Trends in Demographic and Reproductive Health Indicators in Ethiopia

Data from the 2000, 2005, and 2011 Demographic and Health Surveys

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This report trends in demographic and reproductive health indicators from the 2000, 2005, and 2011 Ethiopia Demographic and Health Surveys (EDHS), which was carried out under the aegis of the Ministry of Health (MOH) and was implemented by the Central Statistical Agency (CSA). The testing of blood samples for HIV status was handled by the Ethiopia Health and Nutrition Research Institute (EHNRI). ICF International provided technical assistance as well as funding to the project through the MEASURE DHS project, a USAID funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide. Funding for the EDHS was also provided by the government of Ethiopia and various international donor organizations and governments: the United States Agency for International Development (USAID), the HIV/AIDS Prevention and Control Office (HAPCO), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the United Kingdom Department for International Development (DFID), and the United States Centers for Disease Control and Prevention (CDC). The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the donor organisations.

Additional information about the survey may be obtained from the Central Statistical Agency (CSA), P.O. Box 1143, Addis Ababa, Ethiopia; Telephone: (251) 111 55 30 11/111 15 78 41; Fax: (251) 111 55 03 34; E-mail: csa@ethionet.et.

Additional information about the DHS programme may be obtained from MEASURE DHS, ICF International, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, U.S.A. Telephone: 1.301.572.0200; Fax: 1.301.572.0999; E-mail: reports@measuredhs.com.

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1. INTRODUCTION

This report highlights trends in key demographic and health indicators in Ethiopia from data collected in three demographic and health surveys: the 2000 Ethiopia Demographic and Health Survey (EDHS), the 2005 EDHS, and the 2011 EDHS. Specifically, the report discusses changes in demographic and reproductive health outcomes over the last 11 years, including changes in fertility, knowledge and practice of family planning, maternal and child health and nutrition, and infant and child morbidity and mortality. In addition, this report presents data on anaemia and HIV knowledge and behaviours collected in the 2005 EDHS and 2011 EDHS. This report also compares Ethiopia with other sub-Saharan African countries that have data from similarly conducted recent demographic and health surveys.

The primary objective of this report is to provide information needed by planners, policymakers and program administrators to assess the current situation and trends and to design more effective population and reproductive health programs aimed at achieving more positive outcomes in the years to come.

1.1 Data Sources

Demographic data collection in Ethiopia began with the establishment of the Central Statistical Office (currently referred to as the Central Statistical Agency or CSA) in 1960. Population and housing censuses of Addis Ababa and Asmara cities in 1961 and 1963 were the first socio-demographic data collection carried out by CSA. These censuses were conducted by city authorities with technical guidance from CSA. In these two operations, basic demographic data on fertility, mortality and migration were collected. Following these two operations, the first round of the multi-purpose National Sample Survey started in 1964. The operations of these surveys continued for four years from 1964 to 1967, covering the settled rural population of all the regions (except Eritrea and Bale) and 195 urban centres. The second round of the National Sample Survey was conducted during 1969-1970 and covered the settled rural population in all regions (except Eritrea) and 91 major urban centres. In addition, various need-based health and nutrition surveys were also conducted in the 1980s and 1990s, including the 1982/83 Rural Health Survey, the 1982/83 Rural Nutrition Survey, and the 1992 National Rural Nutritional Surveillance System. However, the contents and coverage of these surveys were limited; and hence, the findings were not easily comparable nationally.

To fulfil the increasing demand for national and regional level socio-economic and demographic data, the Ethiopian government carried out three national population and housing censuses in 1984, 1994, and 2007. Ethiopia has conducted a number of demographic surveys. These include the 1981 Demographic Survey, the 1990 National Family and Fertility Survey, the 1995 Fertility Survey of Urban Addis Ababa, and the 2000, 2005, and 2011 Ethiopia Demographic and Health Surveys. The 2000, 2005, and 2011 EDHS surveys collected information on fertility, family planning, contraceptive use, maternal and child health, nutrition and breastfeeding practices, and HIV/AIDS and other sexually transmitted diseases (STDs).

All three EDHS surveys collected data from a nationally representative sample, were conducted by the same organization (the CSA in 2000, the Population and Housing Census Commission Office – now merged with the CSA – in 2005, and the CSA in 2011), and were managed by the same core group of survey personnel. The EDHS surveys were conducted as part of the worldwide Demographic and Health Surveys project funded by the United States Agency for International Development with technical assistance from the US-based private entity, ICF International (formally ORC Macro), which has been monitoring the DHS surveys since its inception in the early 1980s. This consistency allows Ethiopia to be compared with other sub-Saharan African countries which have also conducted similar DHS surveys.

1.2 National Population Policy

Population policies had low priority in Ethiopia until the early 1990s. In 1993 the Transitional Government adopted a national population policy (TGE, 1993a). Since then, developments have taken place nationally and internationally that have a direct bearing on the country's population. The primary objective of the 1993 national population policy is to harmonize the rate of population growth with socioeconomic development in order to achieve a high level of welfare. The main long-term objective is to close the gap between high population growth rates and low economic productivity and to expedite socioeconomic development through holistic, integrated programmes. Other objectives include preserving the environment, reducing rural-to-urban migration, and reducing morbidity and mortality, particularly infant and child mortality. Population and development has been considered as a cross cutting issue in the Growth and Transformation Plan and emphases is given to integrating population issues in sector development plans.

1.3 Health Policy and Priorities

Ethiopia had no health policy until the early 1960s, when a health policy initiated by the World Health Organization (WHO) was adopted. In the mid-1970s, during the Derg regime, a health policy was formulated with emphasis on disease prevention and control. This policy gave priority to rural areas and advocated community involvement (TGE, 1993b). The current health policy, promulgated by the Transitional Government, takes into account broader issues such as population dynamics, food availability, acceptable living conditions, and other essentials of better health (TGE, 1993b).

To realize the objectives of the health policy, the government established the Health Sector Development Programme (HSDP), which is a 20-year health development strategy implemented through a series of four consecutive 5-year investment programmes. The first phase (HSDP I) was initiated in 1996/97. The core elements of the HSDP include: democratisation and decentralisation of the health care system; development of the preventive and curative components of health care; ensuring accessibility of health care for all segments of the population; and, promotion of private sector and NGO participation in the health sector. The HSDP prioritizes maternal and newborn care, and child health, and aims to halt and reverse the spread of major communicable diseases such as HIV/AIDS, TB, and malaria. The Health Extension Programme (HEP) serves as the primary vehicle for prevention, health promotion, behavioural change communication, and basic curative care. The HEP is an innovative health service delivery program that aims for universal coverage of primary health care services. The programme is based on expanding physical health infrastructure and developing Health Extension Workers who provide basic preventive and curative health services in the rural community. Thus far, the country has implemented the HSDP in three cycles and is currently extending it into the forth programme, HSDP IV. Assessment of HSDP III shows remarkable achievements in the expansion and construction of health facilities, and improvement in the quality of health service provision.

HSDP IV is designed to provide massive training of health workers to improve the provision of quality health services and the development of a community health insurance strategy for the country. In addition, HSDP IV will prioritize maternal and newborn care, and child health, and aims to halt and reverse the spread of major communicable diseases such as HIV/AIDS, TB and malaria (MOH 2010). In line with the government's current five-year national plan, the health sector continues to emphasize primary health care and preventive services; with a focus on extending services to those who have not yet been reached and on improving the effectiveness of services, especially addressing difficulties in staffing and the flow of drugs.

2. DEMOGRAPHIC, SOCIAL AND ECONOMIC INDICATORS

2.1 Population Size

Despite Ethiopia's long history, there were no estimates of its total population prior to the 1930s. The first population and housing census was conducted in 1984. The 1984 census covered approximately 81% of the population and official estimates were made for the remaining 19% (CSA 1991). A second census was conducted in 1994 and a third in 2007 (CSA 1998; CSA 2008). Unlike the first census, the second and the third censuses covered the entire population. Table 2.1 provides a summary of the basic demographic indicators for Ethiopia from these three censuses.

The population has increased steadily over the last three decades, from 42.6 million in 1984 to 73.8 million in 2007. There was a slight decrease in the population growth rates over these periods, from 3.1% per annum in 1984 to 2.6% in 2007. Ethiopia is one of the least urbanized countries in the world; only 16% of the population lives in urban areas. The majority of the population lives in the highland areas. More than 80% of the country's total population lives in the regional states of Amhara, Oromiya, and SNNP.

Table 2.1
Trends in Basic Demographic Indicators

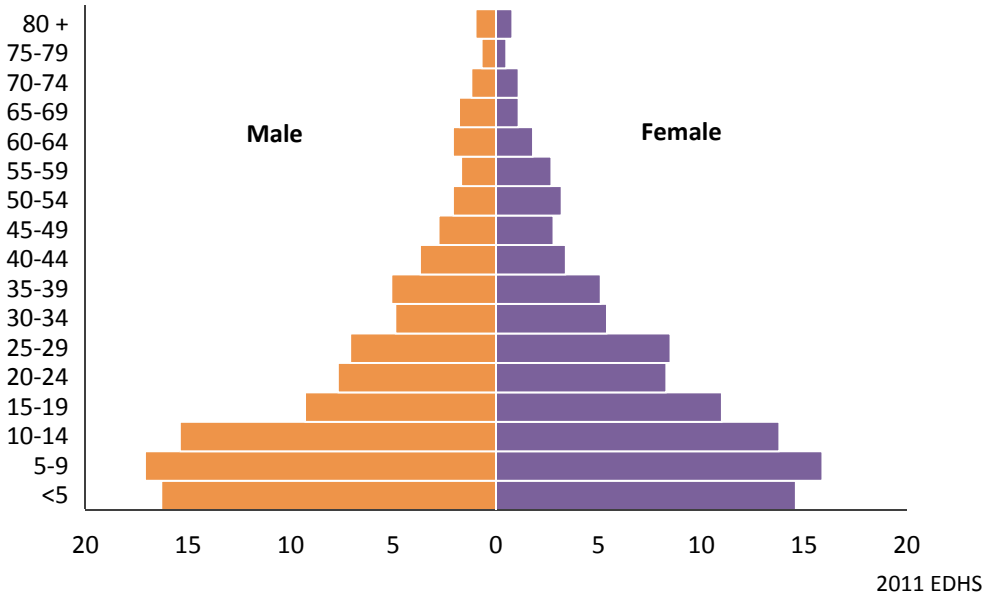
Indicator	1984 Census[1]	1994 Census	2007 Census
Population (millions)	42.6	53.5	73.8
Growth rate (percent)	3.1[2]	2.9	2.6
Density (population/km^2)	34.0	48.6	67.1
Percent urban	11.4	13.7	16.1
Life expectancy			
Female	53.4	53.5	*na*
Male	51.1	50.9	*na*

[1] *Including Eritrea*
[2] *Estimated from non-census data*
na – not applicable

2.2 Composition of the Household Population

Age is an important demographic variable and is the primary basis of demographic classification in vital statistics. Figure 2.1 shows the distribution of the household population in 2011 by five-year age groups. As is typical in high fertility countries, children under 15 years of age account for a sizeable proportion (nearly half) of the total population. A comparison of the EDHS survey findings over the last 11 years shows little change in the age structure of the population (data not shown).

Figure 2.1
Percent Distribution of Household Population, by Age Group



EDHS survey findings over time indicate that approximately one-fourth of households in Ethiopia are headed by women (Figure 2.2). This proportion has changed very little since 2000.

Figure 2.2
Percentage of Female-Headed Households

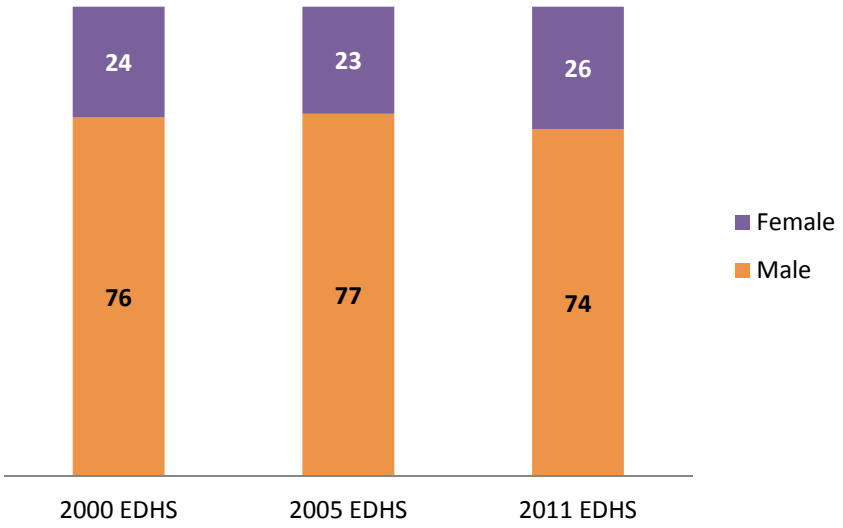
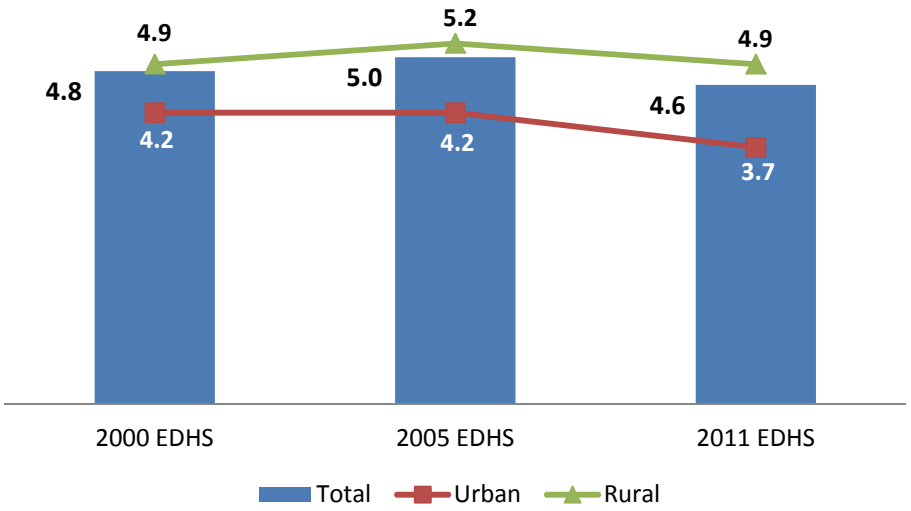


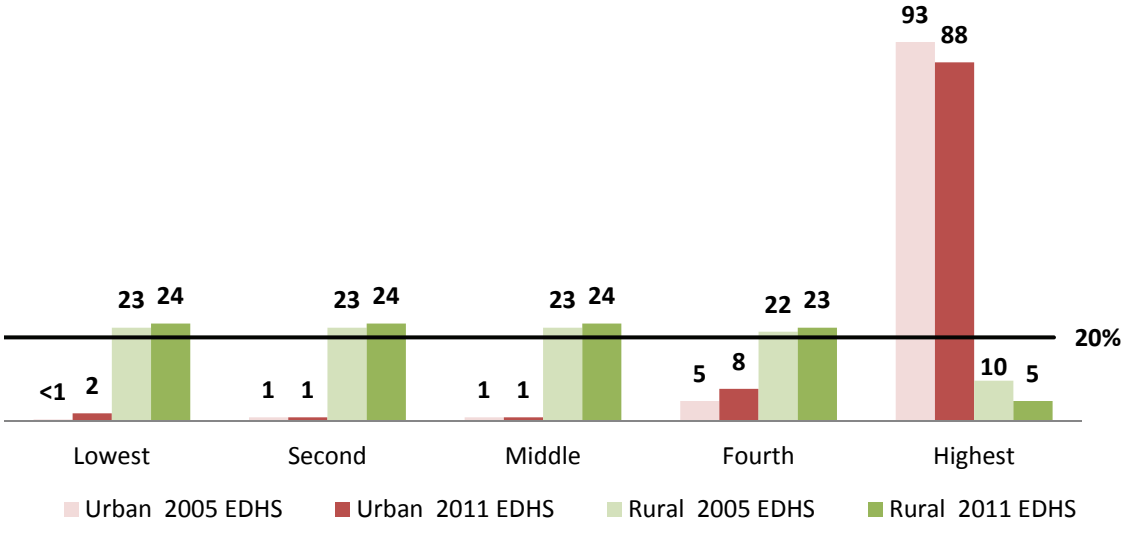
Figure 2.3 shows that the average household size has remained roughly the same (4.6 persons). However, households in urban areas saw a slight decrease in average size in the last six years.

Figure 2.3
Average Household Size, by Residence



The wealth index serves as an indicator of level of wealth that is consistent with expenditure and income measures (Rutstein and Johnson, 2004). The index was constructed using household asset data via a principal components analysis (Rutstein, 2008). The black line in the figure below is drawn at 20%, the value one would expect if wealth were equally distributed across Ethiopia. Among households in rural areas, there has been little change during the last six years in the percent among the lowest four quintiles. Households in urban areas are disproportionately among the wealthiest with very few households among the four lowest quintiles (Figure 2.4).

Figure 2.4
Wealth Index, by Residence



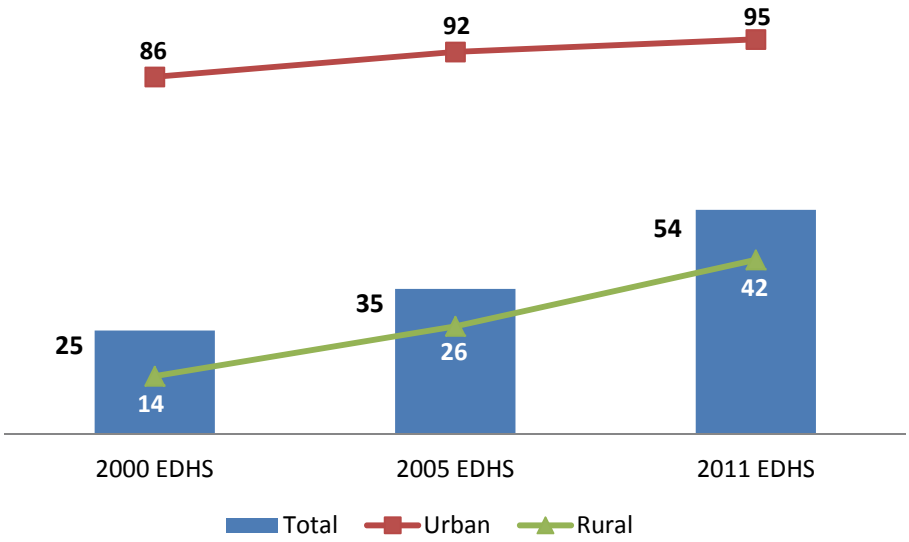
2.3 Housing Characteristics

Household characteristics such as housing conditions and ownership of consumer durables serve as indirect indicators of a household's standard of living. Trends in these characteristics reflect a society's material progress, which has implications for the economic well-being and overall health status of the population.

