African Population and Health Research Center

January 2018

Family Planning in East Africa: Trends and Dynamics

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Acknowledgments

The preparation and publication of this report were made possible through generous grants to the African Population and Health Research Center (APHRC) by the David and Lucile Packard Foundation (grant #2016-67708) and the Segal Family Foundation (grant #2016.04-1831). APHRC also gratefully acknowledges core funding support from Sida (grant #54100029) and the William and Flora Hewlett Foundation (grant #2012-7612).

We are grateful to Carol Gatura, Danielle Doughman and Lauren Gelfand of the Policy Engagement and Communications Division at APHRC for reviewing and commenting on earlier drafts of the report. Dr. Eliud Wekesa is also gratefully acknowledged for informing our earlier thoughts and ideas on the report.

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APHRC has four key mandates: i) generate scientific knowledge aligned to local and global development agendas, ii) develop and nurture the next generation of African research leaders, iii) engage with decision-makers using evidence to drive optimal development and implementation of policies, and iv) create operational efficiencies in systems and processes for maximum programmatic impact.

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How to cite this report:

Izugbara, C. O., Wekesah, F. M., Tilahun T., Amo-Adjei, J., and Tsala Dimbuene, Z. T. (2018). ***Family Planning in East Africa: Trends and Dynamics.*** African Population and Health Research Center (APHRC), Nairobi, Kenya.

Executive summary

East Africa, and sub-Saharan Africa (SSA) as a whole, are on the verge of a demographic transition, with a consequent window of opportunity to achieve a demographic dividend. Family planning (FP) is key to facilitating and sustaining the emerging fertility transition in the sub-region; supporting individuals and couples to take charge of their fertility; and promoting family and community health. This report provides a data-based assessment of FP dynamics and trends in five East African countries: Ethiopia, Kenya, Rwanda, Tanzania, and Uganda, drawing largely from Demographic and Health Survey data (DHS) in the countries.

Emerging evidence shows that Kenya and Rwanda are clear leaders in contraceptive prevalence and use, while Uganda has the lowest contraceptive prevalence and use rates. It is only in Kenya where one in two women who use contraceptives rely on modern methods. In the region, wanted total fertility rates are currently highest in Uganda and Tanzania and lowest in Kenya and Rwanda. The most commonly used contraceptives in the sub-region are short-term methods, which offer limited protection against unintended pregnancy.

Patterns of women's contraceptive practice in the four countries vary, among other things, by age. On average, women aged 30-39 years were the primary users of contraceptives while adolescents (aged 15-19) have both the lowest contraceptive use rates and highest unmet need for FP. However in Ethiopia, contraceptive prevalence is highest among women aged 20-29 years.

In all five countries, poor, rural, uneducated, and disempowered women use contraceptives less than their rich, urban, educated, and empowered counterparts. The greatest gaps between urban and rural use are in Ethiopia, Uganda, and Tanzania, while the smallest gaps are in Kenya and Rwanda, where FP is also primarily used to limit childbearing.

Accurate knowledge about a woman's fertile period in the sub-region is low and has been fluctuating over the years. About one in three couples in the five countries will likely discontinue contraceptive use within a year. Uganda and Ethiopia have the highest discontinuation rates, while Kenya, Rwanda, and Tanzania have the lowest. The two most common reasons women give for discontinuing use of contraceptives are perceived or real side effects and wanting to have another child. Between 1989 and 2015, varying patterns are evident in intention to use contraception in the sub-region. In Uganda and Rwanda, substantial increases in FP intention are evident, whereas in Kenya, there were slight decreases during the period. Between 1999 and 2005, the proportion of women in Tanzania intending to use contraceptives surged by 18%. However, the largest proportion of women who do not intend to use contraceptives are found in Ethiopia.

Fertility- and method-related reasons are the most common explanations for not using FP in the region. However, considerable numbers of women also report opposition to use and ignorance of methods as barriers to contraceptive uptake. Currently, Rwanda and Uganda have the highest level of contact of women nonusers with FP providers, and Kenya, the lowest. Contact of non-users with FP community health workers in Ethiopia is on the increase, but contact with health facility-based providers has remained stable over the years, suggesting a growing community-based FP outreach and distribution in the country. Overall, the proportion of women who come in contact with FP services providers has only been increasing slowly in the sub-region.

Available data show that the desire for more children is declining in the sub-region, while the intention to stop childbearing is increasing. The median age at first birth has also steadily increased to 19 years across the five countries. In Kenya, where contraceptive prevalence remains comparatively high, women's median age at first birth currently stands at more than 20 years. Women in Rwanda have the

highest median age at first birth at 22.7, while Uganda has the lowest median age at first birth at 18.7 years. Teenage childbearing is gradually declining across the sub-region; currently, the percentage of childbearing teenagers is lowest in Rwanda (7.3%) and Ethiopia (12.4%), and highest in Uganda (23.8%) and Tanzania (22.8%).

The FP situation in East Africa presents a mixed picture. Despite rising age at first birth and progress in contraceptive prevalence, there are persistent low uptake of long-acting FP methods and high levels of teenage pregnancy, unmet need for FP, and unintended pregnancy. Marked disparities based on a woman's age, residence, wealth status, and literacy status also characterize access to, and use of FP services. Additionally, high contraceptive discontinuation rates and poor knowledge of conception and fertile period persist among the sub-region's women. Addressing these issues would require:

- investing in approaches that increase FP accessibility and availability for poor, young, rural, and less-educated women;
- addressing community and household-related oppositions to FP as well as the myths and misconceptions that surround the use of modern contraceptives;
- advancing public education about fertility and contraception with the aim of ensuring both positive understanding of the fertility period and improved knowledge of pregnancy prevention;
- promoting awareness, accessibility, and affordability of long-acting reversible contraceptives;
- addressing unmet needs for FP, ensuring girls' education, and promoting women's empowerment; and
- continuous research on the dynamics of FP, including what works to improve access, use, and quality of services in different contexts.

Table of contents

List of tables

List of figures

List of boxes

1. Introduction

East Africa — indeed, the whole of sub-Saharan Africa (SSA) — is on the cusp of the demographic transition, with an attendant window of opportunity to achieve a demographic dividend. The United Nations Population Fund (UNFPA) (2015) defines the 'demographic dividend' as "the economic growth potential that results from shifts in a population's age structure, mainly when the share of the working-age population [15-64] is larger than the non-working-age share of the population [14 and younger; 65 and older]".

This report highlights some trends and dynamics related to family planning (FP) in East Africa, a sub-region that continues to experience a high dependency ratio as a result of a small working-age population supporting a large number of children and older people.

Family planning is one of the most important health interventions of the 21st century [1]. It enables women and couples to take charge of their fertility; decide the number of children to have; and better plan childbearing. FP has far-reaching benefits for individuals, couples, households, communities, and societies as a whole. Significant positive linkages exist between FP and maternal and child survival and wellbeing (Table 1). For example, research shows that FP usage saved the lives of about 22,000 women in Kenya, Rwanda, Uganda, Ethiopia, and Tanzania in 2012 [2].

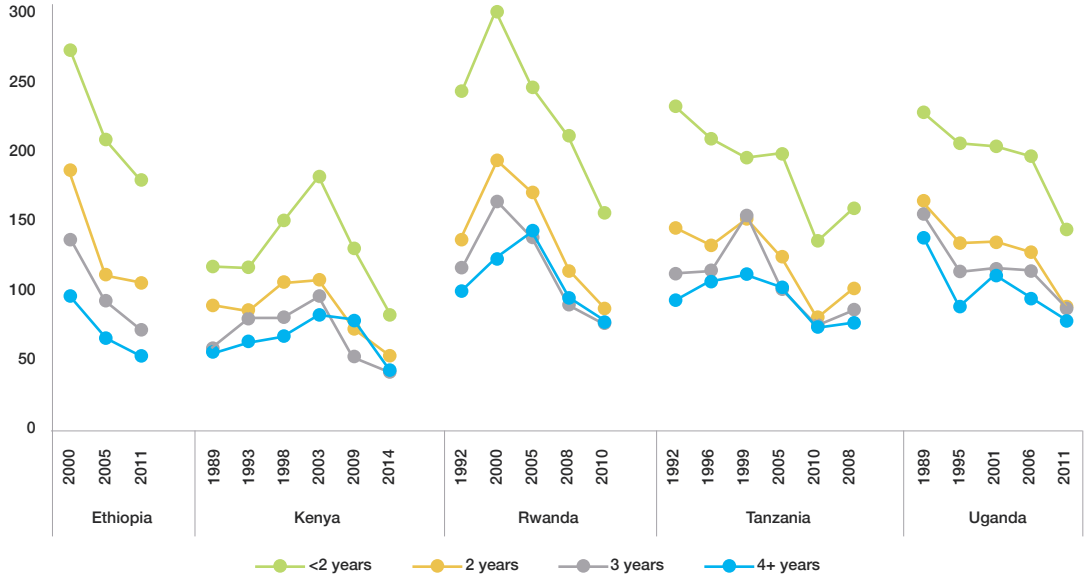
Table 1: Maternal deaths averted by FP use in five East African countries

Country	Maternal mortality ratio	Observed maternal deaths	Expected death without FP	Maternal deaths averted by use of FP	% of maternal deaths averted by FP
Ethiopia	410	12,660	16,923	4,262	25.2
Kenya	377	5,654	11,670	6,015	51.5
Rwanda	331	1,333	2,247	914	40.7
Tanzania	674	11,929	21,040	9,110	43.3
Uganda	275	4,025	6,255	2,230	35.7

Source: Ahmed, et al. (2012)[2]

In East Africa, children born less than two years after a previous birth suffer substantially higher risks of death than children born in intervals of two or more years (Figure 1). Mortality risks are also disproportionately high among children born to younger or older women.

Figure 1: Under-five mortality rates by birth intervals



Sources: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-11], Rwanda [12-16], Tanzania [17-21], Uganda [22-26]

FP has positive effects on household health, women's career goal attainment, and women's participation in nation-building [27]. It provides households with more disposable income by reducing the number of young dependents; fosters better health outcomes for members; ensures more satisfying and longer-lasting relationships; reduces the chances for depression and anxiety among family members; elevates individual and household happiness levels; and ensures higher investment in children's health and education [28].

Figure 2: Map of study countries

Source: Adapted [29]

A growing body of evidence also suggests that FP is key to the attainment of the demographic dividend: the economic benefits that countries derive from a decline in fertility and mortality rates [30-34]. For example, in Uganda, the average number of children per woman has been six for the past 50 years and 67% of the population is under age 24 [35]. The Ugandan economy can only provide employment for 20% of its annual new job seekers [36]. Wider usage and access to FP can accelerate fertility decline and create the conditions for a possible demographic dividend in Uganda [37].

