women. Moreover, in studies that differentiate between never-married and formerly married women, the latter group is sometimes excluded from such estimates altogether due to too small sample sizes for independent analysis and too dissimilar circumstances for comparison (Sedgh, Ashford, and Hussain 2007).

The level of contraceptive use in sub-Saharan Africa among married or in-union women is lower than in any other region of the world (FP2020 2015; Howse and Nanitashvili 2014; United Nations Department of Economic and Social Affairs 2015). When considering contraceptive use among women in Africa by marital status, data have shown that unmarried women are more likely to use contraception than currently married women (Cleland, Ali, and Shah 2006; Howse and Nanitashvili 2014). Similarly, the Latin America and Caribbean region shows higher levels of contraceptive use among unmarried women than married women (Howse 2014). This region has the highest level of contraceptive use of any developing region worldwide (Bertrand, Ward, and Santiso-Gálvez 2015; United Nations Department of Economic and Social Affairs 2015).

Unmarried women usually want to avoid becoming pregnant (Blanc et al. 2009; Howse and Nanitashvili 2014). Thus, despite more sporadic sexual activity compared with married women, unmarried women tend to have a higher prevalence of contraceptive use (Cleland, Ali, and Shah 2006; Ross and Winfrey 2002). They also are more likely than their married counterparts to negotiate contraceptive use with their partners (Wellings et al. 2006). Globally, among all women at risk of becoming pregnant, a larger proportion are married than are unmarried and sexually active (Wellings et al. 2006), even among young women age 15-19 (Blanc et al. 2009).

The fact that single unmarried women may have sex infrequently is an important factor for their method choice or non-use of contraception. Secondary abstinence among unmarried women—defined as women who report in surveys that they have had sex but not within the last three months—has increased in recent years, along with the proportion of single unmarried women in sub-Saharan Africa who use condoms. In contrast, the increase in the proportion of married women using condoms has been negligible (Cleland and Ali 2006; Cleland, Ali, and Shah 2006). In only a few countries in sub-Saharan Africa—Botswana, Cameroon, Congo, Democratic Republic of the Congo, Gabon—do married women report condoms as their main method of contraception (United Nations 2017).

Among married women of reproductive age (15-49), injectables are the most common method used in most African countries, followed distantly by the pill (United Nations Department of Economic and Social Affairs 2015). Injectables also are the most common method used by young married women age 15-24 in Africa, while in four of every five sub-Saharan African countries condoms are the method of choice among young sexually active unmarried women. The second most common method among unmarried young women is injectables, exceeding condom use in a few African countries (Howse and Nanitashvili 2014).

In Latin America and the Caribbean, there is much variation between countries in method choice and in overall use of contraception. Accounting for all reproductive ages, sterilization is the most common form of contraception in this region (United Nations Department of Economic and Social Affairs 2015). Considering only young married women, sterilization is uncommon, and injectable contraception is the most common method, although in a few countries the pill is most used, and in one country the IUD is the most commonly used method. As in Africa, the condom is the principal method among young unmarried women in Latin America and the Caribbean (Howse 2014), and one study found that condom use rose significantly between 1994 and 2004 in eight countries (Blanc et al. 2009). In a few countries of Latin America and the Caribbean—Ecuador, Dominican Republic, El Salvador, Guatemala—use of the pill or injectables has overtaken the condom as the most used modern method among sexually active unmarried women age 20-24. In two Latin American countries, Bolivia (age 20-24) and Ecuador (age 15-19), unmarried women rely principally on traditional methods. The method mix among married women is more varied than among unmarried women (Howse 2014).

In 2015, an estimated 133 million married women worldwide had an unmet need for family planning, approximately one in every five married women in the FP2020 partnership's 69 focus countries. By this estimate, 27% of the global unmet need is among married women in sub-Saharan Africa, while only 1% is among married women in Latin America and the Caribbean (FP2020 2015). Regionally, for married women, unmet need in sub-Saharan Africa is approximately 24%, twice the level of 12% in Latin America and the Caribbean (Sedgh, Ashford, and Hussain 2007). In Latin America and the Caribbean, a larger proportion of young married women than all married women have an unmet need for family planning, while in sub-Saharan Africa the proportion is similar. Globally, an estimated one-third of all unmet need is among young married women (Ross and Winfrey 2002).

Recent global estimates of unmet need, however, exclude unmarried women because of insufficient data on this group. Estimates of unmet need that include sexually active unmarried women have found that unmet need among unmarried women is much lower compared with married women, at 9% in sub-Saharan Africa and 5% in Latin America and the Caribbean (Sedgh, Ashford, and Hussain 2007).

In many low- and middle-income countries the determinants of unmet need are similar, including socioeconomic factors, number of children, fear of side effects, knowledge, and infrequent sex (Blanc et al. 2009; Cleland, Ali, and Shah 2006; Sedgh, Ashford, and Hussain 2007; Wulifan et al. 2016). Although unmet need in Latin America and the Caribbean is the lowest in the developing world, it varies substantially among countries. Some countries are outliers, such as Haiti, with one of the highest levels of unmet need in the world, at 40%. In sub-Saharan Africa the majority of women with an unmet need say they want to have more children in the future (unmet need for spacing), while women in Latin America and the Caribbean are divided between wanting to delay having the next birth or to stop childbearing altogether (unmet need for limiting) (Sedgh, Ashford, and Hussain 2007). A study of unmet need among previously married women in sub-Saharan Africa found that previously married young women had a higher level of unmet need than never-married young women, at approximately 15% (age 15-19) and 16% (age 20-24) (Ross and Winfrey 2002).

The existence of unmet need reflects women's contraceptive use and fertility desires, both of which can be affected by successful family planning programs. Because the desire to space or limit births occurs before and determines demand for contraception, however, there is often an increase in unmet need as more women want to control their fertility but have not yet initiated contraceptive use—suggesting that increases in unmet need may not be an indication that family planning programs are unsuccessful, but rather reveal growing demand for contraception that has not yet been satisfied. These short-term rises in the proportion of women experiencing unmet need are particularly likely to occur in countries with very low contraceptive prevalence (Brown et al. 2014). Moreover, an absence of available modern methods is not the main cause of unmet need, as many women say they avoid use of modern contraception for reasons that include health risks and side effects of modern methods, or infrequent sex. Two-thirds of all women in sub-Saharan Africa with unmet need give method-related reasons for non-use. Additionally, even when contraceptive methods are widely available, this may not reduce levels of unmet need where there are societal or financial barriers to their use, or opposition from sexual partners (Darroch, Sedgh, and Ball 2011).

Although monogamy is the prevailing marital norm, some currently married women may be in polygynous unions (Wellings et al. 2006). In Nigeria, a study found that women in polygynous marriages were more likely to use contraception than those in monogamous marriages. However, certain factors such as older age, having more female children, or having no male children were associated with not using contraception among women in polygynous marriages (Audu et al. 2008). In Malawi, women in polygynous unions had a lower level of contraceptive use than their monogamous counterparts, and there was a higher incidence of covert use (Baschieri et al. 2013). The finding that polygynous women have lower contraceptive prevalence compared with monogamous women is in line with findings from other studies (Becker and Costenbader 2001; Bove and Valeggia 2009). Couples in polygynous unions have different decision-making processes and less spousal communication than monogamous couples, which may negatively impact a couple's ability to effectively use contraception (Baschieri et al. 2013; Bove and Valeggia 2009). In Ghana and Kenya, research has shown that polygynous women are more able than their monogamous counterparts to effectively implement their desires for lower fertility, because they have weaker relational ties and more frequent separation from their husbands (Dodoo 1998). Conversely, in sub-Saharan Africa as a whole, polygynous woman may want more children because of the competition with other wives (Bove and Valeggia 2009).

Research on contraceptive use and unmet need often focuses solely on married women, in part because this focus enables cross-country standardization of results. As mentioned, some surveys of contraceptive use exclude unmarried women entirely, particularly in Asia and North Africa. Additionally, including unmarried women in study findings requires the caveat that sexual behavior and contraceptive use are likely to be underreported among this group. For example, a study in Malawi found that unmarried women underreport their sexual behavior, although some factors such as higher social status of their partners may be associated with better reporting of sexual relationships (Nnko et al. 2004). Research that includes unmarried women in cross-national estimates of contraceptive use and unmet need typically acknowledges a possible bias arising from underreporting of sexual activity (Darroch and Singh 2013; Wellings et al. 2006; Westoff 2006). However, the magnitude of underreporting is unknown; moreover, family planning use among women who do not report sexual activity is also unknown. Trend analysis among unmarried women is challenging, because social norms and cultural attitudes toward sexual behavior are changing. Thus it is difficult to know whether the increasing tendency in recent years for unmarried women to report sexual activity is the result of a change in sexual behavior or if unmarried women simply feel more comfortable reporting sexual activity (Wellings et al. 2006).

This study investigates contraceptive use and unmet need for family planning among sexually active women age 15-49 in 21 countries of sub-Saharan Africa and Latin America. We disaggregate our analysis into three marital groups of women—currently married, never-married, and formerly married—in order to provide a comparative picture of each group. We explore method mix and levels of contraceptive use, unmet need, met need, and demand satisfied, showing differences by background characteristics. Additionally, we test the effect of marital status on demand satisfied and the effect of being in a polygynous union on the likelihood of using contraception.

2. Data and Methods

2.1. Data

The study used data from Demographic and Health Surveys (DHS) in 21 countries in sub-Saharan Africa, Latin America, and the Caribbean. The selection of these countries was based on two criteria: 1) the country's most recent survey was conducted in 2010 or after, in order to provide a recent level of indicators; 2) the country's most recent survey included a sufficient number of currently married, never-married, and formerly married women who were sexually active (150 or more), to allow examination of family planning practices by women's background characteristics. A woman was considered sexually active if her last sex occurred in the last month (30 days preceding the survey).

For each country, to examine trends, we included the most recent survey and also an earlier survey conducted approximately 10 years before the most recent survey. In a few countries—Congo, Congo Democratic Republic, Liberia, Sierra Leone, and Honduras—the gap between the two surveys was 5-6 years due to unavailability of a survey conducted earlier. Table 1 lists the countries and surveys included in this study, with the sub-Saharan African countries organized in three geographic sub-regions: Central Africa, Western Africa, and Eastern and Southern Africa. Table 1 also indicates countries that were included in the analysis on women in polygynous marriages—Cameroon, Congo Democratic Republic, Cote d'Ivoire, Nigeria, Sierra Leone, Mozambique, and Tanzania. These countries were included because of a relatively high prevalence of polygyny (18% or higher among currently married women).

This analysis focused on sexually active women age 15-49. Appendix Table 1 provides the number of women included in each marital group—currently married, never married, and formerly married—in each survey.

2.2. Measures

This section describes definitions of key measures used in the analysis, including marital status, contraceptive use, and unmet need for family planning, and demand for family planning satisfied.

Marital status

The study compared family planning practices by women's marital status: currently married, never married, and formerly married. Women who are currently married (or living together with a man as if married) are considered to be in this category regardless of whether they have been previously divorced or widowed. Currently married women were further divided into two groups: women in monogamous marriages—that is, those whose spouses do not have other wives; and women in polygynous marriages—that is, those whose spouses have one or more other wives. Formerly married women include those who are widowed, divorced, or separated and not currently living with a partner as if married. Most of the analysis focused on sexually

Table 1 DHS surveys included in the analysis

Country	Survey 1	Survey 2
Central Africa		
Cameroon*	2004	2011
Congo	2005	2011-12
Congo Democratic Republic (DR Congo)*	2007	2013-14
Gabon	2000	2012
Western Africa		
Cote d'Ivoire*	1998	2011-12
Ghana	2003	2014
Liberia	2007	2013
Nigeria*	2003	2013
Sierra Leone*	2008	2013
Eastern and Southern Africa		
Kenya	2003	2014
Lesotho	2004	2014
Malawi	2004	2015-16
Mozambique*	2003	2011
Namibia	2006-07	2013
Tanzania*	2004-05	2015-16
Zambia	2001-02	2013-14
Zimbabwe	2005-06	2015
Latin America and the Caribbean		
Colombia	2000	2010
Dominican Republic	2002	2013
Honduras	2005-06	2011-12
Peru	2000	2012

*Countries included in the analysis of women in polygynous marriages

active women in these three categories of marital status. Comparisons in contraceptive use and unmet need were also made between women in monogamous marriages and those in polygynous marriages.

Contraceptive use

We explored several ways to measure “current” contraceptive use. Since unmarried women (never married or formerly married) are more likely than currently married women to be abstinent or have sporadic sex, it could be difficult to assess whether these women use contraceptive methods during sex, because the standard DHS question on “current” use of contraception in the woman’s interview asks “*Are you currently doing something or using any method to delay or avoid getting pregnant?*” A woman might not respond that she is *currently* using a method if her last sexual activity was 60 days ago, even if she used a contraceptive method at that time. For this reason, we considered using information from the contraceptive calendar, which contains month-by-month information about women’s use of contraception over the last five years, rather than relying on their reports of current use. Since unmarried women may have more sporadic sexual activity than currently married women, we considered including women who were sexually active in the last three months (90 days), rather than in the last one month (30 days), in the definition of “sexually active”, and measuring contraceptive use in the corresponding calendar month. This would be more inclusive of unmarried women who are sexually active but only sporadically.

To assess the different measures of the recency of sex and use of contraception, we compared contraceptive prevalence among three groups, using the selected DHS surveys that included the contraceptive calendar (see Appendix Table 2). In the first group, we included women who had sex in the last 90 days, and used data from the contraceptive calendar to assess whether the woman used contraceptives in the three months before the interview. In the second group, we included women who had sex in the last three months, but defined contraceptive use on the basis of the woman’s report of current use. In the third group, we included women sexually active in the last 30 days, and measured contraceptive use using the woman’s report of current use. The results showed that contraceptive prevalence was similar in the first and third groups—with a difference of less than 1 percentage point in seven surveys, and 3 percentage points in almost all the other surveys. Contraceptive prevalence was slightly lower as measured for the second group.

Based on these findings, and also because the contraceptive calendar is not included in all surveys, we decided to define contraceptive use based on women’s reports of current use among those who had sexual activity in the last 30 days.

Contraceptive prevalence was defined as the percentage of women who reported current use of a contraceptive method. It comprises use of modern methods and use of traditional methods. Modern methods include sterilization (female sterilization and male sterilization), pill, intrauterine contraceptive device (IUD), injectables, implants, male condom, and other modern contraceptive methods (e.g., emergency contraception, lactational amenorrhea method (LAM), standard day method (SDM), female condom, diaphragm, contraceptive foam and contraceptive jelly, etc.). Traditional methods include withdrawal, periodic abstinence, folkloric methods, and other country-specific traditional methods.

Unmet need, met need, and demand for family planning satisfied

We used the revised DHS definition of unmet need for family planning (Bradley et al. 2012). A variable of unmet need was generated to have four categories: unmet need for limiting; unmet need for spacing; met need; and no need.

A woman is considered to have unmet need for limiting births if she meets one of the following conditions:

- 1) She is not pregnant and not postpartum amenorrheic and is not considered fecund and wants no more children but is not using a contraceptive method;

- 2) She is currently pregnant but the pregnancy is unwanted;
- 3) She is postpartum amenorrheic and her last birth in the last two years was unwanted.

A woman is considered to have unmet need for spacing births if she meets one of the following conditions:

- 1) She is not pregnant and not postpartum amenorrheic and is not considered fecund and wants to postpone the next birth for two or more years but is not using a contraceptive method;
- 2) She is currently pregnant but the pregnancy is mistimed;
- 3) She is postpartum amenorrheic and her last birth in the last two years was mistimed.

Women using any contraception are considered to have a met need for family planning. Women with unmet need and those with met need together represent the total demand for family planning. Demand satisfied was calculated as the percentage of women who have a met need divided by the total demand. No need for family planning includes women who are infecund and those who are fecund but want a child in the next two years.

Typically, calculations of unmet need assume all married women are sexually active and thus at risk of unmet need if they are not using contraception. This analysis deviates from that standard by measuring unmet need only among sexually active women in all three categories of marital status—currently married, formerly married, and unmarried.

Background variables

We assessed the differences in levels of contraceptive use and unmet need by a number of relevant individual and household characteristics. These include woman's age, number of living children, education, household wealth quintile, employment status, and urban-rural residence. These variables were also included in the regression models assessing these differences by marital status.

2.3 Analysis

This report is primarily descriptive. First, we tabulated the distribution of all surveyed women by marital status. We used data from both surveys in each country to identify trends over the survey period. Then, within each marital group, we assessed women's age, educational attainment, household wealth, employment status, and urban-rural residence.

Second, we analyzed trends in contraceptive prevalence among sexually active women in each of the marital groups. We also examined differentials in contraceptive use by background characteristics for each marital group, based on the country's most recent survey. We compared the contraceptive method mix among users of modern methods in the three marital groups.

Third, we analyzed unmet need for family planning by categorizing it into four groups: unmet need for spacing, unmet need for limiting, met need, and no need. Trends in unmet need were tabulated for each country. We made comparisons by marital status on demand for family planning satisfied. Multivariable logistic regression models were fitted to examine the relationship between marital status and unmet need after adjusting for women's background characteristics.

Finally, we assessed contraceptive use and unmet need among women in polygynous marriages in seven countries with a relatively high prevalence of polygyny: Cameroon, Congo Democratic Republic, Cote d'Ivoire, Nigeria, Sierra Leone, Mozambique, and Tanzania. Comparisons were made with women in monogamous marriages. We used logistic regressions models to quantify the differences in any contraceptive use and modern contraceptive use between the two groups after adjusting for other covariates.

All analyses were conducted with Stata 14. DHS complex sample design was accounted for in the estimation.

2.4 Limitations

The analysis was limited to women who were sexually active in last 30 days. Never-married women and formerly married women may underreport recent sexual activity due to concerns about social acceptability. This could bias our estimates either upward or downward, depending on their use of contraception. Moreover, restricting the analysis to sexually active women has an impact on estimation of unmet need in that we are underrepresenting pregnant and postpartum amenorrheic women, whose unmet need classification is intended to be unrelated to current sexual activity. However, we wanted to maintain a consistent denominator with the analysis on contraceptive use. Finally, contraceptive prevalence was estimated based on women's own reports of "current" use. Our analysis showed that this measure provides estimates similar to estimates based on the calendar data for sexually unmarried women. However, underreporting of contraceptive use could be still possible for unmarried women, since they are more likely to be sexually active sporadically. For example, if a woman's most recent sexual activity was several weeks before the survey, but within the last 30 days, she might not consider that she is currently using contraception.

3. Results

The results are presented in four sections:

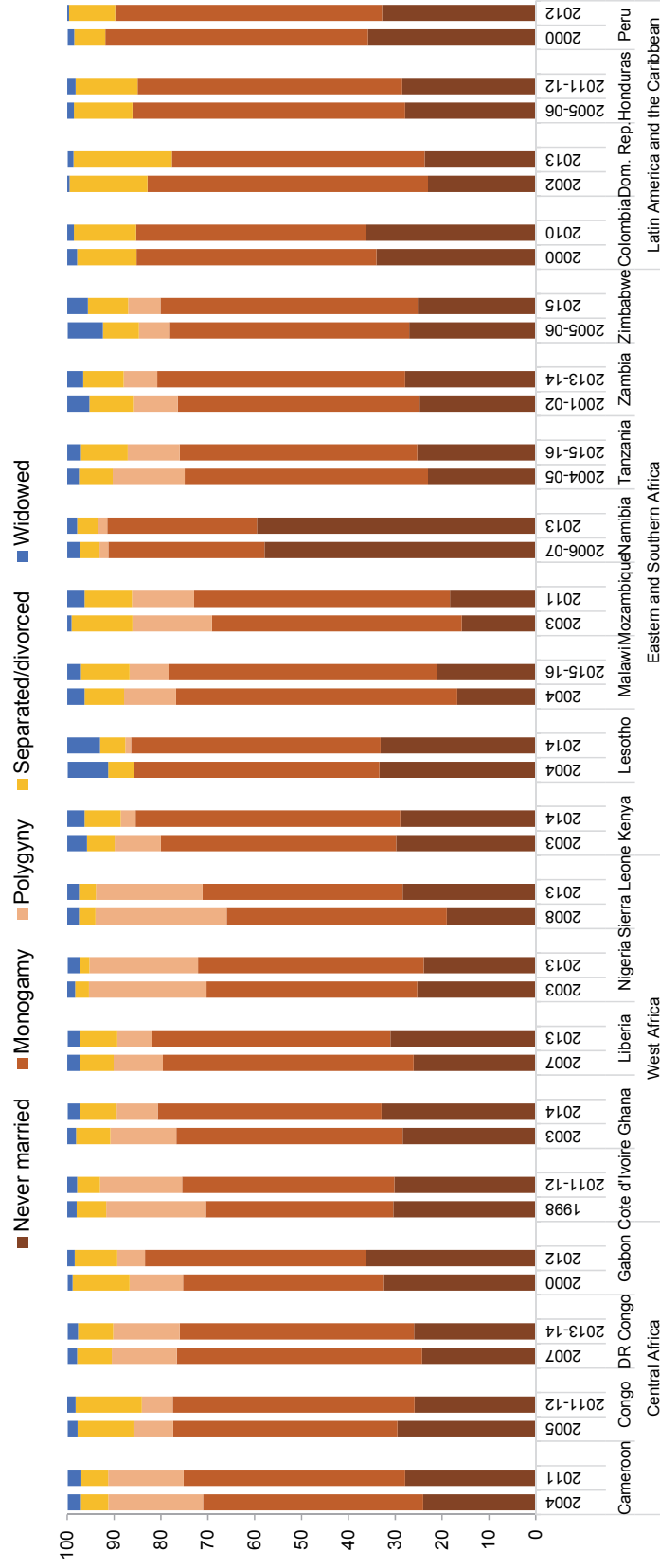
- (1) The distribution of women by marital status and socioeconomic profiles;
- (2) Contraceptive prevalence, method mix, and differentials in contraceptive use by background characteristics for each marriage group;
- (3) Levels and trends of unmet need for family planning and demand for family planning satisfied, as well as correlates of demand satisfied for each marriage group;
- (4) Analysis using logistic regression models to assess if contraceptive use differs between polygynous marriages and monogamous marriages after controlling for women's age, number of living children, education, household wealth, employment status, and urban-rural residence

3.1 Socioeconomic Profiles of Women by Marital Status

Figure 1 shows the trend in distribution of women age 15-49 by marital status, for both surveys in each of the 21 countries studied. The percentage of women who have never been married ranges widely across countries and survey periods, from 16% in Mozambique (2003) to 60% in Namibia (2013). In the majority of surveys, between 25% and 35% of women have never been married.

In each geographic region, the largest percentage of women age 15-49 are currently married and in monogamous partnerships—from 32% in Namibia (2016) to 60% in Malawi (2004). Polygynous marriages are most prevalent in Central and West Africa. In Cameroon, Cote d'Ivoire, Nigeria, and Sierra Leone, in at least one survey, more than 20% of women are in polygynous marriages. Polygynous marriages are also prevalent in some Eastern and Southern African countries. In Kenya, Malawi, Mozambique, Tanzania, and Zambia, in at least one survey, at least 10% of women are in polygamous marriages. Data on polygyny were not collected in Latin American and Caribbean countries.

Figure 1 Percent distribution of all women by marital status



Across study countries, the percentage of women who are separated or divorced ranges from 2% in Nigeria (2013) to 21% in the Dominican Republic (2013). Generally, the prevalence of separated or divorced women is highest in Latin America and the Caribbean. Widowhood, by contrast, is least common in Latin America and the Caribbean, ranging from 0.4% to 2%, and most common in Eastern and Southern Africa, ranging from 1% to 9%.

Tables 2-4 present the percent distributions by background characteristics, separately for currently married, never-married, and formerly married women. As Table 2 shows, in most countries, women age 15-19 make up the smallest percentage of currently married women. While in most countries more than 50% of currently married women live in rural areas, the percentage varies widely, from 13% in Gabon (2012) to 84% in Malawi (2004 and 2015-16). In all regions, currently married women are roughly evenly distributed across the wealth quintiles, but educational attainment differs across regions. At one extreme, in Western Africa between 28% and 78% of currently married women have no education. All other regions have a lower prevalence of currently married women without educational attainment—with a range of 7% to 29% in Central Africa, 1% to 48% in Eastern and Southern Africa, and 3% to 8% in Latin America and the Caribbean.

In countries of Central and Western Africa, the level of employment is high among currently married women, with about two-thirds employed except in Gabon, Liberia, and Nigeria. In the other regions, the percent employed ranges more widely, from 33% to 84% in Eastern and Southern Africa and from 38% to 63% in Latin America and the Caribbean. In all surveys except Zambia (2013-14) and Congo Democratic Republic (2013-14), women with 1-2 children are the largest percentage of currently married women. Between 24% (Cameroon 2004) and 39% (Dominican Republic 2002) of married women have 3-4 children, while between 8% (Colombia 2010) and 33% (Congo Democratic Republic 2013-14) have 5 or more.