There has been an increase in the percent of households with access to electricity and improved source of drinking water. Yet despite the overall increase, there continues to be a marked disparity in access to these basic amenities by place of residence, with urban areas much more likely to have access.

An improved source of drinking water includes a piped source within the dwelling, yard, or plot; a public tap/stand pipe, or borehole; a protected well; spring water; and rainwater (WHO and UNICEF, 2010). Access to an improved source of drinking water has more than doubled in Ethiopia in the last 11 years (Figure 2.5). This is largely due to a three-fold increase of an improved drinking water source among households in rural areas.

Figure 2.5
Percentage of Households with an Improved Source of Drinking Water, by Residence



Note: Improved source of drinking water includes: water piped into the dwelling, yard, or plot; public standpipes or taps; boreholes; protected wells and springs; rainwater; and bottled water (WHO and UNICEF, 2010).

Access to electricity in the home has increased overall but the gap between households in urban and rural areas is still quite large. In 2011, 85% of households in urban areas had electricity compared with only 5% of households in rural areas (Figure 2.6).

Figure 2.6
Percentage of Households with Access to Electricity, by Residence

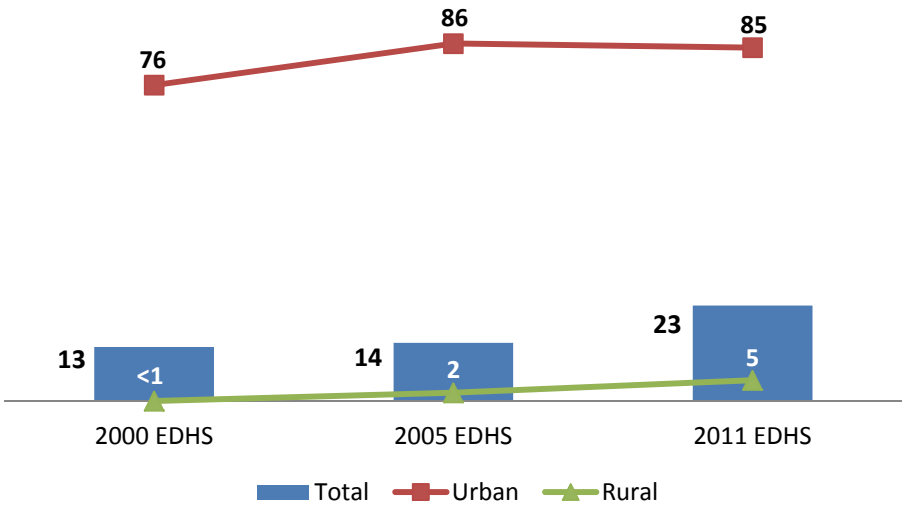
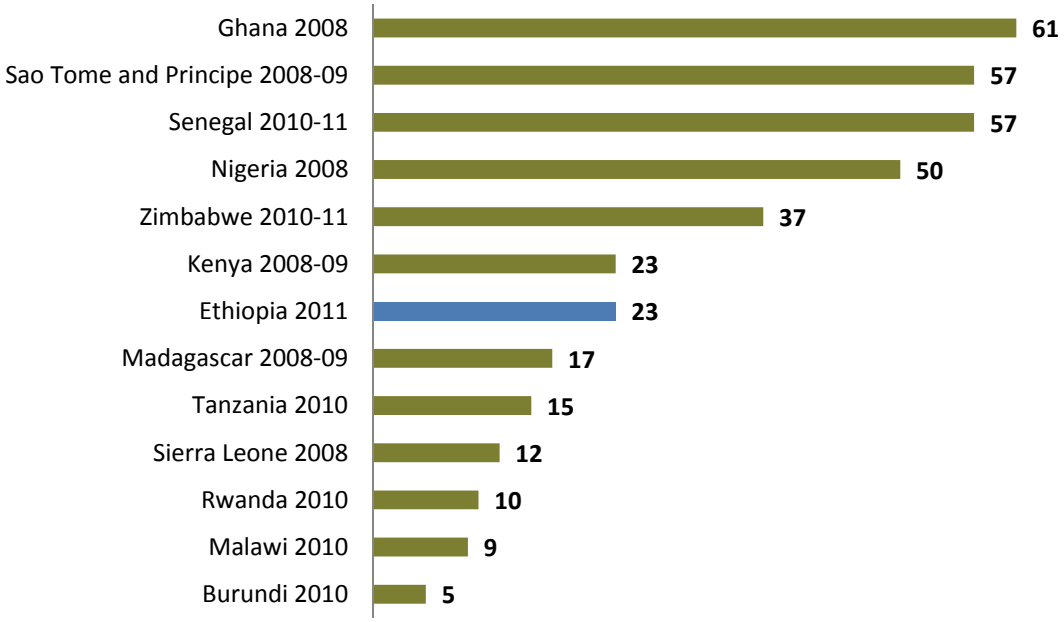


Figure 2.7 compares access to electricity in Ethiopia with access in other sub-Saharan African countries. Ethiopia ranks in the middle when comparing households with access to electricity. For example, households in Ghana are three times more likely to have electricity than households in Ethiopia while households in Ethiopia are almost five times as likely to have electricity compared with households in Burundi.

Figure 2.7
Percentage of Households with Access to Electricity, Sub-Saharan Africa



Access to toilet facilities is another important indicator of the well-being of a population. Figure 2.8 shows that even though the overall percent of households with no toilet facilities has decreased over time, nearly 4 in 10 households have no toilets. The largest decrease is among households in rural areas where the percent with no toilet facilities has decreased by half. Additionally, the urban-rural gap has also been decreased by half.

Figure 2.8
Percentage of Households with No Toilet, by Residence

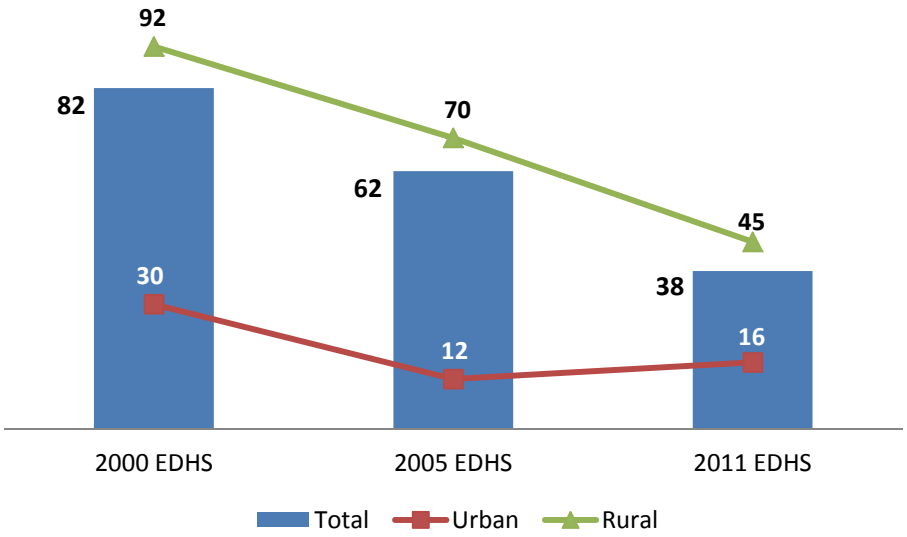
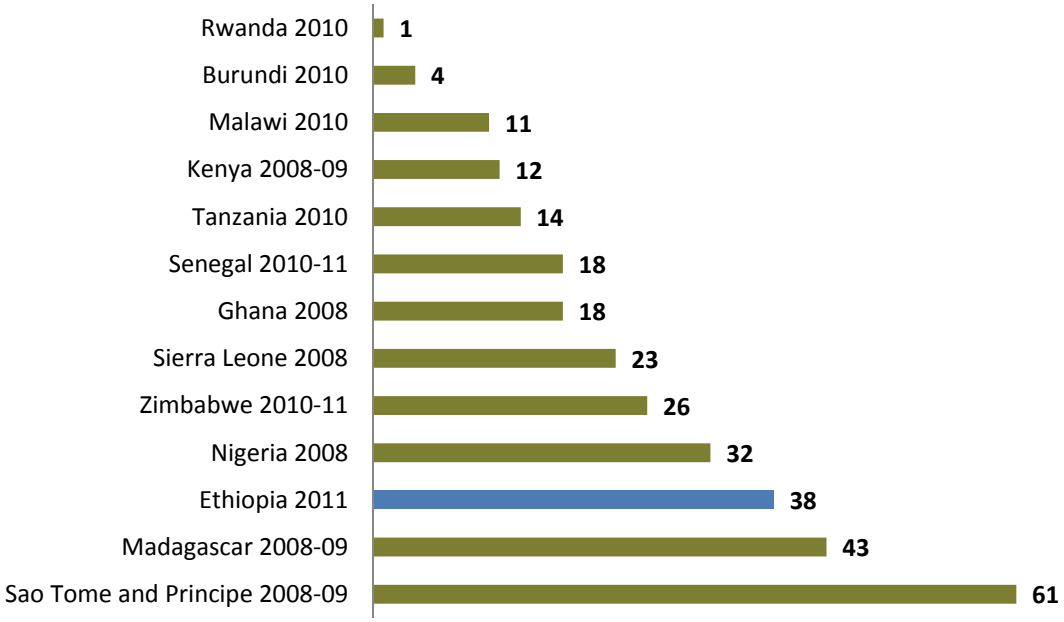


Figure 2.9 shows a huge disparity among countries of sub-Saharan Africa, with respect to access to toilet facilities. The proportion of households with no toilet is substantially higher in Ethiopia than in Rwanda but one-third of the percent of households in Sao Tome and Principe.

Figure 2.9
Percentage of Households with No Toilet, Sub-Saharan Africa

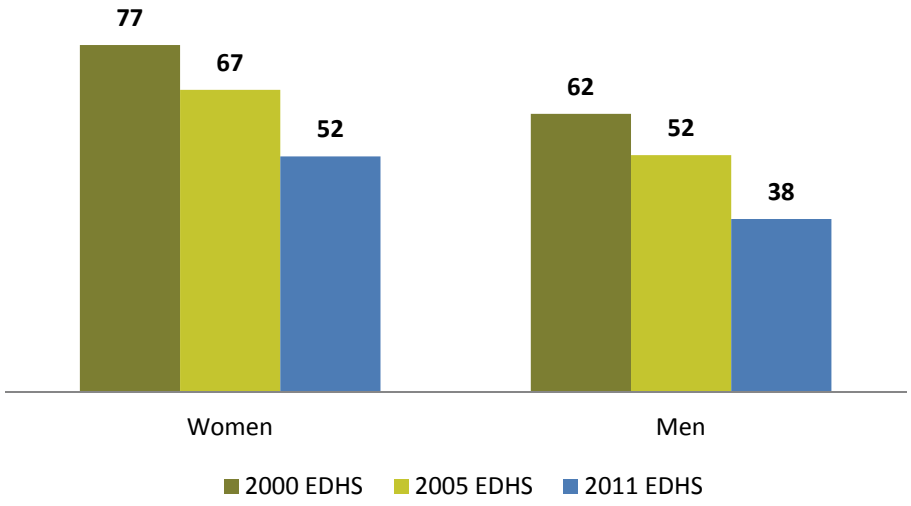


2.4 Educational Attainment

One of the most important indicators of socioeconomic development in a country is the educational attainment of its population. Moreover, education, especially for women, is closely linked with a number of demographic and health outcomes including fertility, contraceptive use, and health and nutritional status of mothers and children.

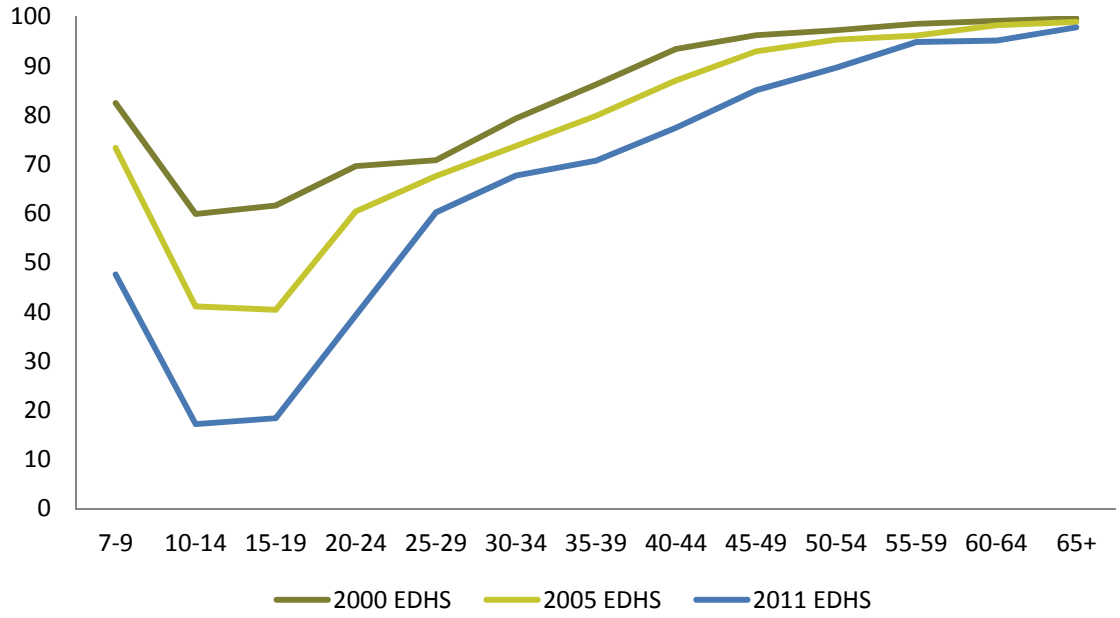
Figure 2.10 shows substantial improvement in educational attainment in the last 11 years. Nevertheless women continue to lag behind men. The percent of women who have never attended school decreased by more than 30% and the percent of men who have never attended school decreased almost 40%.

Figure 2.10
Percentage of Women and Men Age Six and Above Who Have Never Attended School



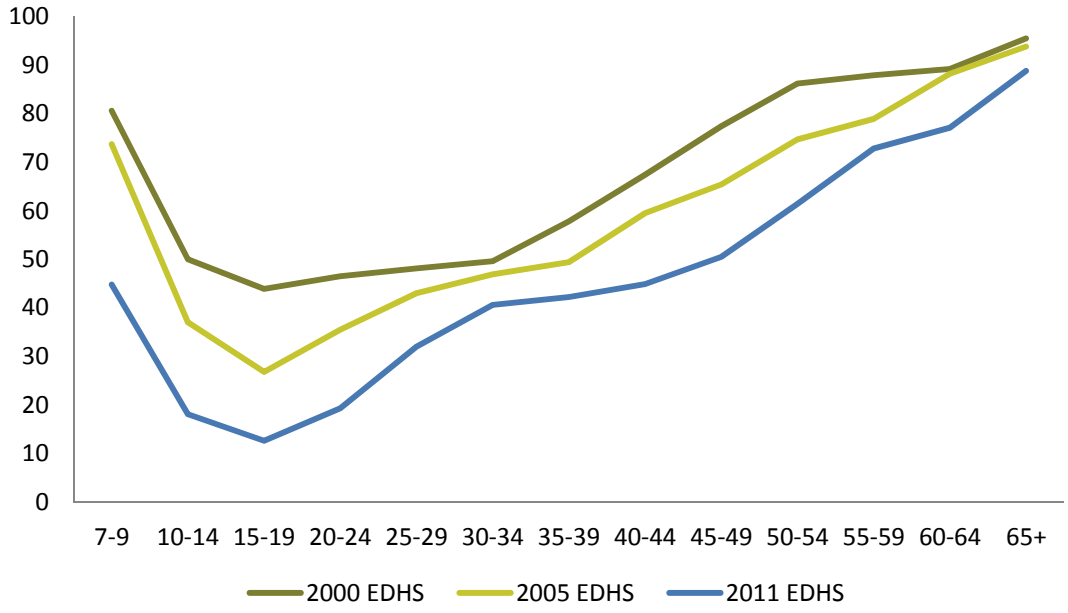
In the last 11 years, the percent of women who have never attended school has decreased across all age groups (Figure 2.11). The largest improvements are among school aged women age 7-24.

Figure 2.11
Percentage of Women Age Six and Above Who Have Never Attended School, by Age Group



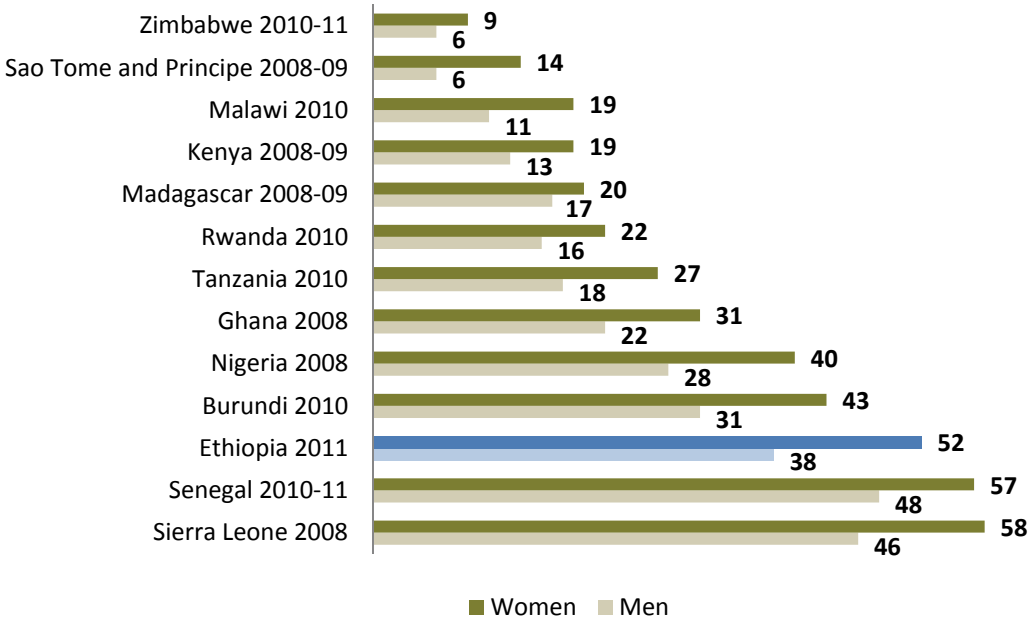
In the last 11 years, the percent of men who have never attended school has decreased across all age groups although not as dramatically compared with women (Figure 2.12).