Table 2: Key fertility, family planning, and reproductive health indicators in East Africa

Indicators	Ethiopia	Kenya	Rwanda	Tanzania	Uganda	EA*	SSA*
Contraceptive practice rate —any method (%)	29.0	58.0	53.0	34.0	30.0	39.5	28.4
Contraceptive practice rate — modern methods (%)	27.0	53.0	48.0	26.0	26.0	35.9	23.6
Unmet need for FP (%)	26.0	18.0	19.0	25.0	34.0	23.9	24.2
Demand for FP satisfied by modern methods (%)	50.0	71.0	66.0	48.0	41.0	56.6	44.4
Total fertility rate	4.8	3.9	4.2	5.4	6.2	4.9	5.1
Teenage pregnancy (%)	12.0	18.0	7.0	23.0	24.0	20.0	24.0
Desire to space births (%)	38.0	32.0	39.0	31.0	38.0	36.0	34.0
Desire to limit birth (%)	37.0	50.0	47.0	44.0	43.0	36.0	32.0
Unintended pregnancy (%)	28.0	36.0	36.0	27.0	44.0	30.0	28.0
Median age at first marriage in years	16.5	20.2	22.0	18.8	17.9	19.0	19.2
Maternal mortality ratio (per 100,000 live births)	353	510	290	398	343	417	546
Under-5 mortality rate (per 1,000 live births)	88.0	52.0	50.0	81.0	90.0	66.5	83.1
Total mid-population (millions) 2015	98	44	11	52	40	388	949

* EA - East Africa, SSA - sub-Saharan Africa
Source: Measure DHS [5, 11, 21, 26, 38] and UN [39]; PRB [40]; UN [41]; UN [42]; PRB [43]

Box 1: Global FP initiatives

ICPD Program of Action: The ICPD Program of Action was adopted by 179 countries during the International Conference on Population and Development (ICPD) held in Cairo in 1994. The 20-year Program of Action placed reproductive health and rights and women's empowerment at the heart of population, development, and health. ICPD defined reproductive rights as human rights, and called for universal access to reproductive health care by 2015. The Program of Action envisioned gender equality between partners and couples, reproductive decision-making, free choice in determining the number and timing of children, and freedom from sexual violence, coercion, and other harmful practices. ICPD also provided estimates of the resources required from developing countries and donors to provide specific components of sexual and reproductive health services [44]. Additional information on the ICPD Program of Action is available at: http://www.ipci2014.org/en/node/64

FP 2020: The FP 2020 initiative is a global partnership adopted in 2012 during the London Summit on Family Planning. The initiative addresses barriers to contraceptive use and committed to widening access to contraceptives for some 120 million more women and girls by 2020 [45]. FP 2020 works with governments, civil society, multilateral organizations, donors, the private sector, and the research and development community in the world's 69 poorest countries to accelerate access to, and use of, FP-related information, services, and supplies. More information on the FP2020 initiative, is available at: http://www.familyplanning2020.org/

ICPD Beyond 2014 Agenda: The Agenda was adopted during the ICPD Beyond 2014 International Conference on Human Rights held in Noordwijk, the Netherlands, in 2013 [46]. The conference reviewed implementation of the ICPD Program of Action and highlighted the centrality of sexual and reproductive rights as part of efforts to attain other rights and social justice. It underscores the importance of empowering people to exercise their sexual and reproductive rights as well as the implications of population dynamics for the achievement of the Sustainable Development Goals (SDGs). More information on the ICPD Beyond 2014 Agenda is available at: http://icpdtaskforce.org/beyond-2014/

1.1. Data sources

This report draws on secondary data sources such as Demographic and Health Surveys (DHSs) and published literature. DHSs are nationally representative household surveys that provide data for a wide range of monitoring and impact evaluation indicators in the areas of population, fertility behavior, health, and nutrition. The report relies on data from DHSs conducted in the study countries between 1989 and 2015 (Table 3).

Table 3: Data sources for the report

Country	Number of DHSs	Years
Ethiopia	3	2000, 2005, 2011
Kenya	6	1989, 1993, 1998, 2003, 2009, 2014
Rwanda	7	1992, 1998, 2000, 2005, 2008, 2010, 2015
Tanzania	5	1992, 1996, 1999, 2005, 2010
Uganda	5	1989, 1995, 2001, 2006, 2011

Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [22-26]

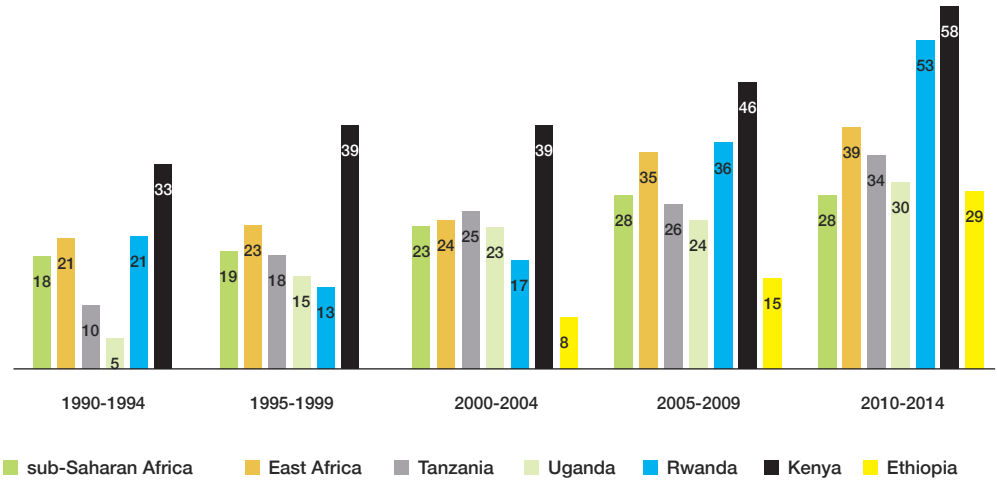
2. Contraceptive use in East Africa

This section highlights contraceptive use patterns and trends in the study countries, focusing specifically on contraceptive prevalence, methods, dynamics of methods switching, and use intentions.

2.1. Contraceptive prevalence

Contraceptive prevalence rate (CPR) refers to the percentage of women currently using, or whose sexual partner is currently using, at least one method of contraception. It is usually reported for married or in-union women aged 15-49. In the past three decades, CPR generally improved across East Africa. CPR in the sub-region is higher than the SSA average (Table 2). Kenya and Rwanda are clear leaders in terms of access to and use of contraceptives (Figure 3). Importantly, as shown in boxes 2 and 3, these two countries also have a history of implementing targeted and focused programs to improve access to FP services.

Figure 3: Contraceptive prevalence rates 1990-2014



Source: ICF International, Demographic and Health Surveys 1990-2014: Ethiopia [3-5], Kenya [7-11], Rwanda [12-16, 47], Tanzania [17-21, 48], Uganda [23-26]

Between 2000 and 2010, the sharpest rate of change in CPR occurred in Ethiopia and Rwanda, increasing more than three-fold, from 8% and 17% to 29% and 53% respectively. Although Kenya experienced the largest increases in CPR, these changes occurred over a longer time interval i.e. between 1993 and 2014. Contraceptive use prevalence stagnated in Uganda and Tanzania in the early 2000s, and in Rwanda immediately after the 1994 genocide.

Box 2: Kenya

Kenya was, in 1967, the first SSA country to develop a formal population policy and a national FP program [49]. But it was not until the 1980s that the government established the National Council for Population and Development (NCPD) to coordinate population and development matters. In 1996, the National Population Advocacy and IEC Strategy for Sustainable Development (1996-2010) [50] was specifically established by NCPD to promote use of modern contraceptives among marginalized populations. The 1980-90s also witnessed an expansion in the number of contraception providers (government health facilities, private health facilities, NGOs, and faith-based organizations) as well as health workers offering community-based FP services. These efforts contributed to an increase in the contraceptive prevalence rate from 17% in 1984 to 39% in 1998 [51].

Kenya's fertility decline stalled in the 2000s as priorities shifted toward HIV/AIDS prevention and away from FP promotion. The revitalization of the FP agenda in the 2010s, and the introduction of a new population and development policy in 2012, renewed interest in FP as key to sustainable population growth.

Box 3: Rwanda

In the 1980s, Rwanda had one of the world's lowest modern contraceptive prevalence rates (4%) and the highest total fertility rate (8.6%). The National Office of Population (ONAPO) was established in 1981 to improve citizens' access to FP services. The 1994 genocide precipitated a significant decline in modern contraceptive prevalence rates, from 13% in 1992 to only 6% in 2000.

After the genocide, the government began to reemphasize the importance of FP in national development and poverty reduction. It introduced a number of strategies that yielded a dramatic increase in the modern contraceptive prevalence rate to 45% in 2010. Some of the strategies adopted in Rwanda to accelerate FP use include: performance incentives to reward health centers and motivate health workers to provide quality care; universal health insurance schemes that enhance coverage of care and encourage community involvement in health provision; decentralization of health services; strengthening of contraceptive supply systems; and training health workers on FP provision [52]. Rwanda's remarkable turnaround, moving beyond its conflict-torn past, serves as a model for other countries in the sub-region.

2.2. Unintended pregnancy risk and contraceptive practice

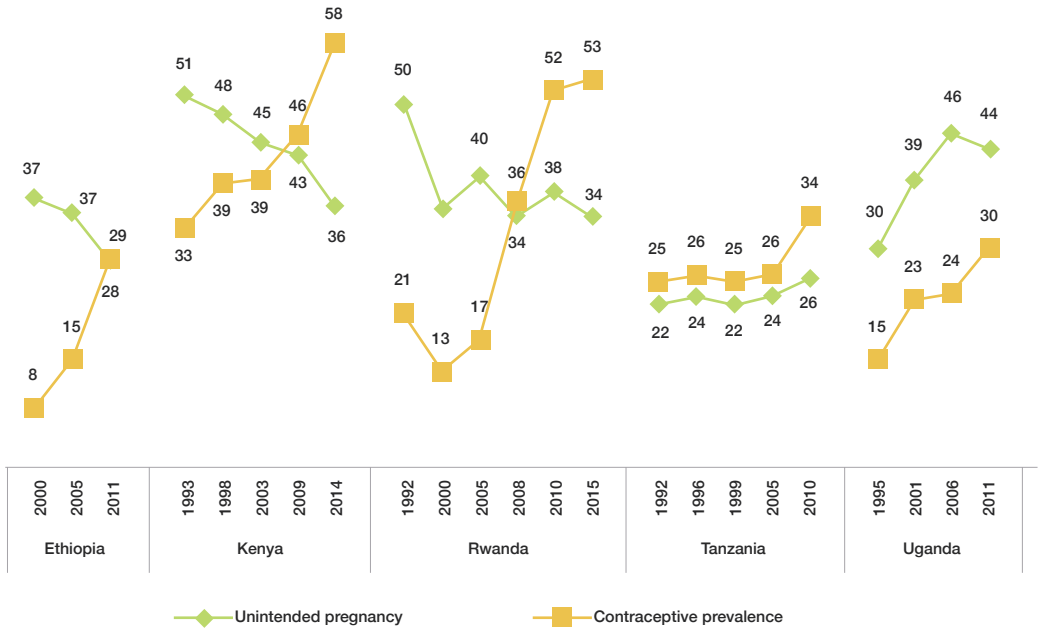
A pregnancy is unintended when it is either unwanted (the pregnancy occurred when no children, or no more children, were desired) or mistimed (the pregnancy occurred earlier than desired). Unintended pregnancy mainly results from not using contraception or using effective contraceptive methods inconsistently or incorrectly.

Since the early 2000s, the proportion of women reporting unintended pregnancy has been rising in Tanzania and Uganda; declining in Kenya and Ethiopia; and fairly stable in Rwanda. Reporting of unintended pregnancy among women of reproductive age is currently highest in Kenya, Rwanda, and Uganda and lowest in Ethiopia and Tanzania.

The relationship between contraceptive prevalence and unintended pregnancy in the sub-region is complex. In Uganda and Tanzania, unintended pregnancy is rising despite growing contraceptive

prevalence. The reverse is true in Kenya, where a lower rate of unintended pregnancy is accompanied by rising contraceptive prevalence. The incidence of unintended pregnancy in Rwanda has not been significantly affected by improvements in contraceptive prevalence (Figure 4).

Figure 4: Unintended pregnancies and contraceptive prevalence rates

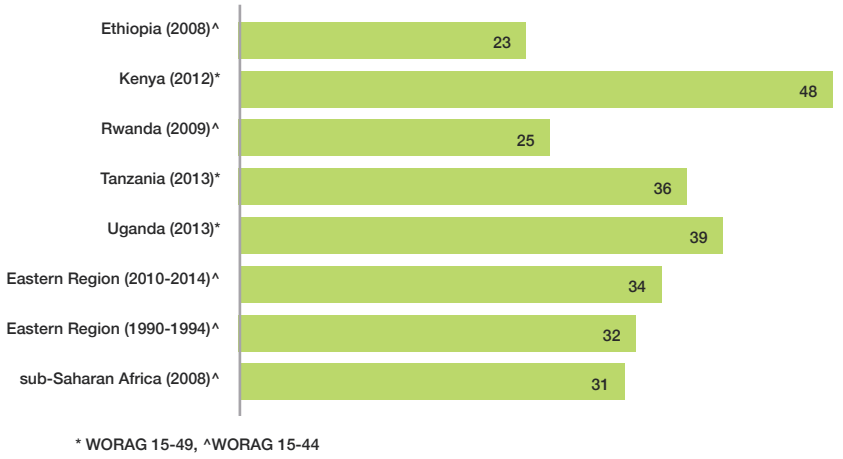


Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [7-11], Rwanda [19-23, 51], Tanzania [17-21], Uganda [23-26]

2.3. Unsafe abortion and contraceptive practice

Access to safe abortion is widely limited in SSA. About 13,000 women in East Africa die annually from complications related to unsafe abortions [53, 54]. Although abortion data are not consistently available across countries, there is evidence that induced abortion incidence rates are high in East Africa compared to SSA as a whole [55] (Figure 5).

