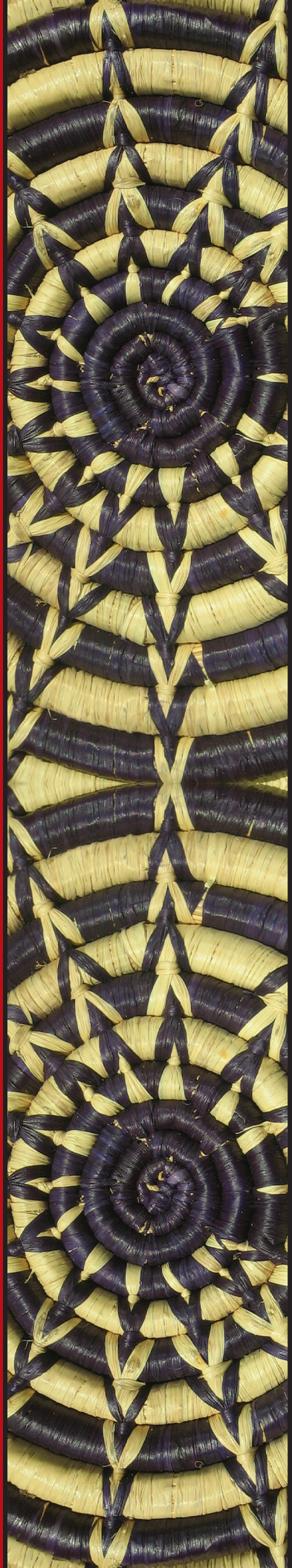

UGANDA FURTHER ANALYSIS

Unmet Need and the Demand for Family Planning in Uganda

Further Analysis of the Uganda Demographic and Health Surveys, 1995-2006

THE REPUBLIC OF UGANDA

Unmet Need and the Demand for Family Planning in Uganda

Further Analysis of the Uganda Demographic and Health Surveys, 1995-2006

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August 2008

USAID
FROM THE AMERICAN PEOPLE

This report presents findings from a further analysis study undertaken as part of the follow-up to the 2006 Uganda Demographic and Health Survey (UDHS). Macro International Inc. provided technical assistance for the project. Funding for the 2006 UDHS and this report was provided by the U.S. Agency for International Development (USAID) under the terms of Contract No. GPO-C-00-03-00002-00. Additional financial assistance for the 2006 UDHS was provided by the UK Department for International Development (DFID), the USAID/Uganda Mission, the President's Emergency Plan for AIDS Relief, the Government of Uganda, the Health Partnership Fund, the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), and the Government of Japan. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the USAID.

This report is part of the MEASURE DHS programme, which is designed to collect, analyze, and disseminate data on fertility, family planning, maternal and child health, nutrition, and HIV/AIDS.

Additional information about the UDHS can be obtained from the Uganda Bureau of Statistics (UBOS), Plot 9 Coleville Street, P.O. Box 7186, Kampala, Uganda; Telephone: (256-41) 706000; Fax: (256-41) 237553/230370; Email: ubos@ubos.org; Internet: www.ubos.org. Additional information about the DHS project may be obtained by contacting MEASURE DHS, Macro International Inc., 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, USA; Telephone: 301-572-0200; Fax: 301-572-0999; Email: reports@measuredhs.com; Internet: http://www.measuredhs.com.

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Abstract

Uganda is the third fastest growing country in the world. Contraceptive use is low, and the unmet need for family planning is high. This study examines unmet need in Uganda from 1995 to 2006 using data from three consecutive rounds of the Demographic and Heath Surveys. The study provides levels, trends, and differentials for unmet need; the factors associated with unmet need; reasons for contraceptive nonuse; and the likely impact of reducing unmet need. The results show that unmet need is highest among currently married women, women in rural areas, and women in the Northern region. Unmet need is increasing among the all-women group, currently married women, all sexually active women, and never-married sexually active women. Unmet need remains steady at low levels among never-married women and formerly married women. Unmet need for spacing is more prevalent than for limiting. Women with an unmet need for spacing and limiting both tend to have more than two living children. Women with an unmet need for spacing are more likely to lack employment, live in the Northern region, and not receive family planning messages in the media while women with an unmet need for limiting, in contrast, tend to be older and live in rural areas. Total unmet need is associated with higher parity (2 or more children) and living in the Northern region. Substantial proportions of women do not use, and do not intend to use, contraception in the future due to the fear of side effects and opposition from the husband or partner. Based on statistical models, modest declines in unmet need and increases in contraceptive prevalence in Uganda can substantially reduce the country's total fertility rate.

1 Introduction

Uganda has a population of approximately 29.6 million people, of which almost 6 million are women of reproductive age (15-49 years) (Uganda Bureau of Statistics [UBOS], 2007). The annual growth rate is approximately 3.2 percent (UBOS, 2006), and the total fertility rate (TFR) (measured in the 2006 Uganda Demographic and Health Survey [UDHS]) remains high at 6.7 children per woman. As a result, Uganda is the third fastest growing country in the world (United Nations Population Division [UNPD], 2005).

UDHS results show that only 24 percent of currently married women report current use of contraception and 41 percent have an unmet need for family planning. Of the countries with a Demographic and Health Survey (DHS) in the past five years, Uganda has the highest level of unmet need for family planning among currently married women (Macro International Inc., 2008a). In 2000-01, the UDHS results showed that approximately two of every five births were unplanned in the five years preceding the survey (UBOS and ORC Macro, 2001). Using indirect estimation techniques, the authors of another study found that one in five pregnancies in 2003 ended in an abortion in Uganda (Singh et al., 2005).

Until the mid-1990s, family planning services in Uganda were restricted to married women accompanied by their husbands or to married women who had their husband's written permission to use contraception (Blacker et al., 2005). In 1995, after many other East African countries had already done so, the Government of Uganda (GOU) created its first national population policy. The Ugandan Ministry of Finance (MOF) has noted the limited progress of family planning in Uganda and that Uganda's traditionally large family sizes "are now becoming an impediment to the speed of economic growth and social and structural transformation" (MOF, 2004).

Political support for the family planning movement in Uganda appears inconsistent. The GOU states that it will "ensure that family planning services are accessible to all those who need them" (MOF, 2004). To ensure access to family planning services, the government has made several revisions to the 1995 national population policy and included provisions in its poverty eradication action plan designed to reduce the unmet need for family planning (UDHS, 2006; MOF, 2004). However, reports from the Ugandan Population Secretariat appear to show that a growing population could serve as a "demographic bonus" for economic growth (Population Secretariat, 2006).

The definition of unmet need for family planning was developed and revised over the past three decades but its basic components have remained essentially unchanged (Westoff, 1978; Westoff and Pebley, 1981; Westoff and Ochoa, 1991; Westoff, 2006). The concept of unmet need for family planning is useful for identifying women who may want to use, but are not currently using, a method of contraception. In the broadest sense, a woman has an unmet need for contraception if she is not using a method of contraception and wants to wait to have more children.

The reduction of unmet need has significant outcomes. Studies have found that fulfilling unmet need helps couples achieve their reproductive intentions and improve broader social, economic, and developmental measures (Westoff and Bankole, 2002; Casterline and Sinding, 2000; Sedgh et al., 2007). Another study suggests that satisfying unmet need can directly contribute to reductions in maternal and child mortality—averting an estimated 16,877 maternal and 1.1 million child deaths worldwide by the year 2015 (U.S. Agency for International Development (USAID) Health Policy Initiative, 2006).