Figure 2.12
Percentage of Men Age Six and Above Who Have Never Attended School, by Age Group



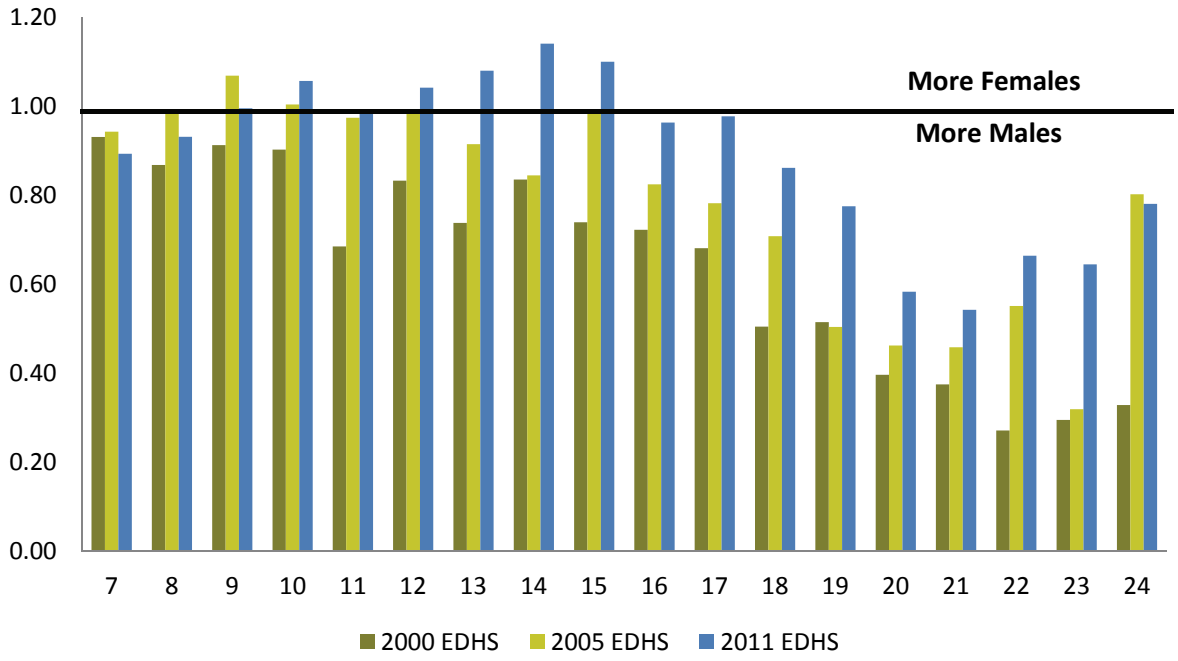
Despite the improvement over the last six years, Ethiopian females and males rank among the lowest with respect to educational attainment when compared with other sub-Saharan African countries. As Figure 2.13 shows, over 50% of women and nearly 40% of men in Ethiopia age six and over have never attended school. This is noticeably higher than most other countries in the region with DHS surveys, except for Senegal and Sierra Leone.

Figure 2.13
Percentage of Women and Men Age Six and Above Who Have Never Attended School, Sub-Saharan Africa



School attendance is a good indication of future progress in educational attainment of a population as it shows whether school-age children are taking advantage of the opportunity to attend school. Figure 2.14 shows the age specific attendance ratio which is the percent of females attending school divided by the percent of males attending school at each age. A ratio of 1.00 indicates equality in the percent of females and males attending school. Ratios greater than 1.00 indicate that there are more females attending school compared to males. Ratios less than 1.00 indicate more males compared to females. There has been dramatic reduction in the gender gap especially for children age 10 and older.

Figure 2.14
Age Specific School Attendance Ratios (Females/Males), by Age

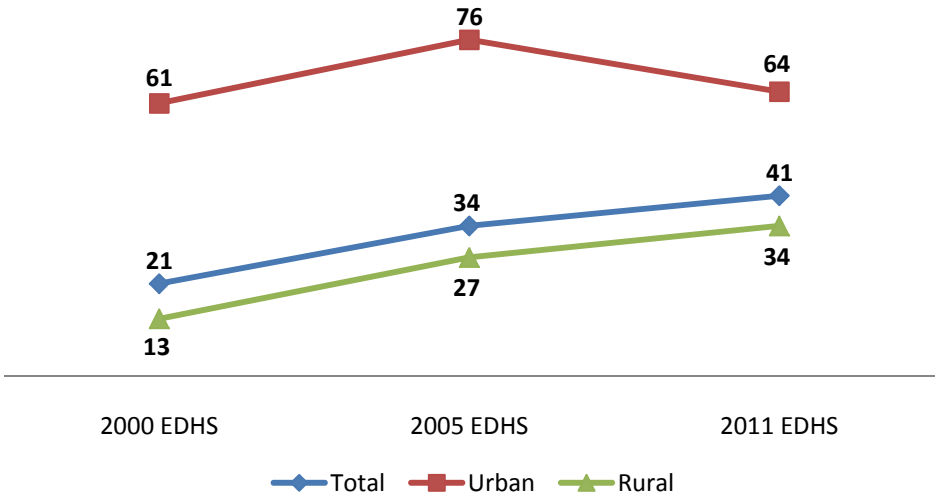


2.5 Ownership of and Exposure to Mass Media

Research has shown that listening to the radio and watching television can be powerful tools to create awareness about new technology and to stimulate the desire for information and behaviour change. Families who own a radio or television are more likely to have greater exposure to health education messages related to the management of common childhood diseases, infant feeding practices, and the importance of vaccinating young children.

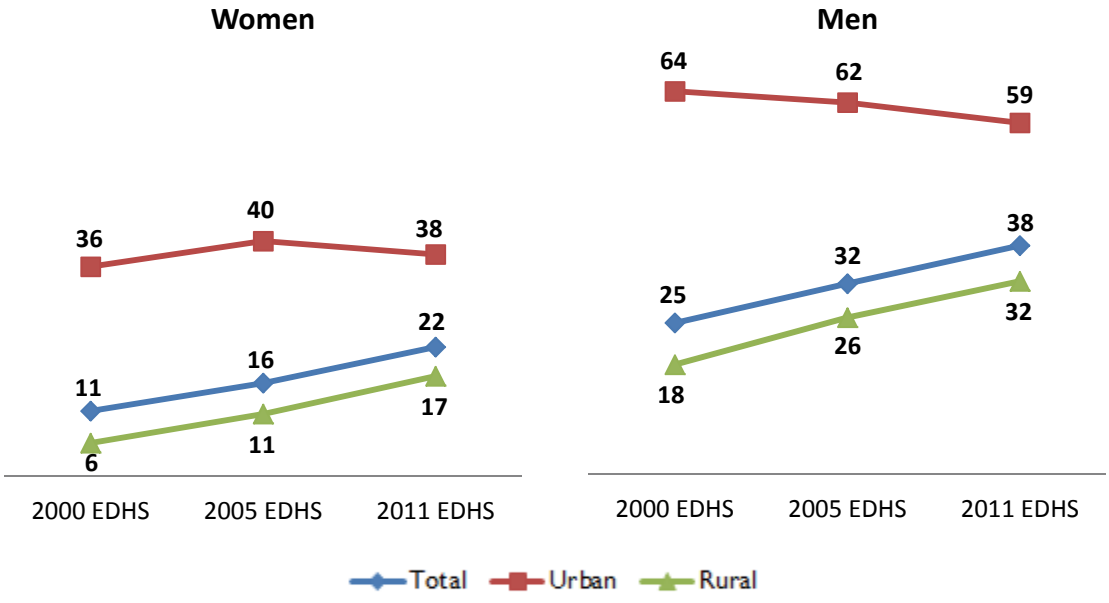
The overall percent of households with a radio increased due to a three-fold increase among rural areas (Figure 2.15). Despite this positive trend, the survey findings indicate a continued urban-rural disparity. In 2011, almost twice as many households in urban areas owned a radio compared with households in rural areas.

Figure 2.15
Percentage of Households with a Radio, by Residence



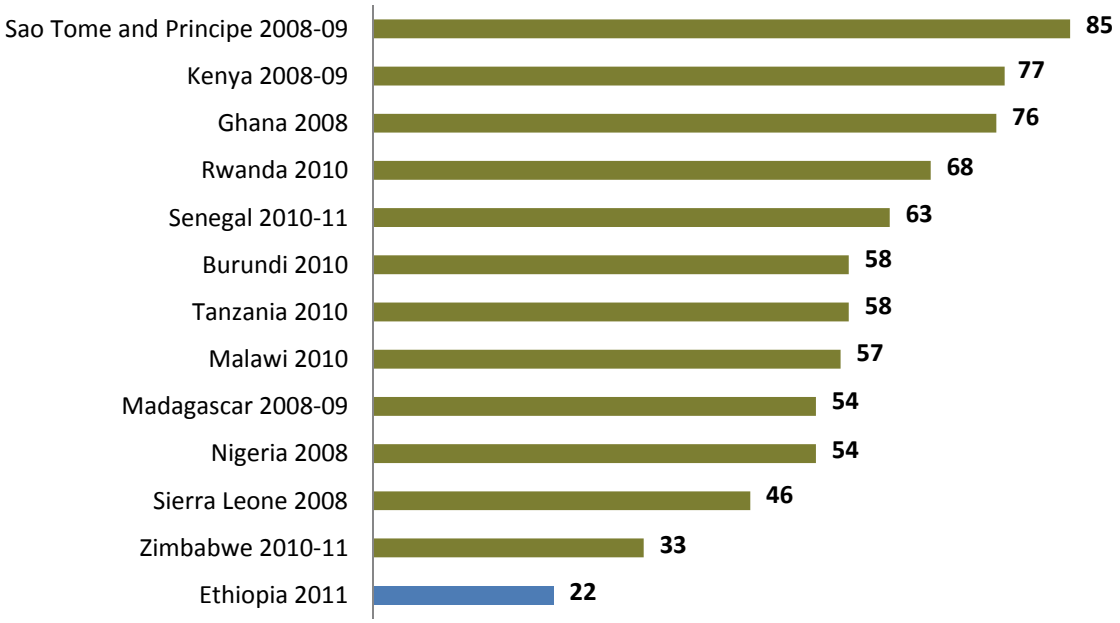
Men are much more likely to listen to the radio at least once a week compared with women. Women and men who live in urban areas are more likely to listen to the radio compared with women and men who live in rural areas (Figure 2.16).

Figure 2.16
Percentage of Women and Men 15-49 Who Listen to the Radio at Least Once a Week, by Residence



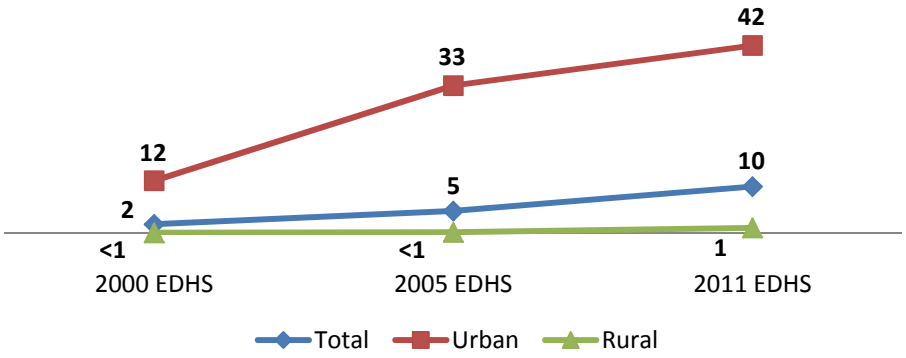
Ethiopia ranks lowest in women's exposure to the radio when compared with other sub-Saharan African countries (Figure 2.17).

Figure 2.17
Percentage of Women 15-49 Who Listen to the Radio at Least Once a Week, Sub-Saharan Africa



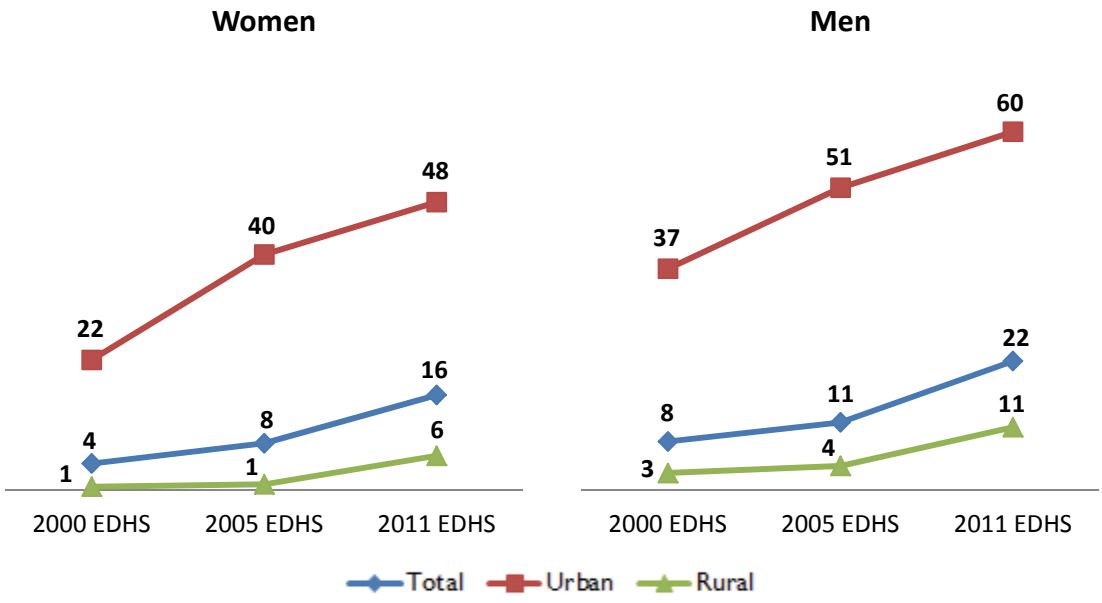
The survey findings show that although the proportion of urban households with a television increased four-fold in the last 11 years, there was almost no change in the proportion of rural households with a television (Figure 2.18).

Figure 2.18
Percentage of Households with a Television, by Residence



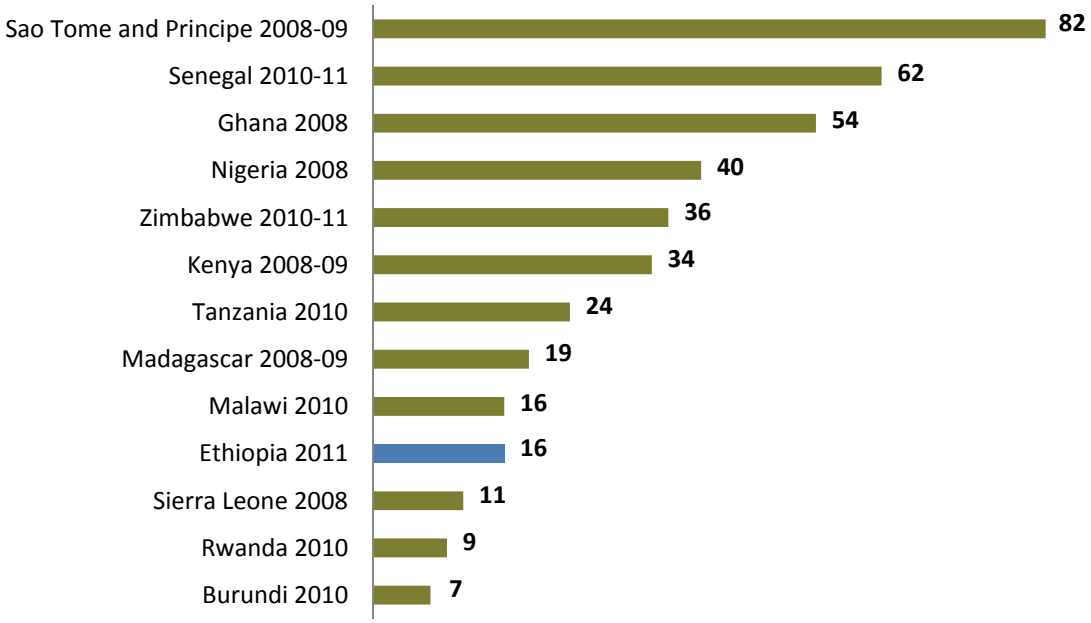
Men are more likely than women to watch TV at least once a week. However, the differences are not as pronounced as listening to the radio. The largest difference is in rural areas where men are almost twice as likely as women to watch TV.

Figure 2.19
Percentage of Women and Men 15-49 Who Watch TV at Least Once a Week, by Residence



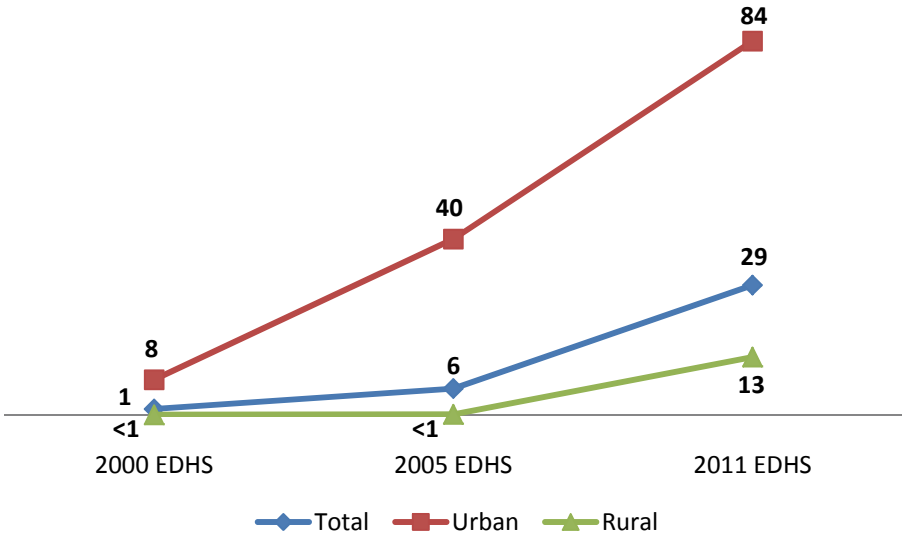
Similar to radio exposure, women's exposure to television is relatively lower in Ethiopia than in most other sub-Saharan African countries (Figure 2.20).