Table 3 shows that in all countries except Colombia (2010), the greatest share of never-married women are age 15-19, followed by age 20-24; in all countries, less than 4% of never-married women are age 45-49. The percentage of never-married women living in rural areas varies widely, from 9% in Gabon (2012) to 74% in Malawi (2015-16). Compared with currently married women, lack of education is less prevalent among never-married women. It is most prevalent in West Africa, ranging from 4% in Ghana (2014) to 38% in Cote d'Ivoire (1998-99), and is lowest in Latin America and the Caribbean, at below 3%. Never-married women are concentrated in the fourth and highest wealth levels, with a range from 47% in Namibia (2006-7) to 70% in Sierra Leone (2008) in these two top quintiles. Employment among never-married women ranges from 16% in Gabon (2000) to 61% in Cote d'Ivoire (1998-9). In most countries, the great majority of never-married women have no living children.

As Table 4 shows, formerly married women tend to be fairly evenly distributed across the age groups between 25 and 49 years, but with a smaller percentage age 20-24 and an even smaller percentage age 15-19. Between 12% (Gabon 2012) and 86% (Malawi) of formerly married women live in rural areas. The formerly married are slightly under-represented in the lowest wealth quintile; in 31 of the 42 surveys less than 20% are in the lowest quintile. The level of employment is high among formerly married women, at 50% or higher in all surveys except Kenya (2014) and Zimbabwe (2005-06), and at 75% or higher in 18 surveys. On average, formerly married women are most likely to have 1-2 children.

Table 2 Percent distribution of currently married women by background characteristics

Country/Survey	Age										Number of living children					Education				Wealth				Employment		Residence				
	15-19		20-24		25-29		30-34		35-39		40-44		45-49		None	1-2	3-4	5+	None	Primary	Secon- day+	Lowest	Second	Middle	Fourth	Highest	Un- employed	Em- played	Urban	Rural
Central Africa																														
Cameroun 2004	11.6	21.8	20.2	16.0	13.0	9.6	7.8	14.4	35.3	24.8	25.4	28.7	40.3	31.0	22.9	18.4	19.0	19.9	19.8	32.9	67.1	48.8	51.2							
Cameroun 2011	8.9	19.8	21.7	16.5	10.2	8.8	10.9	34.5	27.8	26.8	26.8	27.3	37.5	35.2	20.3	19.4	19.0	20.7	20.6	29.8	70.2	47.3	52.7							
Congo 2005	6.5	21.0	21.3	18.5	15.2	10.2	7.5	9.6	40.7	30.0	19.7	9.0	30.4	60.5	19.6	19.4	19.3	20.4	21.4	31.5	68.5	52.7	47.3							
Congo 2011-12	6.6	17.2	22.8	18.5	16.7	10.1	8.1	6.3	40.5	32.1	21.1	7.2	26.7	66.1	19.3	19.4	20.3	21.4	19.6	26.0	74.0	64.1	33.9							
DR Congo 2007	6.9	22.4	20.1	17.5	13.5	11.1	8.6	9.9	34.4	25.8	29.9	24.0	41.5	34.5	19.1	22.2	22.2	19.5	17.0	26.1	73.9	40.3	59.7							
DR Congo 2013-14	7.1	18.4	20.3	18.2	15.0	10.4	7.5	7.7	31.6	27.7	32.9	19.2	41.9	38.9	20.1	22.1	20.6	19.1	18.0	24.4	75.6	32.1	67.9							
Gabon 2000	8.6	19.8	19.2	19.3	14.9	10.7	7.6	13.9	35.6	24.3	26.2	7.9	38.7	53.4	16.2	20.3	20.9	21.9	20.8	52.0	48.0	76.3	23.7							
Gabon 2012	5.4	15.9	21.8	19.1	17.2	12.3	8.3	11.2	39.6	28.4	20.8	7.0	24.9	68.0	15.5	19.7	22.0	22.7	20.2	47.2	52.8	86.8	13.2							
Western Africa																														
Cote d'Ivoire 1998	10.0	18.7	19.7	18.2	15.5	10.1	7.8	11.4	35.7	24.9	28.0	65.7	25.5	8.8	24.6	19.5	19.4	20.0	16.5	16.3	83.7	34.3	65.7							
Cote d'Ivoire 2011-12	6.6	17.3	22.0	19.2	15.2	11.3	8.4	8.8	34.8	29.9	29.9	63.7	24.4	11.9	21.5	19.5	19.5	20.5	19.0	27.3	72.7	41.6	58.4							
Ghana 2003	3.9	14.9	20.8	18.9	17.5	13.3	10.6	8.7	36.1	30.2	25.0	38.1	20.0	41.8	21.2	19.4	19.5	19.6	20.3	11.7	88.3	40.5	59.5							
Ghana 2014	2.0	11.4	20.0	20.3	19.5	15.4	11.5	7.0	35.7	33.7	23.6	27.8	18.4	53.8	19.1	18.1	18.8	20.5	23.5	15.5	84.5	50.1	43.9							
Liberia 2007	5.5	16.3	18.6	17.7	17.9	12.0	11.9	6.7	35.5	32.1	25.8	52.3	28.7	18.9	20.7	21.9	20.9	19.2	17.2	32.3	67.7	33.9	66.1							
Liberia 2013	5.5	16.0	21.7	17.8	17.2	11.5	10.3	5.6	36.6	31.3	26.4	44.9	26.8	28.3	21.0	20.3	20.1	20.6	18.0	36.4	63.6	53.8	46.2							
Nigeria 2003	10.2	17.1	21.5	15.9	14.3	11.6	9.4	12.3	32.8	27.1	27.7	53.9	22.0	24.1	21.5	21.4	20.4	17.9	18.8	35.6	64.4	30.6	69.4							
Nigeria 2013	8.1	15.7	21.2	17.5	15.5	11.6	10.4	10.1	31.0	29.8	29.0	48.4	19.2	32.4	23.1	21.5	17.9	18.1	19.4	30.6	69.4	36.4	63.6							
Sierra Leone 2008	6.5	14.7	25.9	16.3	18.5	10.4	7.8	9.3	38.7	32.4	19.5	11.7	10.9	11.7	23.1	20.7	21.5	19.0	17.5	21.1	78.9	28.2	71.8							
Sierra Leone 2013	6.7	14.4	21.3	18.6	18.1	10.7	10.1	7.6	34.9	34.2	23.2	72.2	13.1	14.7	21.5	21.3	21.2	19.1	16.9	21.7	78.3	26.8	73.2							
Eastern and southern Africa																														
Kenya 2003	19.6	19.6	21.5	17.7	14.0	12.5	7.9	7.2	34.8	29.9	28.1	15.5	58.6	25.9	19.3	19.4	18.6	19.6	23.1	35.1	64.9	22.2	77.8							
Kenya 2014	3.7	16.9	24.6	19.2	15.6	11.3	8.7	5.9	39.6	32.0	22.6	9.1	54.4	36.5	17.1	17.7	18.9	21.3	24.9	67.4	32.6	39.3	60.7							
Lesotho 2004	7.9	21.0	18.9	16.0	13.1	12.9	10.3	10.4	46.9	26.1	16.5	2.3	63.5	34.2	15.5	19.1	17.5	23.0	24.9	57.4	42.6	19.9	80.1							
Malawi 2004	9.5	27.5	21.8	14.7	10.9	9.1	6.6	9.3	40.0	27.9	22.8	8.6	44.4	54.3	16.4	16.7	18.7	23.4	24.8	59.5	40.5	31.8	66.2							
Malawi 2015-16	7.7	22.6	19.9	18.5	14.4	9.6	7.2	6.6	37.6	32.2	23.6	14.2	64.3	21.5	18.7	20.9	19.8	21.4	19.7	41.6	58.4	16.1	83.9							
Mozambique 2003	10.7	20.0	20.7	17.1	13.3	10.0	8.2	12.1	36.3	28.7	22.9	48.2	47.5	4.3	25.9	19.0	21.3	16.7	17.1	32.7	67.3	16.2	83.8							
.0Mozambique 2011	12.2	19.3	19.2	17.1	14.5	9.7	8.1	11.6	36.1	28.6	23.7	36.1	52.0	11.9	20.1	20.9	20.3	20.5	18.3	58.6	41.4	29.5	70.5							
Namibia 2006-07	3.4	11.5	18.1	21.8	17.7	15.1	12.3	7.8	42.0	30.8	19.4	11.8	30.3	57.8	17.1	14.5	20.2	23.1	25.0	46.5	53.5	50.2	49.8							
Namibia 2013	3.3	11.2	17.9	20.3	19.0	15.9	12.4	8.2	43.2	32.0	16.7	7.5	23	69.5	17.9	17.3	19.2	20.0	25.7	48.3	51.7	58.3	41.7							
Tanzania 2004-05	8.5	20.1	21.7	18.6	12.7	10.0	8.3	9.4	37.0	28.2	25.5	28.7	65.9	5.4	19.3	20.5	19.9	19.6	20.7	15.8	84.2	23.7	76.3							
Tanzania 2015-16	8.1	18.0	19.7	16.8	15.9	12.6	8.9	8.1	36.4	29.0	26.4	19.0	66.0	15.0	19.3	18.6	18.8	20.0	22.3	21.6	78.4	30.9	69.1							
Zambia 2001-02	9.3	23.1	22.5	16.1	12.6	9.6	6.8	8.9	35.8	27.3	28.0	14.1	61.9	24.0	19.8	19.1	21.8	20.1	19.2	40.0	60.0	35.4	64.6							
Zambia 2013-14	6.2	17.1	22.1	20.0	15.9	11.2	7.4	4.9	31.3	30.9	32.8	11	55.0	34.0	19.2	20.3	19.8	20.9	19.8	44.5	55.5	40.1	59.9							
Zimbabwe 2005-06	8.7	23.3	21.9	18.1	10.8	9.4	7.7	9.0	47.1	26.5	17.4	5.4	37.1	57.5	20.1	19.4	17.6	23.0	19.9	62.2	37.8	33.9	66.1							
Zimbabwe 2015	7.0	17.0	20.8	21.7	15.8	11.5	6.2	6.9	43.7	36.3	13.1	1.4	29.7	68.9	19.4	19.4	17.4	22.8	21.0	55.9	44.1	34.1	65.9							
Latin America and the Caribbean																														
Colombia 2000	5.5	13.7	17.5	18.4	18.3	14.9	11.6	7.5	50.2	31.6	10.8	4.4	39.7	56.0	18.3	21.3	21.5	20.3	18.7	52.8	47.2	71.9	28.1							
Colombia 2010	0.1	4.8	12.2	16.8	17.5	16.9	16.9	8.5	55.0	29.0	7.5	2.4	29.5	68.1	19.8	20.8	21.0	20.3	18.2	47.3	52.7	74.4	25.6							
Dom. Rep. 2002	7.3	15.4	17.8	18.2	17.2	13.1	10.9	8.6	40.0	39.1	12.3	5.0	51.7	43.2	17.0	20.9	21.2	20.8	20.1	60.7	39.3	65.2	34.8							
Dom. Rep. 2013	7.4	15.6	16.6	17.7	15.8	14.3	12.5	10.3	46.0	36.0	7.8	2.8	36.7	60.5	18.6	21.6	20.7	19.8	19.4	50.8	49.2	73.6	26.4							
Honduras 2005-06	7.9	17.5	20.7	17.7	14.6	12.1	9.5	6.8	40.6	29.9	22.6	7.9	66.0	26.1	17.7	18.9	20.5	21.9	20.9	62.1	37.9	49.0	51.0							
Honduras 2011-12	8.9	16.3	19.2	17.8	15.5	12.4	10.0	8.8	45.0	30.6	15.7	4.9	59.9	35.2	18.6	19.3	20.7	21.6	19.7	59.0	41.0	48.7	51.3							
Peru 2000	3.7	12.6	17.6	20.0	17.5	16.2	12.3	5.4	44.5	30.2	19.9	7.4	36.9	53.8	18.5	20.5	21.8	20.9	18.3	42.1	57.9	63.9	36.1							
Peru 2012	3.6	11.3	15.9	18.7	18.5	17.1	14.8	6.1	52.2	29.5	12.2	3.4	30.4	66.1	18.5	21.4	22.2	19.9	18.0	37.1	62.9	70.0	30.0							

Table 3 Percent distribution of never-married women by background characteristics

Country/Survey	Age							Education			Wealth				Employment		Number of living children			Residence			
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	None	Primary	Secondary	Lowest	Second	Middle	Fourth	Highest	Un-employed	Employed	None	1-2	3-4	5+	Urban	Rural
Central Africa																							
Cameroon 2004	70.0	20.5	5.7	2.0	0.9	0.7	0.2	5.7	31.8	62.4	9.5	11.2	17.8	24.5	37.0	71.1	28.9	86.0	12.9	1.0	0.1	68.9	31.1
Cameroon 2011	61.6	23.6	8.7	3.6	1.4	0.9	0.4	4.2	23	72.8	8.1	14.4	17.9	26.7	33.0	61.0	39.0	81.0	16.5	1.9	0.6	66.0	34.0
Congo 2005	60.2	23.3	9.9	2.6	2.7	0.1	0.3	3.5	30.3	66.2	14.4	16.8	19.8	21.8	27.2	66.1	33.9	75.6	21.4	2.6	0.5	62.5	37.5
Congo 2011-12	59.6	23.7	9.5	3.4	1.9	1.4	0.6	2.3	17.2	80.5	11.3	15.3	19.5	24.0	29.9	65.6	34.4	76.2	21.8	1.9	0.1	76.7	23.3
DR Congo 2007	63.0	25.2	7.8	2.1	1.3	0.3	0.3	10.1	31.0	58.9	12.4	12.2	16.3	18.8	40.3	66.9	33.1	91.1	8.3	0.5	0.2	60.3	39.7
DR Congo 2013-14	62.9	24.2	7.5	2.7	1.8	0.9	0.5	5.3	23.5	71.2	11.8	13.3	14.4	20.3	40.3	58.3	41.7	84.3	14.5	1.0	0.2	53.7	46.3
Gabon 2010	61.1	24.2	8.7	3.4	1.4	1.0	0.3	2.5	29.0	68.6	11.4	16.3	21.3	21.1	29.9	84.1	15.9	65.6	28.7	4.2	1.4	86.2	13.8
Gabon 2012	49.8	26.4	10.9	6.0	3.3	2.3	1.4	1.5	13.9	84.6	12.3	17.6	20.2	22.2	27.7	76	24.0	64.0	29.3	4.4	2.4	91.5	8.5
Western Africa																							
Cote d'Ivoire 1998	62.5	22.3	9.4	3.5	1.8	0.3	0.1	38.1	33.6	28.3	8.1	14.3	12.3	23.4	42.0	39.3	60.7	75.3	21.7	1.7	1.2	56.6	43.4
Cote d'Ivoire 2011-12	52.2	25.9	13.4	4.8	2.0	1.1	0.6	32.4	26.5	41.1	8.7	13.6	18.5	21.1	38.2	46.7	53.3	71.7	25.8	2.0	0.5	69.9	30.1
Ghana 2003	61.3	26.4	8.5	2.5	1.0	0.2	0.1	8.8	18.6	72.5	8.9	11.3	15.5	26.0	38.2	58.0	42.0	92.7	7.0	0.2	0.1	65.1	34.9
Ghana 2014	48.7	30.2	14.1	4.4	1.9	0.4	0.3	4.3	14.9	80.7	13.1	16.0	20.6	25.0	25.3	50.4	49.6	82.9	15.7	1.2	0.2	59.1	40.9
Liberia 2007	56.4	28.4	10.2	2.8	1.5	0.6	0.2	14.9	46.3	38.7	9.2	12.4	15.2	26.4	36.7	65.4	34.6	63.3	32.2	2.9	0.5	61.6	38.4
Liberia 2013	61.1	23.5	9.9	3.4	1.5	0.4	0.2	8.3	41.0	50.7	9.5	12.3	17.1	25.3	35.8	65.5	34.5	64.2	33.2	3.2	0.4	73.8	26.2
Nigeria 2013	59.4	28.0	8.8	2.5	0.7	0.3	0.3	6.5	18.8	74.7	10.2	12.2	18.9	24.2	34.5	69.4	30.6	93.0	6.8	0.1	0.0	43.8	56.2
Nigeria 2013	59.1	24.0	10.8	3.9	1.4	0.6	0.3	7.3	9.4	83.3	5.7	11.7	21.5	27.0	34.2	64.8	35.2	93.8	5.9	0.2	0.1	58.4	41.6
Sierra Leone 2008	59.1	24.2	8.5	5.1	1.4	1.2	0.5	19.4	21.2	59.4	8.5	10.0	12.0	21.9	47.6	58.5	41.5	74.1	23.0	1.6	1.3	64.9	35.1
Sierra Leone 2013	65.8	21.4	8.0	2.2	1.7	0.6	0.4	15.8	16.4	67.8	11.9	11.4	14.1	23.2	39.3	58.2	41.8	76.0	22.0	1.7	0.3	54.6	45.4
Eastern and Southern Africa																							
Kenya 2003	60.5	25.1	8.4	2.6	1.4	1.2	0.7	3.7	57.3	39.0	11.8	15.7	17.9	22.8	31.8	60.6	39.4	81.3	16.7	1.5	0.5	29.3	70.7
Kenya 2014	56.2	24.7	9.5	4.0	2.8	1.6	1.2	1.6	38.5	59.9	12.0	16.7	20.4	20.3	30.7	82.5	17.5	78.5	19.4	1.4	0.6	42.5	57.5
Lesotho 2004	59.1	24.8	8.1	3.2	2.3	1.8	0.8	0.6	49.7	49.7	9.7	15.5	18.3	22.4	34.0	73.7	26.3	81.3	16.9	1.4	0.4	30.0	70.0
Lesotho 2014	53.6	24.9	10.6	5.7	2.4	1.5	1.3	0.2	23.7	76.1	10.6	13.1	18.4	27.1	30.8	73.9	26.1	78.8	19.3	1.6	0.3	43.0	57.0
Malawi 2004	77.4	17.5	3.7	0.7	0.4	0.2	0.2	2.7	61.1	36.2	13.3	11.9	15.5	21.1	38.2	67.5	32.5	90.6	9.3	0.1	0.1	27.1	72.9
Malawi 2015-16	74.5	18.9	4.2	1.3	0.5	0.4	0.2	2.0	54.8	43.2	12.4	13.8	17.7	20.6	35.5	61.3	38.7	87.4	11.6	0.7	0.2	26.4	73.6
Mozambique 2003	71.0	19.5	5.5	1.8	1.0	0.7	0.6	12.6	62.8	24.6	10.3	10.8	11.2	20.6	47.0	60.8	39.2	79.1	18.8	1.5	0.5	61.4	38.6
Mozambique 2011	71.8	15.0	6.5	3.0	1.7	1.0	1.0	9.5	45.3	45.2	11.1	12.2	14.3	18.6	43.8	76.6	23.4	79.2	17.2	2.5	1.1	51.8	48.2
Namibia 2006-07	37.4	24.8	15.8	9.9	5.7	4.3	2.1	2.8	20.0	77.1	15.5	18.4	18.8	23.5	23.9	62.2	37.8	54.9	33.7	8.7	2.7	47.8	52.2
Namibia 2013	32.9	25.5	15.8	10.2	7.4	5.1	3.1	2.6	16.6	80.8	13.7	18.1	20.0	24.6	23.6	64.0	36.0	50.2	36.7	10.3	2.8	55.5	44.5
Tanzania 2004-05	68.2	20.2	7.2	2.7	0.7	0.3	0.8	11.9	68.5	19.6	12.4	13.8	15.7	18.6	39.4	43.4	56.6	83.4	14.8	1.4	0.3	40.7	59.3
Tanzania 2015-16	64.7	22.3	7.2	2.6	2.0	0.8	0.5	3.3	47.2	49.6	9.2	12.0	14.2	24.2	40.4	51.3	48.7	81.5	16.8	1.2	0.4	48.2	51.8
Zambia 2001-02	69.7	21.6	5.8	2.3	0.3	0.2	0.1	5.4	47.5	47.2	14.0	13.1	16.1	21.4	35.4	66.2	33.8	81.2	17.8	0.8	0.2	49.8	50.2
Zambia 2013-14	64.5	23.9	6.7	2.9	1.2	0.6	0.1	1.8	27.2	71.0	10.9	12.2	16.2	21.8	38.9	74.4	25.6	77.4	21.3	1.1	0.2	58.0	42.0
Zimbabwe 2005-06	68.2	23.1	5.5	1.8	1.0	0.2	0.2	0.4	18.7	80.9	11.6	12.2	16.0	20.9	39.3	72.6	27.4	89.4	9.8	0.7	0.1	50.9	49.1
Zimbabwe 2015	67.6	19.7	6.3	3.2	1.3	0.9	1.0	0.3	14.5	85.2	11.2	13.5	17.1	22.1	36.1	75.2	24.8	88.2	11.2	0.5	0.1	47.3	52.7
Latin America and the Caribbean																							
Colombia 2000	47.3	25.2	11.3	6.7	4.0	3.4	2.1	1.5	17.9	80.6	11.7	14.4	19.4	25.7	28.9	58.3	41.7	83.8	15.1	0.9	0.3	82.2	17.8
Colombia 2010	18.9	38.9	19.2	9.3	5.0	3.0	2.7	0.4	9.5	90.2	14.1	17.3	20.7	23.6	24.3	65.0	35.0	84.7	14.3	0.8	0.2	81.6	18.4
Dom. Rep. 2002	59.6	25.4	8.7	3.3	1.6	0.9	0.6	0.8	25.8	73.4	9.0	13.7	19.0	25.0	33.3	69.8	30.2	94.0	5.5	0.4	0.0	72.9	27.1
Dom. Rep. 2013	58.0	24.9	10.4	2.4	1.7	1.5	1.1	0.4	11.7	87.9	9.9	14.5	19.0	25.2	31.4	67.7	32.3	92.9	6.5	0.5	0.0	78.2	21.8
Honduras 2005-06	61.0	22.9	8.2	3.0	2.5	1.5	0.9	2.5	40.5	57.0	11.3	15.0	18.4	24.1	31.3	61.5	38.5	90.4	8.5	0.8	0.3	60.1	39.9
Honduras 2011-12	56.7	23.4	9.5	4.9	2.5	1.7	1.3	1.3	28.2	70.5	12.6	15.1	19.3	24.3	28.7	60.0	40.0	88.3	10.4	1.0	0.3	60.2	39.8
Peru 2000	50.2	25.1	12.0	5.6	3.2	2.3	1.7	1.3	15.3	83.5	9.3	13.7	19.2	24.5	33.3	50.4	49.6	89.6	9.8	0.5	0.1	77.6	22.4
Peru 2012	49.3	22.4	11.8	6.5	4.5	3.3	2.2	0.6	8.6	90.7	11.5	14.6	19.8	24.2	29.9	45.8	54.2	87.5	11.9	0.6	0.0	80.4	19.6

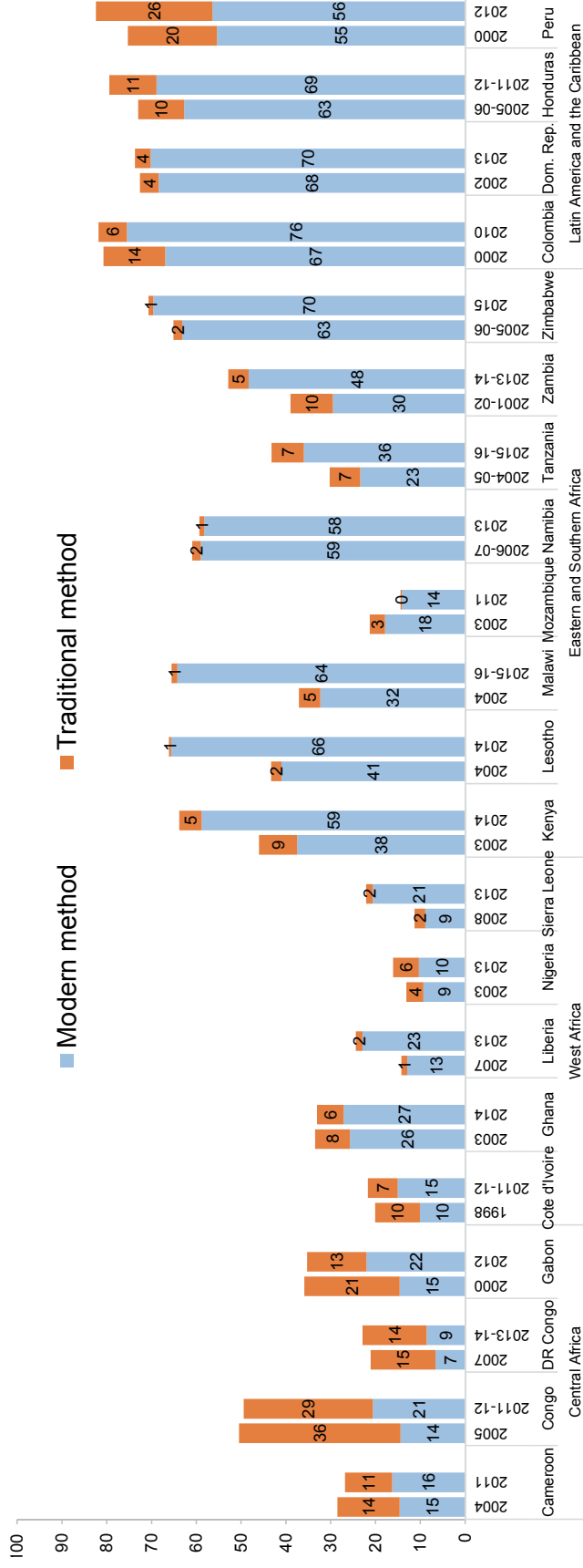
3.2 Contraceptive Use and Marital Status

Levels and trends in contraceptive use by marital status

Figures 2-4 show contraceptive prevalence (both modern and traditional methods) among currently married, never-married, and formerly married women who were sexually active in the last month before the survey.