Researchers have identified a number of factors that are related to unmet need and nonuse of contraception. Higher levels of education among women are associated with higher levels of contraceptive use, smaller desired family size, and lower levels of unmet need (Lutalo et al., 2000; Kirk and Pillet, 1998; Kaona et al., 1996; Agyei and Migadde, 1995). One study found that unmet need for family planning declines with a woman's educational attainment and work outside of the home, both measures of female empowerment (Al Riyami et al., 2004). Another study in Nepal found a significant association between unmet need and gender preference for male children (Bhandari et al., 2006).

Studies have found that levels of unmet need are highest among the youngest and oldest women, those who have no children or one child, and those with more than four living children. These findings highlight two phenomena: high levels of unmet need for spacing among young women who intend to have more children and high levels of unmet need for limiting among older women who have reached their desired family size (Mawajdeh, 2007; Korra, 2002). Uganda's Ministry of Health (MOH) addressed these needs in its Integrated Reproductive Health Curriculum by focusing on both women under 20 and premenopausal women over 35 as "persons at high-risk who need to be recruited for family planning services" (MOH, 2001).

Researchers have identified several reasons why women who do not want to become pregnant do not use contraceptives. These include little perceived risk of pregnancy, health concerns about contraceptives and side effects, opposition to use (from husbands, families, and communities), poor access to and quality of family planning supplies and services, and lack of information (Ropey et al., 1996; Govindasamy and Boadi, 2000; Westoff, 2001; Drennan, 1998). One study found that in Uganda's urban areas, partner opposition to contraception was a significant cause of unmet need (Wolff et al., 2000). Partner communication about family planning appears to be associated with increased use and likelihood of future use (Agyei and Migadde, 1995; Curtis and Westoff, 1996). However, a study in Chad indicated that partner discussion does not necessarily lead to better knowledge of a partner's contraceptive attitudes and, therefore, increased spousal discussion may not lead directly to decreases in unmet need (DeRose et al., 2004).

At the program level, studies have suggested that Uganda's increasing levels of unmet need may be attributable to changing fertility intentions—more women want to have a smaller family or to postpone childbirth—without a similar increase in the supply and availability of contraceptives (Ashford, 2003; Kaida et al., 2005). More distally, the results of one study comparing trends in Kenya and Uganda suggested that Uganda's high level of unmet need may be due, in part, to slow post-independence economic development and the relatively late start of the GOU's efforts to begin promoting family planning through health services (Blacker et al., 2005).

1.1 Scope of the study

The purpose of this study is to examine levels, differentials, and trends in unmet need and the demand for family planning among various groups of Ugandan women based on marital status and sexual activity. The study uses data from three consecutive DHS surveys in Uganda from 1995, 2000-01, and 2006. The study examines all women; never-married; currently married; widowed, divorced, or separated (formerly married) women; and all sexually active and never-married, sexually active women. The study estimates unmet need and its components for all groups, and for currently married women by urban or rural residence and by region. The study also explores the effects of various factors on unmet need and reasons for contraceptive nonuse and intended future nonuse. Finally, the study estimates the potential impact of reducing unmet

need on the TFR in Uganda and assesses the programmatic and policy implications of these findings.

2 Data and Methods

Data used in this report are taken from three consecutive rounds of the Uganda Demographic and Health Surveys (UDHS) conducted in 1995, 2000-01, and 2006. The 1988-89 UDHS was omitted from the analysis because it did not collect some of the key indicators needed for comparison. The nationally representative DHS surveys collect information from women of reproductive age (age 15-49). Typically, the DHS surveys use a two-stage sampling method and a core questionnaire to gather information on population, health, and nutrition issues.

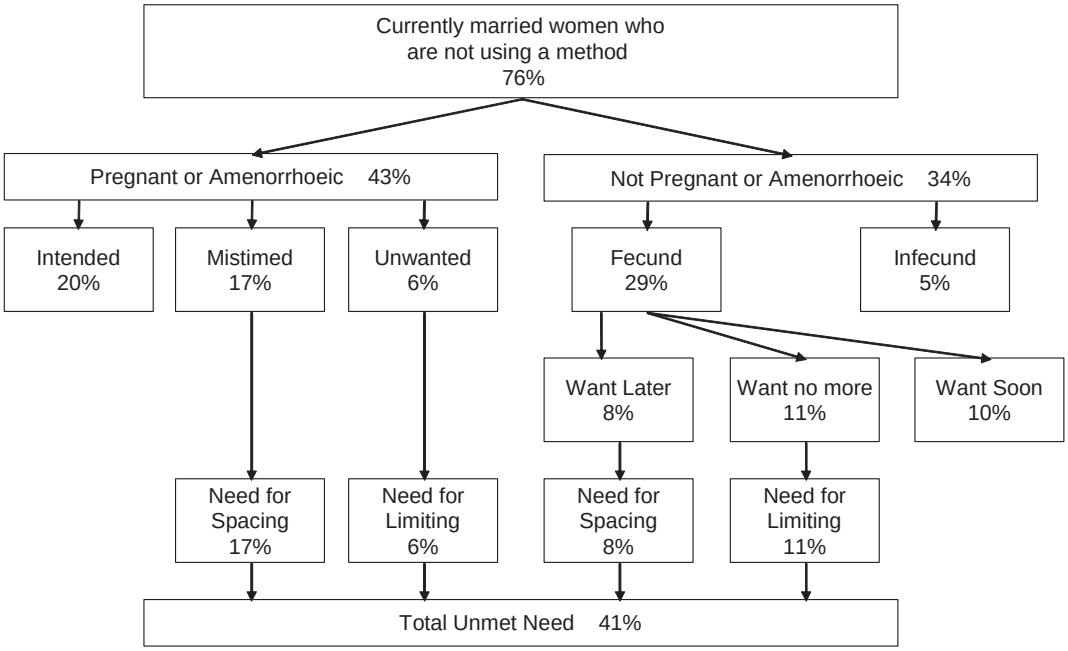
DHS surveys use similar survey methodologies across countries and over time, which facilitates trend analysis. Detailed information on the DHS survey methodology is available in the UDHS country reports (Statistics Department [Uganda] and Macro International Inc., 1996; UBOS and ORC Macro, 2001; UBOS and Macro International Inc., 2007). The samples in the UDHS are not self-weighting. Therefore, to produce national estimates, the study uses the individual sample weights provided in the individual data files.

For currently married women, unmet need refers to the percentage of those who are not currently using a method of family planning and want to stop (further) or postpone childbearing. Unmet need can be categorized into unmet need for spacing or for limiting. In the broadest sense, women with an "unmet need for spacing" are not currently using a method of contraception and want to delay the next birth by at least two years, whereas women with an "unmet need for limiting" are not currently using a method of contraception and want to stop childbearing.

More specifically, a currently married woman has an unmet need for spacing if she is not currently using a method, is pregnant or amenorrhoeic and the current pregnancy/last birth was mistimed, or the current pregnancy/last birth was unwanted, and the woman now wants to wait before having another child. Similarly, women who are currently married, are not currently using a method of contraception, are fecund, and want to wait for two or more years before having another child have an unmet need for spacing.

A currently married woman has an unmet need for limiting if she is not using a method of contraception, is pregnant or amenorrhoeic, and has an unwanted birth (does not want her current pregnancy or wants no more children). The unmet need for limiting among currently married women also includes women who are not using a method, who are not using or are amenorrhoeic, who are fecund, and who want no more children. Details on unmet need (including unmet need for spacing and unmet need for limiting) among currently married women are provided in Figure 1. Total unmet need is the sum of unmet need for spacing and for limiting.

The "total demand" is the sum of the total unmet need and total current use. The percentage of total demand satisfied is calculated by dividing the total current use by the total demand. The unmet need for modern methods is the sum of total unmet need and the percentage using traditional methods (Westoff, 2006). The percent of total demand satisfied by modern methods is calculated by dividing the current use of modern methods by the total demand.