Figure 2.20
Percentage of Women 15-49 Who Watch Television at Least Once a Week, Sub-Saharan Africa



Household phone ownership has increased dramatically in the last 11 years from less than 1 in 100 to nearly 3 in 10 (Figure 2.21). This is primarily due to the proliferation of mobile phones which currently accounts for 85% of total phone ownership. Mobile phones are essentially the only phones owned by households in rural areas. Phone ownership among households in urban areas increased eight times while phone ownership among households in rural areas increased 13 times in the last 11 years.

Figure 2.21
Percentage of Households with a Phone, by Residence



3. MARRIAGE

The age at which women marry has a strong influence on fertility levels in a society because it is a principal determinant of the length of time that women will be exposed to the risk of pregnancy during their reproductive years. Early marriage is directly associated with the early initiation of childbearing and high fertility which may have adverse effects on the health of mothers and newborns.

3.1 Currently Married Women and Men

In the EDHS surveys, 'marriage' was defined as a stable cohabitation between a man and a woman irrespective of whether or not any validating legal, religious or customary ceremonies had been performed. Under this definition, the term 'never married' excludes formal and informal unions. Figure 3.1 shows the percent of women and men age 15-49 who have never married according to the 2011 EDHS by five-year age groups. The survey findings show a consistent decrease in the proportion never-married as age increases. There has been little change in Ethiopia in the last 11 years (data not shown).

Figure 3.1
Percentage of Women and Men 15-49 Never Married, by Age Group

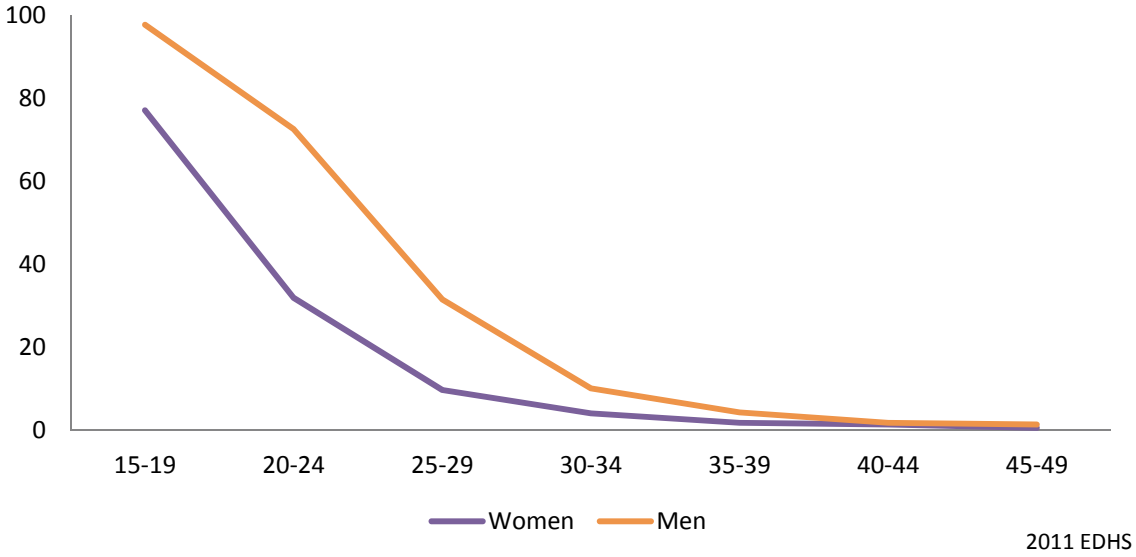
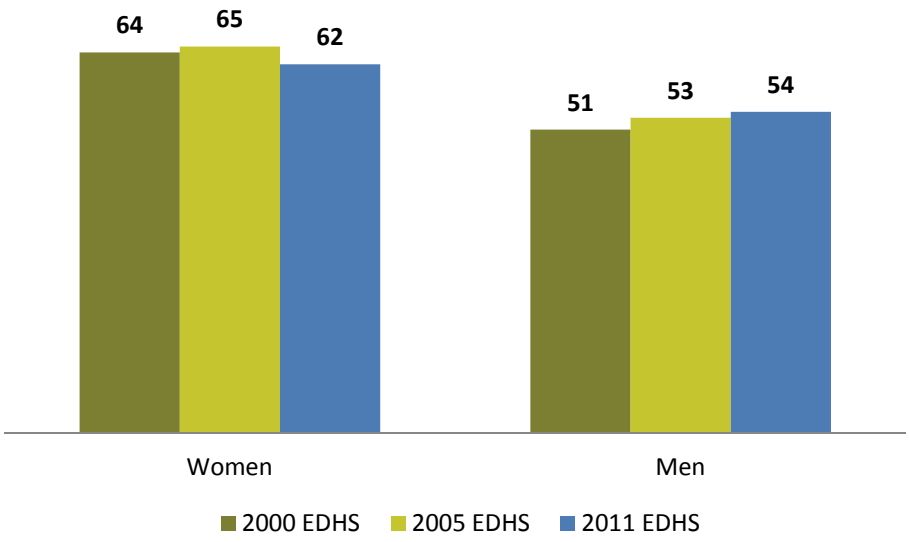


Figure 3.2 shows the percent of women and men who were currently married or living together at the time of each of the three EDHS surveys. The survey findings show a slight decrease in the percentage of women age 15-49 who are currently married. However, the percent of men age 15-49 who are currently married is slightly higher in 2011 compared with 2000.

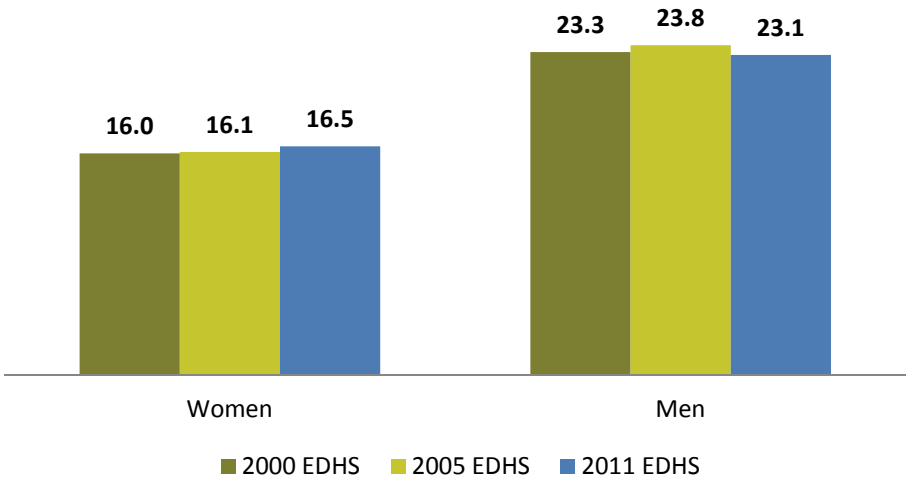
Figure 3.2
Percentage of Women and Men 15-49 Currently Married



3.2 Median Age at First Marriage

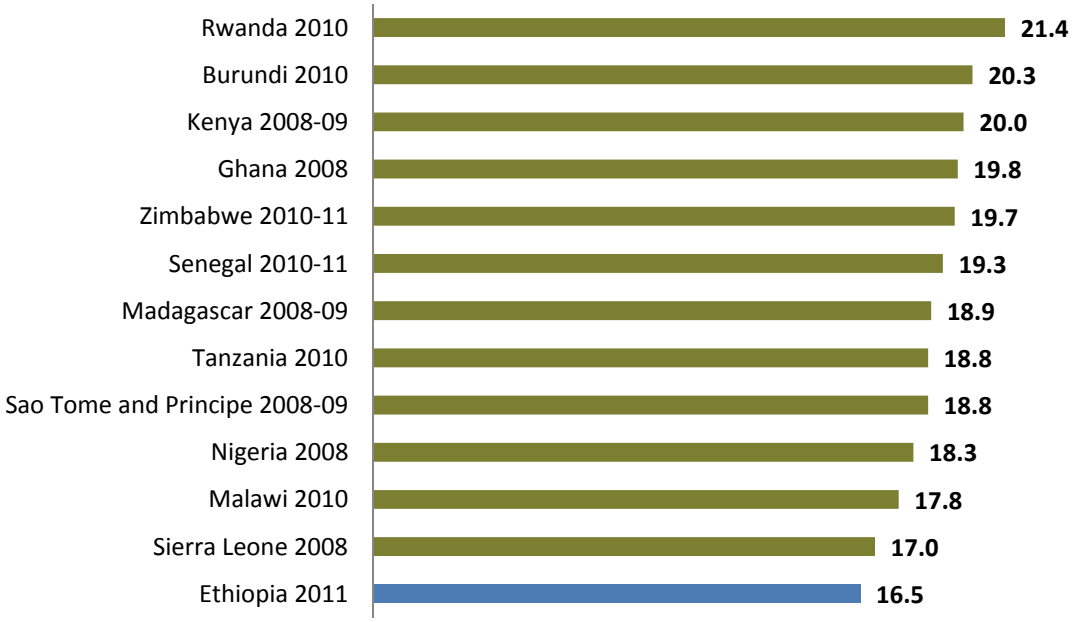
One indicator that is used to explore trends in the timing of marriage is the median age at first marriage, that is, the age by which 50% of women or men are married or cohabitating for the first time. The overall median age at first marriage for Ethiopian women age 25-49 is 16.5 years, an increase from the 16.0 years reported in the 2000 EDHS. The median age at first marriage for men age 25-49 is higher (23.1 years); it has fluctuated somewhat in the last 11 years but has remained mostly unchanged (Figure 3.3).

Figure 3.3
Median Age at First Marriage among Women and Men 25-49



Women in Ethiopia marry at a much younger age than women in all other sub-Saharan African countries compared in this report (Figure 3.4).

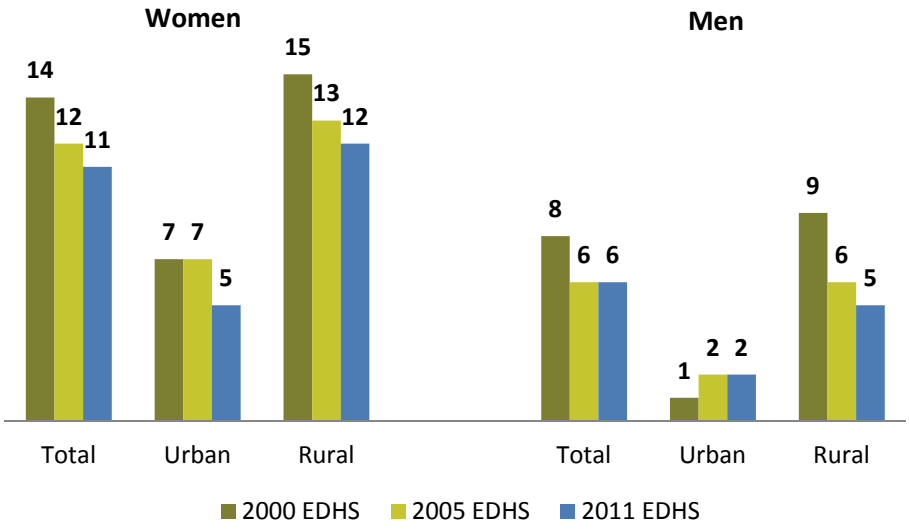
Figure 3.4
Median Age at First Marriage among Women 25-49, Sub-Saharan Africa



3.3 Prevalence of Polygyny

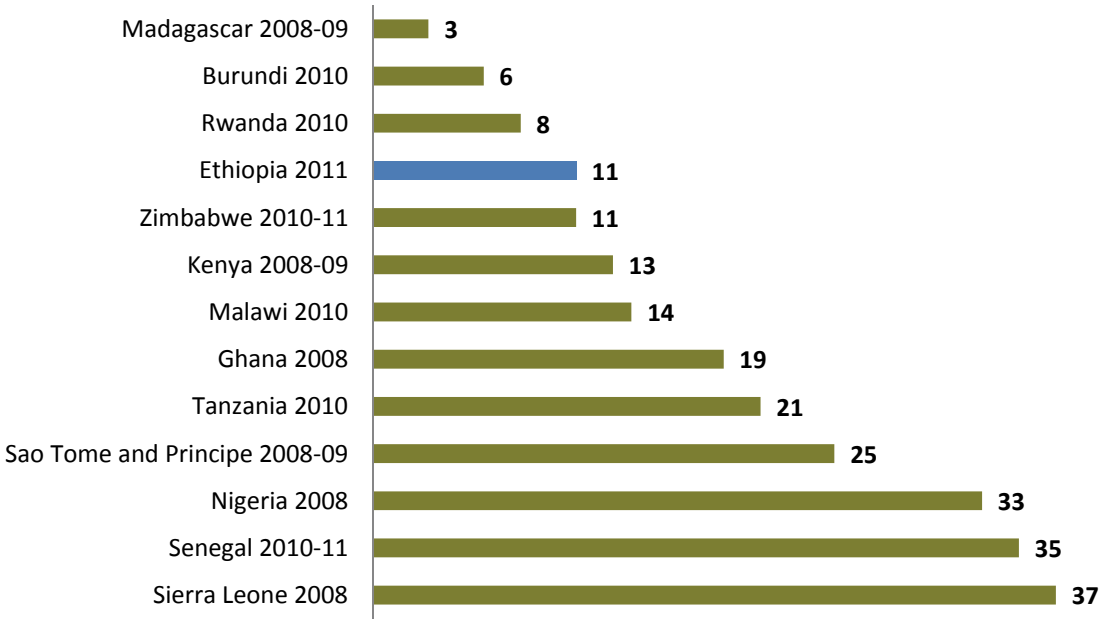
Polygyny is the practice of having more than one wife. There was an overall small but steady decrease in the level of polygyny among women and men age 15-49 during the last 11 years in Ethiopia, mostly due to the decrease in rural areas. The survey findings show that although rural marriages are more likely to be polygynous than urban marriages, the proportion of polygynous marriages in urban areas changed little during the same period (Figure 3.5).

Figure 3.5
Percentage of Currently Married Women and Men 15-49 in a Polygynous Union, by Residence



Polygyny is relatively less common in Ethiopia than in most other sub-Saharan countries for which comparable information is available (Figure 3.6).

Figure 3.6
Percentage of Currently Married Women 15-49 in a Polygynous Union, Sub-Saharan Africa



4. FERTILITY

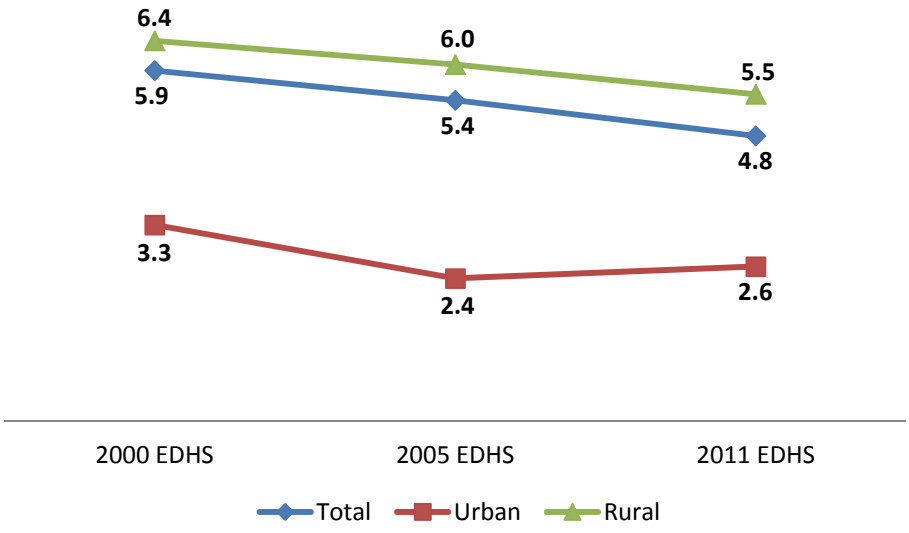
Fertility is one of the three principal determinants of the size and structure of the population of a country (the other two being mortality and migration).

4.1 Fertility Rates

The most commonly used measures of current fertility are the total fertility rate (TFR) and its component age-specific fertility rates (ASFRs). The TFR is an estimate of the average number of births a woman would have had at the end of her reproductive years if she bears children at the prevailing age-specific fertility rates throughout her childbearing years (age 15-49). The ASFRs are defined in terms of the number of live births among women in a particular age group divided by the number of woman-years in that age group during the specific period.

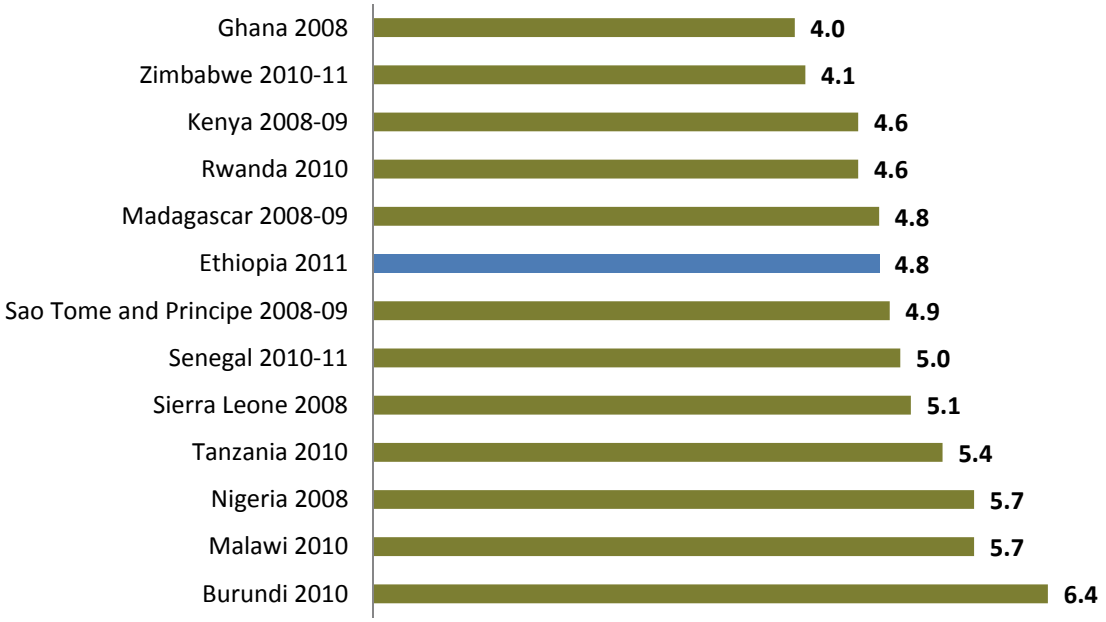
Figure 4.1 presents trends in TFR in Ethiopia over the last 11 years. Overall, TFR decreased by more than one child per woman, from 5.9 children in 2000 to 4.8 children in 2011. Fertility among women who live in rural areas decreased steadily throughout the 11-year period whereas fertility in urban areas decreased noticeably between 2000 and 2005 but increased slightly in 2011. The urban-rural fertility gap has remained wide in 2011, with TFR among women in rural areas approximately twice as high as among women in urban areas.