Overall, currently married women in the Latin American and Caribbean countries studied have the highest contraceptive prevalence. Among the most recent surveys, contraceptive prevalence ranges from 74% in Dominican Republic (2013) to 82% in Colombia (2010) and Peru (2012). Married women in this region predominantly use modern contraceptive methods. For example, in Colombia (2010), three-quarters of married women reported using a modern method and only 6% reported using a traditional method. Traditional method use is generally low, except in Peru (2012), where 26% of married women reported using a traditional method an increase from 20% in the earlier survey. While contraceptive prevalence increased overall between the two surveys in all four countries, the changes were small, averaging 4 percentage points. In Colombia and Honduras use of modern contraceptive methods increased more, by 9 and 6 percentage points, respectively.

Figure 2 Contraceptive prevalence among sexually active currently married women

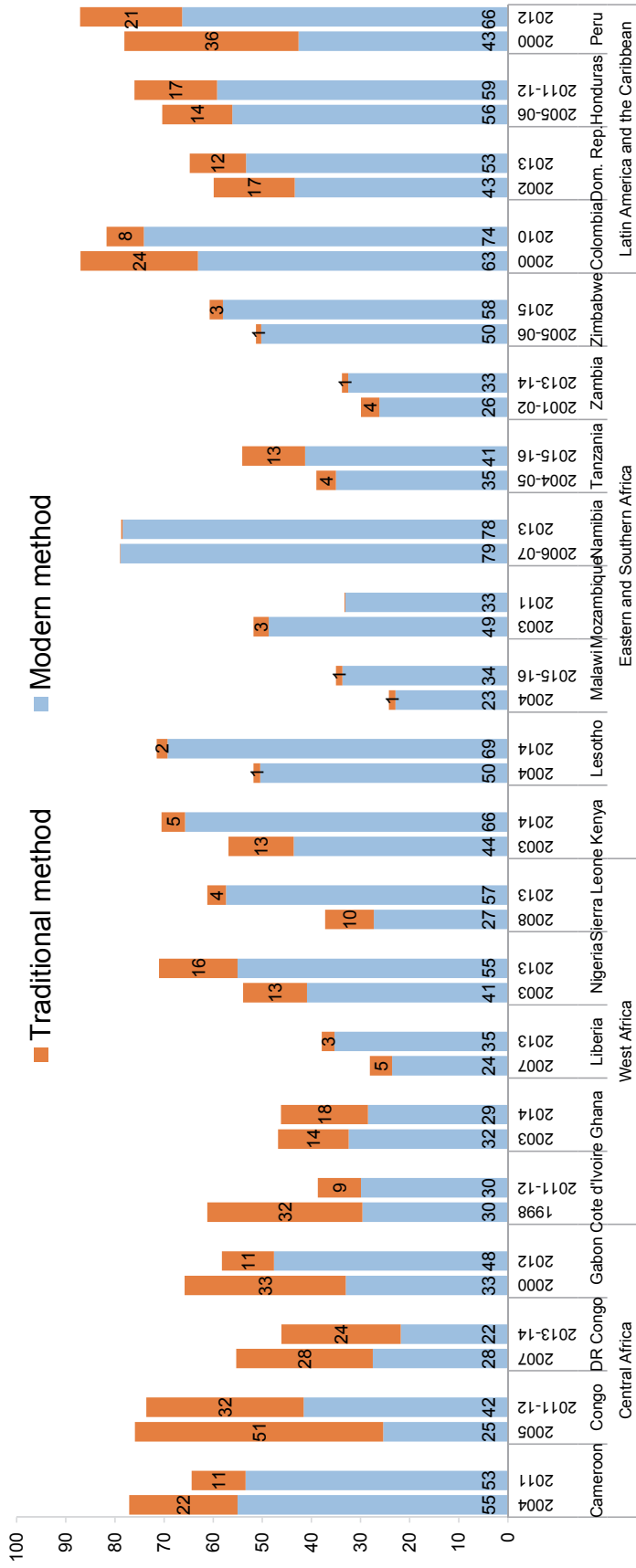


Among the three sub-regions of sub-Saharan Africa, married women in Eastern and Southern Africa have the highest contraceptive prevalence. Contraceptive prevalence among married women is 60% or higher in both surveys in Zimbabwe and Namibia, and in the most recent survey in Malawi, Lesotho, and Kenya. An increasing trend in contraceptive prevalence among married women is also found in all Eastern and Southern African countries except Mozambique, where the prevalence decreased from 21% in 2003 to 14% in 2011. Five countries—Zambia, Tanzania, Kenya, Lesotho, and Malawi—show the highest increases, from 13 percentage points in Tanzania to 28 percentage points in Malawi. The rise is largely due to the increased use of modern methods. Use of traditional methods among currently married women is low in all of these countries, at 10% or lower.

In Central Africa and West Africa, married women generally reported low levels of contraceptive use, below 30% in most of the study countries. Married women in Central Africa reported more use of traditional methods than modern methods. For example, while half of married women in Congo Democratic Republic reported using contraception, most of them (60% to 70%) used a traditional method. The overall contraceptive prevalence in Central African countries remains little changed between the two surveys. In West Africa, contraceptive prevalence increased most in Liberia and Sierra Leone, especially for modern methods.

Figure 3 shows contraceptive prevalence among sexually active never-married women. Similar to married women, never-married women in Latin America and the Caribbean reported the highest levels of contraceptive use, from 65% in Dominican Republic (2013) to 87% in Peru (2012). Between the two surveys, use of modern methods increased by 10 percentage points in Colombia and Honduras and 23 percentage points in Peru, while use of traditional methods declined in three of the four countries.

Figure 3 Contraceptive prevalence among sexually active never-married women



In sub-Saharan Africa, overall contraceptive prevalence appears to be higher among never-married women than currently married women, especially in Central Africa and Western Africa. Most of the Eastern and Southern African countries show increasing contraceptive prevalence among never-married women. The greatest increase has occurred in Malawi, Kenya, Lesotho, and Tanzania, ranging from 11 percentage points in Malawi to 20 percentage points in Lesotho.

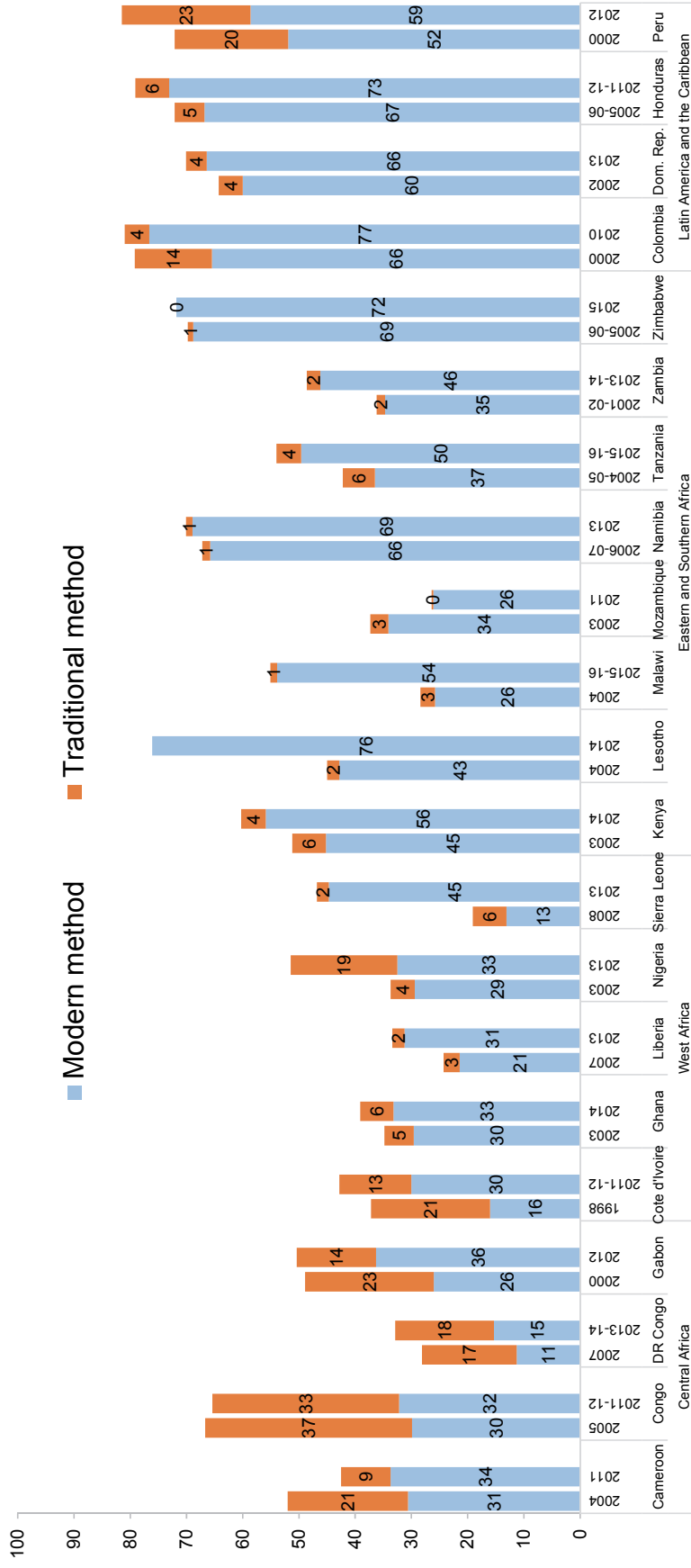
In Central Africa, the overall contraceptive prevalence has declined in all countries, most notably in Cameroon and Congo Democratic Republic, where contraceptive use dropped by 10 percentage points or more. Use of modern methods, however, has increased in Congo and Gabon, by 17 and 16 percentage points, respectively. Conversely, the use of traditional method in these two countries has declined, by about 20 percentage points.

In West Africa, contraceptive prevalence has increased in Liberia, Nigeria, and Sierra Leone, mainly due to increasing use of modern methods. In Sierra Leone, 57% of never-married women in 2008 reported use of a modern method, more than twice the 27% in 2013. In Cote d'Ivoire, modern contraceptive use remained the same between 1998 and 2011-12, but use of traditional methods decreased substantially, from 32% to 9%.

Figure 4 shows contraceptive prevalence among formerly married women who were sexually active in the last month before the survey. The study countries in Latin America and the Caribbean have experienced a minor increase in overall contraceptive use among formerly married women. Increases in modern contraceptive use are more prominent in Colombia than the other three countries, from 66% in 2000 to 77% in 2010. In all Eastern and Southern African countries except Mozambique, contraceptive use among formerly married women increased during the study period, varying by country, with large increases in Lesotho and Malawi. In Lesotho, 76% of formerly married women used a contraceptive method in 2014 compared with 43% in 2004.

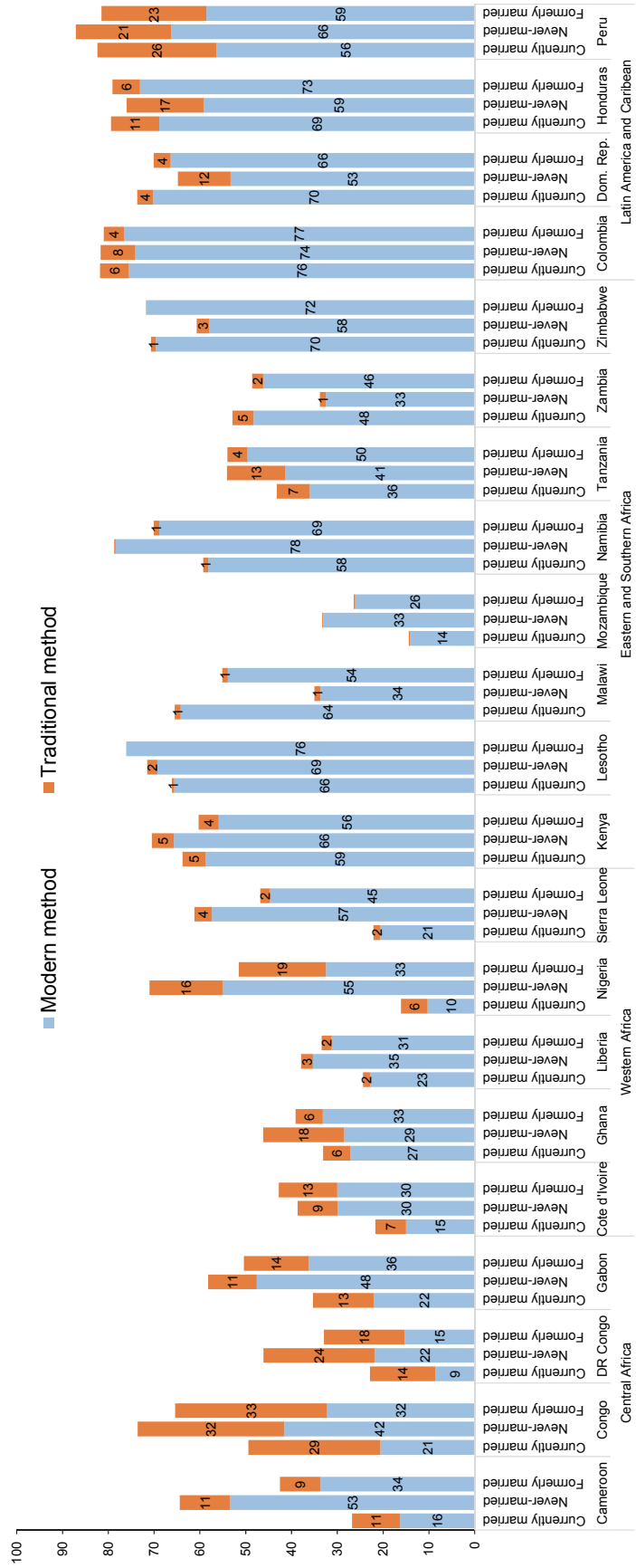
Changes in contraceptive prevalence are less apparent in both Central Africa and West Africa, except Liberia and Sierra Leone. In both these countries, the use of modern contraception has risen by 10 percentage points or more.

Figure 4 Contraceptive prevalence among sexually active formerly married women



To facilitate comparisons of contraceptive prevalence by marital status, Figure 5 presents the percentage of women in each marriage group using a modern or traditional method, based on the country's most recent survey. In Latin America and the Caribbean, differences in contraceptive prevalence by marital status are negligible. In sub-Saharan Africa, however, variations by marital status are more apparent. In more than half of the countries, never-married women are more likely to use a contraceptive method compared with currently married women and formerly married women. In the majority of countries, a higher percentage of never-married women reported use of a modern method than the other two marriage groups. Within sub-Saharan Africa, the most prominent differences by marital status are observed in Central Africa. In all four Central African countries studied, never-married women reported the highest levels of use of any contraceptive method and also of modern methods, followed by formerly married women. Currently married women have the lowest contraceptive prevalence for any method and for modern methods. Most countries in West Africa and Eastern and Southern Africa show a similar pattern, with a few exceptions including Malawi, Zambia, and Zimbabwe, where never-married women have lower contraceptive prevalence than the other two groups.

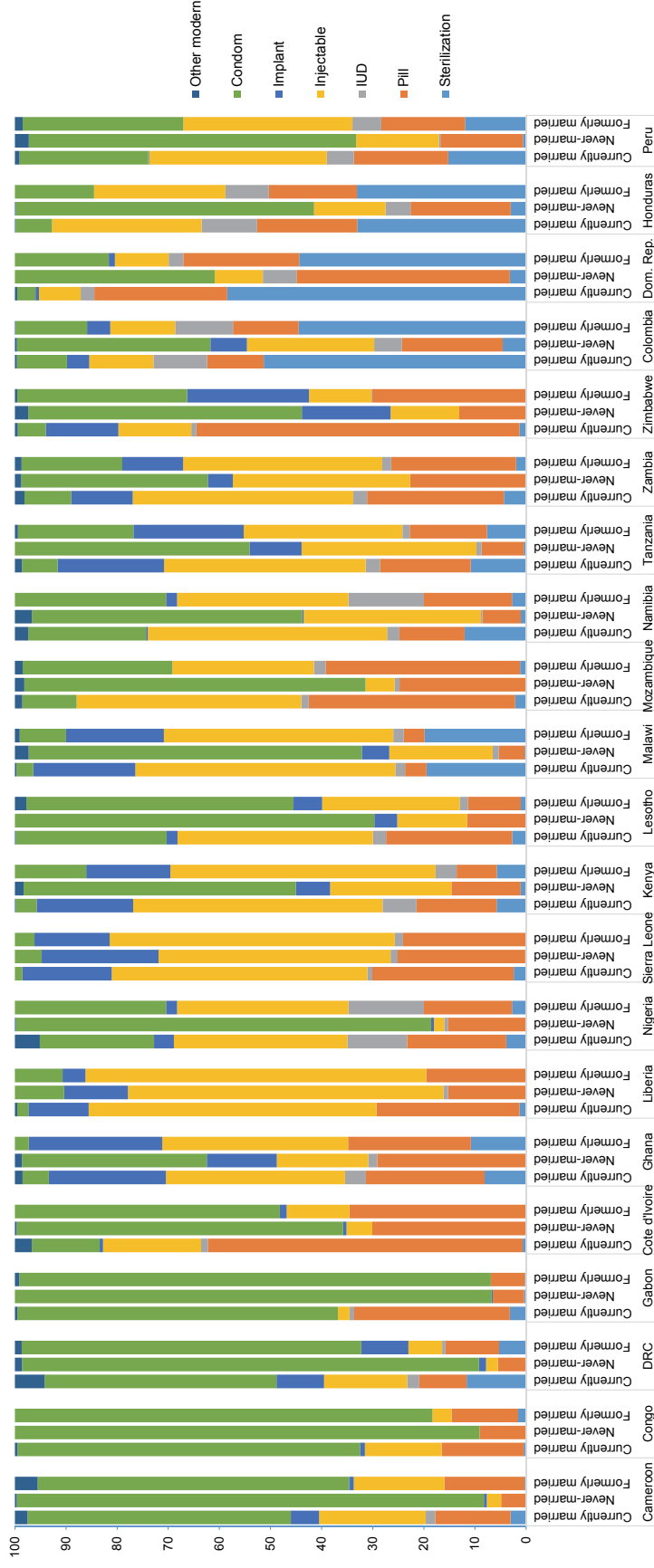
Figure 5 Contraceptive prevalence among sexually active women by marital status, most recent survey only



Method mix by marital status

Figure 6 shows the method mix—the share of use of each method—among users of modern methods for the three marriage groups, based on the most recent survey in each country studied. Countries in all three African sub-regions show a skewed method mix in all three groups. In Central Africa, condoms appear to be the major contraceptive method used, accounting for 45% to 67% of modern contraceptive use among currently married women, 90% or more among never-married women, and 61-92% among formerly married women. Condoms are also commonly used in some Western African countries, including Cote d’Ivoire and Nigeria, particularly among never-married and formerly married women. Injectables are the most widely used method in Liberia and Sierra Leone, irrespective of women’s marital status. The pill is also used, at various levels, in all Western African countries by all marriage groups. The IUD and sterilization, however, are little used.

Figure 6 Method mix among sexually active women who use modern contraception by marital status, most recent survey only



In almost all Eastern and Southern African countries, the most commonly used method among currently and formerly married women is injectables, but condom use is most common among never-married women. Use of the pill is uncommon in most countries but is widespread among currently married women in Zimbabwe, reported by 63% of currently married modern-method users.

Study countries in Latin America and the Caribbean appear to have a more balanced mix of methods compared with African countries. Notably, sterilization is the predominant method in Colombia, Dominican Republic, and Honduras among currently and formerly married women. Similar to African regions, condom use is more prevalent among never-married women than among the other two marriage groups in Latin America and the Caribbean.

Differentials in contraceptive use by background characteristics

Tables 5-10 present percentages of currently married, never-married, and formerly married women who reported use of a contraceptive method, by women's background characteristics—age, number of living children, education, household wealth status, employment status, and urban-rural residence. Data for these tables come from the most recent survey of each country.

Age

Table 5 shows contraceptive prevalence by age for each marriage group. Among currently married women contraceptive prevalence appears to have an inverted U-shaped relationship with age. While women in the youngest age group (15-19) and women in the oldest age group (45-49) have the lowest level of contraceptive use; women in middle age groups (25-29, 30-34, and 35-39) have the highest contraceptive use. Variations in contraceptive use by age are more apparent in Eastern and Southern Africa than in other regions. Most never-married women are age 15-29 and few are over age 30. Comparing age groups on which there are sufficient numbers of never-married women for analysis, in a majority of countries women age 15-19 reported the lowest contraceptive prevalence (15 of 21 countries), and women age 20-24 reported the highest (11 of 21 countries). In many countries, the assessment of age patterns among formerly married women is limited by the small number of women in this group. Nevertheless, in countries with a sufficient number of formerly married women, the inverted U-shaped relationship between contraceptive prevalence and age generally holds in most age groups, for example, in Central Africa and Latin America and the Caribbean.