Note: Only major categories used to define unmet need are shown in the figure.

This analysis uses a different definition of users of the lactational amenorrhoea method (LAM) than that used in the DHS final reports. The DHS final reports calculate the prevalence of current use of LAM based solely on the number of women who reported using LAM at the time of the survey. However, this study defines current users of LAM as women who report LAM use and who satisfy the following three conditions: being at most six months postpartum, being amenorrhoeic, and exclusively breastfeeding her child. The study re-categorises women who report LAM use but do not satisfy these conditions as nonusers of contraception.

In 1995, the UDHS questionnaire did not address LAM use and, consequently, no changes to contraceptive use and unmet need were necessary. In 2000-01, approximately 3 percent of all women reported using LAM at the time of the survey, but fewer than 20 percent of these women satisfied the three conditions for LAM use. The study therefore classified less than 1 percent of the women as current LAM users. As a result, the contraceptive prevalence and unmet need figures presented in this report do not match the figures in the 2000-01 UDHS final report. In the 2006 UDHS, 0.02 percent of women reported using LAM. Given this small figure, this study used the reported prevalence figures for contraceptive use and unmet need from the 2006 UDHS report.

This report defines currently married women as women currently in a union or living with a partner. The term “sexually active” refers to women who have had sexual intercourse in the past four weeks. Currently working women include those who were working at the time of the survey or who had worked in the past 12 months. As the DHS surveys do not collect direct measures of income or expenditure, an index of wealth is created based on the ownership of household goods and durables (Rutstein and Johnson, 2004). The index divides households into approximately equal quintiles. The report defines exposure to mass media as having contact with two or more sources of media, including radio, television, and print media, at least once a week.

Women categorised as having partner communication on family planning are women who have discussed family planning with their partner in the past 12 months. Women who have heard of family planning on the radio or television or in a newspaper, magazine, video, or film in the past six months are categorised as having heard of family planning in the media.

2.1 Analysis

The analysis for this study uses both descriptive and multivariate logistic methods. All analysis is done for women age 15-49. Table 1 categorises women into several groups based on marital status and sexual activity to identify which women are experiencing changes in unmet need and its components. The remaining tables include data on currently married women only because this group has the highest level of unmet need. Table 2 shows unmet need by year and urban or rural residence, whereas Table 3 shows unmet need by year and geographic region. Table 4 shows differentials in unmet need.

Two multivariate models are presented in Table 5. The models are designed to explain the factors associated with unmet need. For the first model, the response variable consists of three outcomes: the unmet need for spacing (coded as 1), unmet need for limiting (coded as 2), and all other women (coded as 0). A multinomial multivariate model is used to estimate the effects of various respondent characteristics on the outcome. Results of this model are presented as relative risk ratios (RRRs) with *p*-values. In the second model (also in table 5), the response variable is dichotomised; women with an unmet need (a combination of spacing and limiting) are coded as 1 and all other women as 0. This model uses a binary logistic regression model to estimate the effects of respondent characteristics on unmet need. Results are presented as odds ratios (ORs) with *p*-values. All tabulations and regression models are estimated using STATA 9.2.

Table 6 presents reasons for current nonuse of contraception and intended nonuse of contraception in the future. Table 7 provides estimates of the effects of altering unmet need on the total fertility rate (TFR) of Uganda. Given the high correlation between the contraceptive prevalence rate (CPR) and TFR, this report estimates a regression equation based on the CPR and TFR of the 60 developing countries which have most recently conducted a DHS survey. The outcome of the regression is the TFR, with one intercept, one variable (CPR), and the beta-coefficient of the CPR variable. The equation used is:

$$TFR = 6.5020 - 0.0561 * CPR$$

Using this equation, the TFR is estimated with five different levels of CPR. Previous studies have used similar methods (Ross and Frankenberg, 1993). The regression is an estimation that does not take into account how long each scenario will take to achieve. The estimation produces plausible changes of TFR with CPR only.

2.2 Study limitations

DHS surveys were conducted in Uganda in 1988-89 (these data were not used in this study), 1995, 2000-01, and 2006. These surveys used similar sampling methods and survey instruments to collect data, allowing comparison of indicators over time. However, the geographic coverage of each survey differs somewhat. The 2006 UDHS was the first survey to cover the entire country. The districts covered in the 2006 UDHS are as follows (UBOS and Macro International Inc., 2007):

Central 1:	Kalangala, Lyantonde, Masaka, Mpigi, Rakai, Sembabule, and Wakiso
Central 2:	Kayunga, Kiboga, Luwero, Nakaseke, Mubende, Mityana, Mukono, and Nakasongola
Kampala:	Kampala
East Central:	Bugiri, Busia, Iganga, Jinja, Kamuli, Kaliro, Mayuge, and Namutumba,
Eastern:	Amuria, Budaka, Bududa, Bukedea, Bukwa, Butaleja, Kaberamaido, Kapchorwa, Katakwi, Kumi, Manafwa, Mbale, Pallisa, Sironko, Soroti, and Tororo
North:	Abim, Amolatar, Amuru, Apac, Dokolo, Gulu, Kitgum, Lira, Kaabong, Kotido, Moroto, Nakapiripirit, Oyam, and Pader (estimates for this region include both settled and internally displaced persons) • Karamoja area: Abim, Kaabong, Kotido, Moroto, and Nakapiripirit • Internally displaced persons: Camps in Amolatar, Amuru, Apac, Dokolo, Gulu, Kitgum, Lira, Oyam, and Pader districts
West Nile:	Adjumani, Arua, Koboko, Nebbi, Nyadri, and Yumbe
Western:	Buliisa, Bundibugyo, Hoima, Kabarole, Kamwenge, Kasese, Kibaale, Kyenjojo, and Masindi
Southwest:	Bushenyi, Ibanda, Isingiro, Kabale, Kanungu, Kiruhura, Kisoro, Mbarara, Ntungamo, and Rukungiri

The 2000-01 UDHS excluded the districts of Kitgum, Pader, Gulu, Bundibugyo, and Kasese. The 1995 survey excluded Kitgum and Pader (see Maps 1, 2, and 3).

The 2000-01 UDHS probably underestimated the level of unmet need in Uganda because the five excluded regions have high fertility rates and low contraceptive prevalence. However, the impact of excluding these regions on the overall level of unmet need is probably small because these areas have only 7-9 percent of the total population. The 1995 UDHS probably produced a similar, but smaller, underestimate because it excluded only two regions (Kitgun and Pader).

The definition of "unmet need for family planning" has changed slightly over time. Currently, there are two definitions of unmet need ("definition 1" and "definition 2") and, more recently, a refinement to the second definition. Definition 1 and definition 2 differ in that definition 1 includes a more restricted definition of infecundity than definition 2 (Macro International Inc., 2008b). This report uses definition 2, which is widely used in reproductive health research. Over time, definition 2 was refined. The refinement of the second definition re-categorises a small percentage of currently married women from limiters to spacers based on their future fertility intentions. This change does not alter the overall levels of unmet need.

According to the concept of unmet need used in this report, women who are not using a method and want to delay or limit future births have an unmet need, regardless of their desire to use contraceptives. A woman, for example who is not using a method and does not want any

children might prefer not to use a method due to the side effects of methods currently available. A more intuitive concept would be "unmet demand," which would apply to women who are not using a method but who would like to use one. The DHS surveys do not collect all of the information necessary to create this indicator. Specifically, although the surveys collect data on contraceptive use, they ask women only about their intention to use contraception in the future and not about their desire to use a method at present. This information can be an area for future data collection.