Figure 4.1
Total Fertility Rate, by Residence



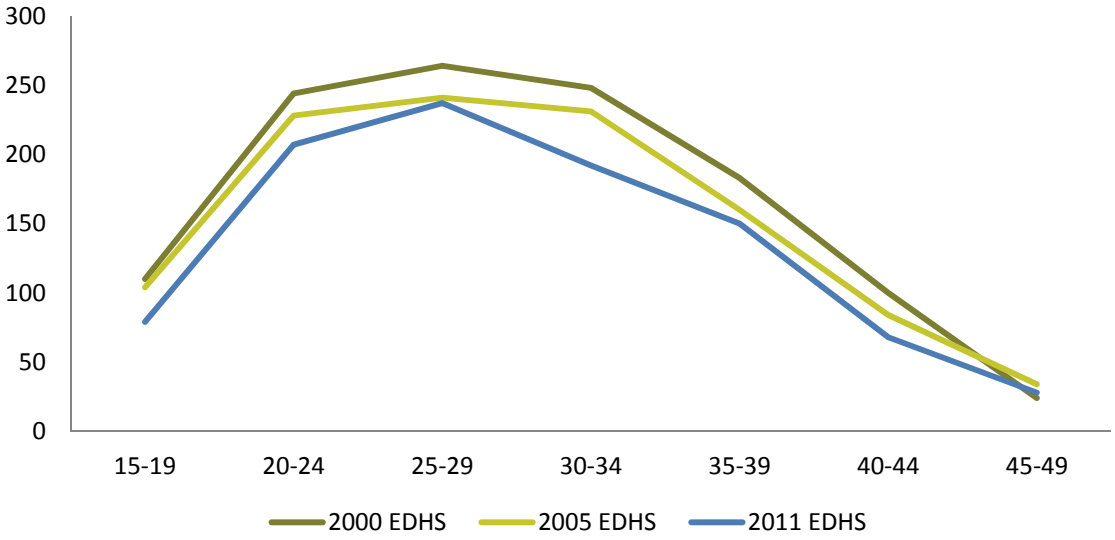
The TFR in Ethiopia is in the upper half of the spectrum, lower than several of other sub-Saharan African countries compared in this report (Figure 4.2).

Figure 4.2
Total Fertility Rate, Sub-Saharan Africa



Turning to age specific fertility rates, fertility has decreased among all age groups in the last 11 years with the sharpest decrease among women age 20-35 (Figure 4.3).

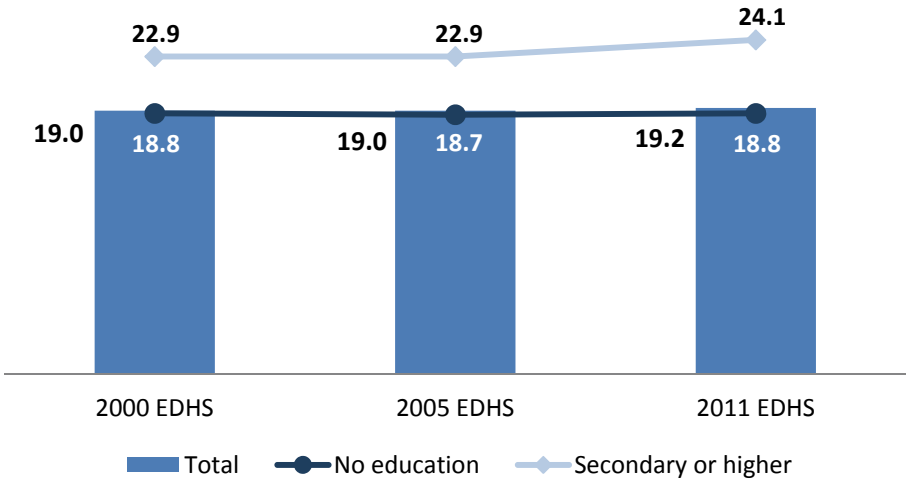
Figure 4.3
Age-specific Fertility Rates, by Age Group



4.2 Median Age at First Birth

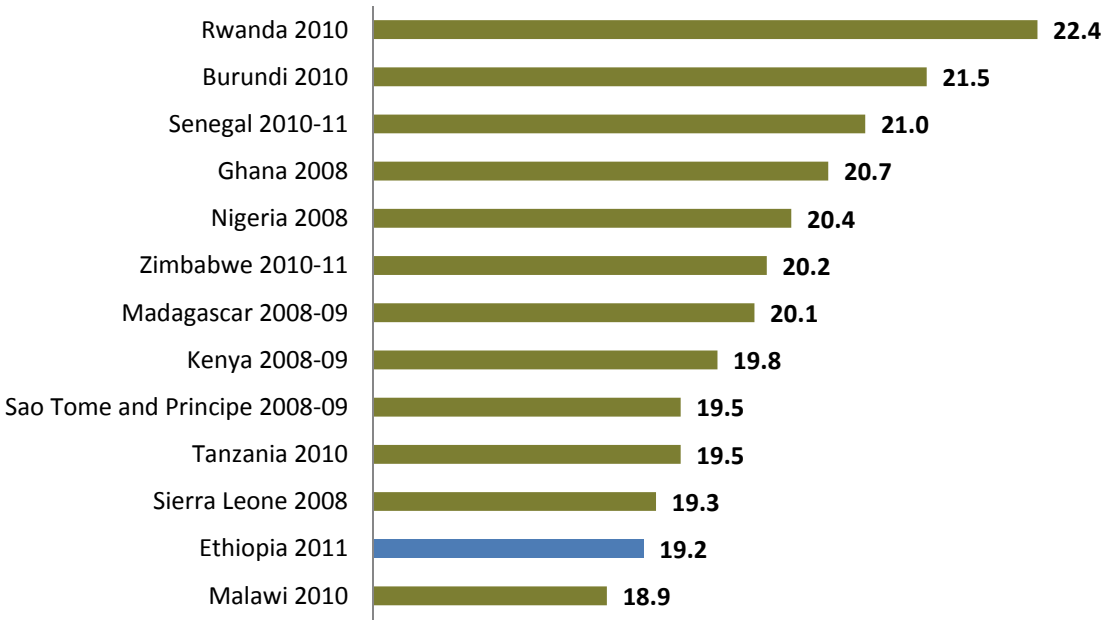
Early initiation of childbearing has a detrimental effect on the health of the mother and the child. It also lengthens the reproductive period, thereby increasing fertility. Figure 4.4 shows trends in the median age at first birth by education for women age 25-49. There has been no change in overall women's age at first birth in Ethiopia over the last 11 years; the median age at first birth for women was 19.0 years in 2000 and 19.2 in 2011. The median age at first birth among women with no education was 18.8 years in both 2000 and 2011. However, the median age at first birth for women with secondary or higher education increased by more than one year from 22.9 in 2000 to 24.1 in 2011.

Figure 4.4
Median Age at First Birth for Women 25-49, by Education



With the exception of Malawi, other countries have a higher median age at first birth among women age 25-49 compared with Ethiopia (Figure 4.5).

Figure 4.5
Median Age at First Birth for Women 25-49, Sub-Saharan Africa

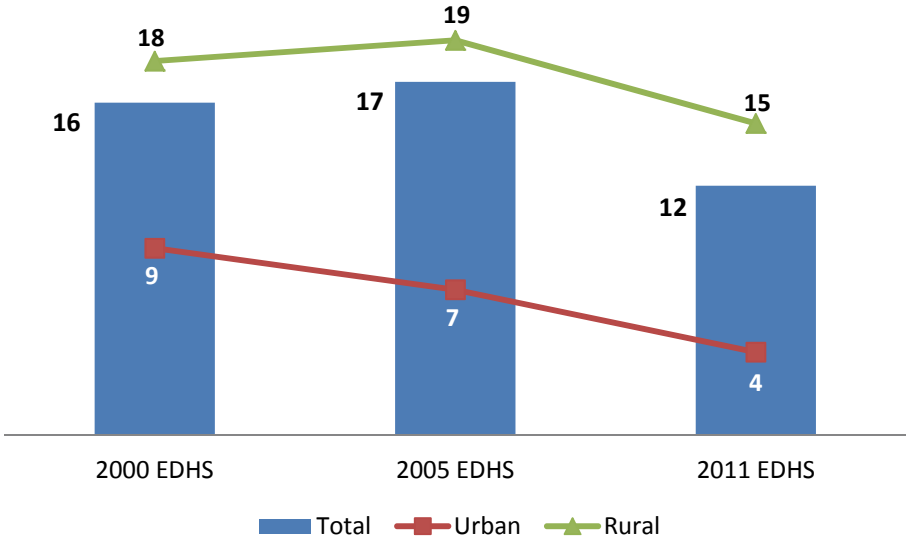


4.3 Adolescent Fertility

The issue of adolescent fertility is important for health, demographic, and social reasons. Children born to very young mothers face an increased risk of illness and death. Adolescent mothers themselves are more likely than older women to suffer from severe complications during pregnancy and delivery because of physiological immaturity.

Figure 4.6 presents trends in the percent of adolescent women age 15-19 who have begun childbearing—that is they have given birth to a child or are currently pregnant with their first child. The percent of teenage women who have begun childbearing decreased slightly in the last 11 years from 16% in 2000 to 12% in 2011. There has been a decrease in teenage childbearing among youth living in urban and rural areas; however, the decrease is more pronounced in urban areas.

Figure 4.6
Percentage of Women Age 15-19 Who Are Mothers or Pregnant with Their First Child, by Residence



There has been a decrease in the percentage of teenage childbearing among women of each age in the last 11 years, with the decrease being more marked among women age 17-19 (Figure 4.7).

Figure 4.7
Percentage of Women Age 15-19 Who Are Mothers or Pregnant with Their First Child, by Age

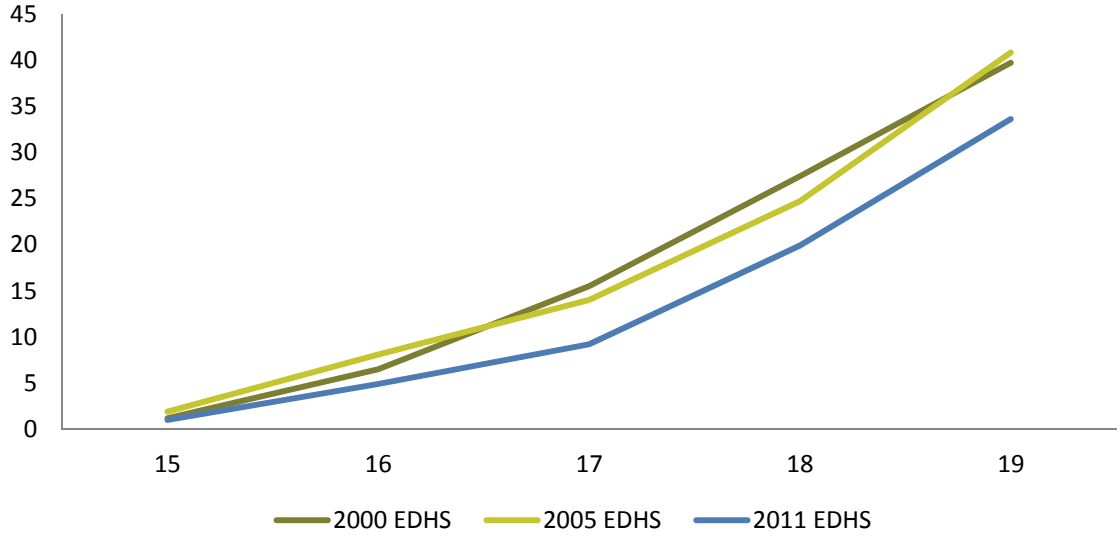
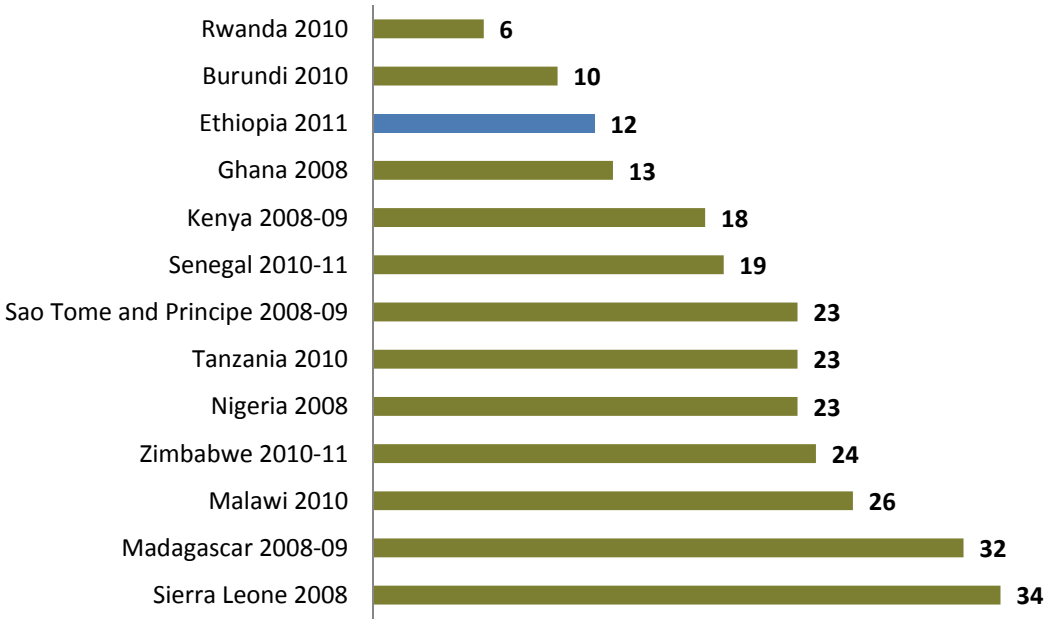


Figure 4.8 shows adolescent fertility among select sub-Saharan African countries. Childbearing at an early age is relatively lower in Ethiopia than in most other sub-Saharan African countries.

Figure 4.8
Percentage of Women Age 15-19 Who Are Mothers or Pregnant with Their First Child, Sub-Saharan Africa



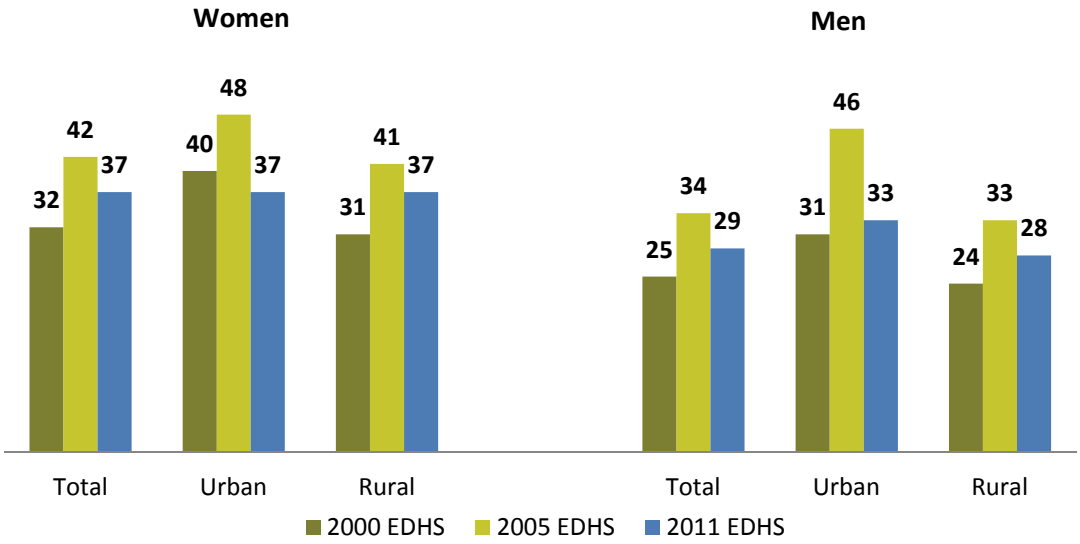
5. FERTILITY PREFERENCES

Information on fertility preferences provides insight into a couple's attitude towards future childbearing and desired completed family size.

5.1 Desire for Children

An important indicator of the potential demand of family planning is the percent of women who want no more children. Figure 5.1 presents trends in the percent of currently married women and men age 15-49 who want no more children, including those who have been sterilized. Overall, the percent of currently married women and men wanting no more children increased when compared with 2000 but decreased when compared with 2005. The same trends are observed among women and men in urban and rural areas.