Table 5 Contraceptive prevalence for sexually active currently married, never-married, and formerly married women, by women's age

Country	Currently married					Never-married					Formerly married												
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	15-19	20-24	25-29	30-34	35-39	40-44	45-49	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
Central Africa																							
Cameroon 2011	12.3	17.2	18.3	17.7	18.2	14.4	9.3	50.8	60.5	55.0	51.8	(28.5)	*	*	*	31	43.5	31.8	41.1	(20.7)	(23.4)		
Congo 2011-12	28.2	21.0	24.7	22.6	21.7	13.6	5.0	40.6	47.1	41.4	(34.0)	*	*	*	(35.4)	38.2	39.5	30.1	50.9	14.4	4.6		
DR Congo 2013-14	6.3	9.5	7.7	10.9	8.9	8.6	5.3	19.0	26.3	21.9	(23.9)	*	*	*	(13.5)	16.6	20.9	12.6	22.2	9.1	(5.6)		
Gabon 2012	19.8	26.4	25.0	28.4	18.4	14.5	11.3	51.7	49.6	41.2	38.7	(26.2)	*	*	*	(49.2)	42.6	27.6	24.0	44.9	(2.8)		
Western Africa																							
Cote d'Ivoire 2011-12	6.4	15.4	17.3	17.0	17.9	13.5	6.9	29.5	30.1	36.3	(17.5)	*	*	*	(45.6)	(22.1)	48.1	*	*	*	*		
Ghana 2014	27.2	30.7	33.1	27.8	26.2	21.4	19.8	30.1	31.2	28.3	(8.0)	*	*	*	*	(41.5)	46.0	(15.0)	*	*	*	*	
Liberia 2013	14.7	30.1	26.3	28.4	23.5	17.2	7.1	30.9	39.9	34.9	(42.0)	*	*	*	(44.1)	43.6	38.7	22.0	22.0	(24.0)	(7.4)		
Nigeria 2013	1.1	6.4	9.2	13.3	14.7	15.5	8.7	47.2	59.8	58.1	51.9	(54.3)	*	*	*	*	(34.3)	42.5	25.2	(28.5)	(33.2)		
Sierra Leone 2013	9.8	20.7	22.3	26.9	23.1	19.1	10.4	53.7	62.9	58.5	67.8	(47.8)	*	*	*	*	52.4	54.8	44.3	(22.9)	(32.0)		
Eastern and Southern Africa																							
Kenya 2014	41.8	56.1	62.6	64.8	61.7	57.8	40.5	47.0	76.3	(68.7)	(59.5)	*	*	*	(25.6)	71.0	75.4	(49.0)	35.4	(59.4)			
Lesotho 2014	45.3	64.7	69.2	71.7	77.0	63.3	40.7	68.6	63.6	82.9	(81.5)	*	*	*	*	(80.6)	78.9	(82.0)	76.1	(61.4)	*		
Malawi 2015-16	41.5	61.6	68.2	71.2	69.2	64.6	53.6	31.4	35.9	(27.5)	(28.3)	*	*	*	(37.6)	55.1	57.2	55.6	58.2	63.9	*		
Mozambique 2011	7.4	15.6	18.9	16.9	15.8	10.3	7.0	27.1	43.6	43.1	(28.3)	*	*	*	(21.4)	28.3	30.0	29.6	33.9	11.4	(13.6)		
Namibia 2013	34.0	56.9	59.7	61.6	59.4	58.3	55.7	71.9	78.2	84.4	74.8	79.2	80.3	80.3	63.4	67.0	67.0	(77.7)	72.5	(39.4)			
Tanzania 2015-16	15.6	35.0	41.0	41.1	40.8	35.0	29.1	35.0	47.5	44.6	44.6	44.6	44.6	44.6	*	*	52.0	53.0	52.2	39.1	(39.4)		
Zambia 2013-14	38.3	48.5	52.5	52.2	50.6	47.7	29.6	17.2	45.3	57.3	(43.7)	*	*	*	(50.7)	39.2	53.7	58.4	37.5	58.4	*		
Zimbabwe 2015	46.2	67.9	72.8	73.9	74.6	70.4	58.3	(34.4)	76.7	(65.7)	*	*	*	*	(57.5)	(77.8)	77.9	(69.3)	82.2		*		
Latin America and the Caribbean																							
Colombia 2010	(58.4)	70.4	75.5	80.3	80.3	78.2	71.1	70.5	80.0	77.7	69.5	65.9	62.6	40.1	*	73.9	80.3	80.6	76.6	76.6	70.9		
Dom. Rep. 2013	53.8	59.6	69.2	70.9	79.3	76.8	75.3	51.6	48.9	(65.2)	*	*	*	NA	58.8	56.3	71.3	76.3	69.0	64.8	(61.7)		
Honduras 2011-12	55.1	67.7	69.0	73.8	74.7	72.1	60.5	56.1	62.8	63.4	(55.6)	*	*	*	(44.5)	66.3	80.7	78.3	75.6	(80.8)	(64.8)		
Peru 2012	57.6	64.3	59.7	58.7	59.5	52.2	43.5	61.4	74.0	71.5	64.6	55.6	(30.8)	*	64.2	55.7	67.8	63.3	63.3	52.5	47.7		

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

Number of Living Children

Table 6 shows that among currently married women there is generally a negative relationship between contraceptive use and number of living children. In all countries, contraceptive prevalence is lowest among currently married women without children and highest among those with 3-4 children. The difference between these two groups is 50 percentage points or more in eight countries, including Kenya, Lesotho, Malawi, Zambia, Zimbabwe, Colombia, Dominican Republic, and Honduras. While in most countries contraceptive use is rare among women without children (less than 10%), contraceptive prevalence reaches 30% or more for this group in a few countries—Namibia, Dominican Republic, Honduras, and Peru. The inverted relationship between contraceptive use and number of children generally holds among never-married and formerly married women although only in a few countries never married women have more than 2 children. Differences are particularly notable in the Latin America and the Caribbean countries studied. For example, in Dominican Republic and Honduras contraceptive prevalence among women with 3-4 children is 50 percentage points higher than among women with no children.

Table 6 Contraceptive prevalence for sexually active currently married, never-married, and formerly married women, by number of living children

Country	Currently married				Never-married				Formerly married			
	None	1-2	3-4	5+	None	1-2	3-4	5+	None	1-2	3-4	5+
Central Africa												
Cameroon 2011	15.6	15.6	17.6	16.2	56.8	50.1	(32.8)	*	(25.5)	37.2	29.6	36.1
Congo 2011-12	6.7	24.3	21.7	16.9	43.1	38.3	*	*	(27.1)	36.4	30.5	18.2
DR Congo 2013-14	2.2	9.1	8.7	9.8	22.8	19.1	*	*	(17.4)	17.9	11.6	14.8
Gabon 2012	10.9	23.6	25.9	20.8	48.7	47.8	(39.4)	*	(41.5)	40.9	33.0	22.8
Western Africa												
Cote d'Ivoire 2011-12	3.6	13.8	18.9	17.0	31.4	27.0	(22.0)	*	(25.2)	30.6	(34.1)	*
Ghana 2014	13.5	25.4	30.5	29.9	28.0	29.8	*	*	*	27.7	(37.8)	*
Liberia 2013	6.7	22.9	24.9	24.5	26.4	49.9	(55.4)	*	*	30.3	35.1	28.0
Nigeria 2013	1.2	8.8	14.0	11.8	56.4	46.3	*	*	*	45.8	33.3	23.7
Sierra Leone 2013	5.1	19.4	24.5	24.1	54.7	64.6	(56.9)	*	*	40.9	62.7	(36.2)
Eastern and Southern Africa												
Kenya 2014	14.3	62.6	66.6	52.6	56.8	84.9	*	*	*	57.7	66.9	37.8
Lesotho 2014	19.2	72.1	73.9	53.5	66.5	80.2	*	*	*	80.1	(73.9)	*
Malawi 2015-16	4.0	65.3	71.2	70.7	26.7	60.9	*	*	(12.4)	47.3	70.1	60.2
Mozambique 2011	1.5	16.1	18.3	14.3	30.9	41.5	*	*	11.8	31.7	28.0	18.9
Namibia 2013	31.3	59.5	67.1	52.6	74.1	81.7	78.9	77.7	*	57.8	81.4	*
Tanzania 2015-16	2.6	37.2	43.0	38.1	33.7	54.3	*	*	(25.8)	50.8	53.8	51.1
Zambia 2013-14	4.0	48.7	54.3	49.5	21.3	53.6	*	*	(14.9)	48.9	54.9	39.8
Zimbabwe 2015	6.2	71.7	78.6	71.9	47.9	70.0	*	*	*	70.2	77.1	*
Latin America and the Caribbean												
Colombia 2010	36.0	75.9	85.6	78.9	72.1	80.5	(79.1)	*	49.6	77.1	85.7	81.4
Dom. Rep. 2013	27.8	65.5	85.2	84.6	50.0	66.2	*	*	37.3	61.0	89.4	(75.9)
Honduras 2011-12	28.6	71.5	78.5	65.2	54.4	68.7	*	*	35.8	74.0	86.2	73.9
Peru 2012	30.3	60.2	59.0	45.5	65.5	69.3	*	*	(66.1)	56.8	62.0	(56.3)

Education

Table 7 indicates that generally the likelihood of using contraception is positively associated with women's level of education attainment among all three marriage groups. Among currently married women, the difference in contraceptive prevalence between women with secondary or higher education and women with no education is 20 percentage points or higher in six countries, including Cameroon, Nigeria, Kenya, Mozambique, Namibia, and Zambia. In most countries, few never-married women have no education. Comparing never-married women having a primary education and those with secondary or higher education, the difference in contraceptive prevalence reaches 30 percentage points or more in three countries: Cameroon, Sierra Leone, and Namibia. Among formerly married women the difference in contraceptive use between women with primary education and those with secondary or higher education was small except in Mozambique, at 25 percentage points.

Table 7 Contraceptive prevalence for sexually active currently married, never-married, and formerly married women, by women's education

Country	Currently married			Never-married			Formerly married		
	None	Primary	Secondary	None	Primary	Secondary	None	Primary	Secondary
Central Africa									
Cameroon 2011	3.7	15.1	27.6	*	31.2	60.7	(2.4)	33.6	38.9
Congo 2011-12	12.2	15.0	23.7	(29.5)	23.5	46.1	(13.3)	23.3	36.4
DR Congo 2013-14	4.5	5.5	13.8	(7.5)	14.4	25.1	12.4	7.2	22.9
Gabon 2012	12.8	15.1	25.2	*	33	50.3	*	25.9	40.8
Western Africa									
Cote d'Ivoire 2011-12	11.6	19.7	22.6	15.2	31.1	39.6	31.1	26.3	(32.3)
Ghana 2014	23.7	31.3	27.1	(23.8)	28.9	28.8	*	(37.2)	28.0
Liberia 2013	18.1	21.8	31.1	20.1	26.8	42.3	31.8	23.6	35.7
Nigeria 2013	1.7	15.2	22.0	(12.8)	40.1	57.0	(17.5)	32.6	39.7
Sierra Leone 2013	17.3	25.8	32.2	39.4	36	64.8	42.9	(54.3)	41.5
Eastern and Southern Africa									
Kenya 2014	21.0	60.1	64.6	*	51.3	71.3	(40.0)	57.9	56.6
Lesotho 2014	(35.0)	60.7	69.9	*	63.3	70.9	*	72.6	80.8
Malawi 2015-16	58.5	65.3	64.7	*	28.4	39.2	42.7	56.1	56.1
Mozambique 2011	6.4	13.5	38.9	(2.8)	15.0	47.9	6.4	25.3	49.8
Namibia 2013	36.5	51.3	62.7	52.6	71.9	80.7	*	(56.9)	72.7
Tanzania 2015-16	28.2	37.9	37.3	*	41.8	42.6	45.5	51.4	43.8
Zambia 2013-14	35.7	45.7	56.4	*	23.9	37.2	*	47.6	45.9
Zimbabwe 2015	56.2	65.9	71.4	*	(53.7)	60.1	*	74.2	70.3
Latin America and the Caribbean									
Colombia 2010	66.6	76.8	75.3	*	65.7	74.5	*	78.4	76.2
Dom. Rep. 2013	58.9	71.1	70.2	*	(44.9)	54.2	*	69.6	64.8
Honduras 2011-12	54.2	68.5	71.6	*	61.3	58.4	*	71.3	76.2
Peru 2012	44.2	49.1	60.3	*	57.0	66.8	*	57.2	58.8

Household Wealth

As Table 8 shows, contraceptive use among currently married women is generally positively associated with the level of household wealth. In most countries, contraceptive prevalence is highest among married women in the richest household quintile and lowest among those in the poorest. Wealth-related disparities in contraceptive use are greater in countries with low contraceptive prevalence than in those with high prevalence. For example, in Nigeria and Mozambique women in the richest wealth quintile are 9-10 times more likely than women in the poorest quintile to report contraceptive use. In Latin America and the Caribbean, where the overall contraceptive prevalence is high, the differences between the richest and poorest are smaller. In Colombia, contraceptive prevalence is higher than 70% across all wealth groups. Excluding wealth groups with only a few women who have never married, the positive relationship between contraceptive prevalence and household wealth generally holds among never-married women. Such a relationship generally holds among formerly married women in Central Africa but not in Latin America and the Caribbean. The assessment in West Africa and Eastern and Southern Africa is limited because of the small number of women in various wealth groups.

Table 8 Contraceptive prevalence among sexually active currently married, never-married, and formerly married women, by wealth quintile

Country	Currently married					Never-married					Formerly married				
	Lowest	Second	Middle	Fourth	Highest	Lowest	Second	Middle	Fourth	Highest	Lowest	Second	Middle	Fourth	Highest
Central Africa															
Cameroon 2011	3.0	8.5	16.4	23.5	28.2	(31.6)	33.7	41.7	55.9	65.8	*	25.3	29.1	34.3	41.3
Congo 2011-12	9.9	15.7	21.1	23.7	31.0	19.5	31.2	36.4	52.1	51.4	17.3	29.6	31.5	35.5	(46.7)
DR Congo 2013-14	3.5	5.2	4.9	11.9	18.7	12.8	20.0	17.8	31.2	24.1	11.0	7.0	13.5	22.4	20.0
Gabon 2012	13.6	21.4	24.3	23.9	23.7	29.4	36.5	39.0	60.9	59.3	28.8	39.3	37.6	36.2	(36.2)
Western Africa															
Cote d'Ivoire 2011-12	9.6	13.1	12.2	18.1	21.8	16.3	20.4	26.0	33.0	37.6	(28.6)	(30.6)	(36.5)	(20.9)	(34.9)
Ghana 2014	28.6	31.1	28.7	23.8	24.6	36.0	31.3	33.9	19.5	26.9	*	(46.5)	33.3	(28.7)	(17.8)
Liberia 2013	16.5	19.6	26.5	28.5	23.0	22.5	24.9	36.8	41.6	35.7	32.1	32.5	36.7	(28.8)	(27.2)
Nigeria 2013	0.8	3.9	10.1	15.8	25.5	(21.3)	29.3	48.4	55.8	64.5	*	(19.9)	30.5	39.9	(43.2)
Sierra Leone 2013	14.9	15.1	17.0	25.1	32.4	46.5	47.5	44.8	59.0	65.6	(33.2)	(29.8)	(42.8)	48.1	51.2
Eastern and Southern Africa															
Kenya 2014	32.6	59.1	63.6	65.3	64.0	(40.7)	(60.6)	(66.9)	52.8	75.6	33.3	64.3	58.5	63.8	(54.7)
Lesotho 2014	56.5	63.1	66.2	66.4	70.5	*	(63.5)	(67.9)	78.4	65.7	(60.8)	(70.2)	(79.1)	(79.7)	(84.0)
Malawi 2015-16	58.2	64.0	64.8	66.2	66.8	(26.0)	(25.6)	28.9	37.2	38.0	45.7	58.6	43.7	64.8	58.5
Mozambique 2011	3.7	6.7	8.9	18.1	35.8	(0.0)	3.3	10.3	20.1	52.1	9.2	2.6	22.6	31.0	43.2
Namibia 2013	45.4	57.1	58.1	60.3	64.7	71.6	78.6	79.0	77.6	82.3	(50.9)	*	(83.6)	(81.1)	(73.2)
Tanzania 2015-16	24.0	31.8	40.2	44.4	36.3	(21.9)	37.5	49.1	41.3	44.1	47.6	43.4	48.7	46.3	57.9
Zambia 2013-14	34.9	44.0	47.6	53.0	60.1	27.0	25.1	24.0	37.4	42.3	44.6	51.3	51.0	45.1	(35.8)
Zimbabwe 2015	66.5	65.8	66.7	71.9	74.7	*	*	*	52.8	60.6	(65.9)	*	(76.9)	71.7	65.6
Latin America and the Caribbean															
Colombia 2010	71.0	75.6	75.7	78.3	77.1	57.1	69.2	73.3	75.1	80.0	76.3	78.1	75.1	75.9	77.7
Dom. Rep. 2013	66.1	74.5	69.0	68.9	71.8	(74.8)	(49.4)	51.6	44.7	55.7	69.1	75.6	69.6	57.2	59.8
Honduras 2011-12	60.6	67.4	70.4	72.1	73.4	(73.4)	57.9	53.3	63.3	56.6	70.8	66.3	73.8	73.8	76.5
Peru 2012	45.2	56.4	57.6	58.4	63.8	44.3	56.8	67.1	67.8	69.4	(52.2)	51.4	64.4	50.0	65.9

Employment Status

Among currently married women and formerly married women, contraceptive prevalence is generally higher among employed women than unemployed women (Table 9). Overall the employment-related differences are greater in Eastern and Southern Africa than in the other regions. Never-married women share a similar pattern, except in Central Africa, where unemployed women have higher contraceptive prevalence than employed women. The difference is 9-10 percentage points in three of the four countries studied.

Table 9 Contraceptive prevalence among sexually active currently married, never-married, and formerly married women, by employment status

Country	Currently married		Never-married		Formerly married	
	Unemployed	Employed	Unemployed	Employed	Unemployed	Employed
Central Africa						
Cameroon 2011	15.5	16.7	58.8	48.2	26.7	35.6
Congo 2011-12	25.5	19.0	45.5	36.4	33.8	31.7
DR Congo 2013-14	10.8	7.9	25.5	18.1	12.3	16.1
Gabon 2012	19.8	23.8	50.2	40.8	42.5	32.2
Western Africa						
Cote d'Ivoire 2011-12	12.8	15.8	34.5	26.7	(17.8)	33.6
Ghana 2014	23.4	27.6	30.9	27.0	*	33.0
Liberia 2013	21.4	23.7	32.9	39.1	29.9	32.1
Nigeria 2013	4.9	12.9	55.5	54.5	*	33.9
Sierra Leone 2013	22.1	20.2	59.4	55.0	45.1	44.7
Eastern and Southern Africa						
Kenya 2014	51.6	61.7	66.0	65.5	(39.8)	59.7
Lesotho 2014	60.2	72.3	64.6	75.0	65.6	82.5
Malawi 2015-16	57.4	67.3	28.3	38.7	44.0	56.5
Mozambique 2011	14.0	14.3	30.2	39.5	27.1	25.5
Namibia 2013	51.5	63.9	72.3	83.7	71.7	67.2
Tanzania 2015-16	31.7	37.1	34.8	44.3	(44.5)	50.0
Zambia 2013-14	50.2	46.8	27.1	39.7	41.0	49.0
Zimbabwe 2015	68.6	70.7	50.2	66.3	65.1	74.3
Latin America and the Caribbean						
Colombia 2010	73.5	77.3	71.3	76.4	72.8	77.8
Dom. Rep. 2013	69.1	71.3	53.8	52.6	68.9	64.8
Honduras 2011-12	66.4	72.5	58.3	60.0	71.1	74.2
Peru 2012	60.5	54.0	67.2	66.0	53.2	59.5

Urban-Rural Residence

Table 10 indicates, irrespective of marital status, women in urban areas use contraception to a much greater extent than women in rural areas. Ghana is an exception, where rural women have higher contraceptive prevalence than urban women in all three marriage groups. Among other countries, the relative urban-rural difference is greatest among currently married women. In Cameroon, Congo, Congo Democratic Republic, Nigeria, and Mozambique, contraceptive prevalence among urban married women is more than double that of rural married women. Among never-married women, the relative urban-rural difference is

Table 10 Contraceptive prevalence among sexually active currently married, never-married, and formerly married women, by residence

Country	Currently married		Never-married		Formerly married	
	Urban	Rural	Urban	Rural	Urban	Rural
Central Africa						
Cameroon 2011	23.3	9.7	60.0	36.3	35.8	28.6
Congo 2011-12	24.9	12.6	46.4	26.6	35.0	22.6
DR Congo 2013-14	16.3	5.0	26.7	17.8	22.5	9.4
Gabon 2012	23.2	13.2	48.8	32.6	37.8	24.7
Western Africa						
Cote d'Ivoire 2011-12	18.6	12.3	35.4	16.6	29.3	31.3
Ghana 2014	24.3	29.7	27.0	30.6	23.1	46.9
Liberia 2013	18.6	5.8	62.9	43.9	33.5	31.8
Nigeria 2013	30.7	16.5	63.6	48.8	49.9	37.8
Sierra Leone 2013	25.7	19.4	36.6	30.7	30.8	32.0
Eastern and Southern Africa						
Kenya 2014	62.9	55.9	73.6	54.0	58.1	53.3
Lesotho 2014	70.0	63.1	70.4	67.8	81.0	71.9
Malawi 2015-16	67.6	63.5	36.4	32.3	58.1	52.6
Mozambique 2011	26.0	9.1	48.4	10.5	37.5	14.5
Namibia 2013	61.7	52.5	80.8	74.3	75.4	57.3
Tanzania 2015-16	39.1	34.7	39.8	42.9	54.7	45.1
Zambia 2013-14	55.9	43.0	43.3	22.0	45.6	46.7
Zimbabwe 2015	73.5	67.3	59.6	55.7	65.3	78.1
Latin America and the Caribbean						
Colombia 2010	75.9	74.5	74.8	68.7	75.9	80.9
Dom. Rep. 2013	69.4	72.2	54.1	48.9	64.2	74.8
Honduras 2011-12	72.1	66.0	60.0	56.5	74.2	70.5
Peru 2012	59.6	48.8	67.9	53.3	58.6	58.8

greatest in Cote d'Ivoire, Mozambique, and Zambia. In Latin America and the Caribbean, differences between urban and rural areas in contraceptive use are minimal across all three marriage groups.

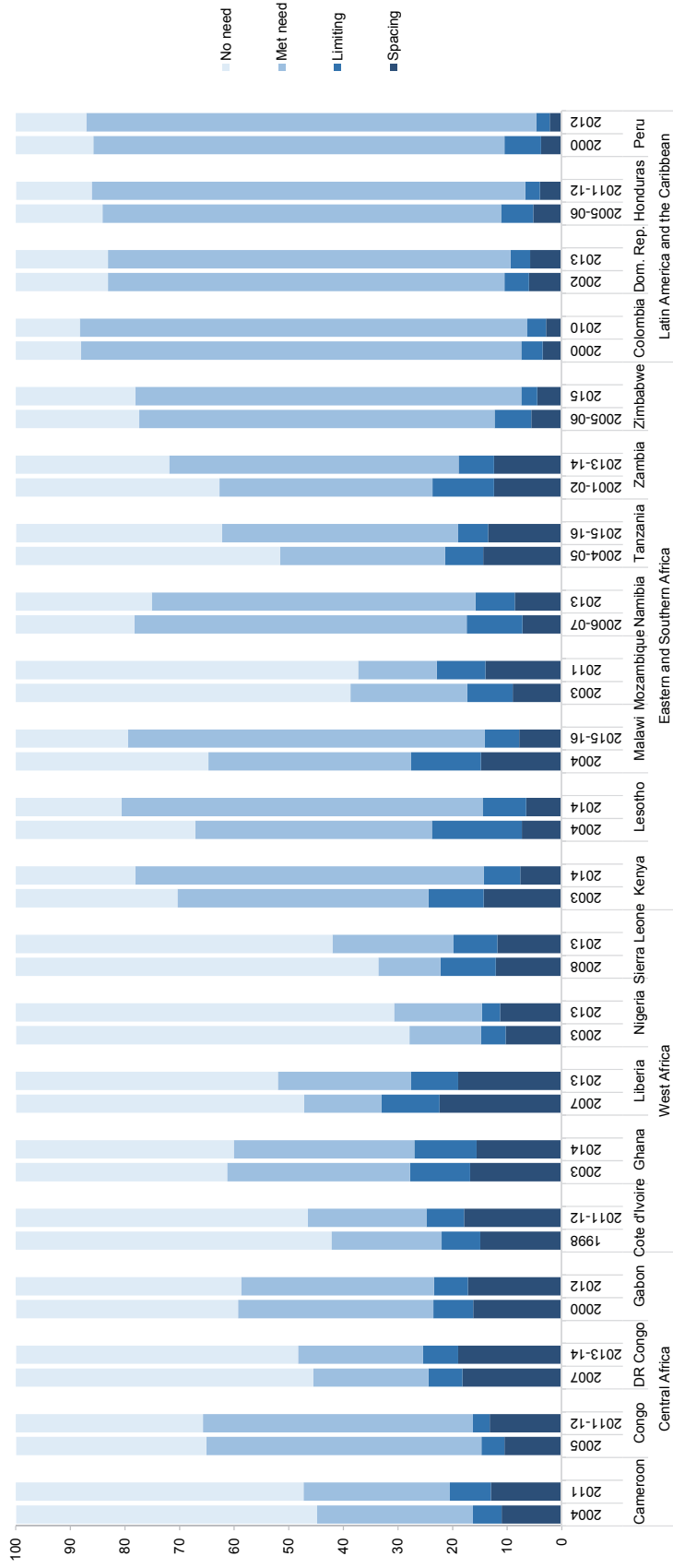
3.3 Unmet Need for Family Planning and Marital Status

Levels and trends in unmet need by marital status

Unmet need for family planning among sexually active currently married women, never-married women, and formerly married women is shown in Figures 7, 8, and 9 respectively. The figures indicate the proportion of each group with unmet need (shown separately for spacing and for limiting), met need, and no need. Additionally, Figure 10 shows demand satisfied for each marriage group.

According to Figure 7, total unmet need among sexually active married women ranges from 5% in Peru (2012) to 33% in Liberia (2007). On average across countries, 18% of sexually active married women have unmet need for family planning—11% for spacing and 7% for limiting births. An average of 45% of sexually active married women have their need met (by contraceptive use), while 37% do not need family planning. Unmet need is lowest in Latin America and the Caribbean and highest in West Africa. In 16 of 21 countries, unmet need decreased between surveys. The decrease in unmet need among sexually active married women ranged from 0.1 percentage points in Gabon to 14 percentage points in Malawi, while the increase ranged from 1 percentage point in Congo to 6 percentage points in Mozambique. Only one surveyed country in Central Africa—Gabon—experienced a decrease in unmet need among married women, while all surveyed countries in Latin America and the Caribbean experienced decreases.