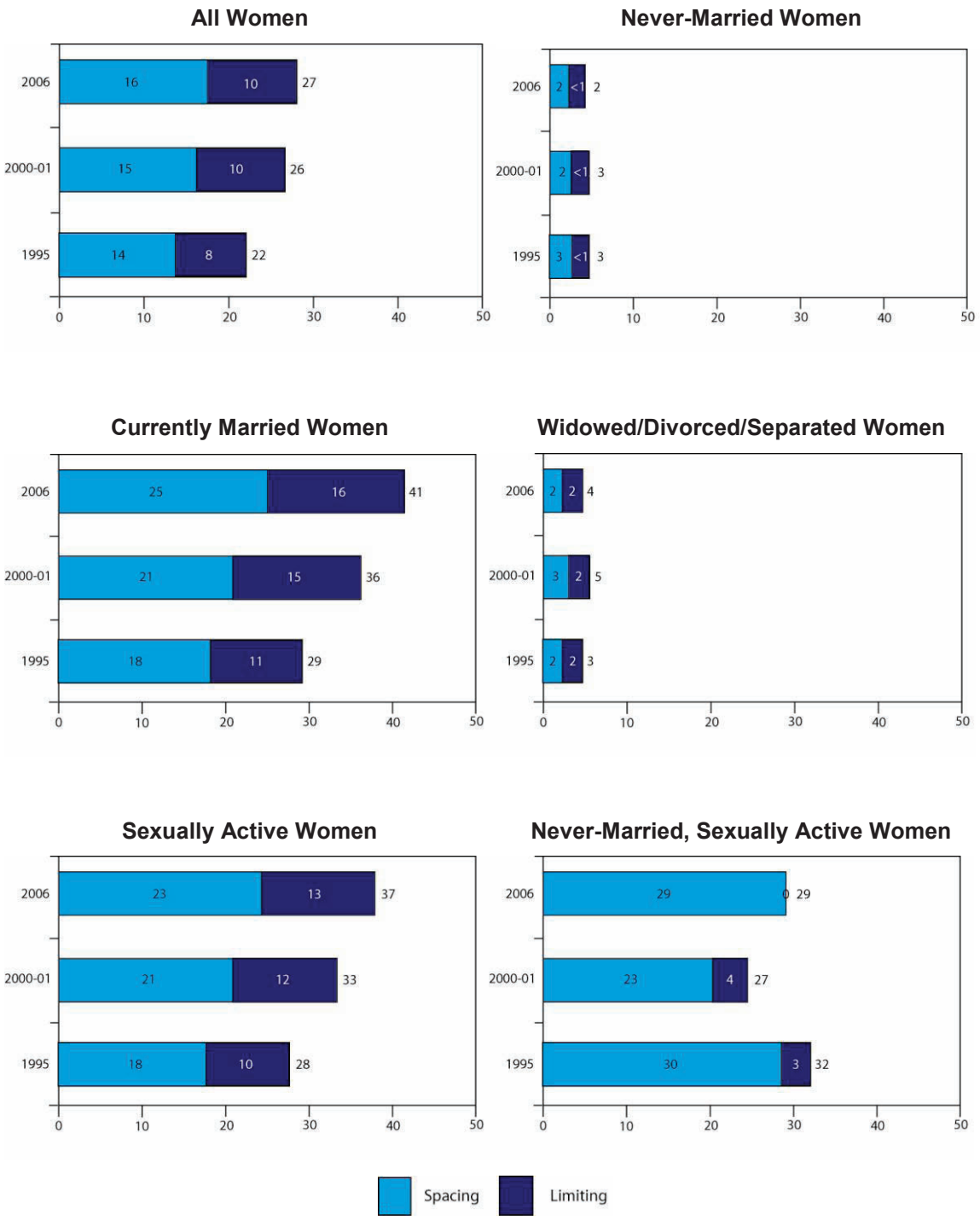
The different rates of nonresponse to interviews and specific questions over time could also bias survey estimates. However, the biases are probably small because the overall nonresponse rates and the nonresponse rates for variables used in the analysis are low.

3 Results

Table 1 shows trends in the components of unmet need for six groups of women: all women, never-married women, currently married women, formerly married women (widowed, divorced, or separated), all sexually active women (sexual intercourse in the four weeks preceding the survey), and never-married, sexually active women.

In 2006, the level of unmet need was highest among currently married women (41 percent) and lowest among never-married women (2 percent) (Table 1). The level of unmet need has increased steadily over time among all groups of women except never-married women and formerly married women. The increase was sharpest among currently married women, from 29 percent in 1995 to 41 percent in 2006 (see Figure 2). Among never-married and formerly married women, unmet need was low in all survey years because the vast majority of these women were not sexually active and are therefore classified as having "no need." Among all women, unmet need increased from 22 percent in 1995 to 27 percent in 2006. The increases in unmet need are steady and similar among other groups of women. Among currently married women, the increase is sharper; from 29 percent in 1995 to 41 percent in 2006 (see Figure 2).

Figure 2. Unmet Need in Uganda, UDHS 1995-2006



Note: Figures may not be identical to tables due to rounding

Overall, women in Uganda have a greater unmet need for spacing than limiting, except for formerly married women, who have similar levels of unmet need for spacing and limiting. Never-married, sexually active women have the highest level of unmet need for spacing (29 percent), followed by currently married women (25 percent). Unmet need for limiting is highest among currently married women (16 percent). Unmet need for spacing and limiting increased among all women, currently married women, and sexually active women between 1995 and 2006. However, among never-married, sexually active women, unmet need for spacing decreased from 30 percent in 1995 to 23 percent in 2000-01 before climbing again to 29 percent in 2006. Unmet need for limiting among never-married, sexually-active women increased by 1 percentage point, from 3 percent in 1995 to 4 percent in 2000-01 and then decreased to less than 1 percent in 2006. Levels of unmet need for spacing and limiting remained low and unchanged between 1995 and 2006 among never-married and formerly married women.

Contraceptive use is highest among never-married, sexually active women (55 percent), followed by sexually active women (30 percent), currently married women (24 percent), all women (20 percent), formerly married women (18 percent), and never-married women (9 percent). Contraceptive use increased from 1995 to 2000-01 among all groups of women and continued increasing from 2000-01 to 2006 among all groups, except for never-married women and never-married, sexually active women. Current use of a method declined from 13 percent in 2000-01 to 9 percent in 2006 among never-married women and decreased very slightly from 56 percent to 55 percent among never-married, sexually active women during the same time period.

From 1995 to 2006, levels of contraceptive use for spacing increased among all groups of women except never-married women and never-married, sexually active women (Table 1). Current use for spacing increased among never-married women from 8 percent in 1995 to 12 percent in 2000-01 but decreased to 9 percent in 2006. Current use for spacing among never-married, sexually active women increased from 35 percent in 1995 to 50 percent in 2000-01 and then increased only very slightly, to 51 percent, in 2006. Trends in the use of a method for limiting, however, were different from trends in use for spacing. Use for limiting increased between 1995 and 2006 among all groups except never-married women, whose rate remained unchanged, and never-married, sexually active women, whose rate declined from 8 percent in 1995 to 4 percent in 2006.

Total demand for family planning is currently above 60 percent among currently married women (64 percent), all sexually active women (66 percent), and never-married, sexually active women (84 percent). Over time, total demand for family planning increased steadily among all groups, except among never-married women, whose rate declined from 16 percent in 2000-01 to 11 percent in 2006.

The percentage of total demand satisfied is less than 50 percent among all women, currently married women, and sexually active women (Table 1). From 1995 to 2000-01, the percentage of total demand satisfied increased among all groups of women except currently married women and formerly married women, among whom it remained constant. The increase continued through 2006 among all women and sexually active women. From 2000-01 to 2005, total demand satisfied increased among currently married women and formerly married women despite an earlier stall. Among the other groups of women, the percentage of total demand satisfied declined marginally. Among never-married women, for example, total demand satisfied was 84 percent in 2000-01 and declined to 80 percent by 2006.