Figure 5: Abortion rates (per 1000 women) in East Africa

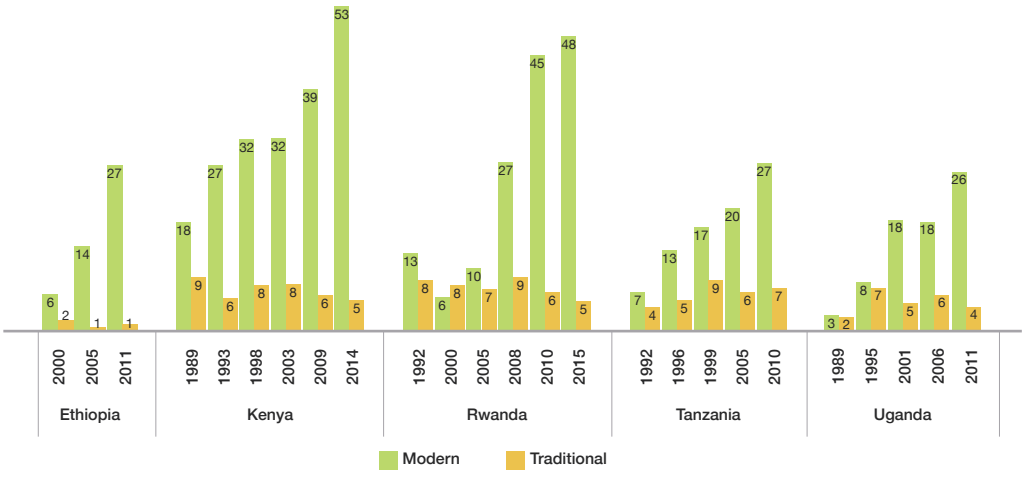


Sources: Keogh, et al. (2015) [56]; Basinga, et al. (2012)[57]; Mohamed, et al. (2015)[58]; Singh, et al. (2005)[59]; Singh, et al. (2010)[60]
*WORAG - women of reproductive age group

2.4. Contraceptive method choice

Contraceptive method choice defines patterns of use of a range of contraceptives or FP methods that are readily available in any given context. Countries differ both in the number of methods offered and the extent to which each method is available.

Figure 6: Prevalence of modern and traditional family planning methods

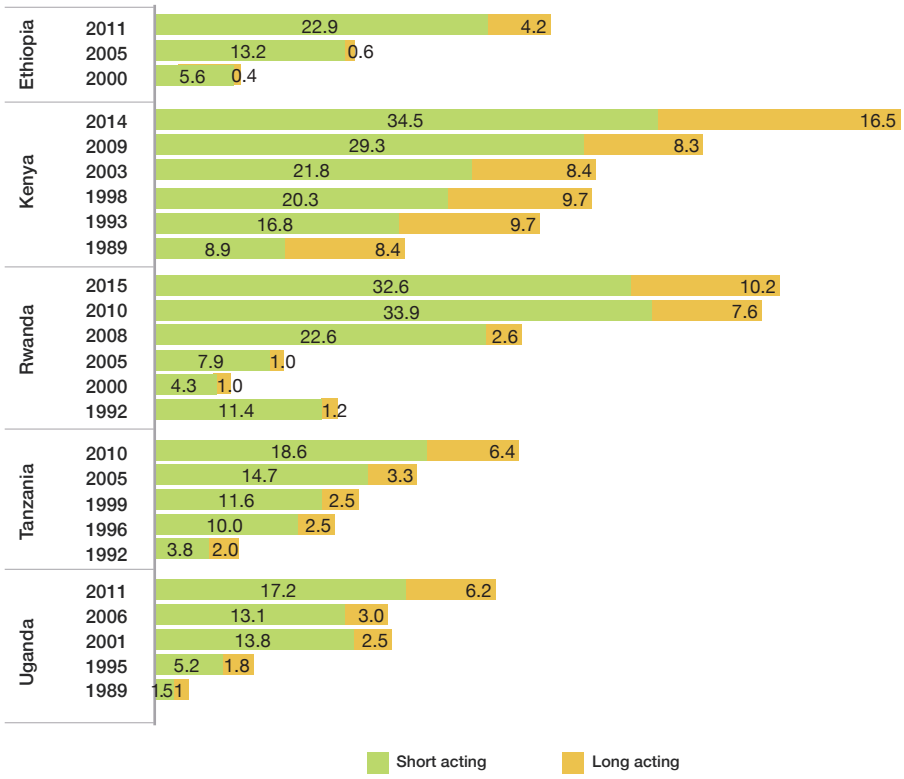


Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-9], Rwanda [12-16, 38], Tanzania [17-21], Uganda [22-26]

Modern methods of contraception include: oral contraceptive pills; female and male sterilization; intrauterine device (IUD); injectables; implants; male and female condoms; diaphragms; and emergency contraception. These are generally more effective than traditional methods, such as periodic abstinence, withdrawal, and folk practices. Data show that while there is an overall increase in the use of modern contraceptives across the sub-region, there is a relatively stable proportion of

women using traditional methods in Ethiopia, Rwanda, and Tanzania (Figure 6).

Figure 7: Prevalence of long-term and short-term modern contraceptive method choice



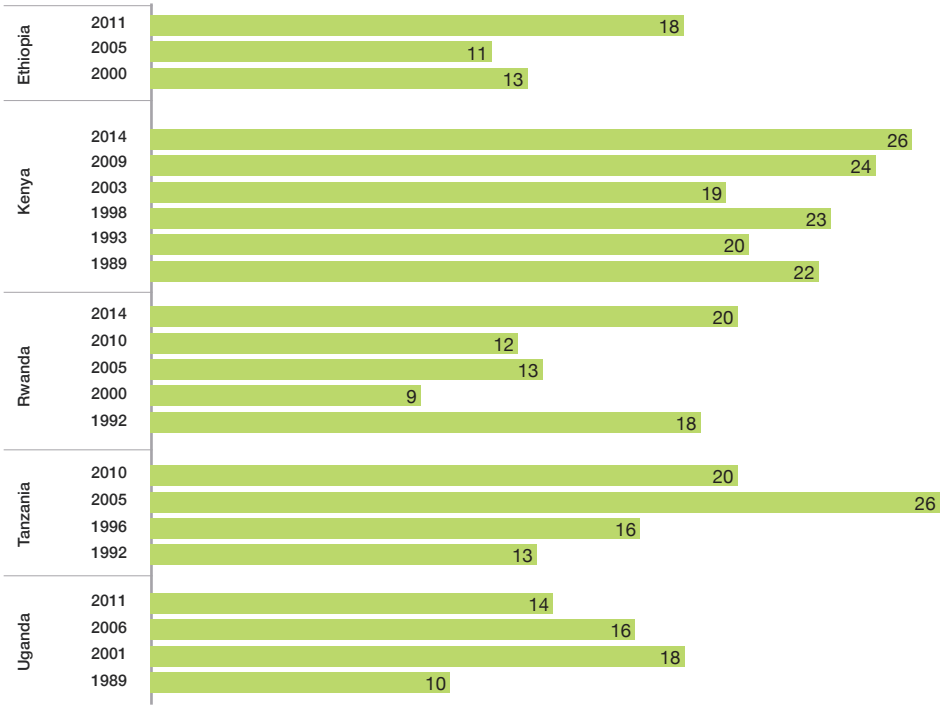
Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [22-26]

While short-term contraceptive methods are most widely used in the sub-region, there is rising usage of long-acting FP among couples. However, usage rates vary significantly among the countries in focus. Kenya and Rwanda have higher proportions of women using long-term methods whereas the lowest proportion is in Ethiopia.

2.5. Knowledge of fertile period

The proportion of women with correct knowledge of the rhythm (or calendar) method is currently highest in Kenya, Tanzania and Rwanda, and lowest in Uganda and Ethiopia. On average, the proportion of women who demonstrate accurate knowledge of their fertile period and the rhythm method in the sub-region remains generally low, with modest fluctuations over time (Figure 8).

Figure 8: Trends in correct knowledge of the fertile period among women

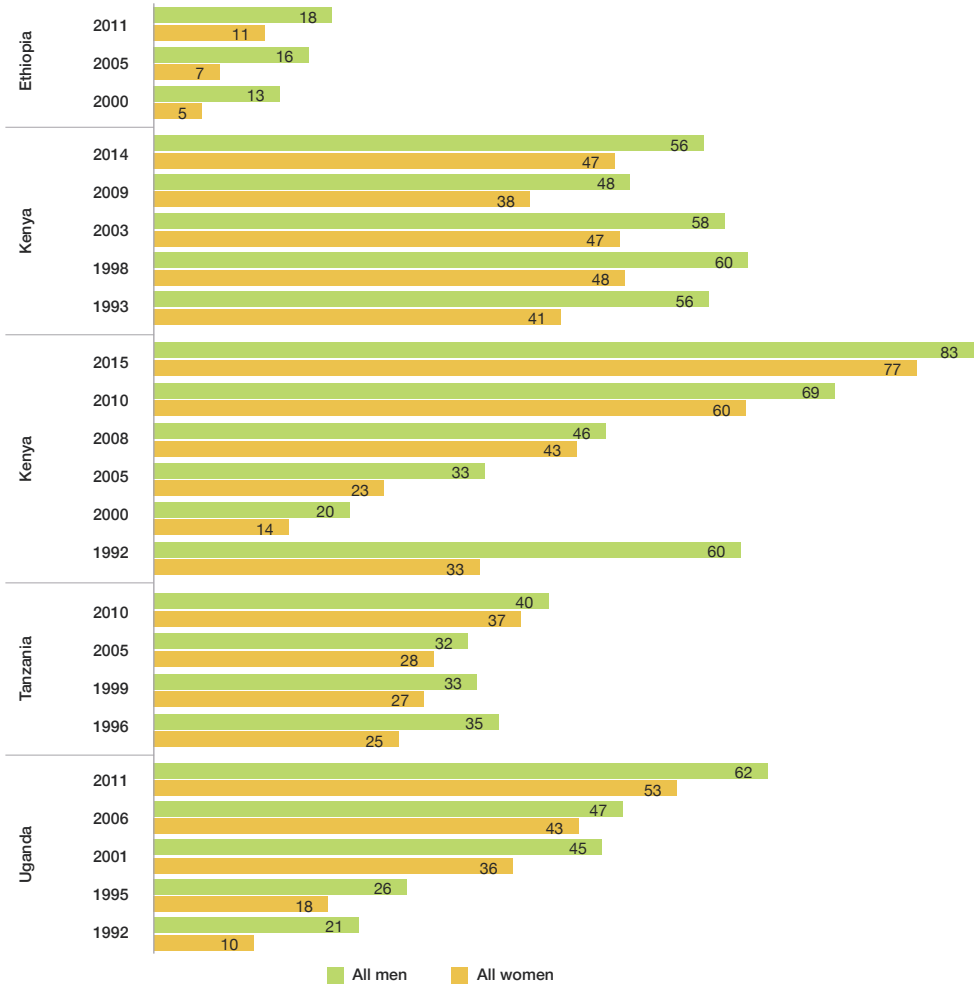


Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-11], Rwanda [12-14, 16, 38], Tanzania [17, 18, 20, 21], Uganda [22, 24-26]

2.6. Knowledge of vasectomy

Knowledge of, and attitudes toward, vasectomy (male sterilization) influence its uptake. Globally, negative attitudes or resistance to male sterilization persist [61-64]. Currently, less than 0.1% of couples in SSA rely on vasectomy for FP [65]. Knowledge of vasectomy as an FP method is generally higher among men than women in East Africa (Figure 9). In 2010/11 however, less than 19 % of men in Ethiopia reported knowledge of vasectomy as an FP method.