Figure 7 Percent distribution of sexually active currently married women by unmet need status



Unmet need among sexually active never-married women ranges from 7% in Peru (2012) to 60% in Malawi (2004) (Figure 8); it averages 30% across surveys. Meanwhile, the level of met need averages 58% across surveys, while a survey average of 12% of sexually active never-married women do not need family planning. Regional patterns in unmet need are similar to those among sexually active married women. In 11 of 21 countries, prevalence of unmet need among sexually active never-married women decreased between surveys, ranging from 1 percentage point in Namibia to 20 percentage points in Nigeria. In countries where the level of unmet need increased, the range was from 2 percentage points in Congo to 21 percentage points in Cote d'Ivoire. Eastern and Southern Africa had the largest share of countries where unmet need declined between surveys, while no surveyed countries in Central Africa had a decline in unmet need.

Figure 8 Percent distribution of sexually active never-married women by unmet need status

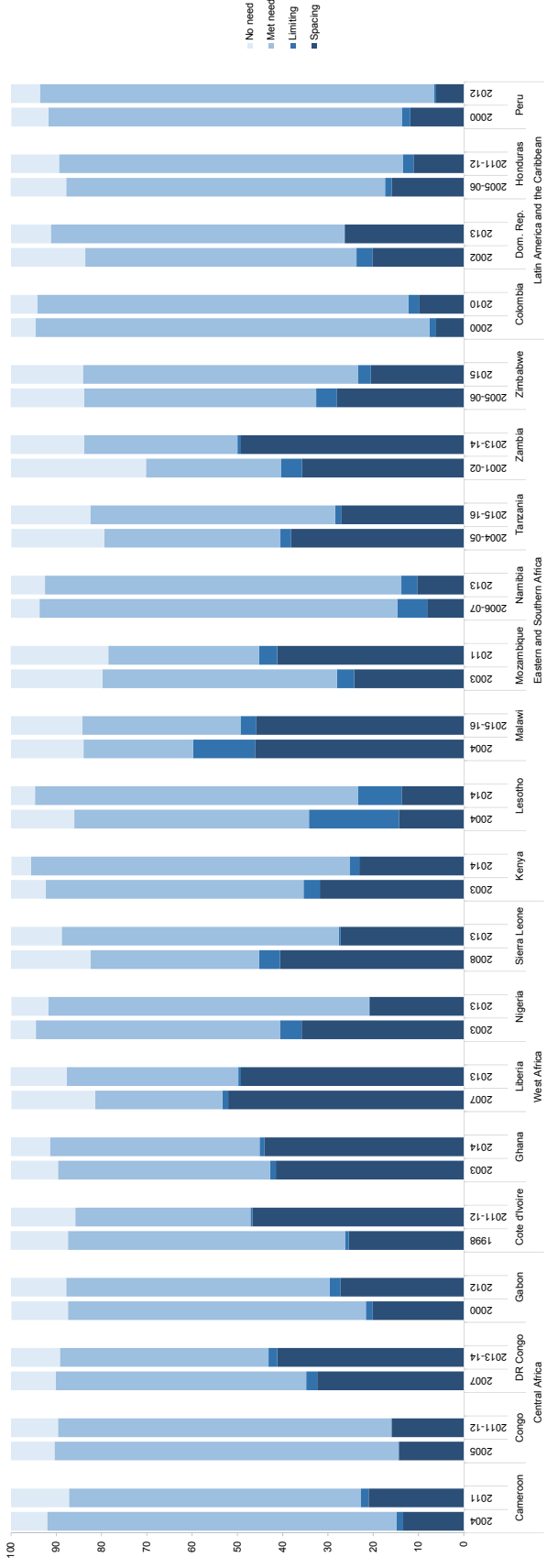


Figure 9 shows a range of unmet need among sexually active formerly married women, from 6% in Peru (2012) to 46% in Sierra Leone (2008). On average it is 25%, lower than among sexually active never-married women but higher than among sexually active married women. Regional patterns in unmet need among sexually active formerly married women are similar to those for their married and never-married counterparts. In 16 of 21 countries, unmet need among sexually active formerly married women decreased between surveys, ranging from 1 percentage point in Colombia to 21 percentage points in Lesotho. In countries where the level of unmet need increased, the range was from 2 percentage points in Cameroon to 12 percentage points in Mozambique. Only two of the four surveyed countries in Central Africa experienced a decline in unmet need among formerly married women, while all four surveyed countries in Latin America and the Caribbean experienced a decline.

Figure 9 Percent distribution of sexually active formerly married women by unmet need status

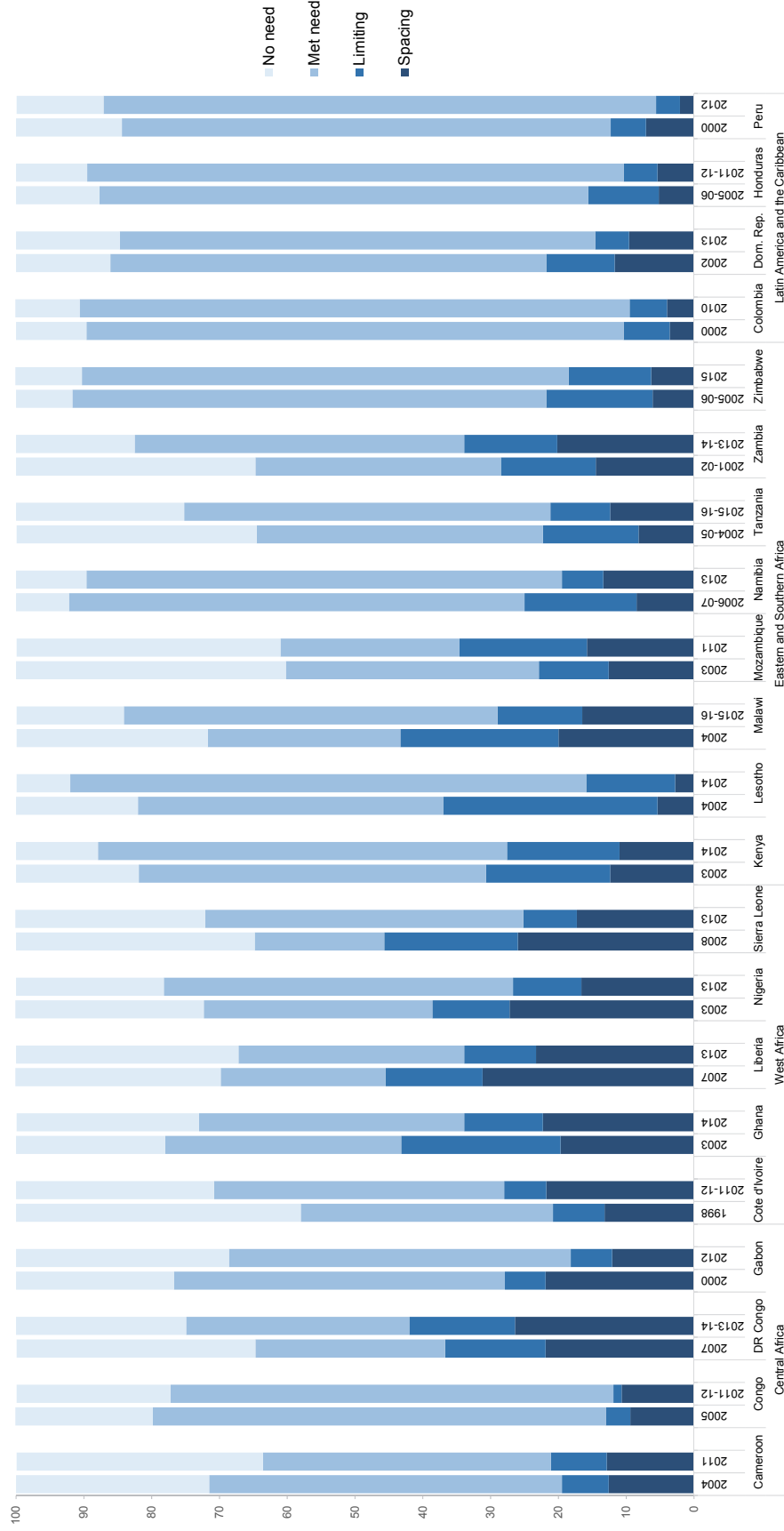
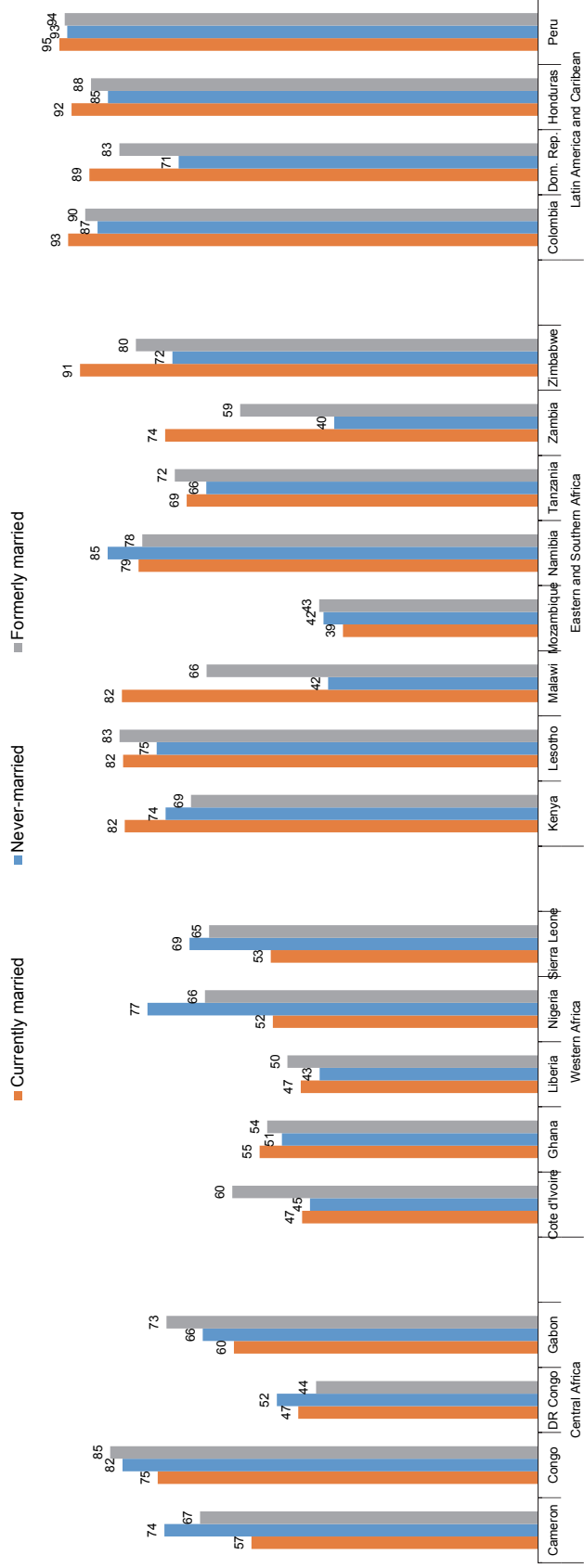


Figure 10 shows demand satisfied for family planning among sexually active married, never-married, and formerly married women in the most recent country survey. It averages 70%, 66%, and 70%, for each group respectively. In 9 of 21 countries, the level of demand satisfied is highest among sexually active married women; in 5 countries it is highest among sexually active never-married women, and in the remaining 7 countries it is highest among sexually active formerly married women. Malawi, Zambia, and Nigeria exhibit particularly strong differentials in demand satisfied among the groups. Among married women, demand satisfied is 41 percentage points higher than among formerly married women in Malawi (2015-16), 33 percentage points higher in Zambia (2013-14), but 25 percentage points lower in Nigeria (2013). Conversely, Peru (2012), Ghana (2014), Tanzania (2015-16), Liberia (2013), and Namibia (2013) exhibit relatively small differentials in demand satisfied across the marital status groups.

Figure 10 Percentage of sexually active women with demand for family planning satisfied, by marital status



Differentials in unmet need by background characteristics

Age

Table 11 shows unmet need by women's marital status and age for the most recent survey by country. Among sexually active married women, average unmet need tends to have an inverse relationship with age group. In 10 of 21 countries, unmet need among sexually active married adolescents (age 15-19) is the highest of any age group, and as high as 37% in Liberia (2013). In Namibia (2013) there is a differential of 11 percentage points in unmet need between women age 15-19 and women age 20-24, and in Gabon (2012) and Colombia (2010) a differential of 10 percentage points.

Excluding never-married women age 45-49, who number too few to produce estimates in all but two countries, the average inverse relationship between unmet need and age also holds among sexually active never-married women who are predominantly age 15-34. Among this group, young women age 15-19 have the highest level of unmet need in 16 of the 21 countries. Unmet need among sexually active never-married adolescents is highest in Zambia (2013-14), where an estimated 67% of sexually active never-married women age 15-19 have an unmet need for family planning, followed by Liberia (2013), at 60%. The greatest difference in unmet need between women age 15-19 and women age 20-24 is in Zimbabwe (2015), at 32 percentage points, followed by Zambia (2013-14), at 30 percentage points.

Few countries have sufficient numbers of formerly married adolescents to compare with other age groups. On average, however, the inverse relationship between women's age and unmet need also holds among sexually active formerly married women. In four of the six countries with sufficient numbers for comparison—Congo (2011-12), Honduras (2011-12), Malawi (2015-16), and Mozambique (2011)—unmet need among sexually active formerly married women is highest at age 15-19.

Table 11 Percentage of sexually active currently married, never-married, and formerly married women with an unmet need for family planning, by women's age

Country	Currently married					Never-married					Formerly married											
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	15-19	20-24	25-29	30-34	35-39	40-44	45-49	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Central Africa																						
Cameroon 2011	21.1	21.4	19.9	21.7	20.8	21.9	14.5	32.6	17.1	17.9	10.4	(23.6)	*	*	*	30.6	22.5	27.3	13.3	19.5	(5.5)	
Congo 2011-12	31.5	22.7	17.0	15.4	10.1	11.6	9.1	19.4	10.0	20.4	(7.5)	*	*	*	(28.8)	23.0	13.2	6.1	6.0	4.9	5.1	
DR Congo 2013-14	24.8	27.0	28.4	27.5	25.6	22.1	12.9	48.1	40.9	36.3	(34.6)	*	*	*	(49.7)	42.4	50.3	44.0	36.6	36.2	(28.8)	
Gabon 2012	35.6	25.9	23.2	21.6	23.0	21.6	17.7	31.8	29.1	33.8	21.3	(15.6)	*	*	*	(5.6)	19.4	21.9	30.2	10.5	(21.6)	
Western Africa																						
Cote d'Ivoire 2011-12	21.2	30.4	29.3	21.7	24.4	24.7	12.2	57.7	46.9	32.6	(32.1)	*	*	*	(9.2)	(35.6)	(20.2)	*	*	*	*	
Ghana 2014	31.9	30.9	28.6	25.1	32.2	26.1	15.4	51.2	40.2	46.2	(43.9)	*	*	*	*	(21.0)	(39.9)	(45.9)	*	*	*	
Liberia 2013	37.2	35.2	31.8	24.3	29.1	24.4	12.2	59.7	45.4	34.2	(26.5)	*	*	*	(42.6)	23.4	24.5	24.5	44.7	(24.8)	(36.2)	
Nigeria 2013	11.9	14.9	15.5	15.6	14.8	15.5	11.4	35.3	16.4	15.3	11.2	(17.9)	*	*	*	*	(19.8)	30.4	32.5	(28.1)	(10.0)	
Sierra Leone 2013	22.1	18.8	19.3	16.5	22.9	22.6	17.8	36.0	19.5	20.8	3.9	(18.7)	*	*	*	*	31.1	19.8	19.5	(35.8)	(30.0)	
Eastern and Southern Africa																						
Kenya 2014	18.4	15.8	11.8	11.9	15.4	18.4	15.6	45.8	16.7	(18.0)	(29.2)	*	*	*	*	(47.4)	22.7	14.1	(22.5)	(49.2)	(13.7)	
Lesotho 2014	17.4	16.1	15.8	12.2	10.4	17.7	15.1	27.3	28.2	7.0	(14.2)	*	*	*	*	(18.1)	(16.7)	(9.0)	(9.0)	(9.6)	*	
Malawi 2015-16	16.9	13.7	13.1	12.9	14.8	15.1	15.2	53.6	41.1	(51.5)	*	*	*	*	(37.1)	30.8	24.7	30.2	28.1	(27.7)	*	
Mozambique 2011	19.5	19.6	24.6	25.6	26.8	24.3	16.7	57.5	32.9	23.2	(33.5)	*	*	*	(40.2)	35.3	31.7	33.6	37.1	35.3	(35.4)	
Namibia 2013	29.4	18.9	17.5	12.8	16.5	16.6	9.9	23.5	16.5	9.3	11.7	7.9	8.6	(18.0)	*	*	*	*	(8.6)	(14.9)	*	
Tanzania 2015-16	19.1	19.4	20.3	18.5	19.9	20.2	13.4	44.1	20.9	10.9	11.7	*	*	*	*	22.5	23.8	15.6	16.7	22.6	(28.0)	
Zambia 2013-14	21.8	19.4	16.4	18.5	20.8	21.2	15.3	66.9	36.8	27.9	(22.7)	*	*	*	*	(43.2)	43.8	22.6	28.5	(37.9)	*	
Zimbabwe 2015	7.6	6.9	7.3	5.6	8.6	10.1	7.0	(44.5)	12.4	(11.6)	*	*	*	*	*	(23.7)	(16.0)	14.6	(26.6)	(6.3)	*	
Latin America and the Caribbean																						
Colombia 2010	(21.3)	11.1	6.6	4.5	3.7	4.2	5.1	18.8	10.4	8.5	5.4	4.7	8.1	23.0	*	15.7	7.3	7.1	9.5	9.8	7.3	
Dom. Rep. 2013	24.2	18.2	9.5	6.9	4.7	3.5	4.6	36.3	28.9	(10.3)	*	*	*	*	18.7	27.5	13.6	8.0	9.1	13.5	(7.9)	
Honduras 2011-12	12.8	9.0	6.2	4.4	5.2	6.1	5.8	18.1	13.4	4.5	(24.8)	*	*	*	(25.9)	18.9	1.0	7.1	13.8	(5.5)	(10.2)	
Peru 2012	10.9	7.5	6.2	4.1	3.7	3.9	2.6	10.7	5.0	6.3	7.8	0.0	(0.0)	*	14.4	5.8	6.5	2.9	6.0	6.0	0.2	

Number of Living Children

Table 12 shows unmet need by women's number of living children and marital status. Among sexually active married women, average unmet need is highest among those with five or more children, and as high as 37% in Ghana (2014). In Tanzania and Mozambique married women with five or more children have more than five times the unmet need among nulliparous women. Among never-married sexually active women, average unmet need is highest among nulliparous women, reaching 60% in Zambia (2013-14). Among formerly married women, average unmet need is highest among those with five or more children, and as high as 50% in Mozambique (2011). In Gabon (2012) formerly married women with five or more children have nearly five times the level of unmet need as their nulliparous counterparts.

Table 12 Percentage of sexually active currently married, never-married, and formerly married women with an unmet need for family planning, by number of living children

Country	Currently married				Never-married				Formerly married			
	None	1-2	3-4	5+	None	1-2	3-4	5+	None	1-2	3-4	5+
Central Africa												
Cameroon 2011	8.7	15.8	22.1	30.7	22.8	19.9	(35.4)	*	(15.7)	20.5	20.2	28.2
Congo 2011-12	16.3	16.9	16.1	15.2	14.8	17.8	*	*	(0.0)	12.0	12.9	14.5
DR Congo 2013-14	10.6	24.0	26.3	30.4	43.5	42.1	*	*	(29.4)	42.1	45.2	41.6
Gabon 2012	12.4	21.1	26.3	30.8	28.8	29.1	(41.7)	(37.9)	(7.2)	12.7	27.6	35.2
Western Africa												
Cote d'Ivoire 2011-12	8.7	22.8	27.0	31.6	46.5	49.7	(32.4)	*	(16.8)	29.5	(31.5)	*
Ghana 2014	7.9	24.5	28.3	36.7	45.8	43.3	*	*	*	31.5	(44.0)	*
Liberia 2013	15.7	27.1	29.8	28.6	57.0	37.1	(39.0)	*	*	31.6	32.4	47.2
Nigeria 2013	4.7	13.4	14.8	19.7	20.3	23.1	*	*	*	21.2	21.3	35.6
Sierra Leone 2013	11.9	15.7	21.0	27.7	30.1	21.1	(23.1)	*	*	25.9	18.4	(44.9)
Eastern and Southern Africa												
Kenya 2014	9.4	11.2	12.5	24.1	30.5	12.4	*	*	*	29.4	20.9	39.2
Lesotho 2014	12.2	12.9	17.0	19.9	23.3	18.8	*	*	*	16.8	(17.1)	*
Malawi 2015-16	15.2	13.1	14.1	15.3	54.3	29.4	*	*	(21.8)	36.0	26.1	22.1
Mozambique 2011	6.3	18.6	28.4	33.2	47.8	36.7	*	*	15.0	32.9	42.1	50.2
Namibia 2013	16.2	14.2	13.8	24.3	18.2	11.1	11.3	(14.2)	*	21.7	12.3	*
Tanzania 2015-16	4.8	16.5	18.6	28.0	31.6	21.0	*	*	(13.8)	18.3	21.7	30.2
Zambia 2013-14	9.8	16.6	17.8	23.4	59.7	31.4	*	*	(22.6)	39.6	31.8	32.3
Zimbabwe 2015	7.0	6.6	7.0	11.2	27.2	19.0	*	*	*	17.9	16.4	*
Latin America and the Caribbean												
Colombia 2010	13.4	6.2	4.3	6.9	13.1	8.9	(19.2)	*	13.2	9.6	6.6	13.8
Dom. Rep. 2013	16.8	12.3	4.2	6.1	29.2	15.0	*	*	19.0	18.9	4.8	(13.2)
Honduras 2011-12	10.8	6.6	4.8	8.8	14.9	10.5	*	*	22.6	8.2	8.8	12.3
Peru 2012	6.4	4.2	4.4	7.1	7.1	4.2	*	*	(1.6)	6.0	7.9	(0.0)

Education

Table 13 shows unmet need by women's education and marital status. Notably, in only nine countries are there sufficient numbers of sexually active never-married women with no education about which to make estimates and in only eleven countries are there sufficient numbers of sexually active formerly married women with no education about which to make estimates. On average, unmet need has an inverse relationship with education—highest among women with no education and lowest among women with secondary education and above. This average association holds across all three marital status groups. Among married women, the greatest relative differential in unmet need by education is in Zimbabwe (2015), where women with no education are more than three times as likely to have an unmet need as women with secondary education and above. Data from countries with sufficient numbers of never-married women with no education show that the greatest relative differential in unmet need by education is in Nigeria (2013), where women with no education are more than three times as likely to have an unmet need as women with secondary education and above. Among countries with sufficient numbers of formerly married women with no education, the greatest relative differential in unmet need is in Cameroon (2011), where women with no education are more than twice as likely as women with secondary education and above to have an unmet need for family planning.

Table 13 Percentage of sexually active currently married, never-married, and formerly married women with an unmet need for family planning, by women's education

Country	Currently married			Never-married			Formerly married		
	None	Primary	Secondary	None	Primary	Secondary	None	Primary	Secondary
Central Africa									
Cameroon 2011	23.8	22.4	16.0	*	35.3	18.5	(43.9)	20.2	18.2
Congo 2011-12	23.8	19.2	14.3	(17.3)	24.0	14.0	(10.0)	15.3	11.0
DR Congo 2013-14	27.3	26.4	23.6	(64.4)	56.7	37.4	45.5	48.1	35.8
Gabon 2012	40.9	25.1	21.0	*	39.9	27.5	*	20.6	17.1
Western Africa									
Cote d'Ivoire 2011-12	26.8	25.2	14.2	60.2	48.1	37.2	36.6	23.7	(22.1)
Ghana 2014	28.1	28.0	26.2	(63.4)	47.9	43.2	*	(40.0)	31.5
Liberia 2013	26.6	29.8	27.3	48.0	58.7	44.8	35.8	36.0	31.1
Nigeria 2013	14.5	17.1	13.4	(63.3)	34.0	19.0	(41.7)	27.9	18.1
Sierra Leone 2013	19.9	18.8	20.0	33.3	45.3	23.5	24.4	(29.2)	23.7
Eastern and Southern Africa									
Kenya 2014	27.4	15.5	10.0	*	40.4	19.7	(19.5)	25.3	36.5
Lesotho 2014	(30.3)	17.1	12.1	*	30.9	21.2	*	19.3	13.2
Malawi 2015-16	15.9	14.2	12.4	*	52.3	46.4	35.9	27.4	28.8
Mozambique 2011	22.3	23.2	22.6	(36.0)	58.3	38.4	42.7	33.8	27.4
Namibia 2013	27.2	21.9	12.7	24.9	17.2	12.7	*	(24.6)	16.6
Tanzania 2015-16	24.4	18.6	14.4	*	31.8	23.3	26.3	20.6	17.5
Zambia 2013-14	23.6	20.5	14.7	*	55.9	47.4	*	29.9	38.2
Zimbabwe 2015	20.3	9.1	6.4	*	(30.5)	20.1	*	17.0	19.0
Latin America and the Caribbean									
Colombia 2010	11.8	6.3	6.2	*	18.1	11.9	*	10.1	9.1
Dom. Rep. 2013	12.4	9.2	9.3	*	(36.7)	25.3	*	12.6	15.1
Honduras 2011-12	11.1	6.8	6.0	*	11.9	13.8	*	13.6	6.8
Peru 2012	6.3	6.3	3.9	*	15.7	6.0	*	11.6	4.9

Household Wealth

Table 14 shows unmet need by wealth and marital status. For sexually active married and for never-married women, average unmet need is highest in the poorest wealth quintile and lowest in the highest wealth quintile. For formerly married women, average unmet need is highest in the second wealth quintile and lowest in the highest wealth quintile. Among sexually active married women, the difference in unmet need between the lowest and highest wealth quintiles is greatest in Kenya (2014), at 18 percentage points. Among sexually active never-married women, the difference is greatest in Nigeria (2013), at 49 percentage points. And among sexually active formerly married women, the greatest difference between unmet need in the lowest and highest wealth quintiles is 23 percentage points in Sierra Leone (2013).