Table 1. Percent of women with an unmet need for family planning and the demand for family planning, by survey year, UDHS 1995-2006

Year	Unmet need[1]			Current use			Total demand	Percent of total demand satisfied	Unmet need for modern methods	Using a modern method	Percent of total demand satisfied by modern methods	N
	Total	Spacing	Limiting	Total	Spacing	Limiting						
All women												
1995	21.9	13.9	8.0	13.4	6.7	6.7	35.3	37.9	27.9	7.4	21.0	7,070
2000-01	25.5	15.2	10.3	17.6	9.2	8.4	43.1	40.8	29.1	14.0	32.4	7,246
2006	26.5	16.1	10.3	19.6	10.0	9.6	46.0	42.5	30.6	15.4	33.5	8,531
Never-married women												
1995	3.0	2.7	0.3	9.6	8.1	1.5	12.6	76.4	6.4	6.1	48.8	1,105
2000-01	2.6	2.2	0.4	13.4	11.9	1.5	16.0	84.0	4.1	11.8	74.1	1,456
2006	2.3	2.3	0.0	9.1	9.0	0.6	11.4	79.6	3.1	8.3	72.5	2,028
Currently married women												
1995	29.0	18.3	10.7	14.8	6.9	7.9	43.9	33.8	36.1	7.8	17.8	5,136
2000-01	36.2	21.4	14.8	19.4	9.1	10.3	55.5	34.8	40.8	14.8	26.6	4,881
2006	40.6	24.5	16.1	23.7	11.0	12.7	64.2	36.9	46.4	17.9	27.8	5,337
Widowed, divorced, or separated women												
1995	3.1	1.5	1.6	9.4	3.2	6.2	12.5	75.2	5.9	6.6	53.0	828
2000-01	4.9	2.5	2.4	14.8	5.6	9.2	19.7	75.0	6.8	13.0	65.7	910
2006	3.9	1.9	2.0	18.2	7.2	11.0	22.1	82.3	5.3	16.8	75.9	1,167
All sexually active women												
1995	27.8	17.7	10.1	16.5	8.1	8.4	44.3	37.3	34.7	9.5	21.5	4,247
2000-01	33.0	20.6	12.4	23.3	12.1	11.2	56.3	41.4	37.8	18.6	32.9	4,084
2006	36.6	23.3	13.3	29.6	14.9	14.7	66.2	44.7	43.3	22.9	34.6	4,468
Never-married, sexually active women												
1995	32.3	29.6	2.7	42.8	34.7	8.1	75.1	57.0	42.5	32.6	43.4	102
2000-01	26.6	22.8	3.8	56.3	49.5	6.7	82.9	67.9	30.9	52.0	62.8	140
2006	29.3	29.2	0.1	54.8	50.9	3.9	84.2	65.1	41.3	42.9	50.9	161

[1] Differences in the definition of unmet need between surveys were minor. Between the 1995 and 2000-01 surveys, the definition of infecundity was expanded to include women who reported a hysterectomy. If a woman was fecund and wanted another birth but was undecided about the timing of the birth or if she was fecund but was undecided about whether she wanted another birth, the 2006 UDHS (but not earlier surveys) categorised her has having an unmet need for spacing. In the 2000-01 and 1995 surveys, a woman's response to the question about whether a pregnancy at this time would be a "problem" (DHS surveys no longer ask this question) was used to identify unmet need for spacing or desire for a birth within the following two years. If a respondent said that a pregnancy would not be a problem in the 2000-01 survey, she was considered to have a desire for a birth in the next two years. In the 1995 survey, if a respondent said that a pregnancy at that time would not be a problem or she would be happy if she became pregnant, she was categorised as having a desire for a birth in the next two years.

A separate estimate for the unmet need for modern methods is also shown in Table 1. Currently married women have the highest level of unmet need for modern methods, 46 percent, whereas formerly married women (5 percent) and never-married women (3 percent) have the lowest unmet need for modern methods (Table 1). Over time, unmet need for modern methods increased steadily among all women, currently married women, and sexually active women. However, among never-married, sexually active women, unmet need for modern methods declined from 43 percent in 1995 to 31 percent in 2000-01 and then increased to 41 percent in 2006.

Modern method use ranges from 8 percent among never-married women to 43 percent among never married, sexually active women (Table 1). However, modern method use is only 18 percent among currently married women. From 1995 to 2006, modern method use increased progressively among all groups of women, except among never-married women and never-married, sexually active women, whose rates decreased between 2000-01 and 2006.

The percentage of demand satisfied by modern methods is highest among formerly married women (76 percent) and lowest among currently married women (28 percent). From 1995 to 2006, the percentage of total demand satisfied by modern methods increased for all groups of women, except never-married and never-married, sexually active women. These two groups experienced initial increases from 1995 to 2000-01, followed by declines from 2000-01 to 2006. Among currently married women, the total demand satisfied by modern methods increased to a greater extent between 1995 and 2000-01 than between 2000-01 and 2006.

Table 2 shows the components of unmet need by year and place of residence. Compared to urban areas, rural areas have much higher levels of total unmet need, unmet need for spacing, and unmet need for limiting (Table 2). From 1995 to 2006, the urban-rural differences in total unmet need and in unmet need for spacing and limiting increased. For example, in 1995, the urban-rural difference in total unmet need was 2 percentage points, and by 2006, the difference was 16 percentage points.

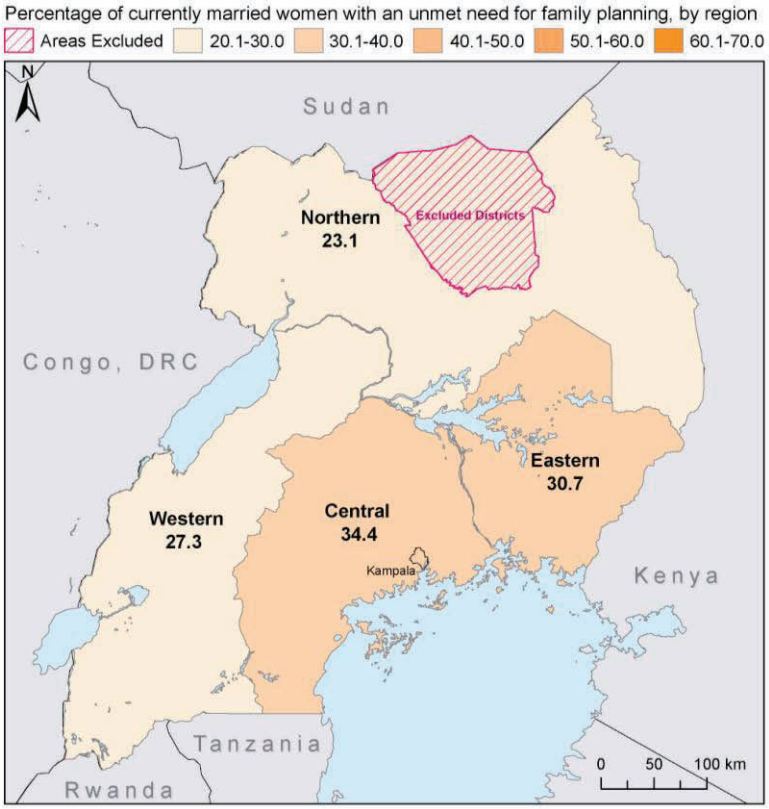
Table 2 also shows that current use of a method in urban areas, despite an initial increase from 1995 to 2000-01, stalled during 2000-01 to 2006. The stall occurred in both spacing and limiting in urban areas. Increases in current use in rural areas continue. Increases occurred in use of a method for both spacing and for limiting, but the magnitude of the increases was small. The percentage of total demand satisfied remained steady in urban areas from 2000-01 to 2006, whereas it increased marginally in rural areas.