Figure 9: Knowledge of vasectomy as a FP method among men and women



Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [7-11], Rwanda [12-16, 38], Tanzania [18-21], Uganda [22-26]

2.7. Contraceptive discontinuation and switching

Contraceptive discontinuation is defined as commencing contraceptive use and then stopping for any reason, while still at risk of unintended pregnancy. Discontinuation for reasons other than wanting to become pregnant contributes to unwanted pregnancies and can lead to unsafe abortions. Women discontinue methods for different reasons, including side effects, health concerns, the disapproval of their husbands, access and/or availability, and cost issues [65]. Users of modern contraceptive methods have consistently lower rates of failure than users of traditional methods, but are more likely to discontinue the method while still at risk of pregnancy [66].

Overall, one in three couples in East Africa is likely to discontinue using contraceptives within a year. As shown in Table 4, Uganda and Ethiopia have the highest discontinuation rates (43% and 42% respectively). Dissatisfaction with the side effects of any given method is the most common reason couples discontinue contraceptive use in East Africa [67].

Table 4: Contraceptive discontinuation and switching within 12 months after beginning use

Reasons for discontinuation	Ethiopia 2005	Kenya 2014	Rwanda 2015	Tanzania 2005	Uganda 2011
Fertility-related (%)	**15**	**12**	**9**	**15**	**18**
Method failure	1	3	3	4	6
To become pregnancy	10	5	4	8	8
Other fertility related	3	4	2	3	4
Method-related (%)	**22**	**15**	**16**	**19**	**20**
Side effects and health	15	11	11	12	16
Wanting another effective method	3	3	5	4	1
Other method-related	5	1	1	3	3
Other reasons	**5**	**4**	**2**	**5**	**5**
All reasons (total %) for discontinuation	**42**	**31**	**28**	**38**	**43**
Switching	**12**	**11**	**10**	**9**	**5**

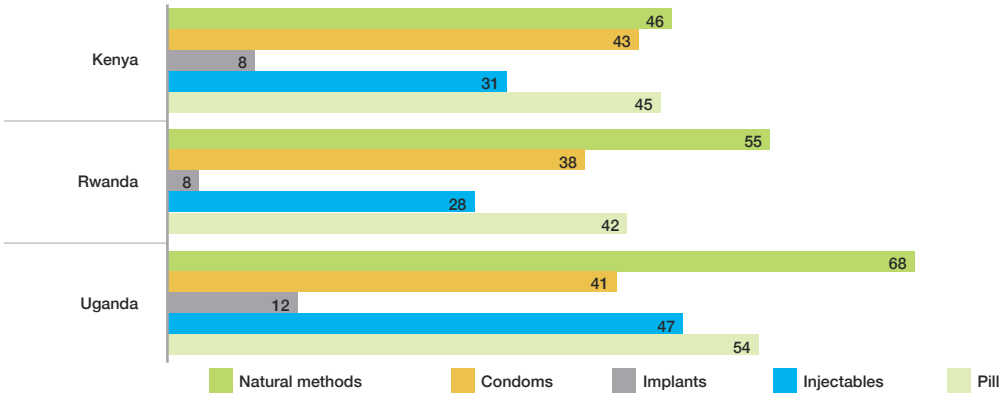
Source: ICF International, Demographic and Health Surveys: Ethiopia [4], Kenya [11], Rwanda [38], Tanzania [20], Uganda [26]

Switching rates are currently lowest in Uganda (5%) and highest in Ethiopia (12%). Trend data on discontinuation exist only for Kenya, Uganda, and Rwanda and show that since the 2000s, Kenya has been experiencing high rates of discontinuation, and Rwanda, fairly stable rates. Although discontinuation rates are beginning to decline in Uganda, they remain fairly high. Currently however, the highest rate of discontinuation of any method is in Uganda (Figure 10). Data in the three countries show that natural methods (lactational amenorrhea method (LAM), withdrawal, rhythm) have the highest discontinuation rates. Use of condoms, pills, and injectables are also frequently discontinued.

Across the sub-region, the rate of method discontinuation is much higher than the rate of method switching. The key drivers of discontinuation in the sub-region include perceived or real side effects of contraception and desire for another child. Other reasons women give for discontinuing contraception include reported contraceptive failure, early onset of menopause, and health concerns [67].

Recent DHS data indicate that the highest discontinuation rate occurs among women who used natural family planning method and lowest among women who used implants.

Figure 10: Rates of contraceptive method discontinuation

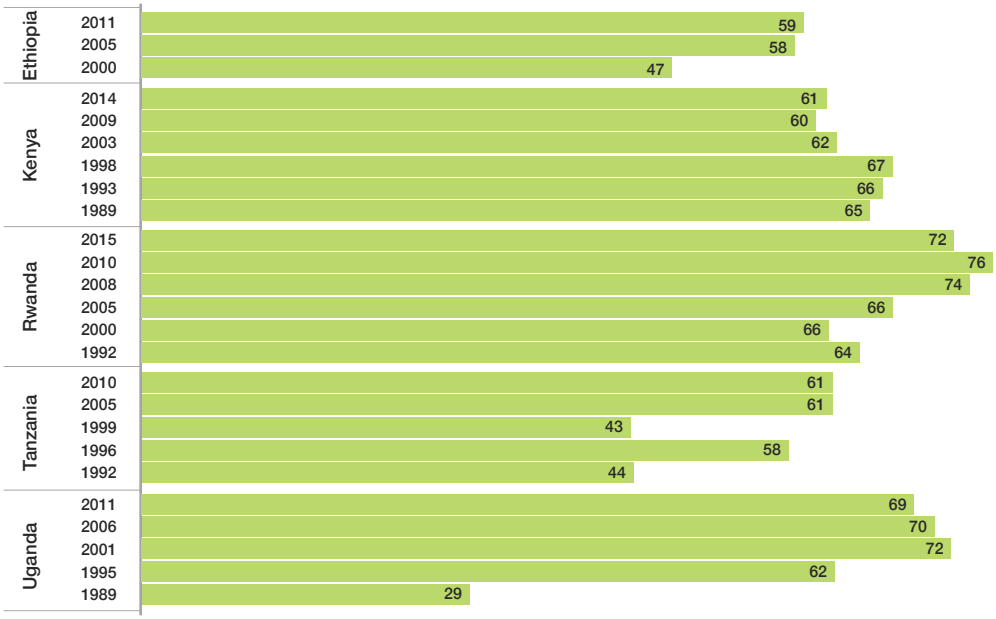


Source: ICF International, Demographic and Health Surveys: Kenya [11], Rwanda [38], Uganda [26]

2.8. Future intention for contraceptive use

Intention to use contraceptive measures future willingness to use a modern contraceptive method. Across all five countries, intention for future contraceptive use remains low, growing only moderately between 1989 and 2015. The proportion of women who intend to use contraception in the future has remained fairly stable in Kenya since the early 90s. Between 1999 and 2005, Tanzania recorded an 18% surge in the proportion of women intending to use contraceptives.

Figure 11: Trends in contraceptive use intentions



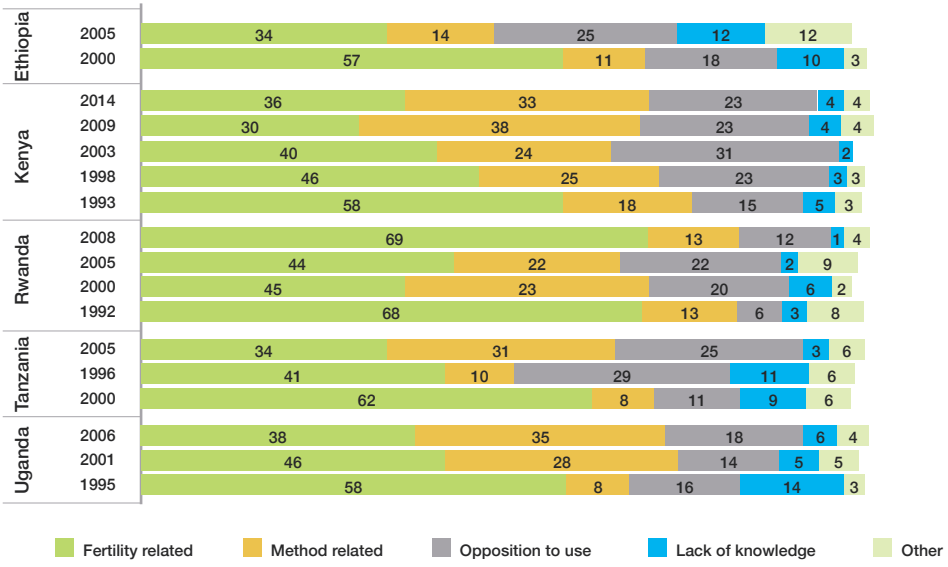
Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [22-26]

3. Non-use of contraceptives and family planning services

3.1. Reasons for not using family planning methods

Fertility-related reasons, such as desire for more children, infertility, and menopause, and method-related reasons, such as side effects, health concerns, cost of methods, and method failure are the most common reasons women in the region cite for not intending to use FP in the future (Figure 12). Other reasons include opposition by husbands/partners, religious prohibition, and lack of knowledge about available FP methods.

Figure 12: Trends in reasons for not intending to use family planning methods

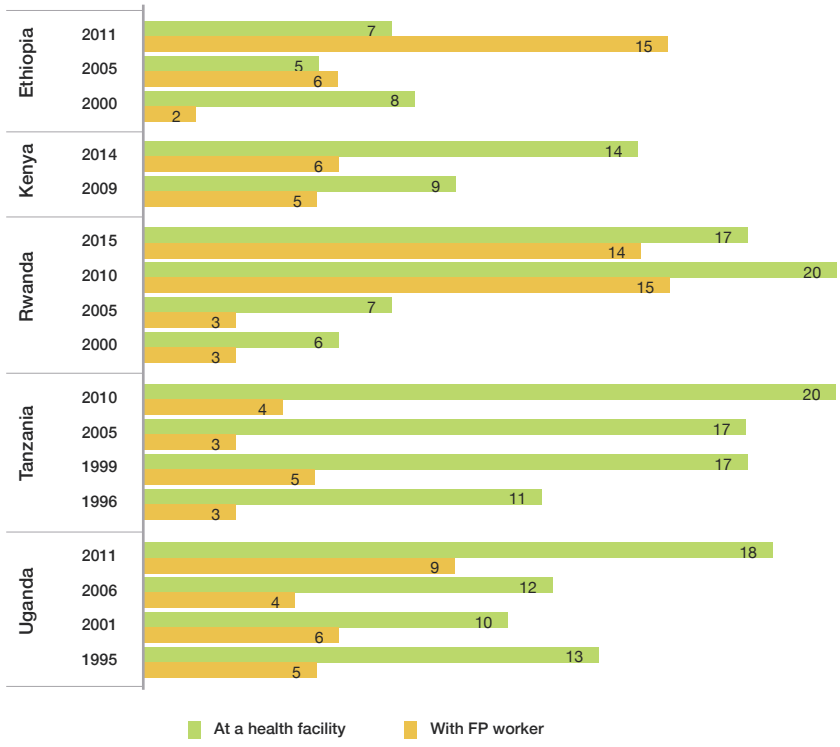


Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [7-11], Rwanda [12-15], Tanzania [17, 18, 20], Uganda [23-25]

3.2. Contact of non-users with family planning services

Men and women's contact with family planning service providers is an important factor in contraceptive use. According to the latest DHS, Rwanda has the highest level of contact of women nonusers with FP providers (30%) and Kenya has the lowest (20%). In Ethiopia, contact of non-users with FP community health workers has been steadily rising, but contact with health facility-based providers remains stable, suggesting growing community-based FP outreach and distribution in the country (Figure 13). Overall, the proportion of women who come in contact with FP services providers has only been rising slowly in the sub-region.