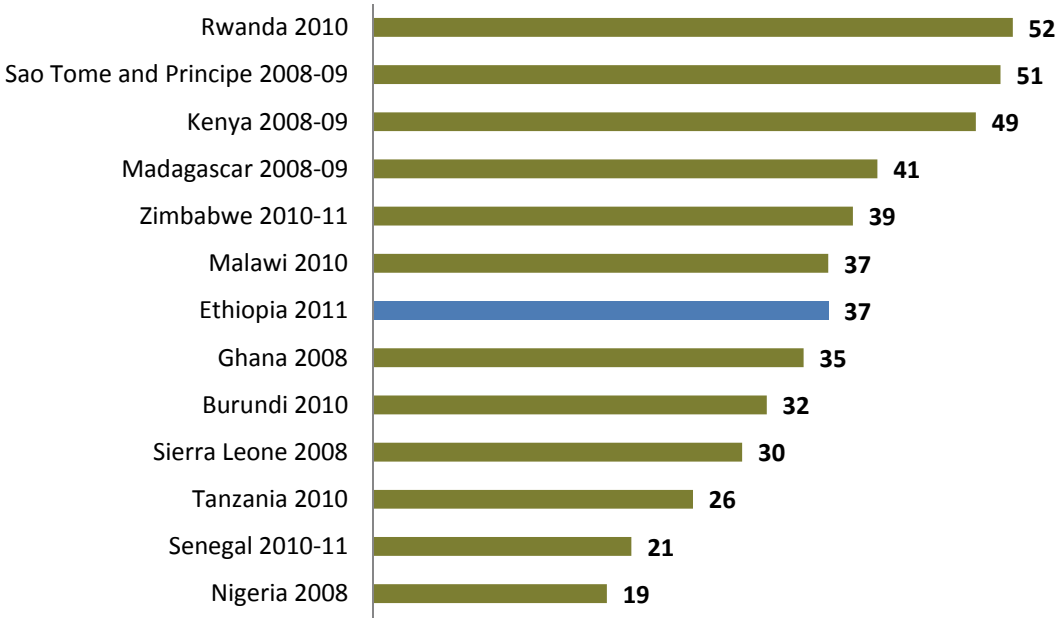
Figure 5.1
Percentage of Currently Married Women and Men 15-49 Who Want No More Children, by Residence



Note: Women who have been sterilized are considered to want no more children. Men who have been sterilized or who state in response to the question about desire for children that their wife has been sterilized are considered to want no more children.

Figure 5.2 compares Ethiopia with other sub-Saharan African countries with respect to the percent of currently married women who want no more children. The desire to limit childbearing is relatively higher in Ethiopia compared with several other countries in sub-Saharan Africa.

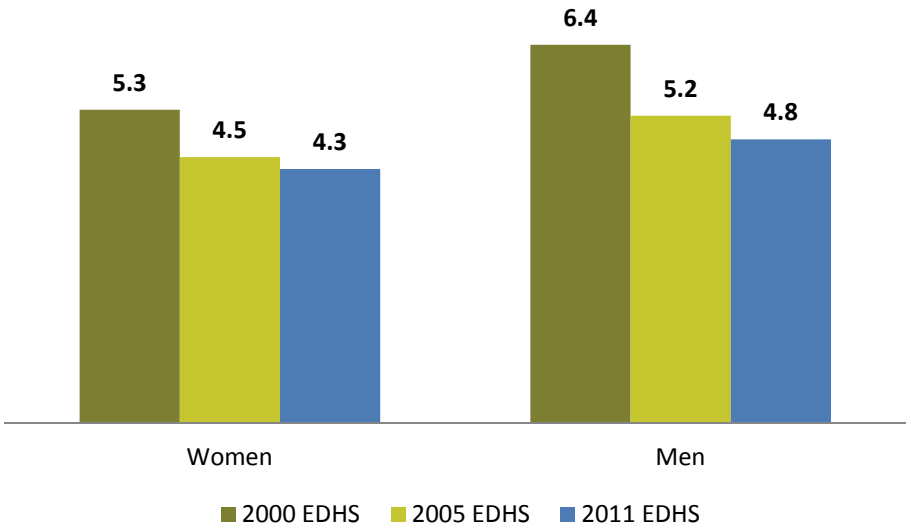
Figure 5.2
Percentage of Currently Married Women 15-49 Who Want No more Children, Sub-Saharan Africa



5.2 Ideal Family Size

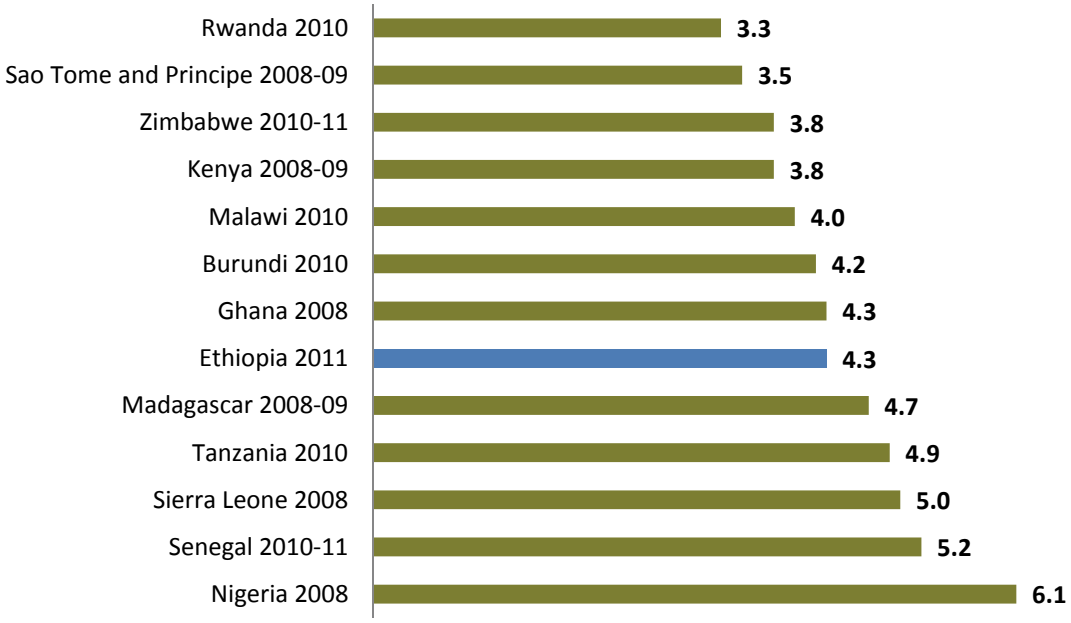
Another indicator of fertility preferences is the ideal number of children preferred by women and men age 15-49. There has been a noticeable decrease in the ideal average number of children reported by Ethiopian women and men. Overall, Figure 5.3 shows that the ideal number of children decreased by one child among woman (from 5.3 children in 2000 to 4.3 children in 2011) and about two and a half children among men (from 6.4 children in 2000 to 4.8 children in 2011).

Figure 5.3
Mean Ideal Number of Children for Women and Men 15-49, by Residence



When compared with women age 15-49 in other countries in sub-Saharan Africa, Ethiopian women are roughly in the middle regarding the ideal number of children they desire (Figure 5.4).

Figure 5.4
Mean Ideal Number of Children for Women 15-49, Sub-Saharan Africa



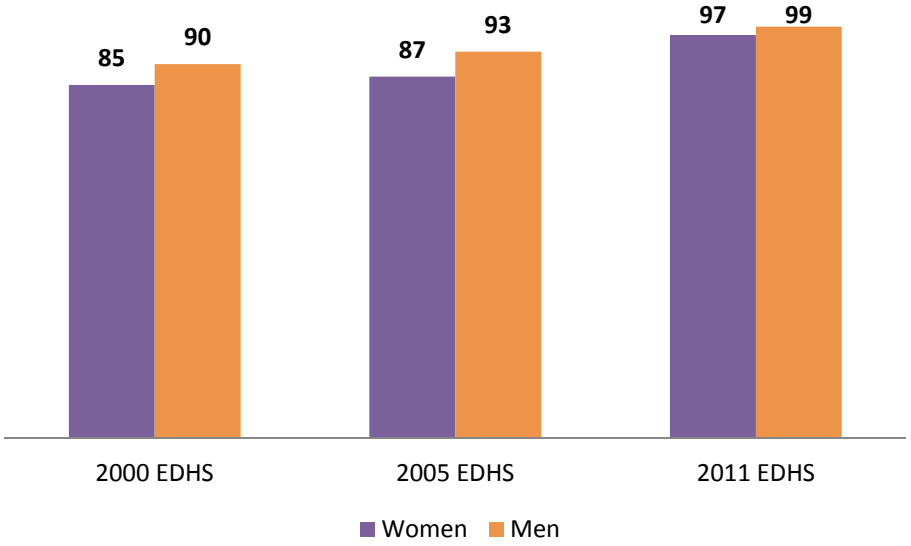
6. FAMILY PLANNING

Information on knowledge and practice of family planning is of particular interest to policymakers, program managers, and researchers concerned with planning and evaluating population and family planning interventions.

6.1 Knowledge of Family Planning

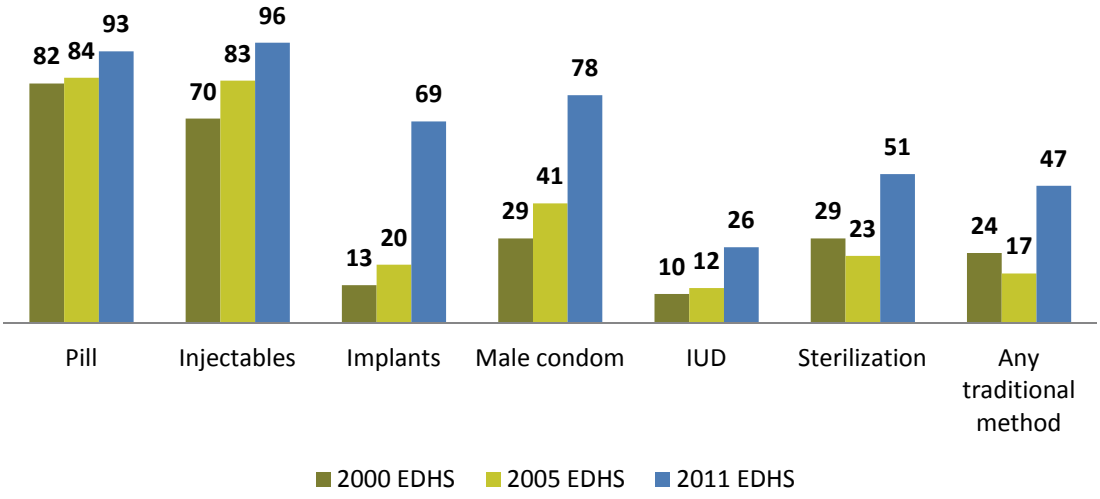
Knowledge of a modern method of family planning is a precursor to the use of contraception. Figure 6.1 shows the percent of currently married women and men age 15-49 who have heard of at least one modern method of family planning. The proportion of women and men with knowledge of a modern method of family planning has increased steadily in the last 11 years and is nearly universal.

Figure 6.1
Percentage of Currently Married Women and Men 15-49 Who Have Heard of at Least One Modern Method of Family Planning



Knowledge of all types of family planning methods among women age 15-49 has increased in the last 11 years (Figure 6.2). The pill was the most commonly known method in 2000 and 2005. In 2011, the most commonly known method was injectables. There has also been a large increase in knowledge of implants, male condoms, intrauterine devices (IUD), and female and male sterilization. The increase in knowledge is especially pronounced for implants and male condoms.

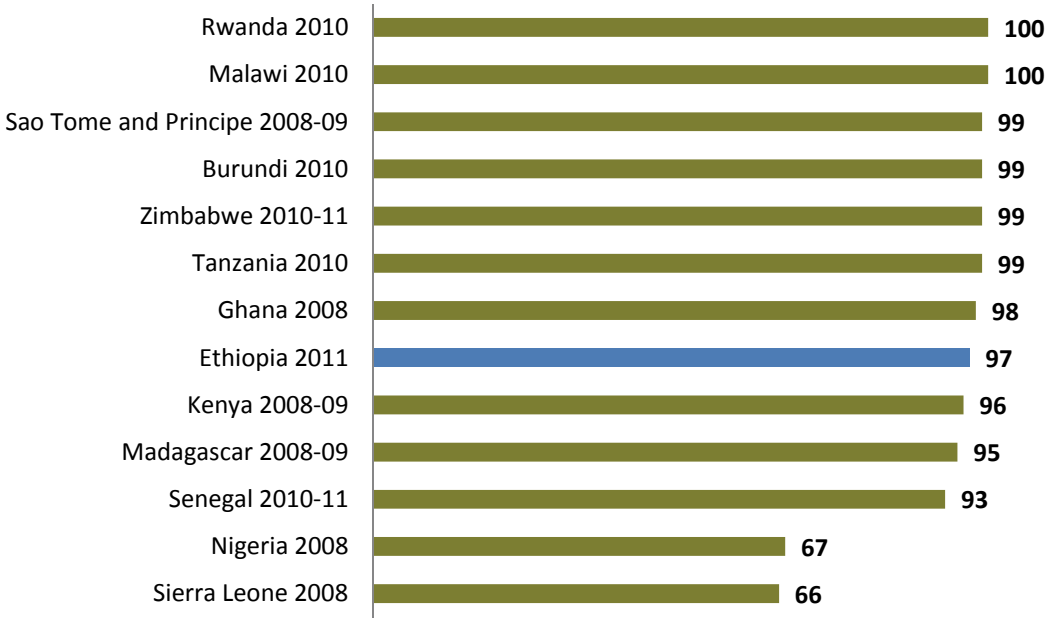
Figure 6.2
Percentage of Currently Married Women 15-49 Who Have Heard of at Least One Method of Family Planning, by Type



Note: Sterilization includes female and male.

With the increase in knowledge of modern family planning methods, currently married women age 15-49 in Ethiopia are just as likely to have heard of at least one method compared with women in other sub-Saharan African countries (Figure 6.3).

Figure 6.3
Percentage of Currently Married Women 15-49 Who Have Heard of at Least One Modern Method of Family Planning, Sub-Saharan Africa

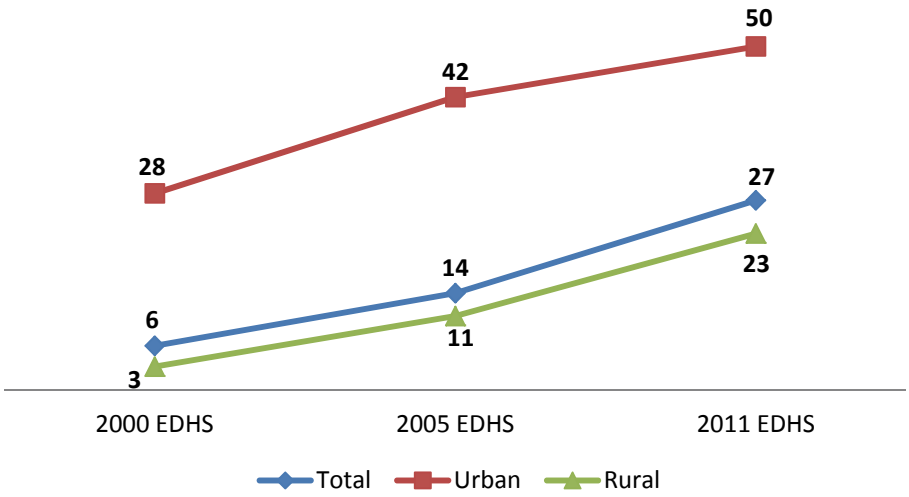


6.2 Current Use of Family Planning

The current use of family planning measures actual contraceptive practice at the time of the survey. Trends in current contraceptive use provide insight into one of the principal determinants of fertility and serve as a key measure for assessing the success of national family planning program efforts.

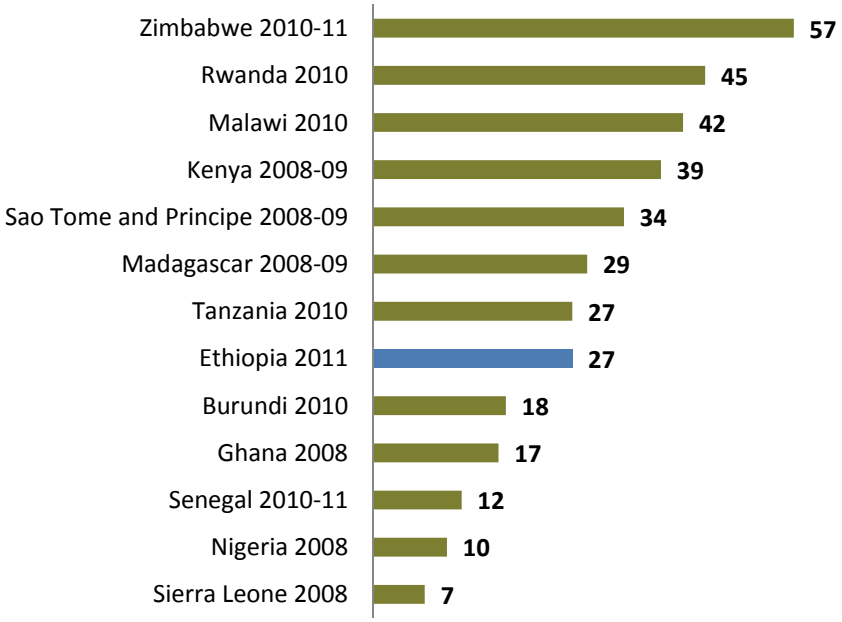
As Figure 6.4 shows, current use of modern methods among currently married women age 15-49 increased more than four times, from 6% to 27% in the last 11 years. Although women who live in urban areas are more likely to use modern methods, a sharp increase can also be seen among women in rural areas.

Figure 6.4
Percentage of Currently Married Women 15-49 Using a Modern Method of Family Planning, by Residence



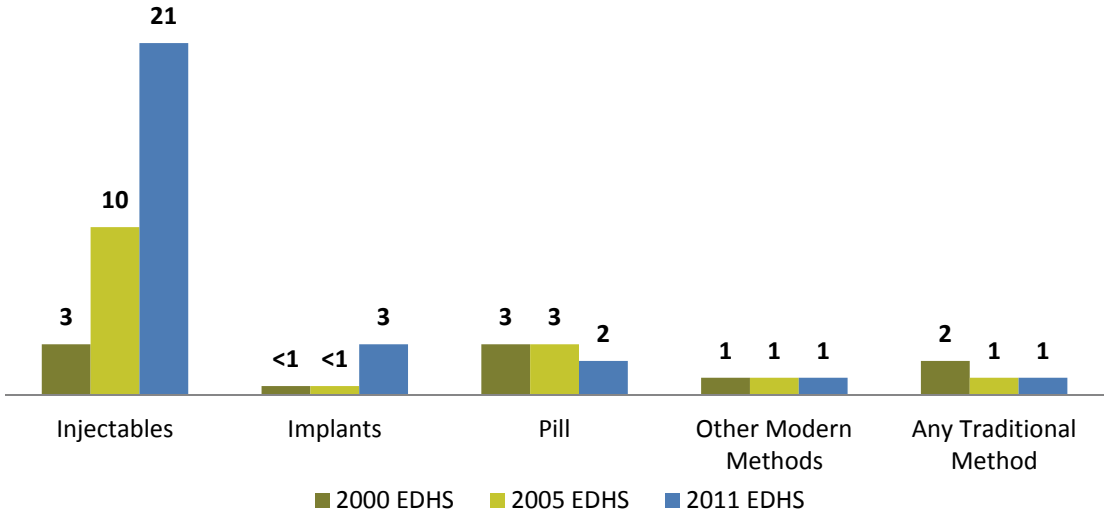
Use of modern contraceptive methods is much lower in Ethiopia than in several other sub-Saharan African countries (Figure 6.5). For example, more than twice as many currently married women age 15-49 in Zimbabwe as in Ethiopia use a modern method of contraception. At the same time, almost four times as many Ethiopian women use a modern method as compared with women in Sierra Leone.