Table 14 Percentage of sexually active currently married, never-married, and formerly married women with an unmet need for family planning, by household wealth quintile

Country	Currently married					Never-married					Formerly married				
	Lowest	Second	Middle	Fourth	Highest	Lowest	Second	Middle	Fourth	Highest	Lowest	Second	Middle	Fourth	Highest
Central Africa															
Cameroun 2011	25.3	21.7	21.3	19.3	15.6	(45.5)	39.6	26.0	23.2	12.5	*	18.8	31.9	19.8	14.8
Congo 2011-12	16.0	20.2	14.7	17.8	13.0	25.7	17.6	15.4	14.6	12.7	19.2	13.4	11.0	12.0	(4.1)
DR Congo 2013-14	26.6	25.9	25.3	27.1	22.1	48.6	49.4	44.9	45.3	35.1	43.8	57.8	36.1	42.5	35.9
Gabon 2012	29.1	25.4	24.8	21.6	18.2	42.6	37.4	31.9	24.1	21.0	20.5	19.1	16.1	(19.9)	(16.1)
Western Africa															
Cote d'Ivoire 2011-12	27.8	29.1	25.4	24.9	16.9	63.8	49.1	49.9	46.1	41.5	(34.8)	(22.7)	(27.8)	(37.9)	(18.0)
Ghana 2014	29.9	28.4	28.7	28.3	21.8	52.8	53.3	42.3	50.6	30.9	*	(39.8)	34.8	(34.0)	(30.6)
Liberia 2013	32.1	30.0	28.2	27.0	20.4	58.2	57.9	48.4	46.8	48.3	31.0	32.8	41.6	(32.7)	(30.0)
Nigeria 2013	14.4	14.0	17.5	16.8	11.1	(62.4)	43.1	23.3	20.5	13.7	*	(38.9)	36.0	16.9	(4.5)
Sierra Leone 2013	20.4	20.7	19.6	18.1	20.0	30.7	35.2	37.0	30.4	20.3	(42.7)	(41.6)	(10.4)	25.6	20.2
Eastern and Southern Africa															
Kenya 2014	26.3	19.8	12.9	10.0	8.6	(49.6)	(29.1)	(26.9)	31.3	18.0	31.2	20.2	17.5	27.9	(42.1)
Lesotho 2014	15.5	18.6	13.6	13.3	13.2	*	(36.5)	(26.5)	16.6	22.3	(22.4)	(24.5)	(15.7)	(15.5)	(7.0)
Malawi 2015-16	16.7	15.6	13.7	13.0	11.7	(36.5)	(60.7)	48.5	53.8	47.6	33.8	24.2	39.3	23.1	25.2
Mozambique 2011	24.2	25.6	20.3	20.1	23.6	(65.3)	60.3	66.1	56.4	31.8	42.0	41.5	30.3	38.6	27.2
Namibia 2013	22.9	18.2	18.3	14.5	9.6	18.5	13.2	13.3	13.6	12.6	(33.4)	*	(15.2)	(10.2)	(22.6)
Tanzania 2015-16	25.9	21.8	20.0	14.9	14.2	(39.6)	37.4	25.4	35.3	19.2	25.3	33.8	19.5	20.4	14.0
Zambia 2013-14	23.4	22.8	21.3	16.3	11.2	54.4	49.1	60.3	49.7	39.9	31.2	41.5	25.4	43.3	(28.3)
Zimbabwe 2015	8.7	8.7	5.9	8.6	5.1	*	*	*	22.3	22.0	(20.6)	*	(16.4)	18.4	24.0
Latin America and the Caribbean															
Colombia 2010	9.6	6.4	6.2	4.9	4.4	19.9	16.7	11.1	11.7	9.6	13.0	7.8	11.8	8.8	7.3
Dom. Rep. 2013	12.8	9.5	10.6	8.5	5.4	(17.2)	(35.6)	34.9	33.3	18.3	9.9	16.1	11.4	22.2	11.3
Honduras 2011-12	10.2	7.4	5.6	5.7	5.2	(10.4)	16.1	8.9	15.2	13.9	9.9	16.7	13.6	6.7	7.3
Peru 2012	8.3	5.4	3.7	3.4	3.1	12.6	5.5	3.3	6.3	7.7	(17.6)	9.7	5.7	3.7	3.7

Employment Status

Table 15 shows unmet need by employment and marital status. Among sexually active unemployed married women, unmet need ranges from 6% in Peru (2012) to 38% in Ghana (2014), and for employed married women the range is from 4% in Peru (2012) to 26% in Liberia (2013) and Ghana (2014). In 19 of the 21 countries, the level of unmet need is highest among sexually active married unemployed women. The same is true for unemployed sexually active never-married women in 17 countries, and for formerly married women in 14 countries. Ghana (2014) has the largest difference in unmet need between employed and unemployed married women, at 12 percentage points. For never-married women, the largest difference in unmet need between the employed and unemployed is in Tanzania (2015-16), at 19 percentage points. Malawi has the largest difference in unmet need between employed and unemployed formerly married women, at 20 percentage points.

Country	Currently married		Never-married		Formerly married	
	Unemployed	Employed	Unemployed	Employed	Unemployed	Employed
Central Africa						
Cameroon 2011	22.0	19.9	22.7	22.8	23.0	20.7
Congo 2011-12	19.5	15.2	17.3	14.2	18.8	10.0
DR Congo 2013-14	26.3	25.2	40.9	45.4	47.7	40.3
Gabon 2012	26.7	20.5	29.4	30.1	21.0	16.4
Western Africa						
Cote d'Ivoire 2011-12	24.7	24.8	43.7	49.4	(42.2)	23.7
Ghana 2014	37.5	25.5	47.8	43.3	*	35.1
Liberia 2013	31.8	25.5	53.4	43.9	35.8	32.5
Nigeria 2013	14.2	14.8	24.2	18.1	*	24.3
Sierra Leone 2013	22.5	19.1	28.6	26.4	22.8	25.6
Eastern and Southern Africa						
Kenya 2014	18.8	12.5	30.3	22.1	(41.1)	24.4
Lesotho 2014	17.1	11.2	29.8	15.3	21.6	12.5
Malawi 2015-16	17.1	12.7	56.5	42.6	45.0	24.8
Mozambique 2011	22.9	22.8	48.0	38.8	32.5	36.0
Namibia 2013	20.7	11.7	20.1	8.4	18.8	20.0
Tanzania 2015-16	22.8	18.1	41.4	22.5	(24.8)	20.9
Zambia 2013-14	18.9	18.8	57.5	39.8	39.6	30.7
Zimbabwe 2015	7.6	7.2	30.5	15.7	25.6	15.8
Latin America and the Caribbean						
Colombia 2010	8.2	4.7	16.5	8.6	10.2	9.2
Dom. Rep. 2013	11.4	7.3	29.0	23.2	14.3	14.8
Honduras 2011-12	8.0	4.9	15.6	11.6	10.9	10.1
Peru 2012	6.0	4.0	7.2	6.2	5.0	5.7

Residence

Table 16 shows unmet need by residence and marital status. On average, unmet need is higher among rural women in every marital status group. In 17 of 21 countries it is higher among rural sexually active married women, and in 18 countries it is higher among rural sexually active never-married women, while in 14 countries it is higher among rural sexually active formerly married women compared with their urban counterparts. The difference in unmet need between rural and urban married women is as high as 7 percentage points in Zambia (2013-14). The difference in unmet need between rural and urban never-married women is as high as 25 percentage points in Mozambique (2011). And among formerly married women, the difference in unmet need between rural and urban women is as high as 13 percentage points in Nigeria (2013).

Table 16 Percentage of sexually active currently married, never-married, and formerly married women with an unmet need for family planning, by residence

Country	Currently married		Never-married		Formerly married	
	Urban	Rural	Urban	Rural	Urban	Rural
Central Africa						
Cameroon 2011	18.5	22.4	18.2	34.4	20.1	23.8
Congo 2011-12	16.5	15.8	13.7	22.9	10.4	17.1
DR Congo 2013-14	25.2	25.6	34.4	50.5	40.3	43.4
Gabon 2012	22.9	26.7	28.7	40.3	17.7	21.8
Western Africa						
Cote d'Ivoire 2011-12	22.4	26.6	44.0	54.6	28.5	26.7
Ghana 2014	24.7	29.3	44.6	45.7	34.2	33.6
Liberia 2013	26.0	29.6	48.5	54.3	30.8	41.5
Nigeria 2013	13.4	15.2	14.9	29.4	19.0	31.8
Sierra Leone 2013	20.3	19.6	23.3	33.5	20.9	30.9
Eastern and Southern Africa						
Kenya 2014	10.8	16.8	19.4	34.0	32.5	21.8
Lesotho 2014	12.4	15.6	24.1	22.3	12.3	19.1
Malawi 2015-16	11.6	14.6	49.1	49.4	26.2	29.9
Mozambique 2011	22.3	23.1	35.0	60.2	34.9	34.3
Namibia 2013	13.4	19.8	11.6	17.6	15.3	27.2
Tanzania 2015-16	16.0	20.4	26.2	30.6	19.5	22.7
Zambia 2013-14	14.5	21.8	40.6	59.0	33.5	34.3
Zimbabwe 2015	7.5	7.3	19.9	28.3	24.5	12.5
Latin America and the Caribbean						
Colombia 2010	6.0	7.3	11.5	17.2	9.6	8.3
Dom. Rep. 2013	9.6	8.8	28.0	18.3	15.1	12.7
Honduras 2011-12	5.9	7.5	13.7	12.4	9.0	13.7
Peru 2012	3.8	6.8	6.4	7.2	4.9	11.2

Marital status and demand satisfied

The relationship between marital status and demand satisfied—defined the percentage of women who are using contraception (met need) among women determined to have a need for contraception—was assessed using logistic regression for the most recent survey in each country. The dependent variable modeled was demand satisfied, and independent variables modeled were marital status, age, number of living children, education, wealth, employment, and urban-rural residence.

Figure 11 plots the odds ratios and 95% confidence intervals of demand satisfied among never-married women relative to married women in the adjusted model. In 7 of 21 countries the coefficient on never-married women is statistically significant; in six of these seven cases—Colombia (2010), Cameroon (2011), Namibia (2013), Congo (2011-12), Sierra Leone (2013), and Nigeria (2013)—it is greater than one, indicating that, even after adjusting for background characteristics, never-married women are significantly more likely than married women to have their demand for family planning satisfied by using any contraceptive method. The coefficient point estimate is highest in Nigeria (2013), where it is estimated that never-married women have 3.2 times the odds of having their demand for family planning satisfied by any method than married women even after controlling for background characteristics. In Zambia (2013-14) the estimate is in the opposite direction: never-married women are estimated to have 43% lower odds of having their demand for family planning satisfied by any contraceptive method compared with married women even after controlling for background characteristics; this is the only odds ratio less than one that is statistically significant.

Figure 11 Odds ratios of sexually active never-married women compared with sexually active currently married women from multivariable regressions of demand satisfied

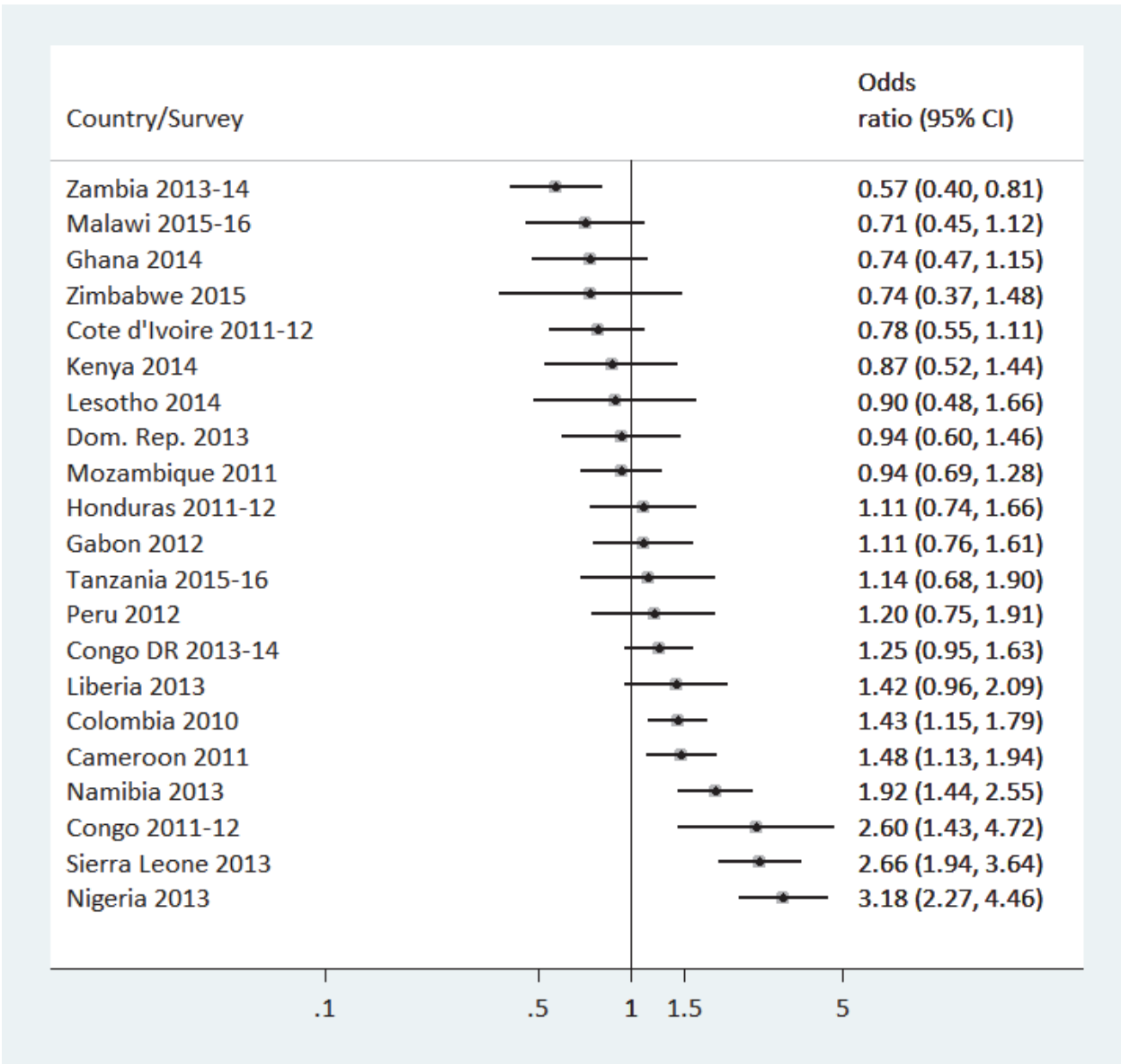
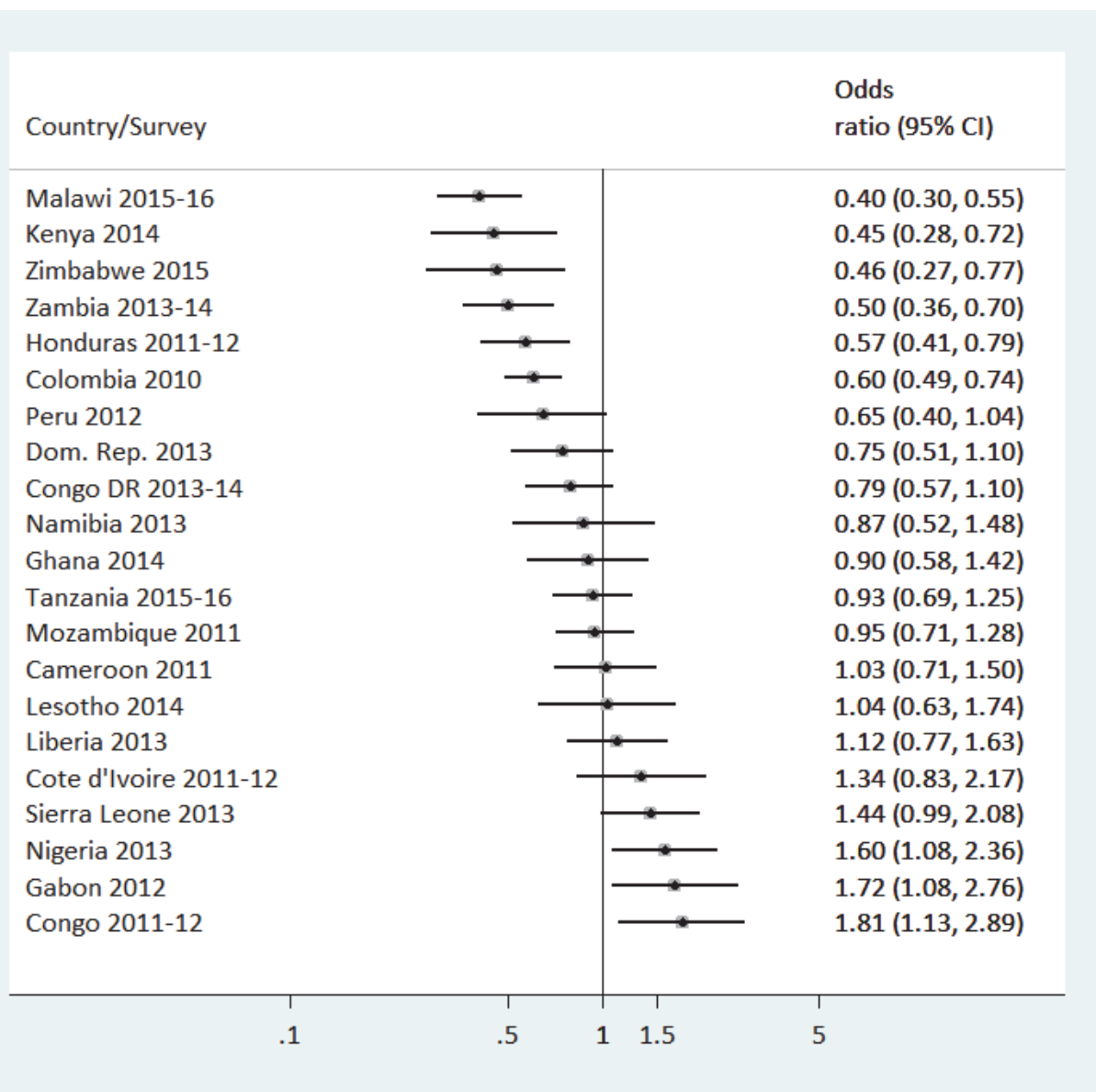


Figure 12 shows odds ratios of demand satisfied among formerly married women relative to married women by country. In 9 of 21 countries the result is statistically significant even after adjusting for background characteristics. In six of these nine countries—Kenya (2014), Malawi (2015-16), Zambia (2013-14), Zimbabwe (2015), Colombia (2010), and Honduras (2011-12)—the coefficient is less than one, indicating that formerly married women are significantly less likely to have their demand for family planning satisfied by using contraception than married women. In the remaining three countries—Congo (2011-12), Gabon (2012), and Nigeria (2013)—the coefficient is greater than one and statistically significant, indicating that formerly married women are significantly more likely to have their demand for family planning satisfied than married women, even after controlling for background characteristics.

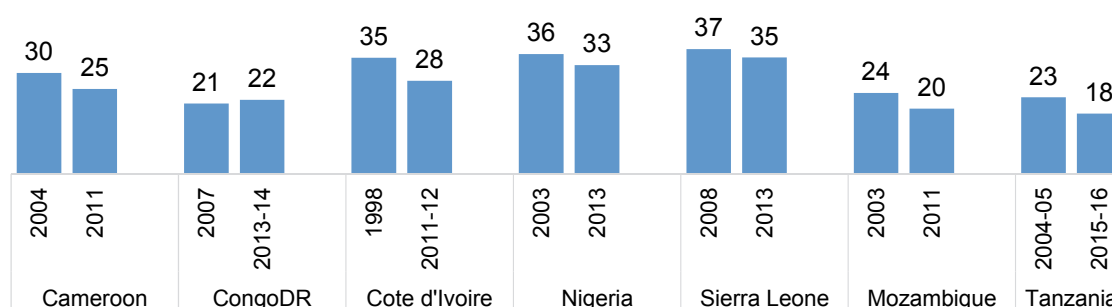
Figure 12 Odds ratios of sexually active formerly married women compared with sexually active currently married women from multivariable regressions of demand satisfied



3.4 Contraceptive Use and Unmet Need among Polygynous Women

We further examined contraceptive use and unmet need among sexually active women in polygynous marriages and compared them with women in monogamous marriages in seven countries with a relatively high prevalence of polygyny (20% or higher in one of the two surveys analyzed)—Cameroon, Congo Democratic Republic, Cote d’Ivoire, Nigeria, Sierra Leone, Mozambique, and Tanzania. Figure 13 shows the percentage of married women whose husbands/partners had more than one wife in the two surveys of each country. The prevalence of polygyny, calculated from most recent survey in each country, ranges from 18% in Tanzania (2015-16) to 35% in Sierra Leone (2013). Polygyny appears more common in West African countries than in the other African countries studied. For example, 33% of married women in Nigeria (2013) and 35% in Sierra Leone (2013) reported having one or more co-wives. All but one of the seven countries have experienced a slight decrease in the prevalence of polygyny between surveys.

Figure 13 Percentage of married women in polygynous marriages



Figures 14a-f present profiles of women in polygynous marriages compared with monogamous women by women’s age, number of living children, education, household wealth, employment status, and urban-rural residence. Compared with women married monogamously, women in polygynous marriages tend to be older, with more children, less educated, from poorer households, and living in rural areas. The two groups share a similar pattern of employment status.