Figure 13: Trends in contact of non-users with FP services



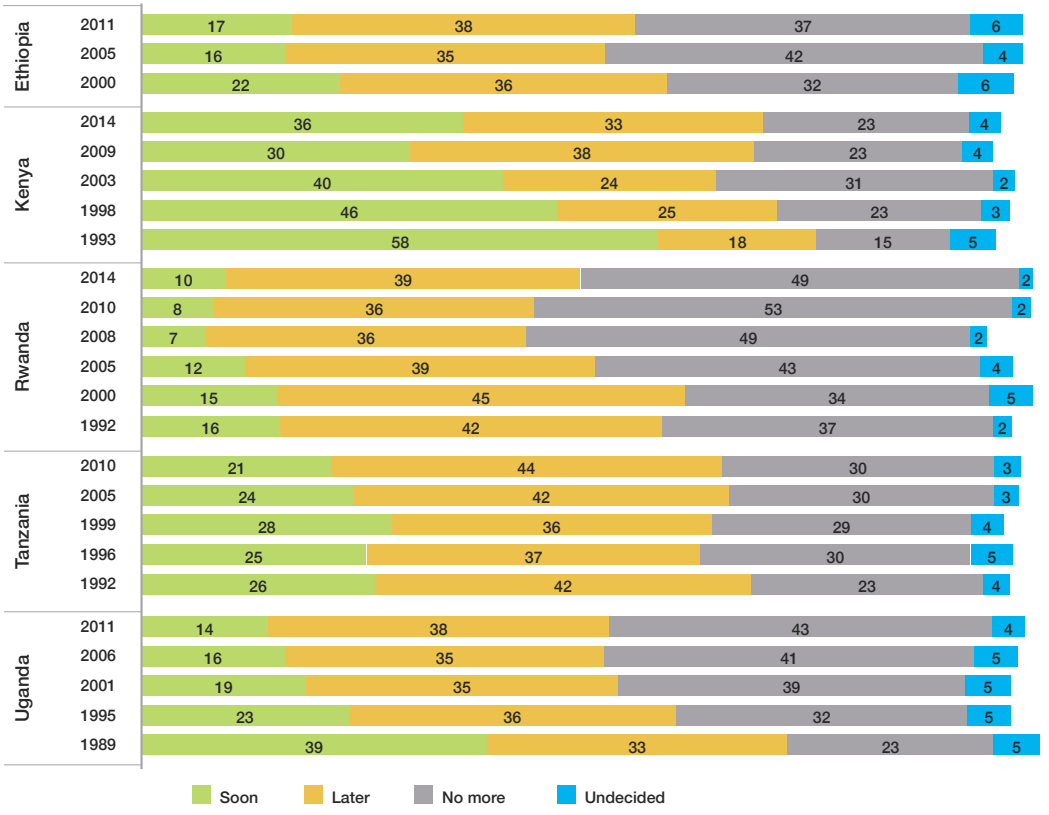
Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [10, 11], Rwanda [13, 14, 16, 38], Tanzania [18-21], Uganda [23-26]

3.3. Desire to have more children and to limit childbearing

Fertility preference information is important for targeting and contextualizing FP service delivery. It enables the identification of the needs and drivers for contraceptive uptake, whether for spacing or limiting births. It is also useful for assessing the extent of unwanted and mistimed pregnancies.

High numbers of women in the sub-region are currently expressing preferences for smaller numbers of children and for stopping childbearing all together. Desire for more children is currently lowest in Kenya compared with the other four countries. According to recent DHS data, the greatest demand for FP to limit childbearing is in Kenya and Uganda (Figure 14). Additionally, Ethiopia currently has the highest proportion of women who are undecided about their fertility preferences.

Figure 14: Trends in fertility preferences among women

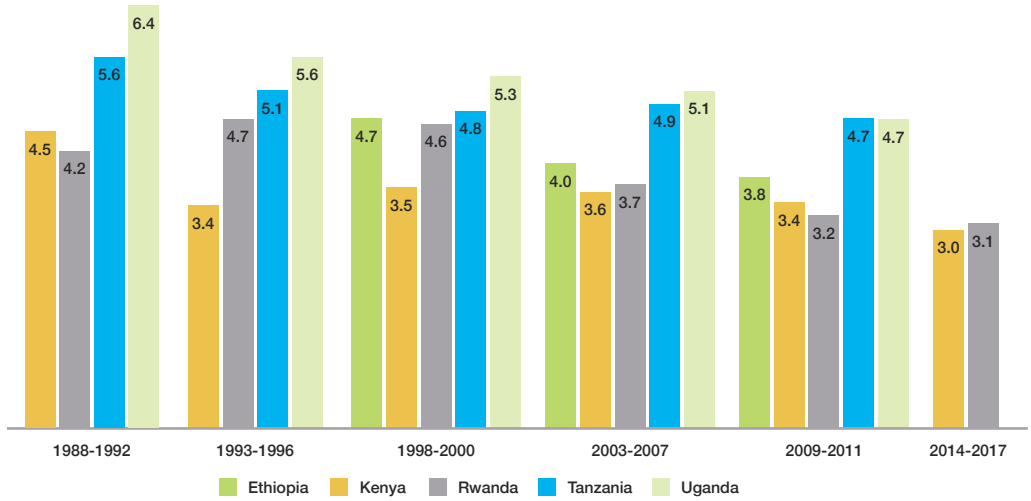


Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [7-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [22-26]

3.4. Wanted and unwanted fertility

Wanted and unwanted fertility are other useful measures of reproductive preferences. Unwanted fertility is the difference between wanted fertility and total fertility (actual fertility). Unwanted fertility is a strong indicator of excess fertility — that is, childbearing that is beyond the desired number — and might indicate lack of access to effective FP services. Uganda and Tanzania have the highest wanted fertility rates while Kenya and Rwanda have the lowest. Wanted fertility rates are decreasing in the sub-region, with the exception of Rwanda, where there was an increase in wanted fertility following the genocide (Figure 15).

Figure 15: Trends in unwanted fertility rates in East Africa



Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [22-26]

Two patterns are noticeable with regards to unwanted fertility in the five countries (Figure 15). First, in Kenya and Rwanda, high contraceptive use and declining unwanted fertility rates go hand in hand. Second, low use of contraceptives and increasing levels of unwanted fertility characterize Uganda, Ethiopia, and Tanzania.

3.4.1. Family planning use and age at first birth

The age a woman has her first child affects her fertility as well as her health and that of her children. The earlier a woman has her first child, the longer she will be of childbearing age, and the higher her potential for a larger number of pregnancies and births. Conversely, early initiation of FP enables a woman to postpone childbearing until she is older.

Women are having their first children at an increasingly later age across the sub-region (Figure 16). In Kenya and Rwanda, where contraceptive prevalence is high, the median age at which women bear their first child is 20 years. Rwanda has the highest median age at first birth (22.7) – perhaps a function of the high median age (21.4) at first union. In Uganda, the median age at first union among women stands currently at 18.7 year. This is the lowest among the five countries.

Figure 16: Trend in mother's median age at first birth

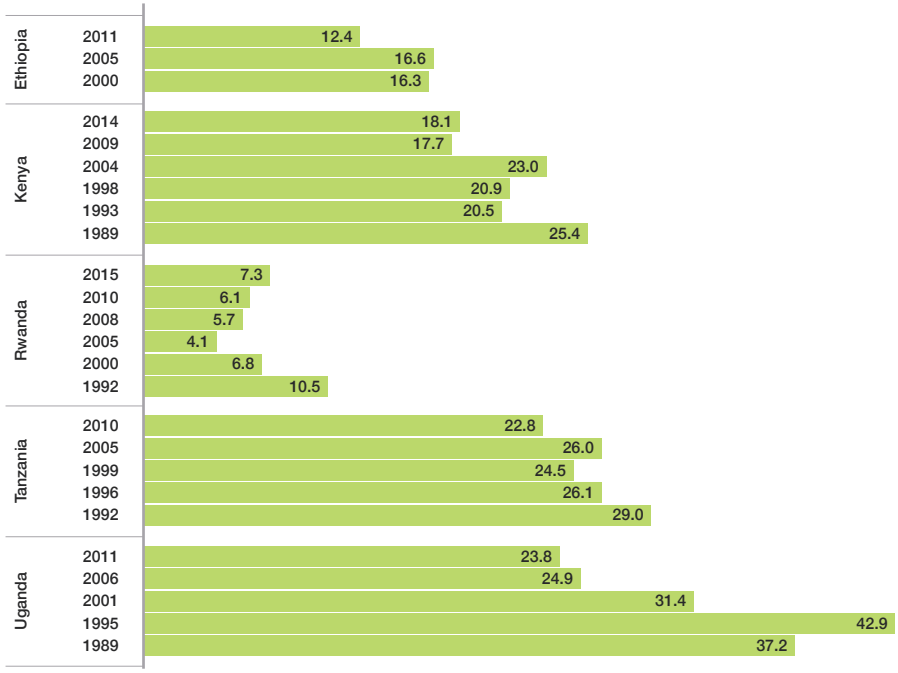
Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [22-26]

3.4.2. Family planning use and teenage childbearing

Teenage childbearing has adverse health and social consequences, including high risk of maternal morbidity and death, as well as poor schooling outcomes [27]. The 15-19 age group faces a series of barriers to contraceptive use, including social norms and a lack of knowledge about, or access to, appropriate contraceptives. A systematic review of studies from developing countries showed that uptake of hormone-based FP methods among young women is hindered by lack of knowledge and access, as well as concern about side effects – the fear of infertility being the most pronounced. The popularity and use of condom were also limited by its association with disease and promiscuity [25, 26].

Overall, teenage childbearing is declining in the five countries (Figure 17). Percentages of teenage pregnancies are lowest in Rwanda and highest in Uganda.

Figure 17: Trends in teenage childbearing



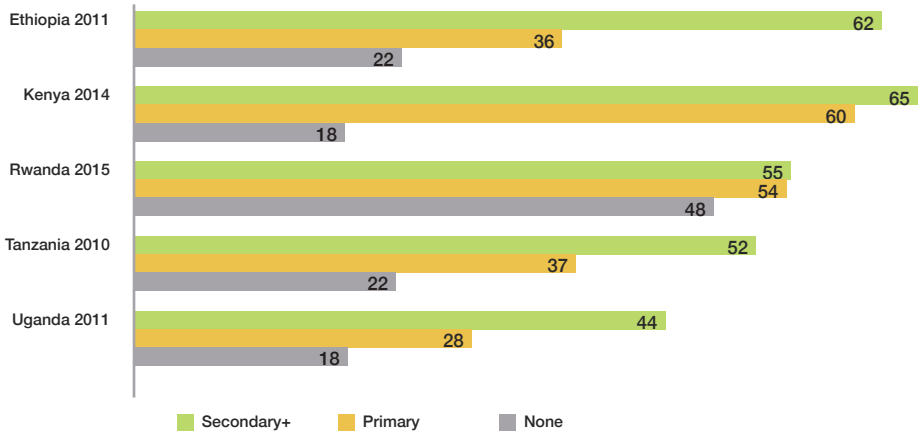
Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [22-26]

3.4.3. Family planning use and education

Access to education is a consistent predictor of contraceptive use among women [37]. In the sub-region, contraceptive use among women with a secondary school education or higher is three times than that of women with no schooling. Commensurately, unmet need for FP is highest among women with no education and lowest among women with at least a secondary school education (Figure 18). The greatest difference in the use of contraceptives between uneducated and educated women is in Kenya. This difference is lowest in Rwanda, which has conscientiously pursued an integrated FP services delivery program in the last two decades [68].