Table 2. Percentage of currently married women with an unmet need for spacing and for limiting, by urban or rural residence, UDHS 1995-2006

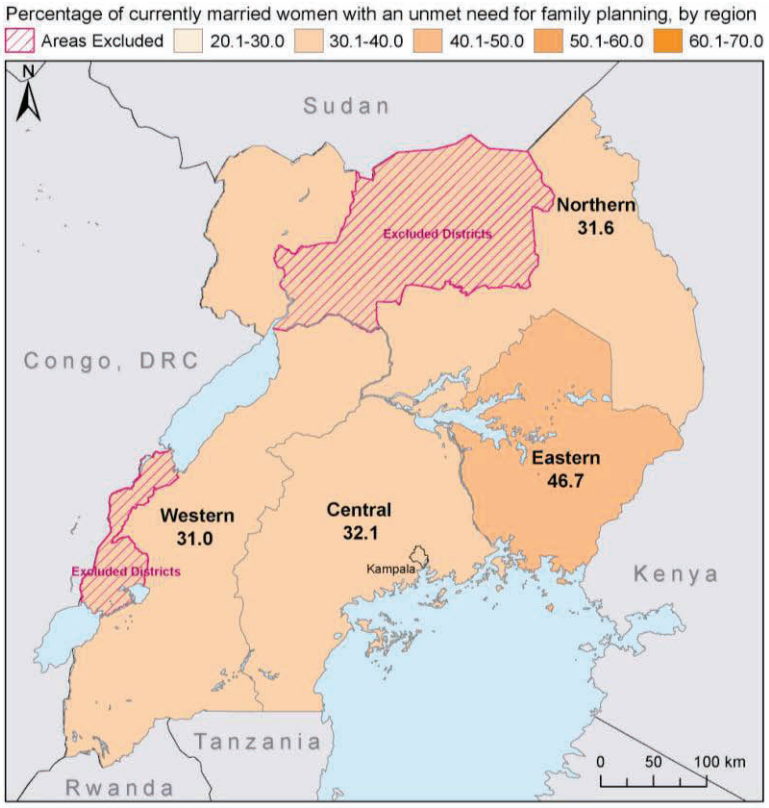
	Year		
Component	1995	2000-01	2006
Unmet need			
Total	29.0	36.2	40.6
Urban	27.2	25.0	27.0
Rural	29.3	37.9	42.6
Spacing	18.3	21.4	24.5
Urban	18.9	14.6	18.5
Rural	18.2	22.4	25.4
Limiting	10.7	14.8	16.1
Urban	8.3	10.4	8.5
Rural	11.1	15.4	17.2
Current use			
Total	14.8	19.4	23.7
Urban	34.4	43.4	43.1
Rural	12.2	15.8	20.8
Spacing	6.9	9.1	11.0
Urban	15.4	21.1	22.7
Rural	5.8	7.3	9.2
Limiting	7.9	10.3	12.7
Urban	19.0	22.4	20.4
Rural	6.4	8.4	11.5
Percent of total demand satisfied			
Total	33.8	34.8	36.9
Urban	55.9	63.4	61.5
Rural	29.4	29.4	32.8

In Table 3, the components of unmet need are shown by year and geographic region. Uganda's Northern region has the highest level of total unmet need in the country (46 percent), whereas the Central region has the lowest (32 percent). Similarly, unmet need for spacing is highest in the Northern region (31 percent) and lowest in the Central region (20 percent). However, unmet need for limiting is highest in the Eastern region (19 percent) and lowest in the Central region (13 percent). From 1995 to 2006, total unmet need increased in the Northern and Western regions (see Maps 1, 2, and 3). In the Central region, total unmet need decreased slightly from 34 percent in 1995 to 32 percent in 2000-01, where it remained in 2006. In the Eastern region, total unmet need increased from 31 percent in 1995 to 47 percent in 2000-01 and then declined slightly to 45 percent in 2006. Over time, unmet need for spacing and for limiting increased in the Northern and Western regions. In the Central region, unmet need for both limiting and spacing stalled during this period. In the Eastern region, unmet need for spacing and limiting increased slightly between 1995 and 2000-01. However, from 2000-01 to 2006, unmet need in the Eastern region for limiting stalled and for spacing declined by 3 percentage points.

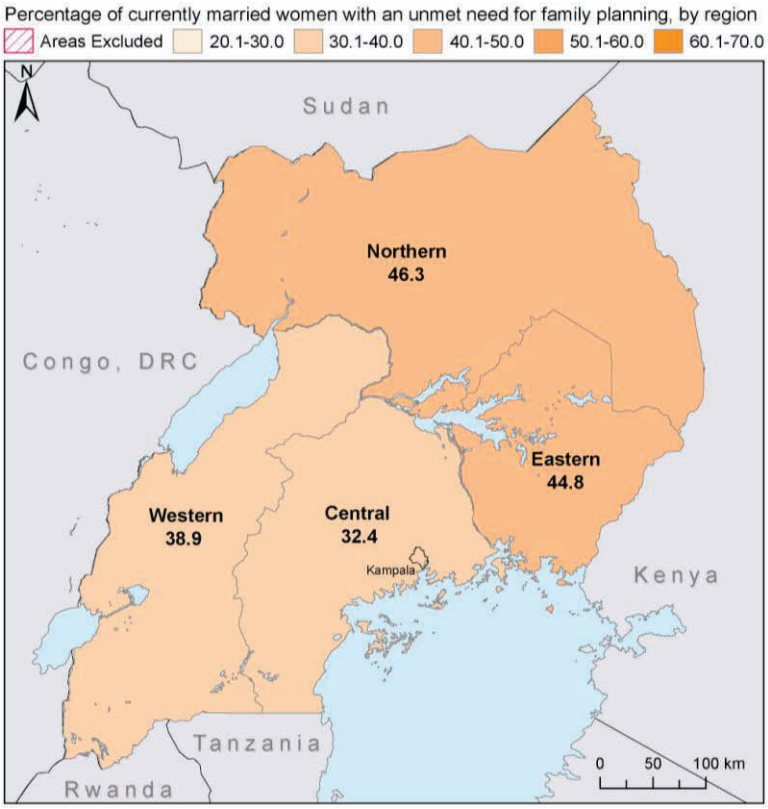
Map 1. Unmet Need in Uganda, UDHS 1995



Map 2. Unmet Need in Uganda, UDHS 2000-01



Map 3. Unmet Need in Uganda, UDHS 2006



Current use of any method is highest in the Central region (38 percent), whereas the Northern region has the lowest level of contraceptive use (12 percent) (Table 3). Contraceptive use increased in the Central, Eastern, and Western regions between 1995 and 2006. However, in the Northern region, contraceptive use declined marginally, from 14 percent in 1995 to 12 percent in 2006. The pattern of use of a method for spacing and limiting by region was similar to the pattern for total use, except in the Northern region, where use of a method for limiting stagnated from 2000-01 to 2006. Many of the districts excluded from the 2000-01 survey were in the Northern region. The inclusion of all Northern districts in the 2006 UDHS may be a factor in any changes observed in this region between the 2000-01 and 2006 surveys.