Figure 6.5
Percentage of Currently Married Women 15-49 Using a Modern Contraceptive Method, Sub-Saharan Africa



When looking at specific methods, Figure 6.6 shows that use of injectables has increased dramatically among currently married women age 15-49 who report using any method of family planning. Use of implants also increased in the last 11 years while use of the pill has remained nearly the same.

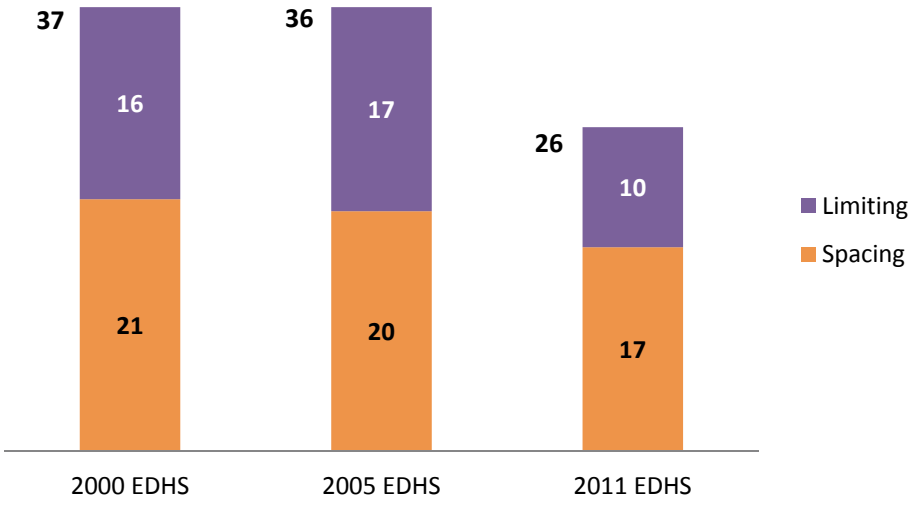
Figure 6.6
Percentage of Currently Married Women 15-49 Using a Family Planning Method, by Type



6.3 Unmet Need for Family Planning

Figure 6.7 shows unmet need for family planning among currently married women age 15-49. There has been a decrease in unmet need for limiting and spacing in the last 11 years. Overall unmet need decreased from 37% in 2000 to 26% in 2011.

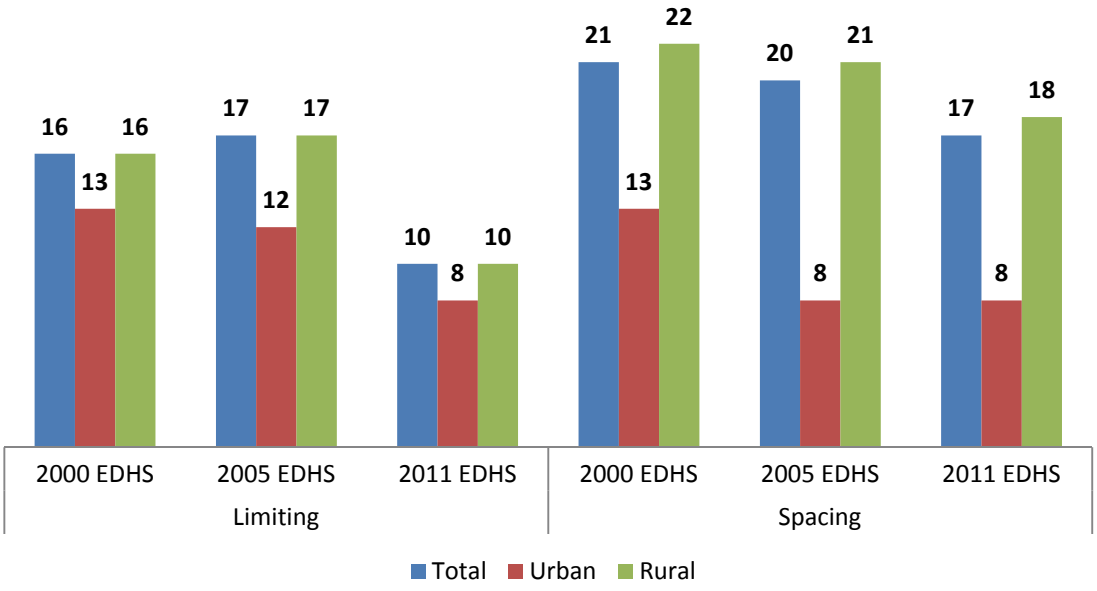
Figure 6.7
Percentage of Currently Married Women 15-49 with an Unmet Need for Family Planning



Note: Unmet need was calculated using the revised definition (Bradley, et al., 2012).

Unmet need continues to be greater among women who live in rural areas. The difference between women who live in urban and rural areas has not changed much in the last 11 years with regard for unmet need for spacing. However, the urban-rural gap has narrowed for unmet need for limiting (Figure 6.8).

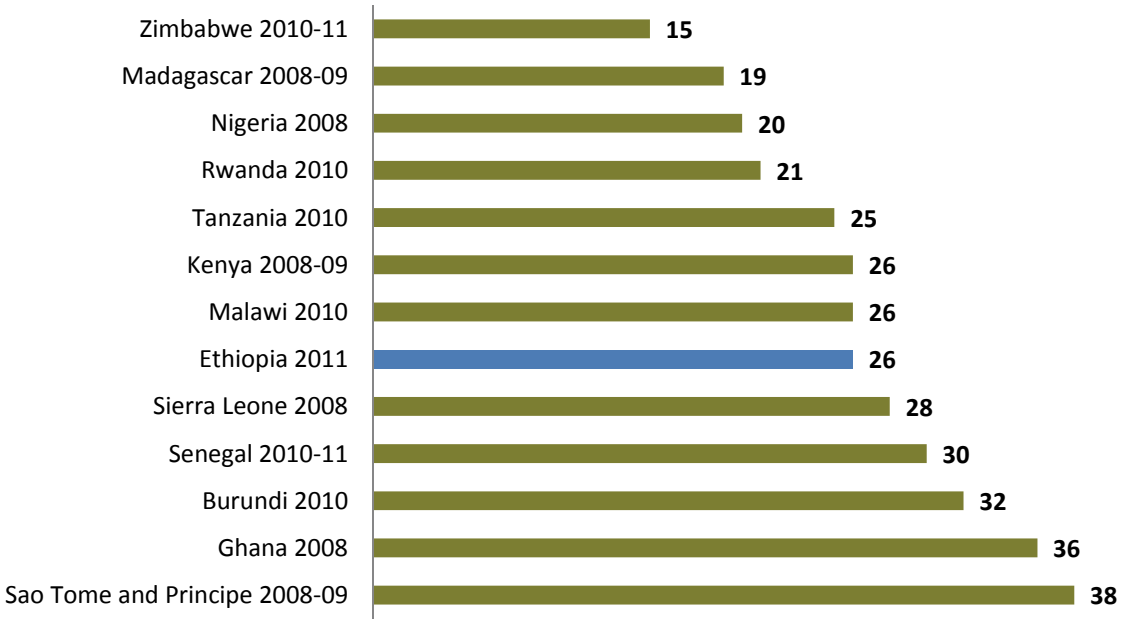
Figure 6.8
Percentage of Currently Married Women 15-49 with an Unmet Need for Family Planning, by Residence



Note: Unmet need was calculated using the revised definition (Bradley, et al., 2012).

Unmet need in Ethiopia among women age 15-49 is somewhere in the middle when compared with other sub-Saharan African countries (Figure 6.9).

Figure 6.9
Percentage of Currently Married Women 15-49 with an Unmet Need for Family Planning, Sub-Saharan Africa



Note: Unmet need was calculated using the revised definition (Bradley, et al., 2012).

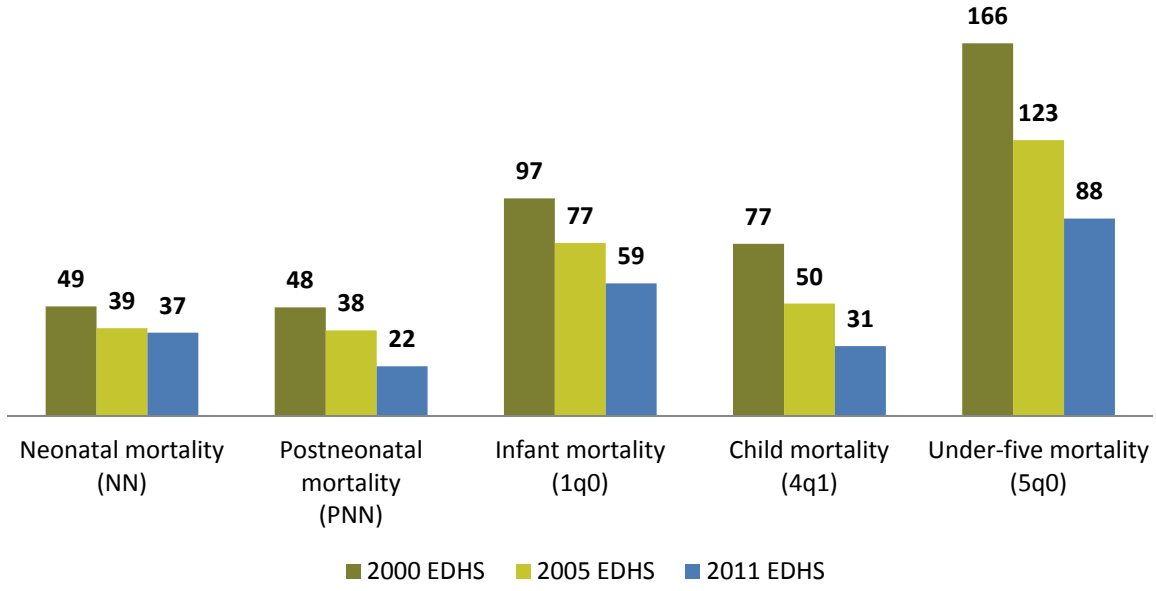
7. CHILD HEALTH

Childhood mortality in general and infant mortality in particular are often used as broad indicators of social development. Trends in childhood mortality therefore contribute to a better understanding of a country's changing socioeconomic situation and quality of life. Because the Ethiopian government has undertaken a number of interventions aimed at reducing childhood diseases and mortality, trend analyses provide an opportunity to evaluate the performance of these programs.

7.1 Early Childhood Mortality

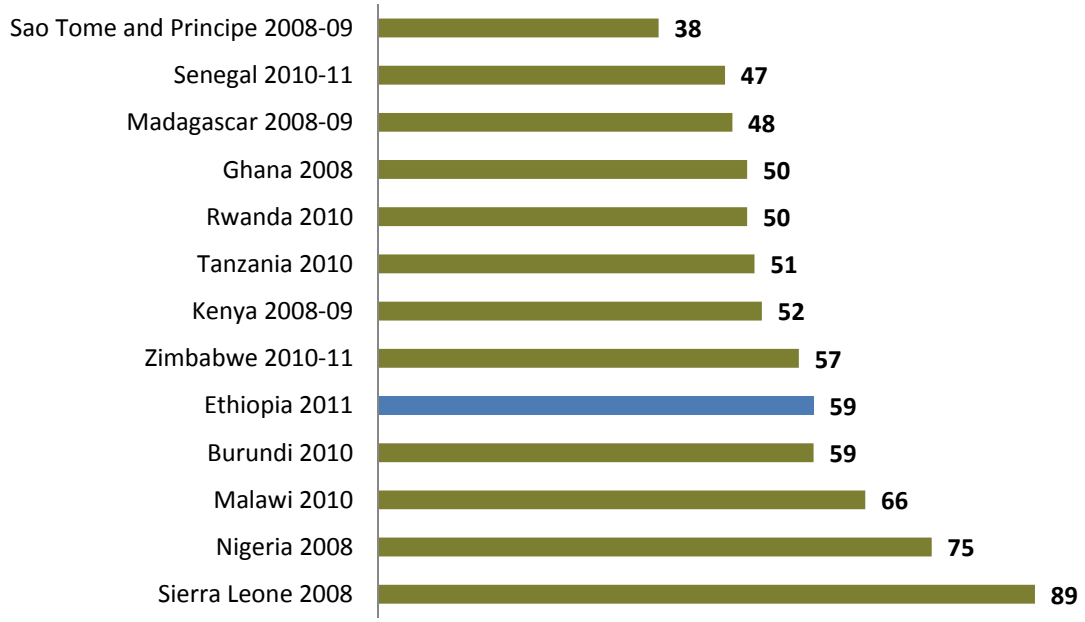
Infant, child, and under-five mortality rates obtained for the five years preceding the three EDHS surveys confirm a decreasing trend in childhood mortality. Under-five mortality decreased by nearly 50% while child mortality decreased by 60% over the last 11 years. Infant mortality decreased by almost 40% (Figure 7.1).

Figure 7.1
Early Childhood Mortality Rates per 1,000 Live Births for the Five Years Preceding the Survey



When compared with other countries in the region, Ethiopia is in the lower third with reference to childhood mortality (Figure 7.2). Infant mortality in Ethiopia is 55% higher than in Sao Tome and Principe and 34% lower than in Sierra Leone.

Figure 7.2
Infant Mortality Rates for the Five Years Preceding the Survey, Sub-Saharan Africa

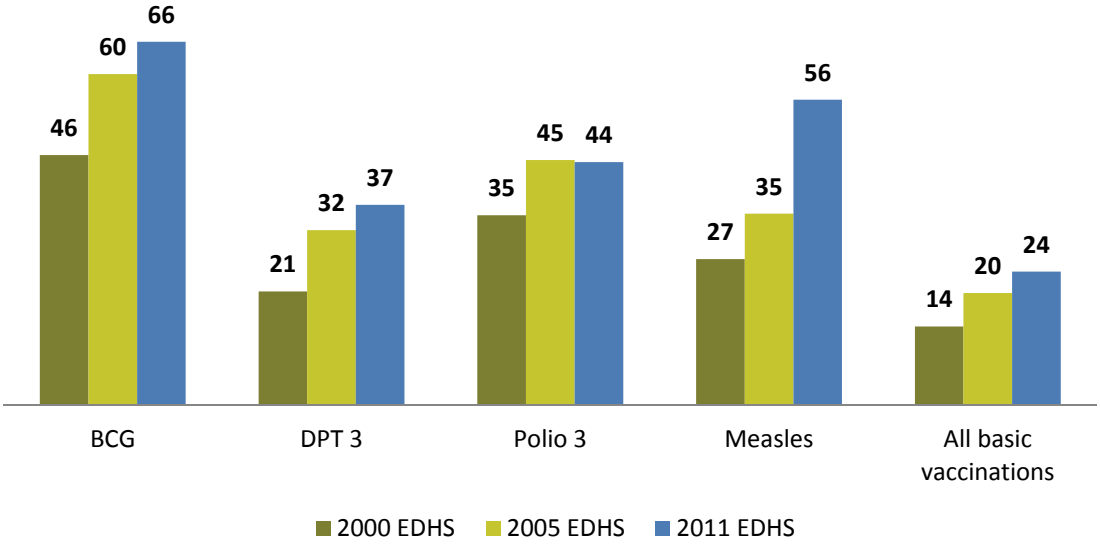


7.2 Child Immunization

Universal immunization of children from six vaccine-preventable diseases (tuberculosis, diphtheria, whooping cough, tetanus, polio, and measles) is crucial in reducing childhood mortality. Information on trends in vaccination coverage among children may give some indication of the success of child immunization programs.

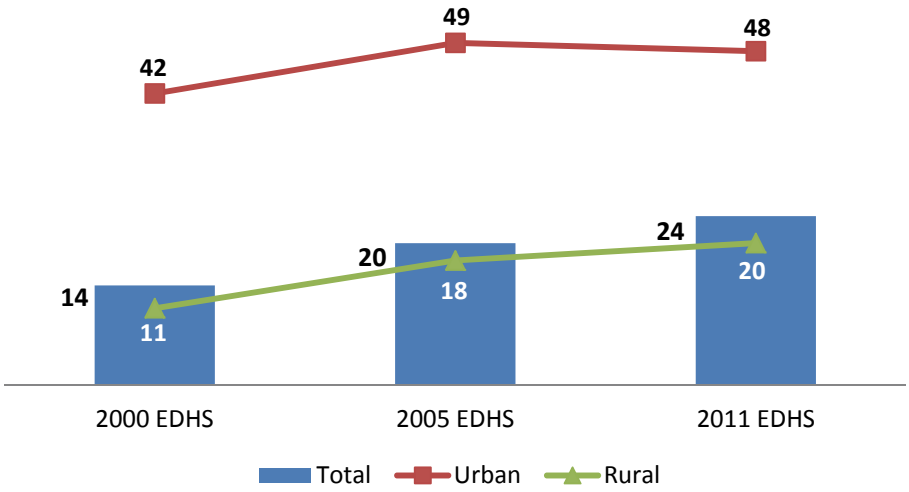
Figure 7.3 shows trends in the percent of children 12-23 months who had received specific vaccines by the time of the survey. The proportion of children who had received all vaccinations, that is, one dose of BCG, three doses each of DPT and polio, and one dose of measles vaccination, increased by 71% during the last 11 years. There was an increase in the coverage for all vaccines (except polio 1) with the largest increase in measles vaccine coverage which doubled during the same period.