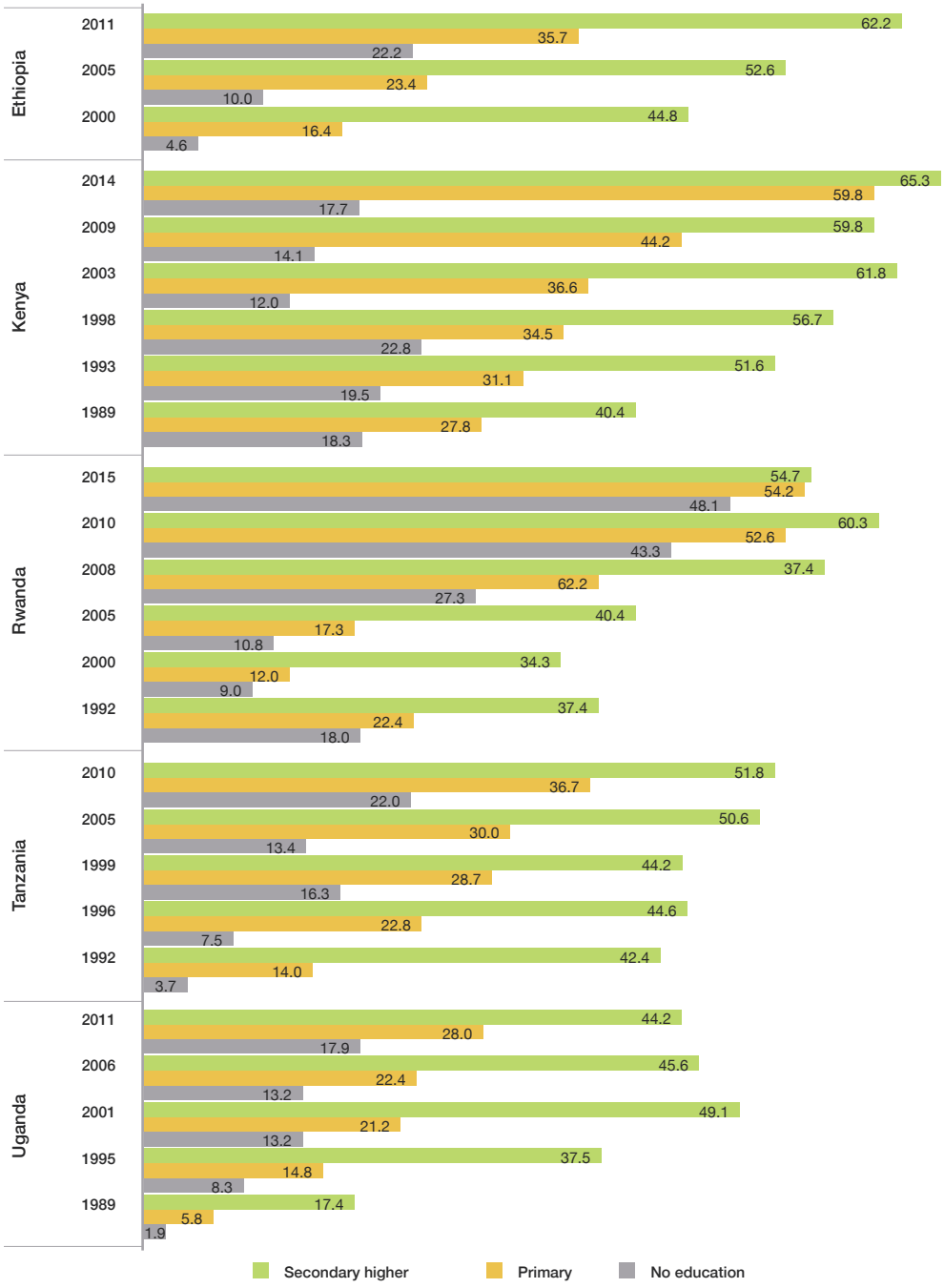
Generally, women with only primary education use FP more than those without it, but relatively less than those with secondary or higher levels of education. The relationship between contraceptive use and schooling (Figure 19) highlights the importance of education in women's empowerment, knowledge of contraceptive methods, and autonomy in using FP [1].

Figure 18: Contraceptive use among women by education levels in latest DHSs



Source: ICF International, Demographic and Health Surveys: Ethiopia [5], Kenya [11], Rwanda [38], Tanzania [21], Uganda [26]

Figure 19: Trends in method use and educational status among women



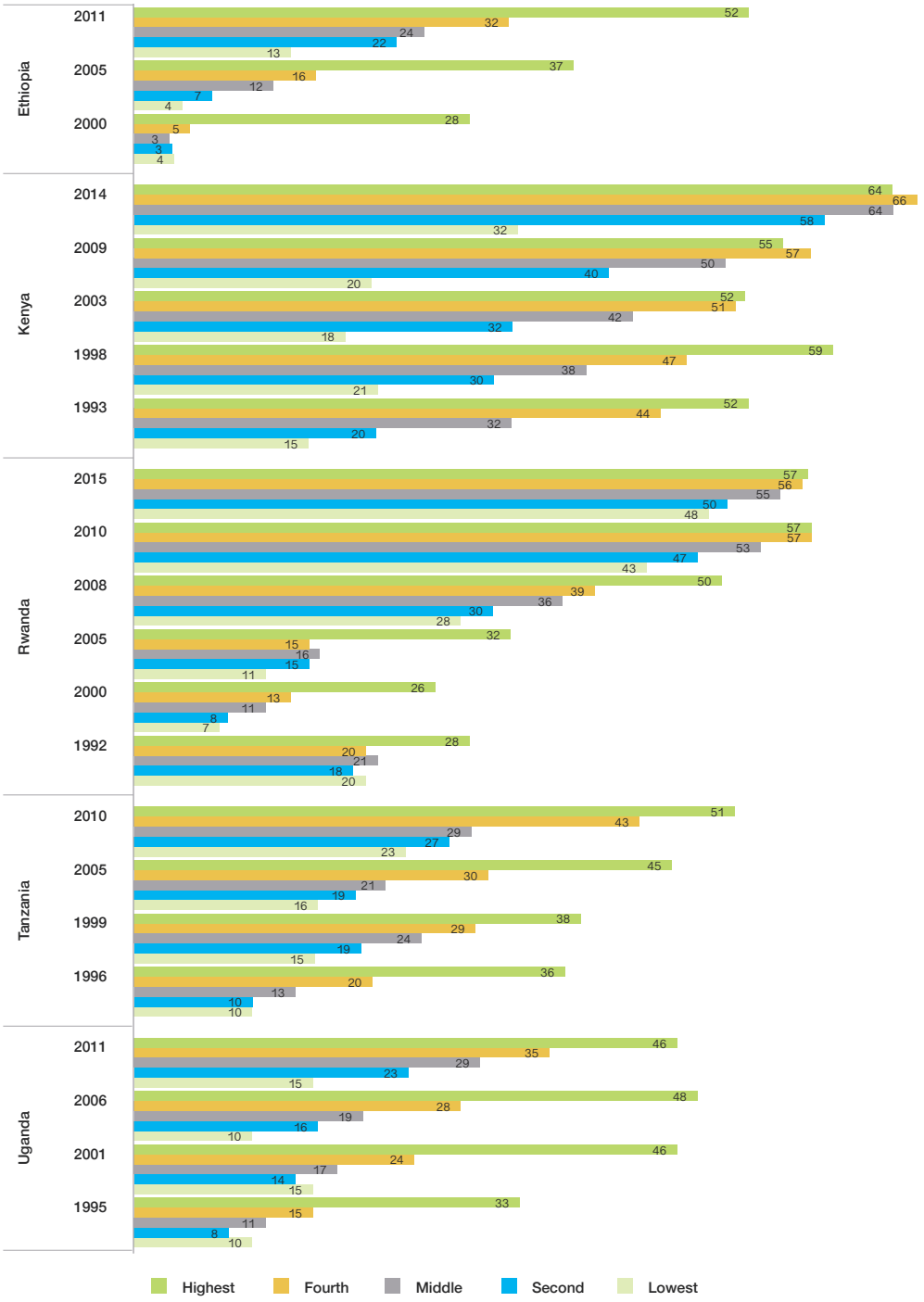
Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [22-26]

3.4.4. Family planning use and wealth status

Practicing family planning increases in a step-wise manner from the poorest to richest women in the sub-region (Figure 20), suggesting that wealthier women, compared to their poorer counterparts, may find it easier to overcome barriers to access to FP services. The largest gap in contraceptive

use between the poorest and richest women is in Kenya, while the narrowest gap is in Rwanda. Differences in FP use by income indicate inequities in access to services.

Figure 20: Trends in using any method of contraception and wealth status

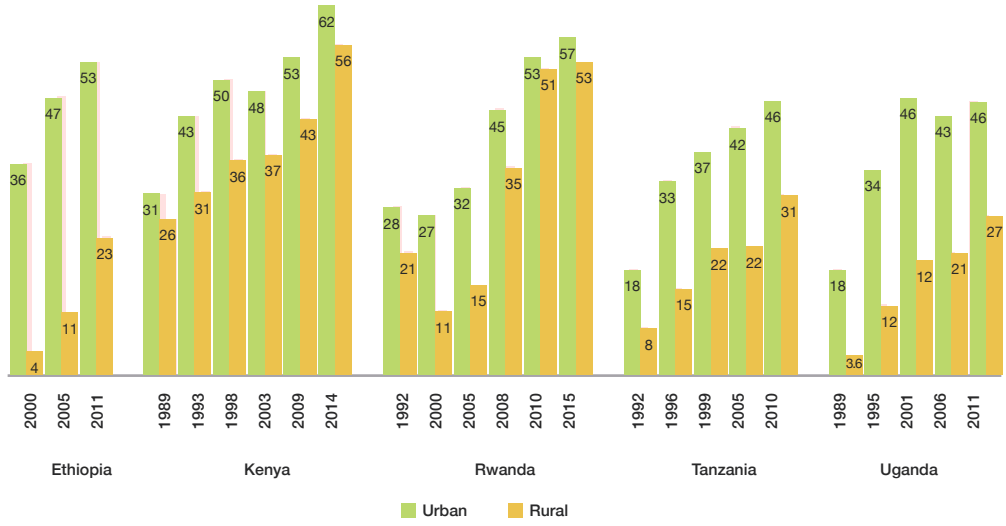


Source: ICF International, Demographic and Health Surveys: Ethiopia [10-12]; Kenya [14-18]; Rwanda [19-23, 45]; Tanzania [25-27, 29]; Uganda [31-34].

3.4.5. Family planning use and place of residence

Urban versus rural residence is a key measure of geographic access to basic health services, including FP. In all five countries, FP use is consistently higher among urban women (Figure 21). The biggest gap between urban and rural contraceptive use is in Ethiopia and Uganda, while the smallest gap is in Kenya and Rwanda (Figure 21). Large-scale differences in rural-urban FP use and services might be accounted for by the higher numbers of educated and non-poor women in urban areas, as well as the pervasive urban advantage in the distribution of FP services in the sub-region.