Table 3. Percentage of currently married women with an unmet need for spacing or limiting, by region, UDHS 1995-2006

	Year		
Component	1995	2000-01	2006
Unmet need			
Total	29.0	36.2	40.6
Central	34.4	32.1	32.4
Eastern	30.7	46.7	44.8
Northern	23.1	31.6	46.3
Western	27.3	31.0	38.9
Spacing	18.3	21.4	24.5
Central	20.9	18.8	19.6
Eastern	19.5	28.6	26.0
Northern	16.3	17.3	30.6
Western	16.4	18.3	22.2
Limiting	10.7	14.8	16.1
Central	13.5	13.2	12.8
Eastern	11.3	18.1	18.8
Northern	6.8	14.4	15.7
Western	10.9	12.7	16.8
Current use			
Total	14.8	19.4	23.7
Central	25.0	33.2	38.0
Eastern	11.3	12.8	21.4
Northern	13.6	12.8	11.6
Western	10.3	16.1	23.4
Spacing	6.9	9.1	11.0
Central	9.9	15.7	17.5
Eastern	5.6	5.7	9.5
Northern	9.3	8.2	5.7
Western	3.6	6.4	11.1
Limiting	7.9	10.3	12.7
Central	15.1	17.5	20.5
Eastern	5.7	7.1	11.9
Northern	4.2	4.6	5.9
Western	6.7	9.7	12.3
Percent of total demand satisfied			
Total	33.8	34.8	36.9
Central	42.1	50.9	54.0
Eastern	26.9	21.5	32.3
Northern	37.1	28.8	20.0
Western	27.4	34.2	37.5

Note 1: For the 1995 and 2000-2001 UDHS data, the standard definitions of regions used in the final reports.

Note 2: For 2006, Central includes central 1, central 2, Kampala, Eastern includes east central, eastern, North includes: North, West Nile, and West includes Western, Southwest

The Central region has the highest level of total demand satisfied (54 percent), followed by the Western (38 percent), Eastern (32 percent), and Northern regions (20 percent) (Table 3). The percent of total demand satisfied increased in the Central and Western regions from 1995 to 2006. In the Eastern region, the percent of total demand satisfied declined from 1995 to 2000-01 but had increased by 2006. In the Northern region, the percentage of total demand satisfied declined from 1995 to 2006.

Table 4 shows the percentage of currently married women with an unmet need for spacing or for limiting, as well as total unmet need, by selected characteristics. A majority of the sample consists of women who have had primary or no education (85 percent), live in rural areas (87 percent), and are currently working (92 percent). About half the women are Catholic, and only a small percentage has been exposed to mass media on a regular basis. The majority has a living child. The women in the sample are about evenly distributed in all four regions of Uganda. Slightly more than half of the women have communicated with their partner about family planning in the recent past, and a similar proportion have heard of family planning in the media.

Table 4. Differentials in unmet need for family planning among currently married women, by demographic and other characteristics, UDHS 2006

Characteristic	Percent with an unmet need: For spacing	For limiting	Total	N
Age				
15-19	32.8	1.1	33.8	380
20-24	33.3	2.0	35.3	1,148
25-29	32.5	7.2	39.7	1,136
30-34	26.0	17.1	43.1	993
35-39	16.7	31.4	48.2	734
40-44	6.6	39.8	46.3	538
45-49	3.3	33.3	36.6	408
Education				
No education	21.6	23.0	44.6	1,315
Primary	26.8	15.5	42.3	3,211
Secondary +	19.8	7.2	27.0	811
Residence				
Urban	18.5	8.5	27.0	696
Rural	25.4	17.2	42.6	4,641
Religion				
Catholic	25.3	15.9	41.2	2,333
Protestant	24.7	16.6	41.4	1,782
Muslim	21.7	16.6	38.3	609
Pentecostal, Seventh Day Adventist, other	23.3	14.8	38.1	612
Currently working				
No	26.4	10.6	37.0	438
Yes	24.3	16.6	40.9	4,899
Household wealth				
Lowest quintile	28.4	18.1	46.5	1,094
Second quintile	28.9	17.0	45.9	1,144
Middle quintile	26.1	17.6	43.6	1,038
Fourth quintile	23.2	16.6	39.7	1,024
Highest quintile	15.1	11.1	26.2	1,036
Exposure to two or more sources of media				
No	25.8	16.9	42.7	4,656
Yes	15.3	10.4	25.7	681
Number of living children				
0	15.6	0.0	15.6	332
1-2	28.2	3.3	31.5	1,515
3-4	30.9	10.1	41.0	1,457
5+	18.6	32.5	51.1	2,033
Region				
Central	19.6	12.8	32.4	1,283
Eastern	26.0	18.8	44.8	1,376
Northern	30.6	15.7	46.3	1,223
Western	22.2	16.8	38.9	1,455
Partner communication on family planning				
No	22.9	16.1	38.9	2,449
Yes	25.8	16.1	42.0	2,888
Heard of family planning in the media				
No	27.6	17.9	45.5	2,089
Yes	22.5	14.9	37.4	3,248
Total	**24.5**	**16.1**	**40.6**	**5,337**

In Uganda, currently married women age 15-49 are more likely to have an unmet need for spacing (25 percent) than for limiting (16 percent) (Table 4). Unmet need for spacing is more common among women who are younger, live in a rural area, have exposure to fewer sources of mass media, live in the Northern region, or have not heard of family planning in the media in the past six months. Unmet need for limiting is positively associated with being older, having a lower level of education, living in a rural area, currently working, having exposure to fewer sources of mass media, having higher parity, and not hearing of family planning in the media in the past six months. Total unmet need is highest among married women age 30-44 and those who have less education, live in rural areas, are exposed to fewer sources of mass media, have more children, and have not heard of family planning in the media in the past six months.

Table 5 shows that after controlling for several respondent characteristics, the unmet need for spacing was significantly higher among women who are of higher parity (3 or more children) and who live in the Northern region. Unmet need for spacing is significantly lower among currently married women who are older, are currently working, belong to wealthier households, and have heard of family planning in the media in the past six months.

Table 5. Adjusted effects of selected variables on unmet need for spacing, limiting and total unmet need among currently married women, UDHS 2006

Characteristic	Spacing (RRR)	*p*-value	Limiting (RRR)	*p*-value	Total (OR)	*p*-value
Age						
15-19[R]	-		-		-	
20-24	0.93	0.619	1.43	0.624	0.92	0.579
25-29	0.73	0.055	3.20	0.108	0.77	0.103
30-34	0.50	0.000	5.11	0.023	0.63	0.006
35-39	0.34	0.000	9.17	0.002	0.71	0.053
40-44	0.13	0.000	11.10	0.001	0.66	0.024
45-49	0.05	0.000	7.65	0.005	0.42	0.000
Education						
No education[R]	-		-		-	
Primary	1.05	0.621	0.99	0.935	1.04	0.671
Secondary +	1.02	0.886	0.65	0.036	0.90	0.410
Residence						
Urban[R]	-		-		-	
Rural	1.18	0.285	1.47	0.050	1.27	0.068
Religion						
Catholic[R]	-		-		-	
Protestant	1.04	0.689	1.11	0.335	1.07	0.389
Muslim	0.91	0.482	1.26	0.138	1.02	0.837
Pentecostal, Seventh Day Adventist, other	0.96	0.744	0.90	0.508	0.94	0.556
Currently working						
No[R]	-		-		-	
Yes	0.68	0.009	0.69	0.089	0.69	0.004
Household wealth						
Lowest quintile[R]	-		-		-	
Second quintile	1.12	0.309	0.93	0.602	1.06	0.578
Middle quintile	1.13	0.332	0.78	0.128	1.00	0.982
Fourth quintile	0.93	0.590	0.74	0.072	0.87	0.216
Highest quintile	0.61	0.006	0.66	0.053	0.64	0.003
Exposure to two or more sources of media						
No[R]	-		-		-	
Yes	0.77	0.081	0.90	0.572	0.81	0.101
Number of living children						
0-2[R]	-		-		-	
3-4	1.84	0.000	2.59	0.000	1.95	0.000
5+	2.40	0.000	5.80	0.000	3.37	0.000
Region						
Central[R]	-		-		-	
Eastern	1.22	0.113	1.18	0.250	1.21	0.066
Northern	1.57	0.001	0.94	0.694	1.33	0.010
Western	0.97	0.822	1.06	0.705	1.01	0.891
Partner communication on family planning						
No[R]	-		-		-	
Yes	1.14	0.106	1.15	0.156	1.15	0.037
Heard of family planning in the media						
No[R]	-		-		-	
Yes	0.84	0.035	0.83	0.069	0.84	0.012
Number of cases			**5,362**			