Figure 14a Percent distribution of women for each marriage type by age

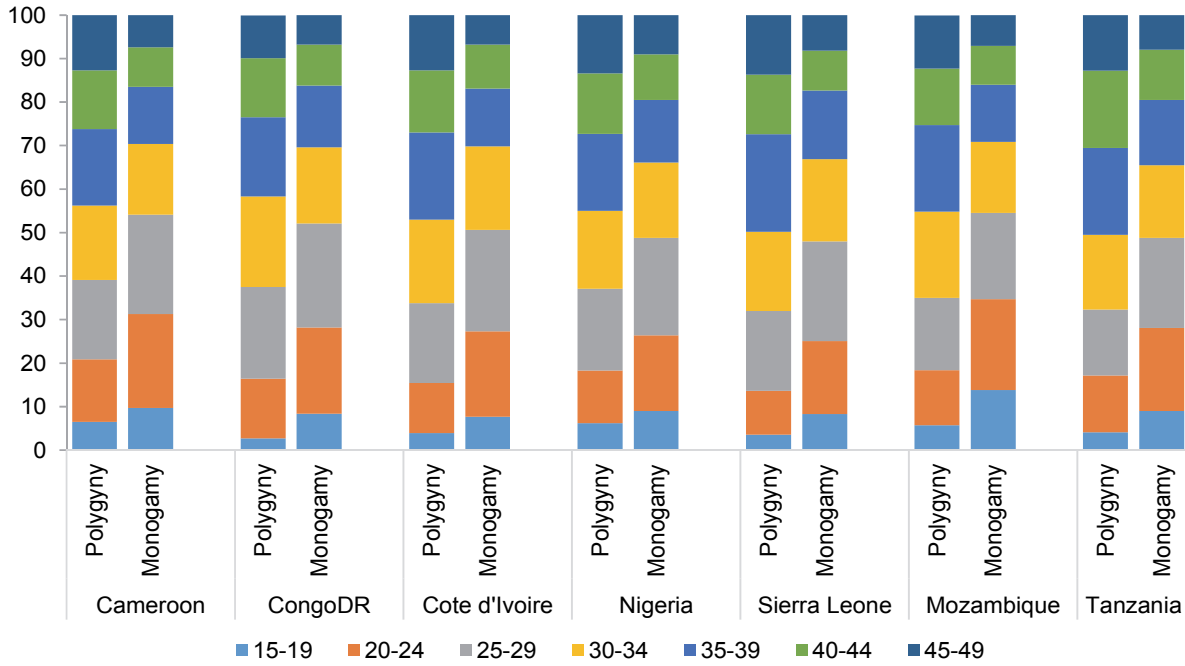


Figure 14b Percent distribution of women for each marriage type by number of children

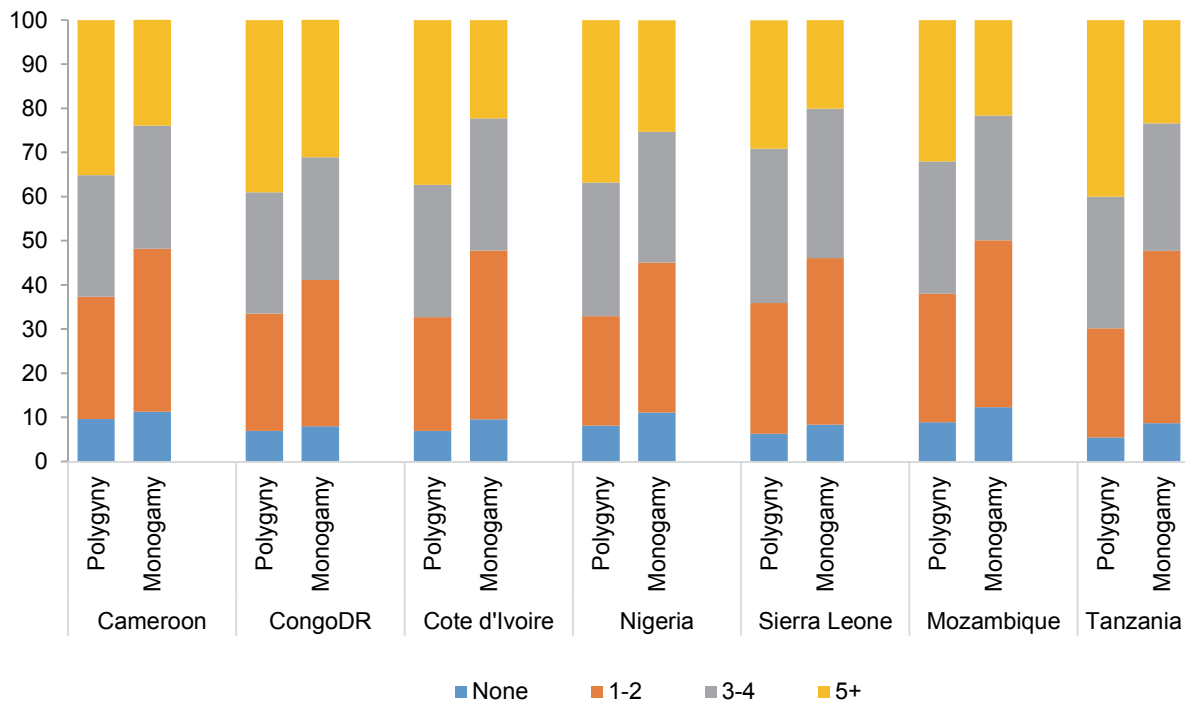


Figure 14c Percent distribution of women for each marriage type by education

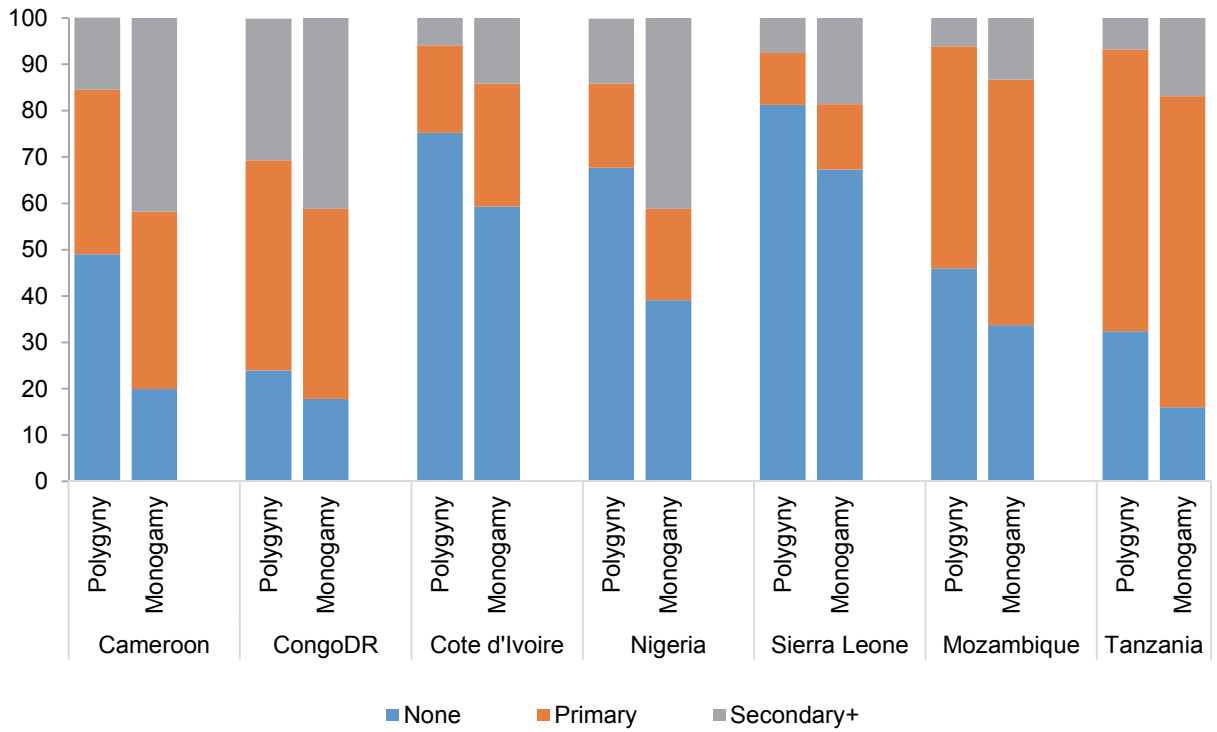


Figure 14d Percent distribution of women for each marriage type by wealth

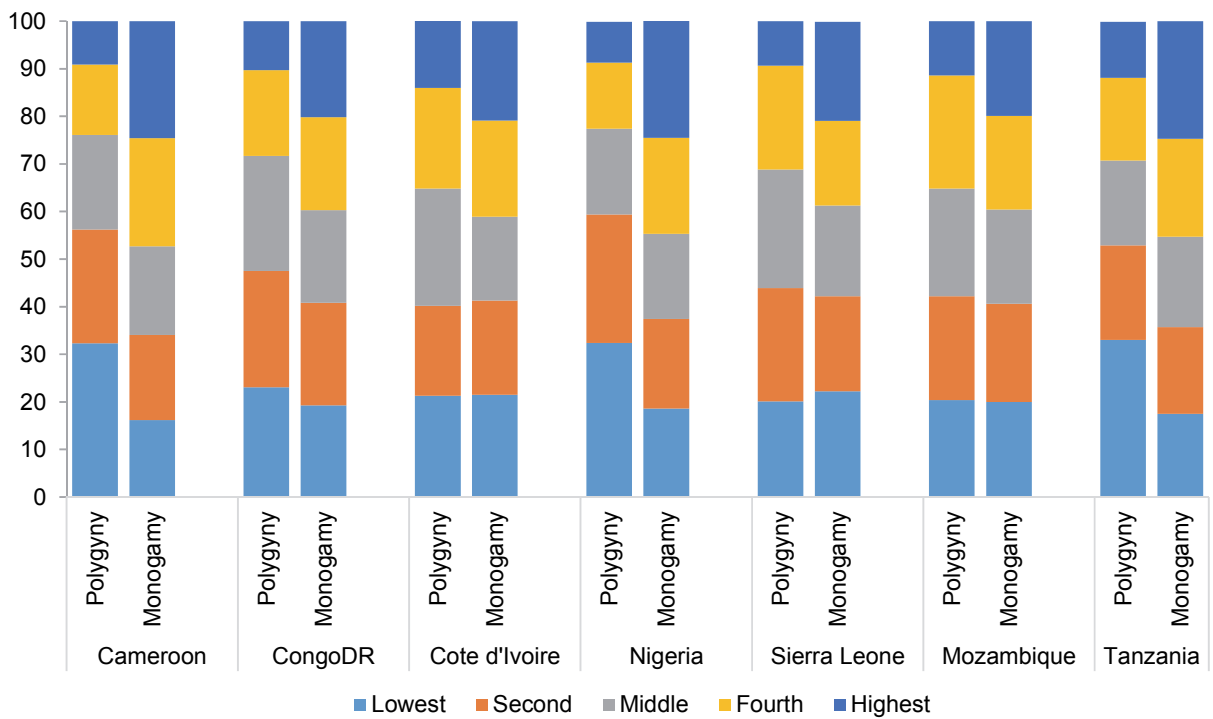


Figure 14e Percent distribution of women for each marriage type by employment status

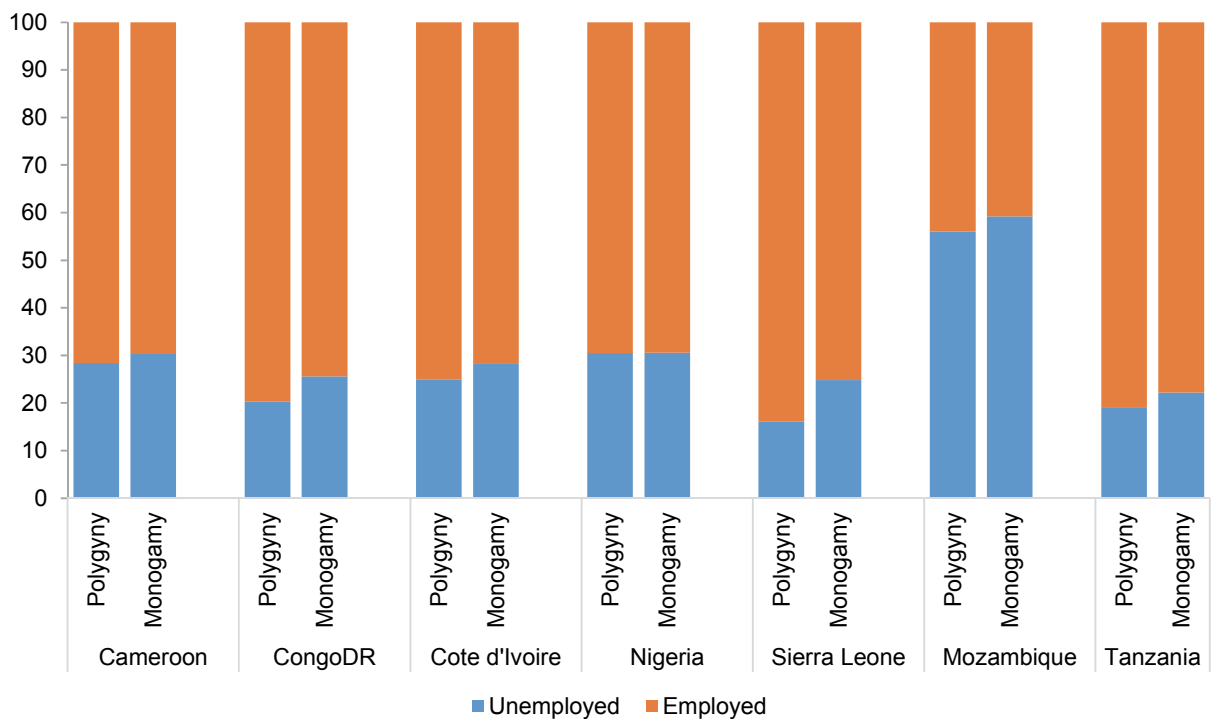
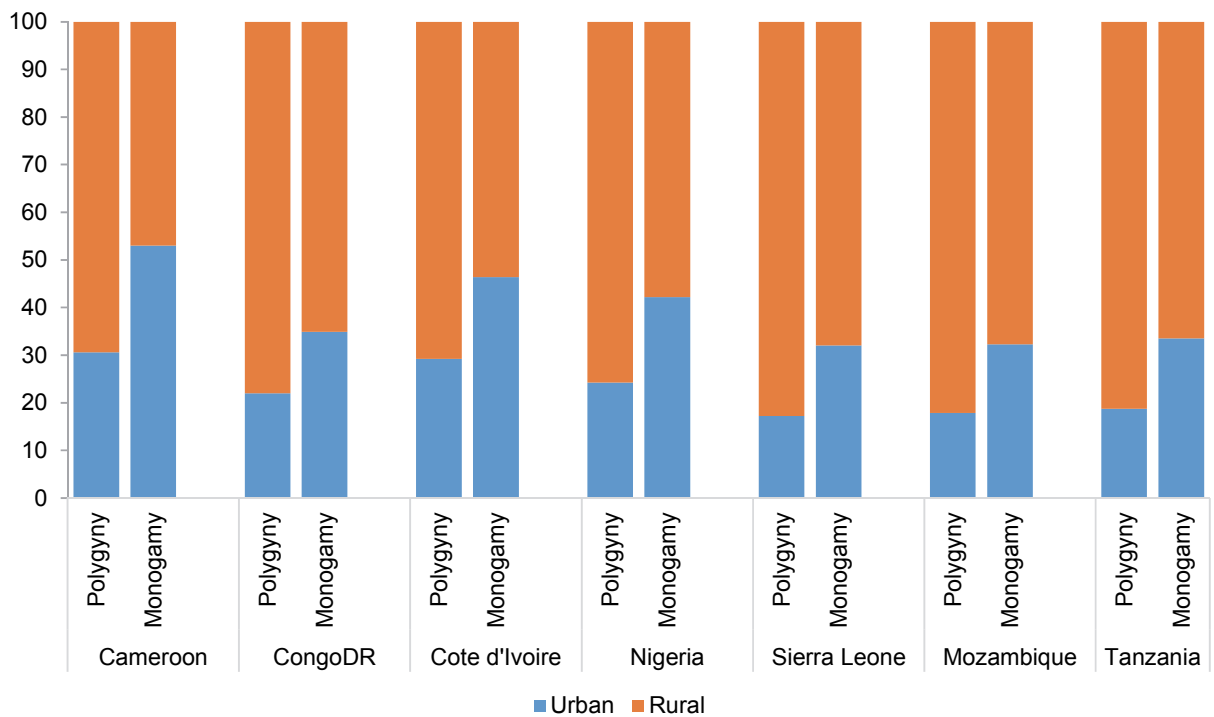


Figure 14f Percent distribution of women for each marriage type by urban-rural residence



Contraceptive use and unmet need among women in polygynous marriages

Figure 15 shows contraceptive prevalence for both polygynously and monogamously married women who were sexually active in last month based on the most recent survey in each of the seven countries. The overall contraceptive prevalence among polygynous women ranges from 8% in Nigeria to 32% in Tanzania, which is lower than among monogamous women in any of the countries. The greatest difference between the two groups is in Cameroon and Nigeria. In both countries, the percentage of women in polygynous marriages who use contraception is only half of that among women in monogamous marriages.

Figure 15 Contraceptive prevalence among sexually active currently married women, by marriage type

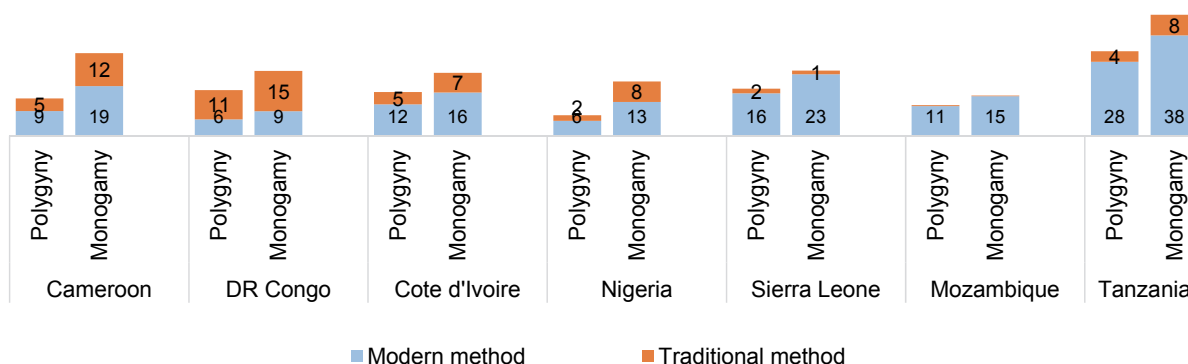
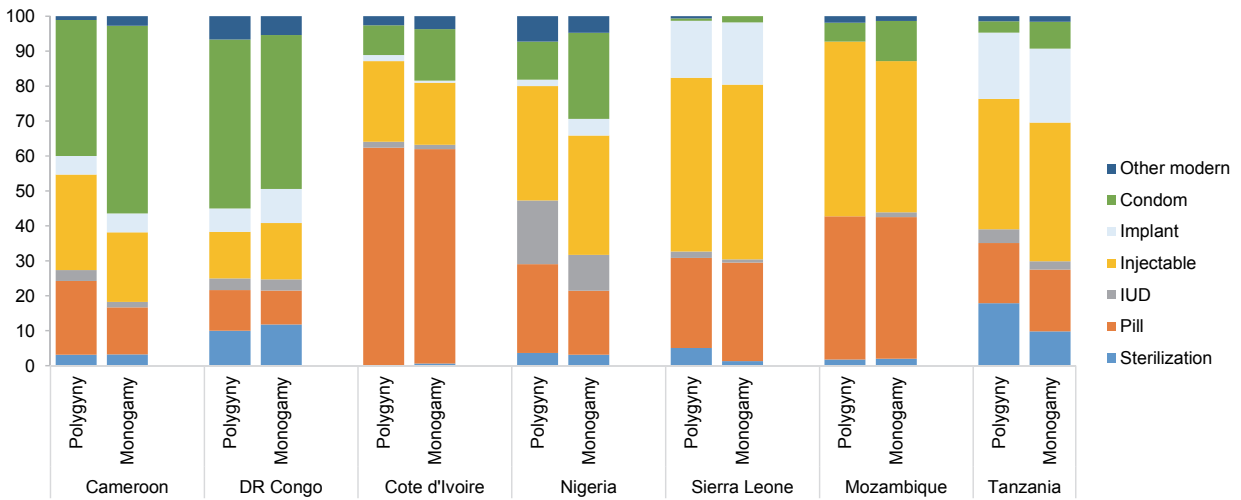


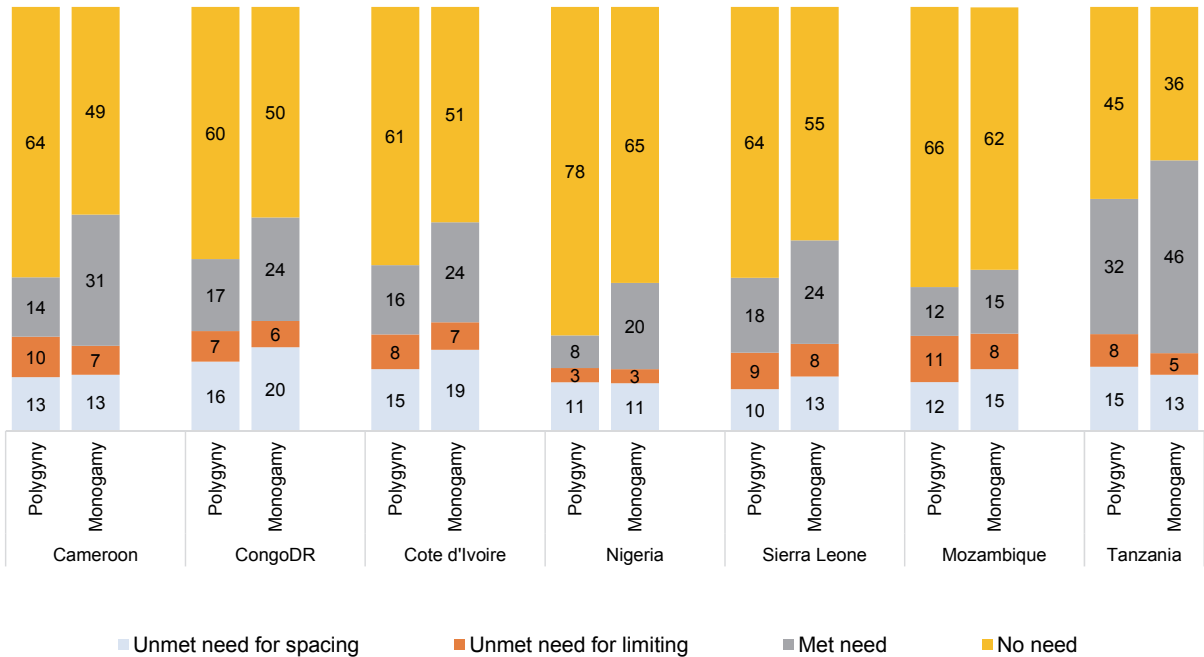
Figure 16 shows comparisons of the modern contraceptive method mix by marriage type. In the studied countries as a whole, method mix among women in polygynous marriages is similar to that of women in monogamous marriages. For example, both groups in Central African countries reported common use of condoms and injectables. Pills and injectables are popular in both groups in other five African countries. In some countries, however, condom use is less common among polygynous women. For example, in Cameroon, 39% of modern method users in polygynous marriages reported condom use compared with 54% of those in monogamous marriages.

Figure 16 Method mix among sexually active currently married women who use modern contraception, by marriage type



As Figure 17 shows, unmet need for spacing and limiting among polygynous women is largely similar to that among monogamous women. The percentages of women with no need for family planning, however, differ between the two groups. Overall, a higher percentage of women in polygynous marriages have no need for contraception compared with those in monogamous marriages. The difference between the two groups is 10 percentage points or more in Cameroon, Congo Democratic Republic, Cote d'Ivoire, and Nigeria. Consequently, a lower percentage of women in polygynous marriages have an unmet need.

Figure 17 Percent distribution of sexually active currently married women according to the status of unmet need for family planning, by marriage type



Adjusted differences in contraceptive use by marriage type

Logistic regression models were fitted to assess if contraceptive use is different between women in polygynous marriages and those in monogamous marriages after controlling for age, number of living children, education, household wealth, employment status, and urban-rural residence. Figure 18 plots the odds ratios and 95% confidence intervals of polygyny compared with monogamy from regressions of any contraceptive method use. In six of the seven countries – Nigeria, Tanzania, Cote d'Ivoire, Cameroon, Congo Democratic Republic, Sierra Leone- women in polygynous marriages are significantly less likely to use a contraceptive method. The odds ratio is lowest in Tanzania, at 0.59 (95% CI: 0.51-0.68), which means that women in polygynous unions have 51% lower odds of using any contraceptive method than women in monogamous unions after controlling for background characteristics. For modern contraceptive use, Figure 19 indicates the difference associated with marriage type remains significant in three countries: Tanzania (OR=0.67, 95% CI: 0.56-0.81), Nigeria (OR=0.74, 95% CI: 0.63-0.87), and Sierra Leone (OR=0.76, 95% CI: 0.64-0.90). These numbers indicate the odds of using a modern method is 24% to 33% lower among polygynous women compared with monogamous women.