Figure 21: Contraceptive use by residence

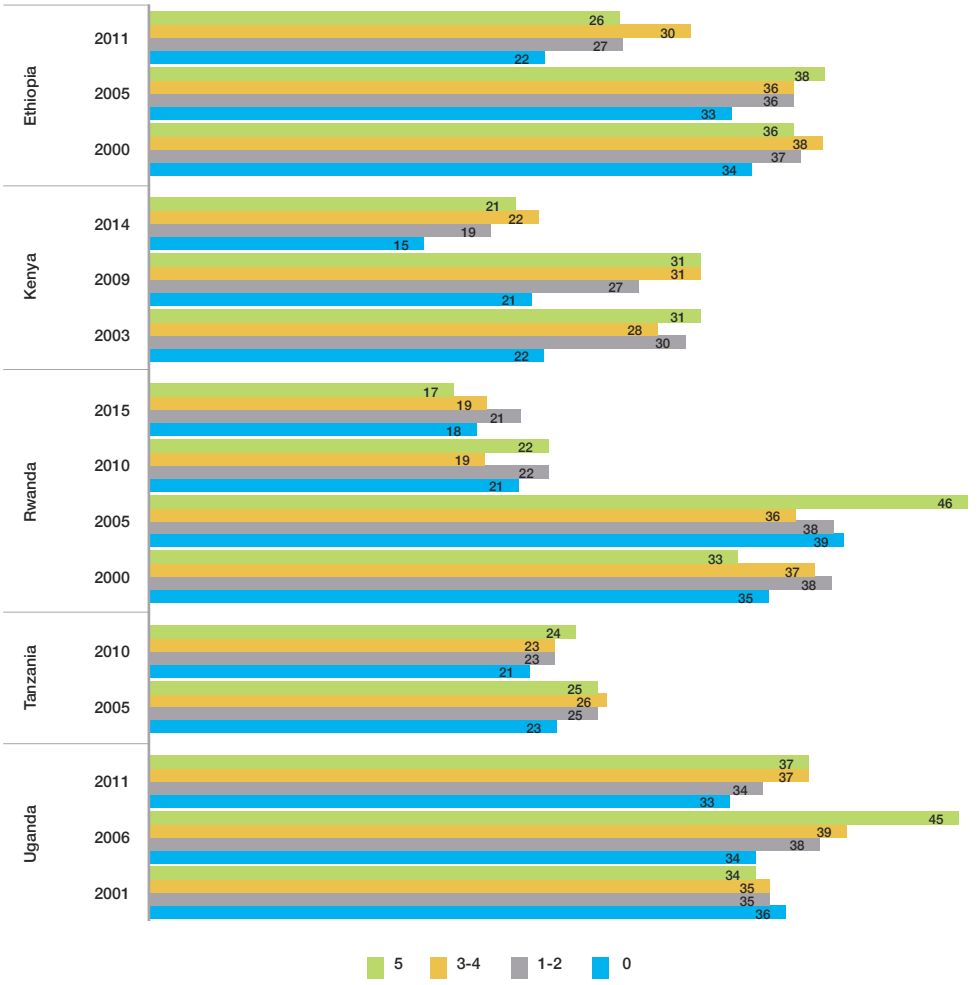


Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [22-26]

3.4.6. Family planning use and women's empowerment

Contraceptive use in East Africa varies with levels of women's empowerment. The DHS measures 'empowerment' using two indicators: the reasons offered by women to justify domestic violence against women, and the key issues that women report having 'a final say on at the household level'. The more empowered a woman is, the higher her likelihood to use a contraceptive method and the lower her unmet need for FP [69-71]. Across the sub-region, data demonstrate that empowered women are more likely to use contraceptives and are less likely to report unmet need for FP than their less-empowered counterparts (Figure 22). Women's decision making autonomy is therefore central to their access and use of contraception.

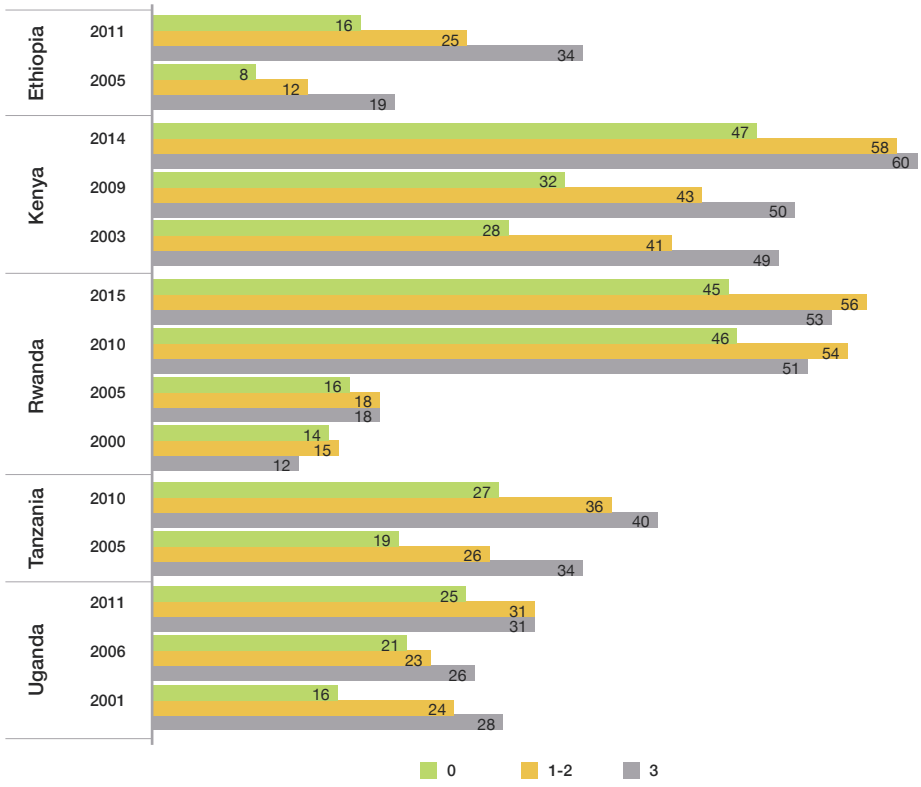
Figure 22: Number of justifications given for domestic violence against women



Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [9-11], Rwanda [13, 14, 16, 38], Tanzania [20, 21], Uganda [24-26]

Approval of one or more reasons for domestic violence is common among women across the five countries. Refusing to tolerate domestic violence is linked with contraceptive practice among the women. However, no clear patterns emerge with regards to FP use and women's approval of domestic violence in the study countries (Figure 22). Judging from the most recent DHS data for the five countries, Uganda has the highest proportion of women who give more than five reasons to justify domestic violence. Rwanda has the lowest.

Figure 23: Contraceptive use by women and number of decisions on which women report having a final say



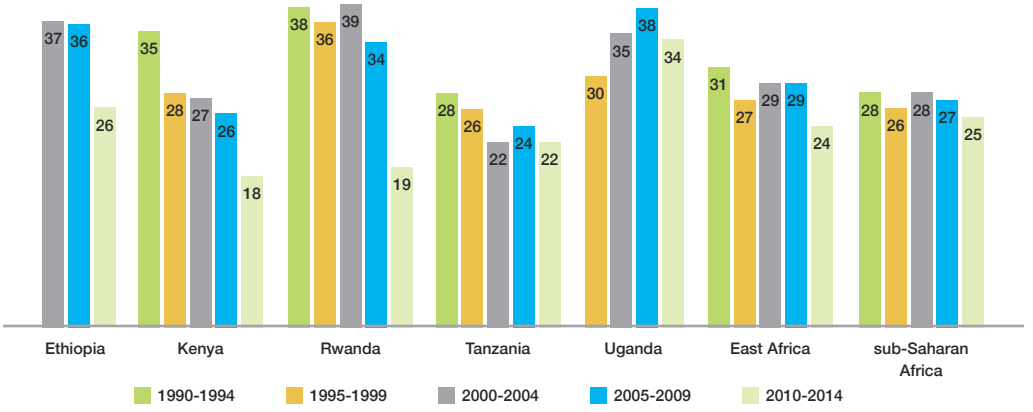
Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [9-11], Rwanda [13, 14, 16, 38], Tanzania [20, 21], Uganda [24-26]

Women's autonomy in the household has a strong correlation with women's fertility preferences [71]. East African countries that have higher proportions of women reporting a say in household decision-making also have higher levels of contraceptive uptake (Figure 23). However, Rwanda presents an interesting scenario: it has fairly high contraceptive uptake levels, even among women who report no or few household issues on which they make final decisions (Figure 23).

4. Unmet need for contraception

Unmet need refers to a situation in which a woman who wants to delay or stop childbearing does not use contraception. In 2015, one in five women in East Africa had unmet need for FP [72]. Changes in unmet need for FP indicate gaps between demand and FP use. Between 1995 and 2006, unmet need for FP slowly declined in Kenya, Rwanda, Tanzania, and Ethiopia. In Uganda, on the other hand, unmet need increased in the face of a rising CPR, suggesting a significant gap between demand and supply of FP services. The decline in unmet need for FP was steepest for Kenya and Rwanda, and slowest in Ethiopia and Tanzania. The level of unmet need for FP remains highest in Uganda at 34%, compared with 24% in the sub-region during the 2010-2014 period (Figure 24).

Figure 24: Trends in unmet need for family planning in East Africa



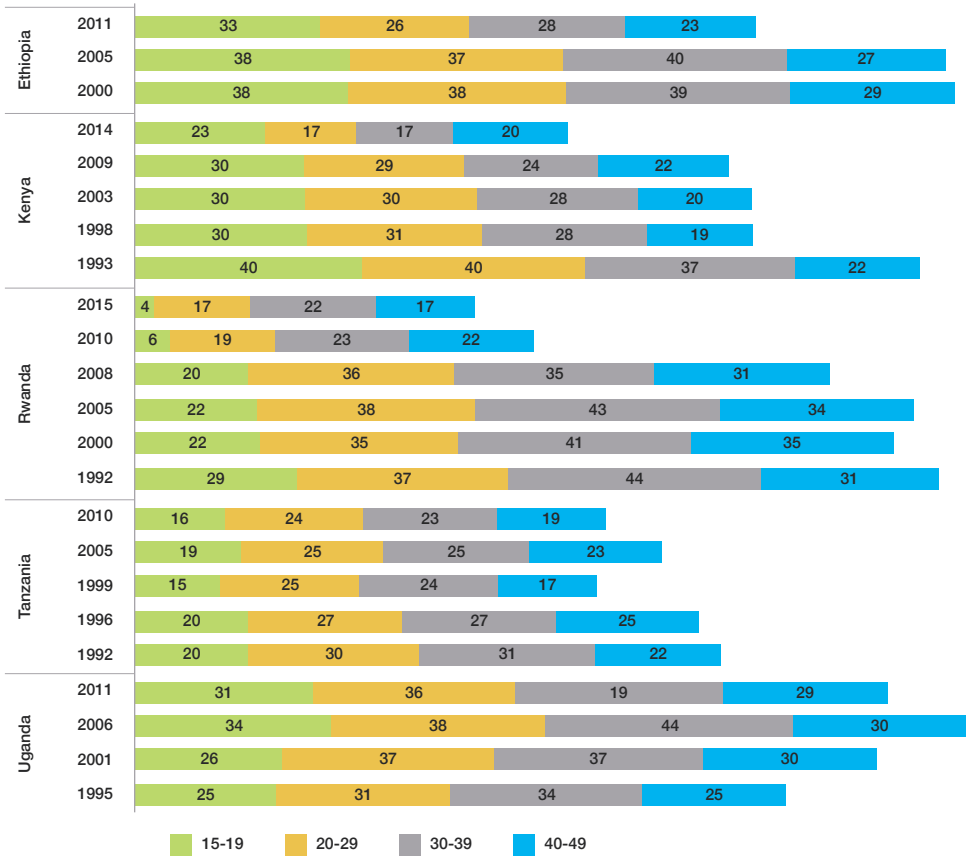
Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [6-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [22-26]

Unmet need for FP affects East African women of varying socio-economic status – including those with higher education – indicating that factors other than a lack of formal education hinder FP uptake. Such factors may include age, community and partner opposition, desired number of children, discussion with health care providers, and previous contraceptive experience [73].

4.1. Unmet need for family planning and women's age

A woman's age plays a significant role in her need for FP. Unmet need for FP in the sub-region varies by age, with adolescents aged 15-19 bearing a considerable burden of it. This demonstrates the unique barriers adolescents may face in contraceptive access and use (Figure 25).