[R] - Reference category

Women who live in rural areas are more likely to have an unmet need for limiting, whereas place of residence has no significant effect on the unmet need for spacing (Table 5). Although women who have secondary or greater education have less unmet need for limiting, the effect of education on unmet need for spacing is not significant. As with the unmet need for spacing, women who are of high parity (3 or more children) are significantly more likely to have an unmet need for limiting. Moreover, older women have significantly greater unmet need for limiting, whereas older age is associated with significantly lower need for spacing.

Overall, women who are age 30-34 or 40 or older are significantly less likely to have an unmet need for family planning than women age 15-19 (Table 5). Women who are currently working, those in the highest household wealth quintile, and those who have heard of family planning in the media are significantly less likely to have an unmet need. In contrast, women who reside in the Northern region and those who have discussed family planning with their partner have significantly higher unmet need. Women who have 3 or 4 living children are about twice as likely as women with 0-2 children to have an unmet need (OR: 1.95, 95% CI: 1.61-2.36), and those with 5 or more children are more than three times as likely to have an unmet need (OR: 3.37, 95% CI: 2.72-4.18).

With high rates of unmet need in Uganda, it is important to know why few women who want to delay or avoid a future birth are not using contraception. Among currently women with an unmet need in Uganda, the most frequently cited reason for not currently using a method is fear of side effects (29 percent), followed by the woman was breastfeeding (20 percent), or the woman was having infrequent or no sex (14 percent). A considerable proportion of women (13 percent) also said that they were not using a method because their husband or partner was opposed to the use of a method.

More than one in three currently married women who have an unmet need and do not intend to use a method in the future mentioned fear of side effects as the main reason for not intending to use contraception (Table 6). Thirteen percent said that they would not use a method in the future because they had infrequent sex or no sex and 12 percent reported that they were subfecund or infecund.

Table 6. Reasons for current nonuse among currently married women with an unmet need, and intended future nonuse among currently married women with an unmet need who do not intend to use contraception in the future, UDHS 2006

Reason	Percentage	
	Current nonuse[1]	Future nonuse
Fertility related		
Infrequent sex or no sex	13.5	12.5
Menopausal or had a hysterectomy	0.7	0.6
Subfecund or infecund	4.4	12.0
Wants as many children as possible	n/a	2.4
Postpartum amenorrhoeic	7.6	n/a
Breastfeeding	19.8	n/a
Fatalistic	0.6	n/a
Opposition to use		
Respondent opposed	5.3	8.8
Husband or partner opposed	13.2	5.0
Other opposed	0.3	0.2
Religious prohibition	1.5	3.6
Lack of knowledge		
Knows of no method	3.8	3.7
Knows of no source	3.9	1.1
Method related		
Health concerns	12.4	8.0
Fear of side effects	28.8	34.4
Lack of access or access point too far away	1.1	0.0
Costs too much	6.6	1.4
Inconvenient to use	2.3	0.2
Interferes with body's normal processes	4.5	1.0
Other	5.3	4.3
Don't know	0.9	0.9
Total	137.0	100.0
Number	1,515	463

n/a - not available

[1]Percentages total more than 100 because respondents are allowed to provide multiple responses.

The study estimated the effect of reducing unmet need and increasing current use on fertility rates (Table 7). In scenario 1, current levels of unmet need and CPR are the same as in 2006 and the predicted TFR is 5.2 children per woman (this figure differs from the actual TFR of 6.7 because the study used only CPR to estimate the TFR). In scenario 2, if all women with an unmet need began using a method, the TFR would theoretically fall to 2.9, less than half of the current TFR.

Scenarios 3, 4, and 5 show that moderate reductions in unmet need can reduce the TFR substantially. In scenario 3, if unmet need declines by 50 percent and the women who no longer have an unmet need begin using a method, the resulting TFR would be 4.0. Scenario 4, which is a more conservative estimation, shows that the TFR would be 4.7 if unmet need declined by 20 percent and these women become contraceptive users. In scenario 5, the most conservative estimate, unmet need drops by 10 percent (and CPR increases by approximately 4 percentage points) to produce a TFR of 4.9.

Table 7. Estimated impact of reducing unmet need on fertility among currently married women, UDHS 2006

Scenario	Current TFR	Total demand	Adjusted unmet need	Adjusted current use	Predicted TFR from adjusted use
Scenario 1: Convert **no** unmet need to current use	6.7	64.2	40.6	23.7	5.2
Scenario 2: Convert **all** unmet need to current use	6.7	64.2	0.0	64.2	2.9
Scenario 3: Reduce unmet need by 50% and increase current use by 50%	6.7	64.2	20.2	44.0	4.0
Scenario 4: Reduce unmet need by 20% and increase current use by 20%	6.7	64.2	32.4	31.8	4.7
Scenario 5: Reduce unmet need by 10% and increase current use by 10%	6.7	64.2	36.4	27.8	4.9

4 Conclusions and Recommendations

This report examines the levels, trends, and differentials in unmet need for family planning among women in Uganda during 1995-2006. With the exception of formerly married women and all never-married women, unmet need is high and has increased among all subgroups of women in Uganda over this period. Currently married women have the highest level of unmet need. Total contraceptive use increased among all groups of women in recent years, with the exception of never-married women, whose use declined marginally. Women in Uganda continue to have a greater unmet need for spacing than for limiting.

Family planning programs need to reach women in rural areas where high levels of unmet need persist. Programs need to target the Northern and Western regions of the country where levels of unmet need remain high and have continued to increase throughout the past decade.

The results also underscore that women with an unmet need for spacing and for limiting are diverse. After the study controlled for respondent characteristics, results indicate that women with an unmet need for spacing are primarily younger, not working, and of higher parity (3 or more children); live in the Northern region; and have not heard of family planning in the media. Unmet need for limiting is associated with older women (similar to the findings of Mawajdeh, 2007; Korra, 2002), women who have 3 or more children, and those who live in rural areas. Family planning policies should be tailored to address the specific needs of these different groups of women.

Total unmet need is significantly associated with living in the Northern region and having three or more children. After controlling for various characteristics, women who are age 30-34 and older than 39 have significantly lower unmet need than women age 15-19. Despite this, program planners should note that at the population level, unmet need increases with age. Women who have heard of family planning messages in the media are less likely to have an unmet need, demonstrating the utility of media messages for reproductive health promotion. Like DeRose (2004), who found that partner communication about family planning does not necessarily lead to declines in unmet need, this study finds that partner communication is associated with significantly higher levels of unmet need.

Family planning programs in Uganda should also plan a response for the substantial proportions of women who are not using a method and who do not intend to use a method in the future due to the fear of side effects or opposition from a husband or partner.

The TFR in Uganda is high (6.7). The estimates shown here demonstrate that modest declines in unmet need and corresponding increases in CPR can substantially reduce Uganda's TFR.

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