Figure 18 Odds ratios of polygyny compared with monogamy from multivariable regressions of any contraceptive use

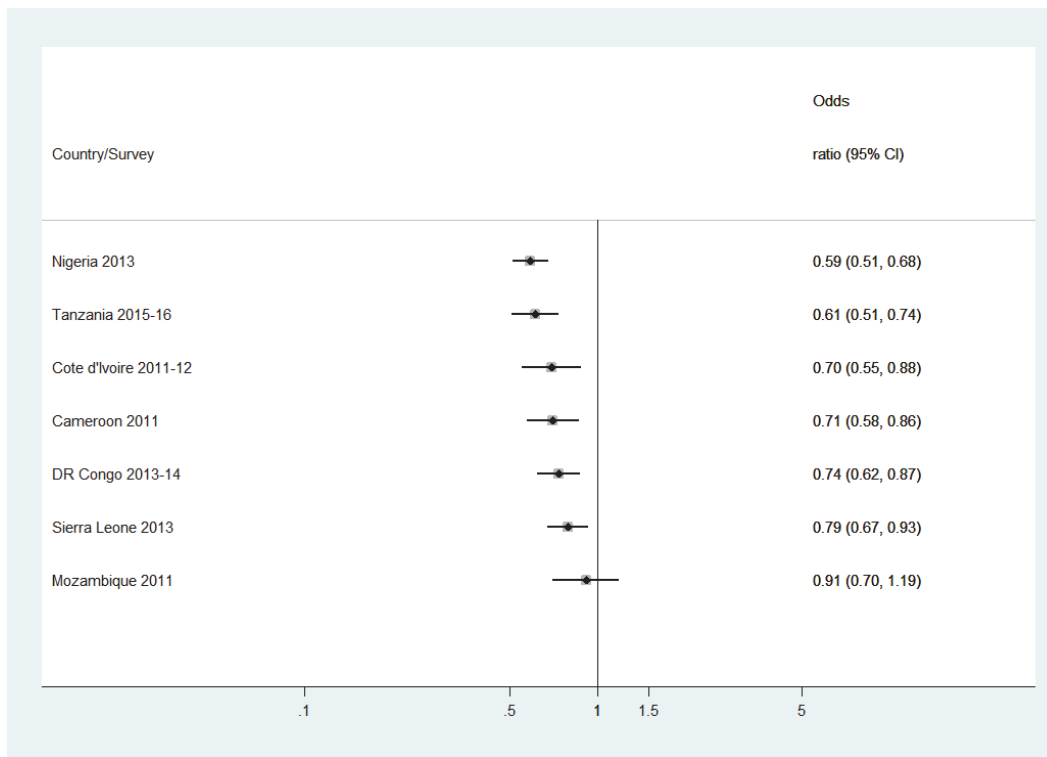
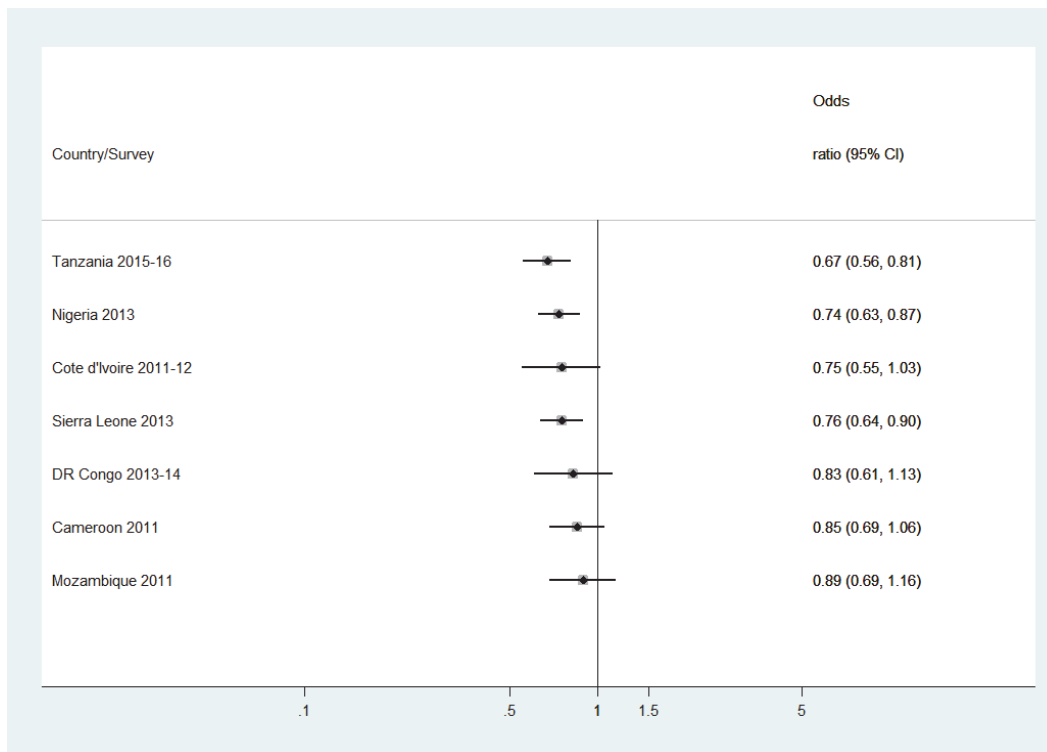


Figure 19 Odds ratios of polygyny compared with monogamy from multivariable regressions of modern contraceptive use



4. Discussion and Conclusions

Analyzing data from 42 DHS surveys in 21 countries in sub-Saharan Africa, Latin America, and the Caribbean, this comparative study contributes to an understanding of current levels, trends, and differentials in contraceptive use and unmet need for family planning among sexually active women by their marital status—currently married, formerly married, and never married. We restricted the analysis to women who were sexually active, therefore at risk of pregnancy. This restriction yields different results than estimates of contraceptive prevalence and unmet need for family planning based on all married women. For example, our estimated contraceptive prevalence among currently married women is higher in all countries compared with estimates based on all married women¹ (ICF 2017). The difference is largest in Zambia, at 12 percentage points. The unmet need estimates, however, are slightly lower (up to 5 percentage points in Sierra Leone, Malawi, and Peru) compared with estimates based on all married women (ICF 2017).

Overall, countries in Latin America and the Caribbean have achieved great success in extending the reach of family planning programs. Women in all marriage groups in the four Latin American and the Caribbean countries studied reported high levels of any contraceptive use, as well as modern contraceptive use. Contraceptive prevalence reaches 80% or above in Colombia and Peru. Countries in Latin America and the Caribbean have the lowest levels of unmet need for family planning, at less than 10% in the most recent survey of each of the four study countries. Differentials in contraceptive use and unmet need by women's marital status are negligible. Despite the substantial use of contraception, contraceptive prevalence continues to increase and unmet need continues to decline across all countries and marital groups, except in Colombia and Dominican Republic among never-married women. The Latin American and Caribbean countries have achieved not only a high level of contraceptive use but also a fairly balanced mix of modern methods. Long-acting and permanent methods are widely practiced and sterilization is adopted by a large proportion of currently married and formerly married women, a trend associated with the long history of promoting female sterilization as a contraceptive choice in the region. Never-married women are more likely to use condoms.

Family planning practices vary substantially within sub-Saharan Africa. Overall, contraceptive prevalence is much lower than in Latin America and the Caribbean, and below 30% in most of the Central African and Western African countries studied. While the level of unmet need for family planning is higher and the level of demand satisfied lower in sub-Saharan Africa compared with Latin America and the Caribbean, the differences are not as striking as for contraceptive prevalence, especially among currently married women. This is because a considerable proportion of women in Central and West Africa have no need for family planning, which reflects a general desire for a larger number of children in sub-Saharan Africa (Bongaarts 2011). Within sub-Saharan Africa, Western African and Central African countries generally have lower contraceptive prevalence than Eastern and Southern African countries. Countries in Eastern and Southern Africa, however, present a wide range of contraceptive prevalence: from 14 to 71% among currently married women, 33 to 78% among never-married women, and 26 to 76% among formerly married women. Contraceptive prevalence has increased in Western, Eastern, and Southern African countries over the survey period. While total contraceptive prevalence has been largely stagnant in Central Africa, modern contraceptive use has risen in all four of its countries. In contrast, declines in unmet need are less noticeable in sub-Saharan Africa except in a few countries, including Kenya, Lesotho, Nigeria, Malawi, and Sierra Leone. Of the 17 sub-Saharan African countries included in this analysis, several appear to have experienced increases in unmet need: five countries among married women, eight among never-married women, and five among formerly married women. As discussed earlier, unmet need for family planning is associated with both contraceptive use and fertility desire. Unmet need could rise when family planning programs increase demand for spacing or limiting births but the demand is yet satisfied by using

¹ Data on contraceptive prevalence and unmet need for all married women were drawn from the DHS Statcompiler (www.statcompiler.com) and are not shown in this report.

contraception due to a variety of reasons (Darroch, Sedge, and Ball 2011). Even so, these increases in unmet need deserve close investigation.

Sub-Saharan Africa as a whole shows greater variation in contraceptive use by marital status. In most countries of this region, never-married women have higher contraceptive prevalence. Among the three marriage groups, currently married women usually have the lowest contraceptive prevalence. Women in sub-Saharan Africa rely on a very limited number of modern methods, and the predominant method differs by their marital status. In Eastern and Southern African countries, currently married and formerly married women predominantly use injectables, while never-married women tend to use condoms. The most skewed method mix is observed in Central Africa, especially among never-married women, who mostly use condoms. Condom use in the other two marriage groups in Central Africa is also common, but pills and injectables also contribute some share. In some Western African countries condoms are popular among never-married women, while pills and injectables are more prevalent among currently married and formerly married women. The skewness toward certain methods could be due to cultural reasons, lack of contraceptive choices, or provider bias (Bertrand et al. 2014)—a subject that warrants a more comprehensive analysis of data from multiple sources at the country level.

Despite variations in contraceptive use by women's marital status, the association between contraceptive prevalence and individual and household characteristics is similar across the three marriage groups. In general, contraceptive prevalence has an inverted U-shaped relationship with women's age and a positive association with education and household wealth status. It is noteworthy that the disparities in contraceptive use by wealth and education are greater in countries with low contraceptive prevalence.

In all countries except Ghana, urban women are more likely to use contraception than their rural counterparts. A mixed-methods follow-up study in Ghana found underreporting of method use in the 2014 Ghana DHS, particularly traditional methods among urban respondents (Staveteig 2016). Although the study had a relatively small sample size, its results suggest disproportionate underreporting of method use in urban areas, which—combined with recent increases in contraceptive uptake in rural areas—could make rural method use appear comparatively larger.

While a higher level of contraceptive use is usually associated with employment in most of the study countries, the association is opposite in Central Africa. The association between unmet need and women's background characteristics is also largely consistent across marriage groups. Unmet need shows an inverse relationship with age, education, and wealth. Women in the youngest age group, women with no education, and women in the poorest wealth quintile have the highest levels of unmet need, regardless of their marital status. Unmet need is also associated with having a large number of children, being unemployed, and living in a rural area.

Multivariable regressions of demand satisfied for family planning were run with background characteristics and marital status as predictors. The results show that even after controlling for background characteristics, being never-married and being formerly married (compared with being married) are significant predictors of demand satisfied in 7 and 9 of the 21 countries, respectively. The coefficients for both marriage groups are in different directions, depending on the country. In the majority of countries where being never-married is a significant predictor of demand satisfied, the odds ratio is greater than one, indicating that never-married women are significantly more likely to have their demand for contraceptive use satisfied compared with currently married women. Conversely, in a number of countries where being formerly married is statistically significant, the odds ratios are smaller than one, indicating that formerly married women are less likely to have their demand satisfied compared with currently married women. The diversity of these results suggests a need for further country-by-country review of programmatic and social factors influencing differences in contraceptive demand satisfied between unmarried and married women.

Data on polygyny collected in DHS surveys provide an opportunity to further examine family planning practices among women in polygynous marriages and to compare them with monogamous marriages. Polygyny is commonly practiced in Central African and Western African countries. Women in polygynous marriages are more likely to be older, have more children, be less educated, live in a poorer household, and reside in a rural area. Overall, women in polygynous marriages are less likely to use a contraceptive method compared with women in monogamous marriages. This association remains in most of the countries even after controlling for background characteristics. This finding agrees with other studies in Nigeria (Audu et al. 2008) and Malawi (Baschieri et al. 2013). When looking at modern contraceptive use, however, the significant association with the type of marriage is found in fewer countries. Women's use of a modern method requires access to family planning services and to a range of methods. The two groups also have a similar method mix, which may suggest the primacy of the service environment in influencing choice of contraceptive method. Women in polygynous marriages have a similar level of unmet need as monogamous women, but a larger proportion of women married polygynously have no need for contraception compared with monogamous women. This result supports the findings from previous studies that women in polygynous marriages usually want more children because of the competition with other wives (Bove and Valeggia 2008).

Taken as a whole, these findings generally reflect encouraging progress in family planning outreach and programmatic efforts in both regions. In particular, the countries in Latin America and the Caribbean had achieved relatively high levels of contraceptive prevalence and low levels of unmet need even by the earlier survey, while sub-Saharan Africa has seen a greater relative increase in contraceptive prevalence and greater relative reduction in unmet need. Even so, important sociodemographic gaps in contraceptive use and unmet need remain in both regions, and they are similar among sexually active women in the three marital status groups. Comparisons across marital groups of demand satisfied—a measure that excludes women who are or want to become pregnant in the next two years—find a more than ten percentage point relative deficiency in the level of demand satisfied among never married women compared with married women in four countries (Malawi, Zambia, Zimbabwe, and Dominican Republic) and among formerly married women compared with married women in four countries (Kenya, Malawi, Zambia, and Zimbabwe). Multivariable regression results of demand satisfied among never-married women were somewhat encouraging, but when balanced against results for formerly married women they serve as an important reminder that ensuring safe and equitable access to family planning methods among all marital groups is an important programmatic goal. The findings for polygynous women compared with their monogamous counterparts confirm the overall importance of demand generation activities in communities where polygyny is prevalent as a valuable complement to contraceptive outreach efforts.

References

- Audu, B., S. Yahya, A. Geidam, H. Abdussalam, I. Takai, and O. Kyari. 2008. "Polygamy and the Use of Contraceptives." *International Journal of Gynecology & Obstetrics* 101(1):88-92.
- Baschieri, A., J. Cleland, S. Floyd, A. Dube, A. Msona, A. Molesworth, J. R. Glynn, and N. French. 2013. "Reproductive Preferences and Contraceptive Use: A Comparison of Monogamous and Polygamous Couples in Northern Malawi." *Journal of Biosocial Science* 45(2):145-66.
- Becker, S., and E. Costenbader. 2001. "Husbands' and Wives' Reports of Contraceptive Use." *Studies in Family Planning* 32(2):111-129.
- Bertrand, J., V. Ward, and R. Santiso-Gálvez. 2015. *Family Planning in Latin America and the Caribbean: The Achievements of 50 Years*. Chapel Hill, NC: MEASURE Evaluation. <https://www.measureevaluation.org/resources/publications/tr-15-101>.
- Blanc, A. K., A. O. Tsui, T.N. Croft, and J.L. Trevitt. 2009. "Patterns and Trends in Adolescents' Contraceptive Use and Discontinuation in Developing Countries and Comparisons with Adult Women." *International Perspectives on Sexual and Reproductive Health* 35(2):63-71.
- Bongaarts, J. 2011. "Can Family Planning Programs Reduce High Desired Family Size in Sub-Saharan Africa?" *International Perspectives on Sexual and Reproductive Health* 37(4):209-216.
- Bongaarts, J., and G. R. Potter. 1983. *Fertility, Biology and Behavior: An Analysis of the Proximate Determinants*. New York: Academic Press.
- Bove, R., and C. Vallengia. 2009. "Polygyny and Women's Health in Sub-Saharan Africa." *Social Science & Medicine* 68(1):21-29.
- Bradley, S. E. K., T. N. Croft, J. D. Fishel, and C. F. Westoff. 2012. *Revising Unmet Need for Family Planning*. DHS Analytical Studies No. 25. Calverton, Maryland, USA: ICF International. <http://dhsprogram.com/pubs/pdf/AS25/AS25.pdf>.
- Brown, W., N. Druce, J. Bunting, S. Radloff, D. Koroma, S. Gupta, B. Siems, M. Kerrigan, D. Kress, and G.L. Darmstadt. 2014. "Developing the "120 by 20" Goal for the Global Fp2020 Initiative." *Studies in Family Planning* 45(1):73-84
- Carr, B., M. F. Gates, A. Mitchell, and R. Shah. 2012. "Giving Women the Power to Plan Their Families." *Lancet* 380(9837):80-82.
- Cleland, J., and M. M. Ali. 2006. "Sexual Abstinence, Contraception, and Condom Use by Young African Women: A Secondary Analysis of Survey Data." *The Lancet* 368(9549):1788-1793.
- Cleland, J., M. M. Ali, and I. Shah. 2006. "Trends in Protective Behaviour among Single vs. Married Young Women in Sub-Saharan Africa: The Big Picture." *Reproductive Health Matters* 14(28):17-22.
- Cleland, J., S. Bernstein, A. Ezeh, A. Faundes, A. Glasier, and J. Innis. 2006. "Family Planning: The Unfinished Agenda." *The Lancet* 368(9549):1810-1827.
- Creanga, A. A., D. Gillespie, S. Karklins, and A. O. Tsui. 2011. "Low Use of Contraception among Poor Women in Africa: An Equity Issue." *Bulletin of the World Health Organization* 89(4):258-66.
- Darroch, J. E., G. Sedgh, and H. Ball. 2011. *Contraceptive Technologies: Responding to Women's Needs*. New York: Guttmacher Institute.

- Darroch, J. E., and S. Singh. 2013. "Trends in Contraceptive Need and Use in Developing Countries in 2003, 2008, and 2012: An Analysis of National Surveys." *The Lancet* 381(9879):1756-1762.
- Dodoo, F. N.- A. 1998. "Marriage Type and Reproductive Decisions: A Comparative Study in Sub-Saharan Africa." *Journal of Marriage and the Family* 60(1):232.
- FP2020. 2015. *FP2020 Commitment to Action: Measurement Annex*. Washington, DC, USA: FP2020. http://2014-2015progress.familyplanning2020.org/uploads/15/03/FP2020_MeasurementAnnex_2015_Spreads.pdf.
- Howse, K. 2014. *Contraceptive Methods by Younger Women: Latin America and Caribbean*. Population Horizons Factsheet No. 9. <http://www.ageing.ox.ac.uk/download/147>.
- Howse, K., and N. Nanitashvili. 2014. *Contraceptive Methods by Younger Women: Sub-Saharan Africa*. Population Horizons Factsheet No. 12. <http://www.ageing.ox.ac.uk/download/150>.
- ICF. 2017. The DHS Program Statcompiler. Funded by USAID. <http://www.statcompiler.com>
- Nnko, S., J. T. Boerma, M. Urassa, G. Mwaluko, and B. Zaba. 2004. "Secretive Females or Swaggering Males? An Assessment of the Quality of Sexual Partnership Reporting in Rural Tanzania." *Social Science & Medicine* 59(2):299-310.
- Ross, J., and W. Winfrey. 2002. "Unmet Need for Contraception in the Developing World and the Former Soviet Union: An Updated Estimate." *International Family Planning Perspectives* 28(3):138-143.
- Sedgh, G., L. S. Ashford, and R. Hussain. 2007. *Unmet Need for Contraception in Developing Countries: Examining Women's Reasons for Not Using a Method*. New York: Guttmacher Institute. https://www.guttmacher.org/sites/default/files/report_pdf/unmet-need-for-contraception-in-developing-countries-report.pdf.
- Singh, S., J. Darroch, L. Ashford, and M. Vlassoff. 2009. *Adding It Up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health*. New York: Guttmacher Institute. https://editor.guttmacher.org/sites/default/files/report_pdf/AddingItUp2009.pdf.
- Staveteig, S. 2016. *Understanding Unmet Need in Ghana: Results from a Follow-up Study to the 2014 Ghana Demographic and Health Survey*. DHS Qualitative Research Studies No. 20. Rockville, Maryland, USA: ICF International. <http://dhsprogram.com/pubs/pdf/QRS20/QRS20.pdf>.
- Tsui, A. O., R. McDonald-Mosley, and A. E. Burke. 2010. "Family Planning and the Burden of Unintended Pregnancies." *Epidemiologic Reviews* 32:152-74.
- United Nations Department of Economic and Social Affairs. 2015. *Trends in Contraceptive Use Worldwide: 2015*. (ST/ESA/SER.A/349). New York: United Nations. <http://www.un.org/en/development/desa/population/publications/pdf/family/trendsContraceptiveUse2015Report.pdf>.
- United Nations, Department of Economic and Social Affairs, Population Division. 2017. *World Contraceptive Use 2017 (Pop/Db/Cp/Rev2017)*. New York: United Nations.
- Wellings, K., M. Collumbien, E. Slaymaker, S. Singh, Z. Hodges, D. Patel, and N. Bajos. 2006. "Sexual Behaviour in Context: A Global Perspective." *The Lancet* 368(9548):1706-1728.
- Westoff, C. F. 2006. *New Estimates of Unmet Need and the Demand for Family Planning*. DHS Comparative Reports. Calverton, Maryland, USA: Macro International Inc.

Wulifan, J. K., S. Brenner, A. Jahn, and M. De Allegri. 2016. "A Scoping Review on Determinants of Unmet Need for Family Planning among Women of Reproductive Age in Low and Middle Income Countries." *BMC Womens Health* 16:2.

Appendix Tables

Appendix Table 1 Unweighted number of women who were sexually active in last month, by marital status

Country/survey	Currently married	Never-married	Formerly married
Central Africa			
Cameroon 2004	4,794	391	206
Cameroon 2011	6,754	817	309
Congo 2005	2,861	699	291
Congo 2011-12	4,857	925	579
DR Congo 2007	4,535	466	187
DR Congo 2013-14	8,902	916	400
Gabon 2000	2,268	646	332
Gabon 2012	3,225	1,094	386
Western Africa			
Cote d'Ivoire 1998	1,093	284	78
Cote d'Ivoire 2011-12	4,267	988	197
Ghana 2003	2,131	184	73
Ghana 2014	3,348	544	185
Liberia 2007	3,026	814	231
Liberia 2013	3,700	1,213	335
Nigeria 2003	3,936	292	71
Nigeria 2013	2,1978	1,344	233
Sierra Leone 2008	2,887	443	108
Sierra Leone 2013	6,544	1,769	290
Eastern and Southern Africa			
Kenya 2003	3,642	148	119
Kenya 2014	6,929	292	291
Lesotho 2004	2,216	200	241
Lesotho 2014	2,265	263	186
Malawi 2004	6,216	131	128
Malawi 2015-16	12,644	449	400
Mozambique 2003	5,578	565	501
Mozambique 2011	6,186	654	496
Namibia 2006-07	2,429	1,209	131
Namibia 2013	2,310	1,290	148
Tanzania 2004-05	5,321	337	315
Tanzania 2015-16	6,595	429	498
Zambia 2001-02	3,451	189	133
Zambia 2013-14	8,359	553	305
Zimbabwe 2005-06	4,037	89	103
Zimbabwe 2015	5,082	137	212
Latin America and the Caribbean			
Colombia 2000	5,188	641	382
Colombia 2010	22,979	4,167	2,236
Dom. Rep. 2002	12,225	916	916
Dom. Rep. 2013	4,366	670	670
Honduras 2005-06	9,401	328	328
Honduras 2011-12	10,770	504	504
Peru 2000	12,981	306	306
Peru 2012	11,408	508	508

Appendix Table 2 Modern contraceptive prevalence (mCPR) among unmarried sexually active women based on calendar data and women's report of "current use"

country	mCPR among unmarried sexually active (<3 months) women, based on calendar		mCPR among unmarried sexually active (<3 months) women, based on v312		mCPR among unmarried sexually active (last 1 month) women based on v312	
		Number of women		Number of women		Number of women
Western Africa						
Ghana 2014	32.6	1,230	31.0	1,230	31.7	729
Liberia 2013	35.1	2,072	34.7	2,072	34.6	1,548
Nigeria 2013	52.4	2,387	51.4	2,387	54.9	1,577
Sierra Leone 2008	26.7	737	26.0	737	24.5	551
Sierra Leone 2013	53.6	2,864	53.8	2,864	56.3	2,058
Eastern and Southern Africa						
Kenya 2003	42.9	495	38.4	495	44.3	267
Kenya 2014	58.3	1,258	53.9	1,258	60.9	583
Lesotho 2014	78.4	900	68.6	900	72.1	450
Malawi 2004	26.9	495	23.5	495	24.3	260
Malawi 2015-16	44.8	1,708	42.5	1,708	43.2	849
Mozambique 2011	29.5	1,607	29.0	1,607	30.1	1,150
Namibia 2006-07	76.3	2,180	74.6	2,180	77.7	1,343
Namibia 2013	76.4	2,307	75.2	2,307	77.6	1,437
Tanzania 2004-05	36.4	934	35.1	934	35.7	652
Tanzania 2015-16	43.7	1,545	42.6	1,545	45.8	928
Zambia 2013-14	35.4	1,464	34.4	1,464	37.7	858
Zimbabwe 2005-06	61.5	419	52.2	419	60.2	191
Zimbabwe 2015	67.0	649	62.0	649	66.4	349
Latin America and the Caribbean						
Colombia 2000	66.8	6,334	62.2	6,334	68.1	4,448
Colombia 2010	74.5	9,595	69.6	9,595	74.9	6,403
Dom. Rep. 2013	57.6	2,062	51.2	2,062	55.4	1,270
Honduras 2005-06	59.0	908	51.0	908	62.1	581
Honduras 2011-12	66.4	1,580	54.7	1,580	66.1	1,009
Peru 2012	47.0	1,582	42.2	1,582	45.3	1,068