Figure 25: Unmet need for family planning by women and girls' age



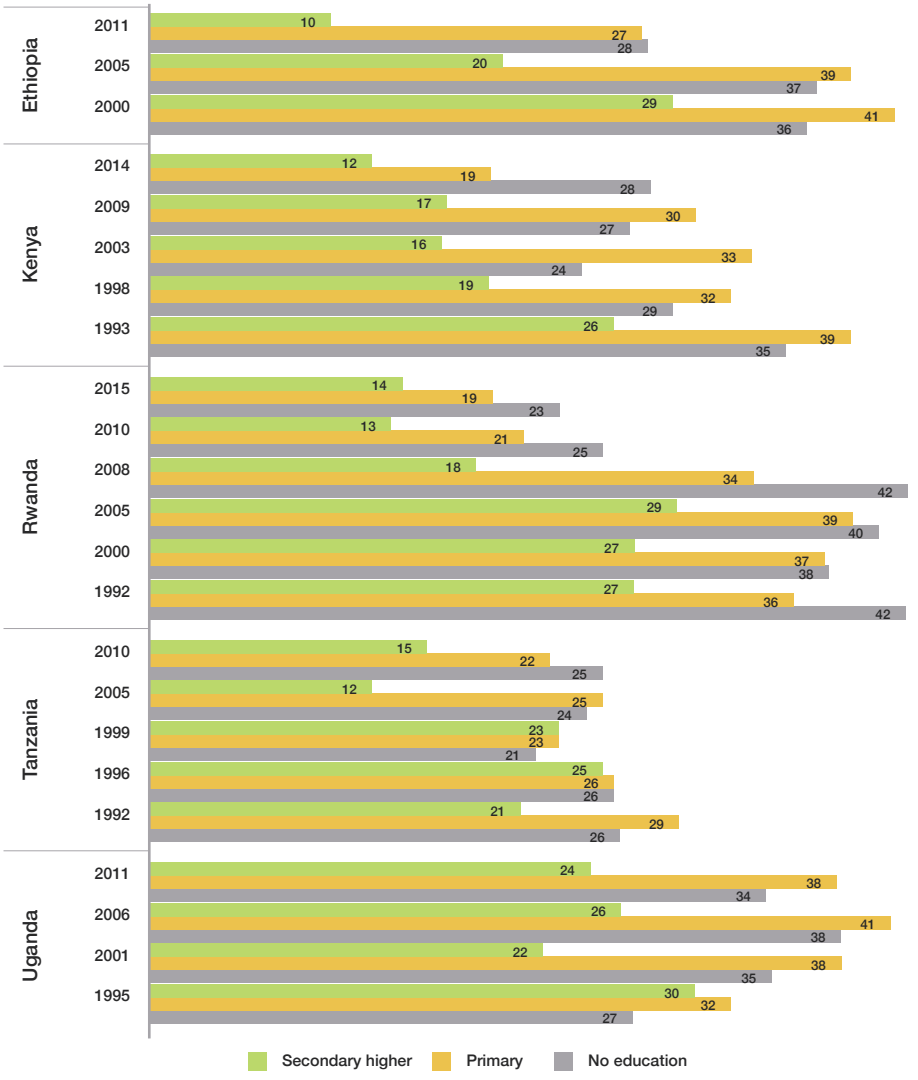
Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [7-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [23-26]

Ethiopia and Uganda currently have the highest levels of unmet need for FP among adolescents aged 15-19 in the sub-region. Both countries also currently have the highest levels of unmet need among women aged 20-29. The steepest decline in unmet need occurred between 2000 and 2010 among Rwandan women aged 15-19. In Tanzania, unmet need is lowest among women aged 15-19 and highest among the 30-39 and 20-29 age groups (Figure 25). There are, however, very minor age-based differentials in unmet need among women in Kenya.

4.2. Unmet need for family planning and women's education

Uneducated Kenyan women report more unmet need than women who have primary, secondary, or higher levels of education (Figure 26).

Figure 26: Trends in unmet need for FP and educational status among women



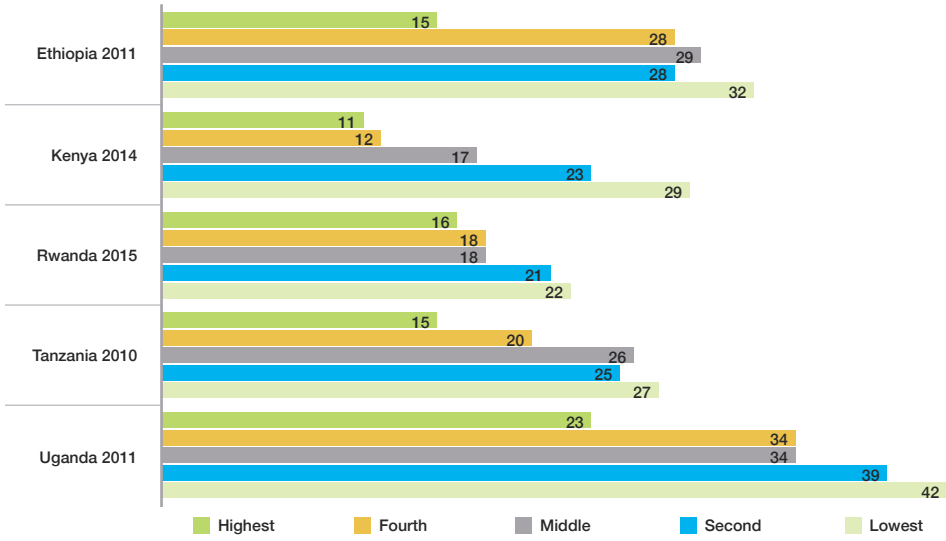
Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [7-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [23-26]

From the most recent DHS data, levels of unmet need are highest among women with secondary or higher education in Uganda (44%). The difference in unmet need is currently lowest between women without education and with secondary education or higher in Rwanda.

4.3. Unmet need for family planning and women's wealth status

Figure 27 illustrates that high wealth status is associated with low unmet need for FP across the sub-region, which underscores poverty as a significant barrier to contraceptive use. While the effect of wealth status on FP use appears strongest in Uganda, the pattern in Ethiopia is not wholly consistent.

Figure 27: Recent patterns of unmet need for contraception by wealth status

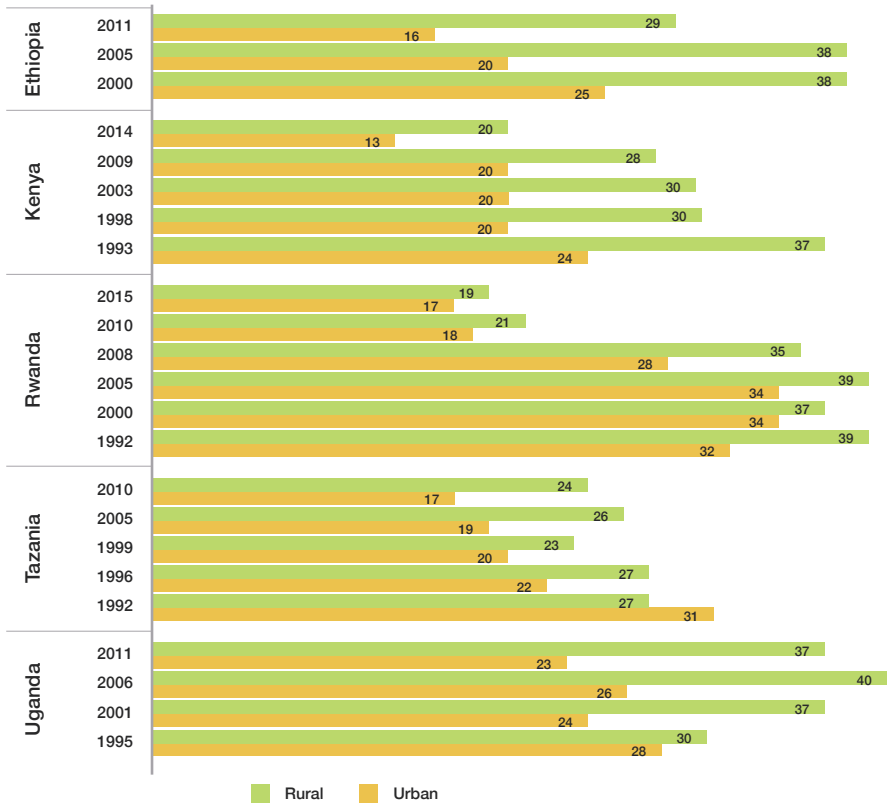


Source: ICF International, Demographic and Health Surveys: Ethiopia [5], Kenya [11], Rwanda [38], Tanzania [21], Uganda [26]

4.4. Unmet need for family planning and women's place of residence

In all the countries, unmet need is higher among rural women. The narrowest rural/urban difference in unmet need levels is in Rwanda while the slowest decline in unmet need between 2006 and 2011 occurred in Uganda. Although Ethiopia continues to experience declining levels of unmet need for FP, significant rural/urban differences exist in the country. Since 2008, Rwanda has been outstanding in its progress in closing in unmet need gaps among women of different socio-economic status (Figure 28).

Figure 28: Unmet need for FP by women's place of residence (%).



Source: ICF International, Demographic and Health Surveys: Ethiopia [3-5], Kenya [7-11], Rwanda [12-16, 38], Tanzania [17-21], Uganda [23-26]

5. Summary and recommendations

Family planning is a critical health intervention with vast potential to save lives, foster development, and improve wellbeing. Research shows significant positive linkages between FP and maternal and child health and survival, as well as socio-economic progress. This report highlights current trends and patterns related to FP access and use in East Africa.

While Kenya and Rwanda lead in FP access and use among the countries, Tanzania and Uganda currently have the lowest CPRs in the sub-region. Wanted fertility rates are also currently highest in Uganda and Tanzania and lowest in Kenya and Rwanda. The most common contraceptive methods in the sub-region are short term, which offer limited protection against the risk of unintended pregnancy. Generally, contraceptive use patterns in the region vary by women's age, peaking at 30-39 years. But in Ethiopia, contraceptive prevalence is higher among women aged 20-29. In Uganda and Rwanda, substantial increases in the intention to use contraceptives have occurred over the years. Between 1999 and 2005, Tanzania recorded an 18% surge in the proportion of women intending to use contraceptives. Over the years however, Kenya only recorded slight decreases in the proportion of women intent on using FP in the future.

Education, urban residence, and wealth are key correlates of FP use in the region: contraceptive use among women with secondary education or higher is three times that of women with no schooling. Unmet need for FP is highest among women with no education and lowest among women with secondary education and higher. FP use by wealth in East Africa also increases in a step-wise manner from poorest to richest, highlighting poverty as a critical barrier to contraceptive. In all five countries, FP use is also consistently higher among urban and empowered women than their rural and less empowered counterparts. Also, adolescents (aged 15-19 years) and uneducated and poorer women have the lowest contraceptive use rates and highest levels of unmet need in the sub-region, demonstrating the unique barriers they may face in terms of contraceptive use.

Interestingly, about 1 in 3 East African couples is likely to discontinue contraceptive use within a year. Uganda and Ethiopia have the sub-region's highest discontinuation rates. The most common reasons for contraceptive discontinuation are fertility- and method-related, including perceived or real side effects of contraception. Further, a growing number of women also continue to cite opposition to use (partner or religious prohibition) and a lack of knowledge of available methods as reasons for non-use of contraceptives.

Over time, in all the countries, contact among nonusers of FP with providers has been low. Currently, Rwanda has the highest level of contact of nonusers with FP providers, while Kenya has the lowest. Non-users' contact with FP fieldworkers and providers can be enhanced through community-based FP outreach and distribution, as well as clear guidelines requiring providers to offer FP counselling to obstetric care patients at facilities.

The desire for more children (sooner or later) has been declining in East Africa while the desire to stop childbearing has been increasing. Age at first birth has also steadily increased. In Kenya and Rwanda, where contraceptive prevalence is high, the median age at first birth is now above 20 years. Rwanda has the highest median age at first birth (22.7) while Uganda has the lowest (18.7). Further, the percentage of childbearing teenagers is lowest in Rwanda and Ethiopia, and highest in Uganda and Tanzania.

Generally, FP trends in the five countries present a mixed picture. Although progress has been made in terms of prevalence of FP methods, the use of long-term methods remains low. Further, while the desire to stop childbearing and women's age at first birth have steadily increased, teenage pregnancy, unmet needs, unwanted pregnancy, and desire for more children remain fairly high, indicating that

women and girls face barriers to FP access and use. Other challenges regarding FP use in the region include high contraceptive discontinuation rates; poor access to FP among women with limited economic power and low empowerment; adolescent mothers, women in rural areas; and women with less than secondary education. There is also evidence that several women and girls in the sub-region face opposition to FP use. Addressing these and related challenges would require:

1. investments that make FP services more available to the poor, young, rural, and less educated women;
2. combating the oppositions, myths and misconceptions that prevent the use of FP services;
3. promoting public education regarding fertility and contraception with the aim of ensuring both awareness of fertility and the methods of preventing unintended pregnancies;
4. promoting awareness, accessibility, and affordability of long-acting reversible contraceptives;
5. addressing the root causes of unmet needs, ensuring girls' education, and promoting women's empowerment; and
6. support for research on the dynamics of FP, including what works to improve access to and use of contraceptives in different contexts.

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