Figure 7.3
Percentage of Children 12-23 Months Who Received Specific Vaccines at Any Time Before the Survey



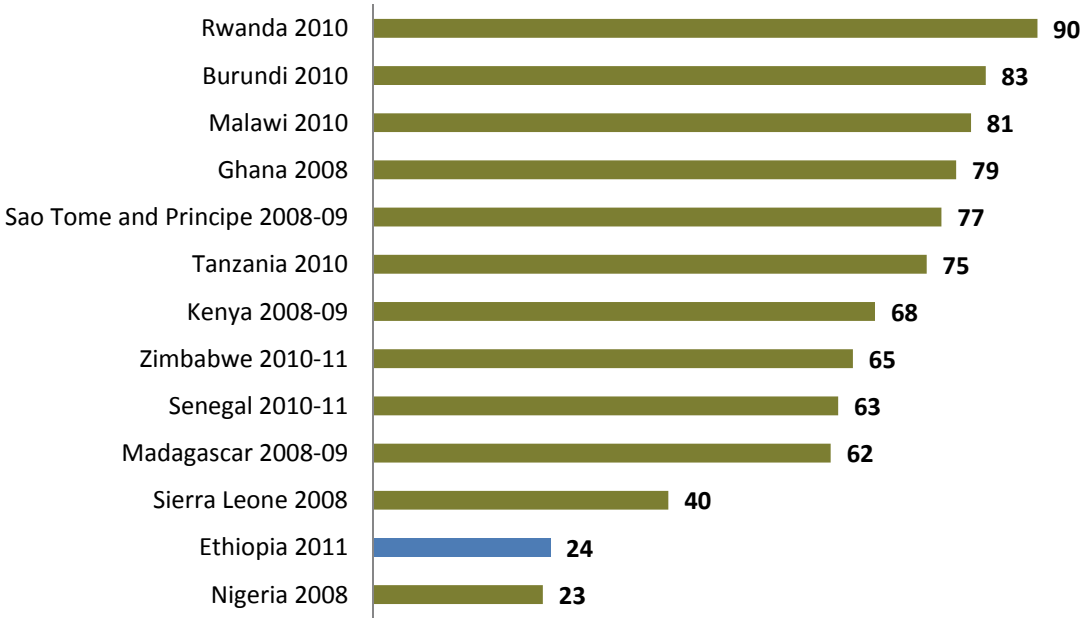
The percent of children receiving all vaccines increased among children living in rural and urban areas. However, there is still a large urban-rural gap with children in urban areas almost two and a half times more likely to have received all basic vaccines (Figure 7.4).

Figure 7.4
Percentage of Children 12-23 Months Who Received All Vaccines, by Residence



Despite the noticeable increase in vaccination coverage among children 12-23 months in the last 11 years, Ethiopian children rank low when compared with children in other sub-Saharan African countries. With the exception of Nigeria, vaccination coverage among children in all other countries is noticeably higher than in Ethiopia (Figure 7.5).

Figure 7.5
Percentage of Children Age 12-23 Months Fully Immunized, Sub-Saharan Africa

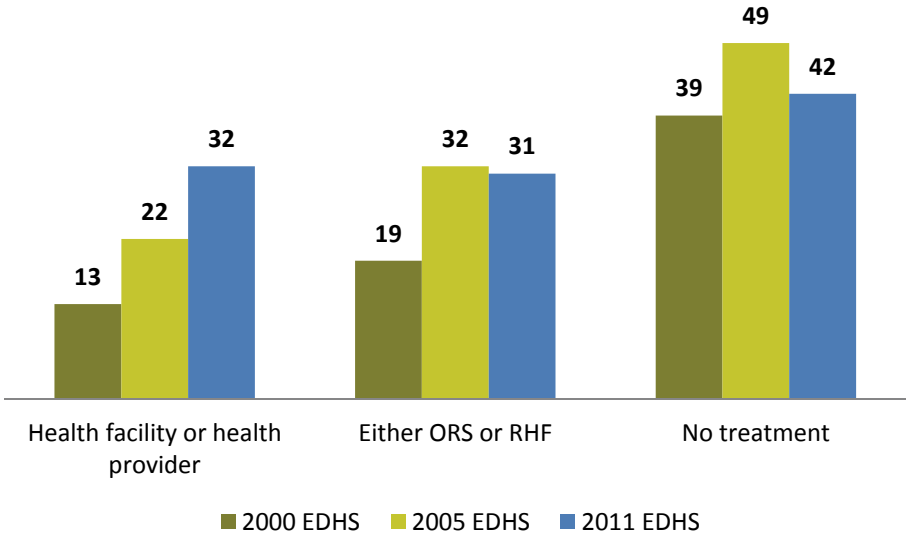


7.3 Treatment of Childhood Diseases

Prompt treatment of childhood diseases is an important element in improving the survival chances of young children. Dehydration associated with severe diarrhoea is recognized as a major cause of morbidity and mortality among young children. A simple and effective response to dehydration is a prompt increase in the child's fluid intake through some form of oral rehydration therapy (ORT). ORT may include the use of a solution prepared from pre-packaged oral rehydration salts (ORS) or the use of recommended home fluids (RHF) made at home from salt, sugar and water. Acute respiratory infection (ARI) is among the leading causes of child morbidity and mortality in Ethiopia and throughout the world. Pneumonia is the most serious outcome of ARI in young children. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths that can result from pneumonia.

Figure 7.6 shows that among children under age five who had diarrhoea in the two weeks preceding the survey, there has been a noticeable and steady increase in the percent of children who were taken to a health facility or health provider. On the other hand, both the percent of children with diarrhoea who were treated with ORS or RHF and those that did not receive any treatment increased substantially between 2000 and 2005 and then decreased somewhat between 2005 and 2011.

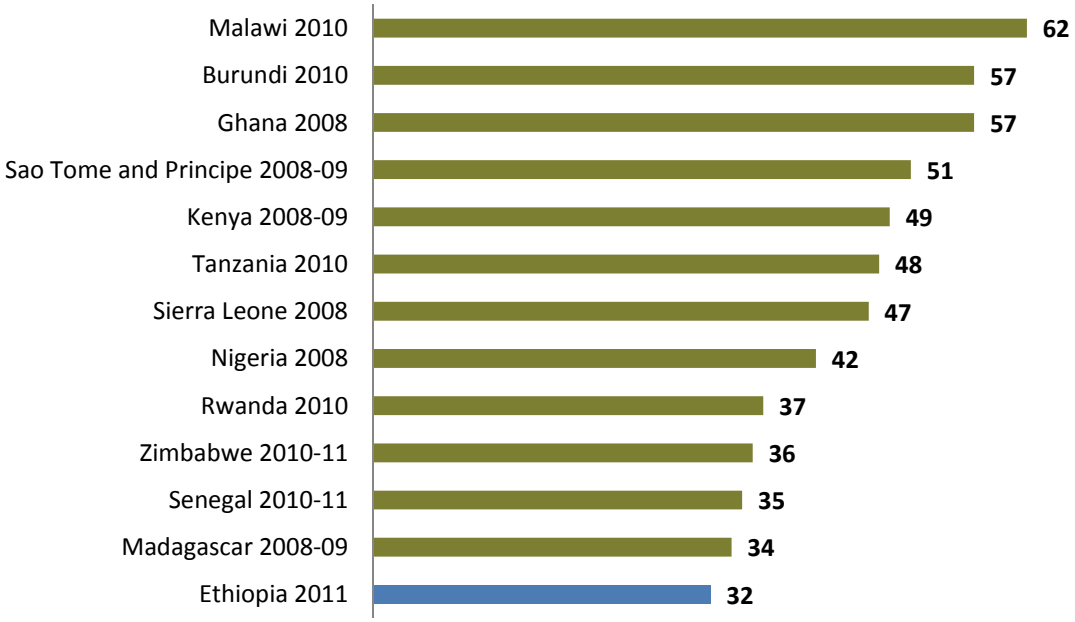
Figure 7.6
Percentage of Children Under Age Five with Diarrhoea, by Type of Treatment



Note: Health provider excludes pharmacy, shop and traditional practitioner.

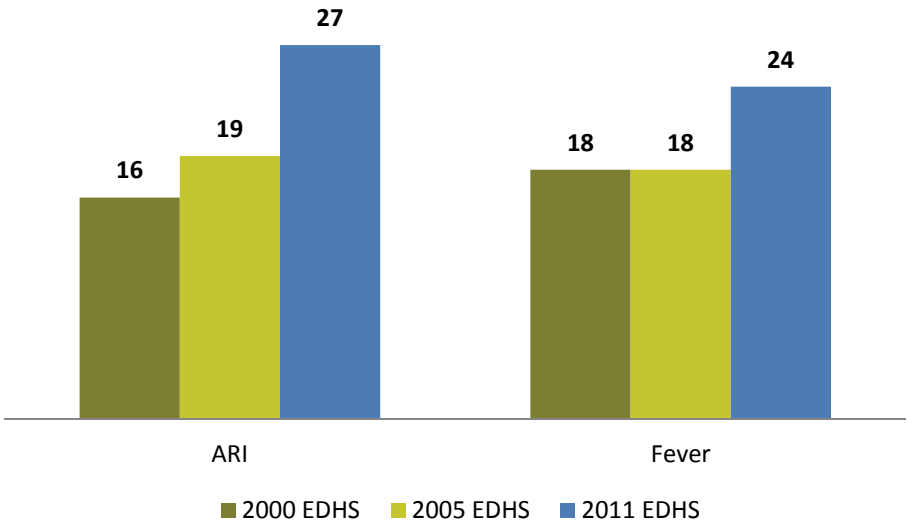
Figure 7.7 shows that Ethiopia has the lowest percentage of children under age five with diarrhoea in the two weeks preceding the survey who were taken for advice or treatment to a health facility or provider when compared with other sub-Saharan African countries. For example, children living in Malawi are almost twice as likely to be taken to a health facility or health provider when they have diarrhoea as Ethiopian children.

Figure 7.7
Percentage of Children Under Age Five with Diarrhoea Taken to a Health Facility or Health Provider for Treatment, Sub-Saharan Africa



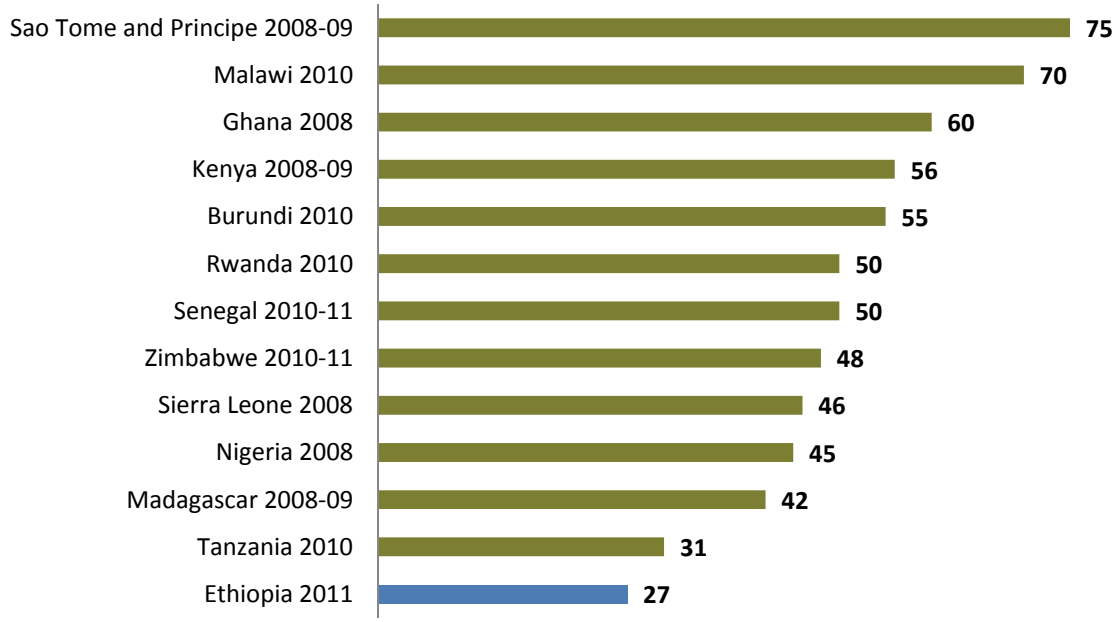
The practice of seeking medical advice or treatment for children who had symptoms of acute respiratory infections (ARI) or fever in the last two weeks is very low in Ethiopia. Less than 3 in 10 children who had symptoms of ARI or fever were taken to a health facility or health provider for advice or treatment (Figure 7.8). Nevertheless, there has been a noticeable increase in the percent of ill children taken to a health facility or health provider for advice or treatment in the last 11 years.

Figure 7.8
Percentage of Children Under Age Five with Symptoms of ARI and Fever Taken to a Health Facility or Health Provider for Advice or Treatment



Ethiopia ranks lowest in seeking advice and treatment for children with ARI when compared with other sub-Saharan African countries. Almost three times as many children were taken to a health facility or health provider when they had ARI symptoms in Sao Tome and Principe and Malawi as in Ethiopia (Figure 7.9).

Figure 7.9
Percentage of Children Under Age Five with Symptoms of ARI Taken to a Health Facility or Health Provider for Advice or Treatment, Sub-Saharan Africa

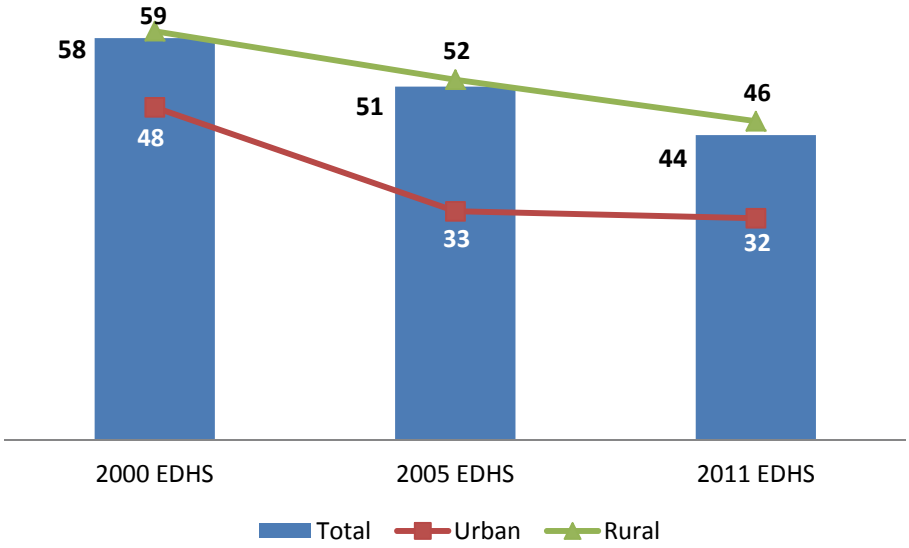


7.4 Nutritional Status of Children

Nutritional status is an important indicator of children's' overall health and well-being. Childhood undernutrition results from prolonged and improper treatment of illness and inadequate food intake, and undernourished children are at a greater risk of dying than well-nourished children. Children's nutritional status in the EDHS surveys was assessed from measurements of their height and weight. From these measurements, three indices of nutritional status were calculated: height-for-age or stunting measures chronic malnourishment; weight-for-height or wasting measures acute malnourishment; and weight-for-age, a composite index of acute and chronic malnourishment, measures the percent of children who are underweight.

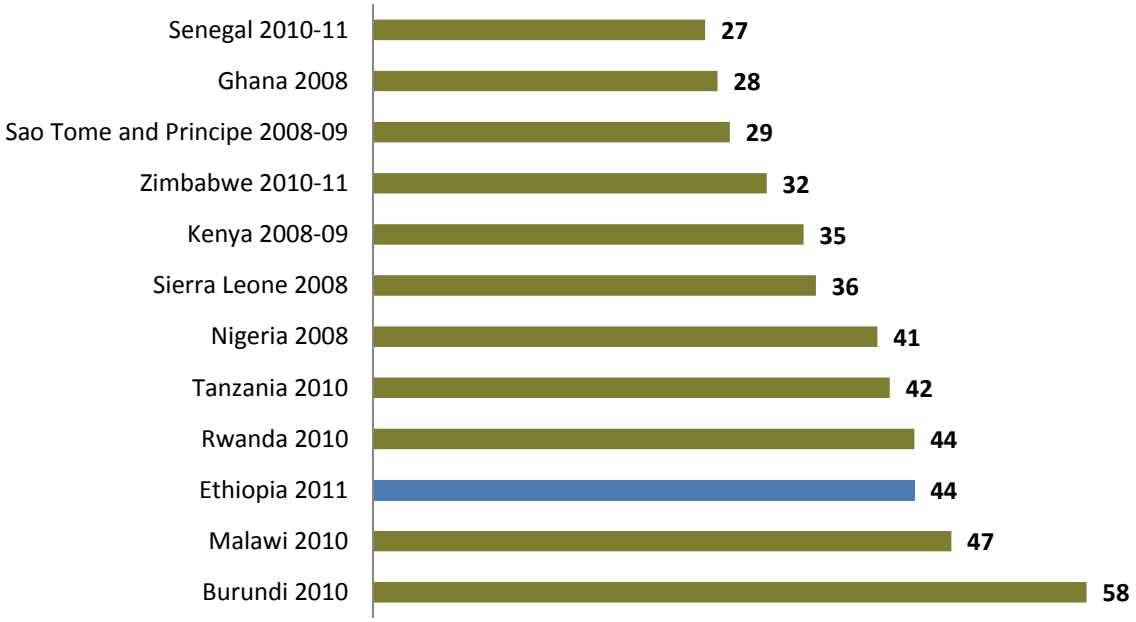
Figure 7.9 shows a small decrease in the percent of children under age five who are stunted or too short for their age, that is, whose height-for-age is below minus two standard deviations from the median of the WHO reference population (WHO, 2006). The percent of children who are stunted has decreased by 24% between 2000 and 2011. Children in rural areas are more likely to be stunted than children in urban areas and the decrease was slightly greater among children in urban areas.

Figure 7.9
Percentage of Children Under Age Five Stunted, by Residence



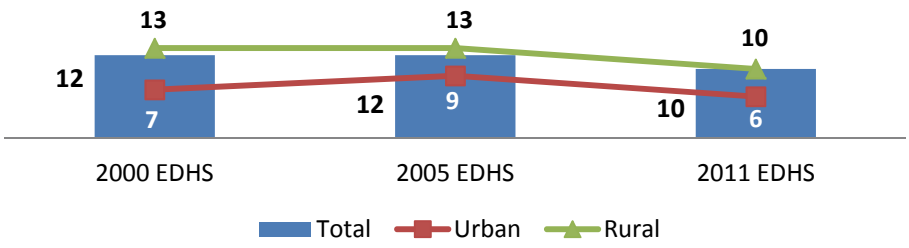
Ethiopian children are more likely than children in most other sub-Saharan African countries to be stunted (Figure 7.10). Only Malawi and Burundi have higher proportions of stunting among children under age five than Ethiopia.

Figure 7.10
Percentage of Children Under Age Five Stunted, Sub-Saharan Africa



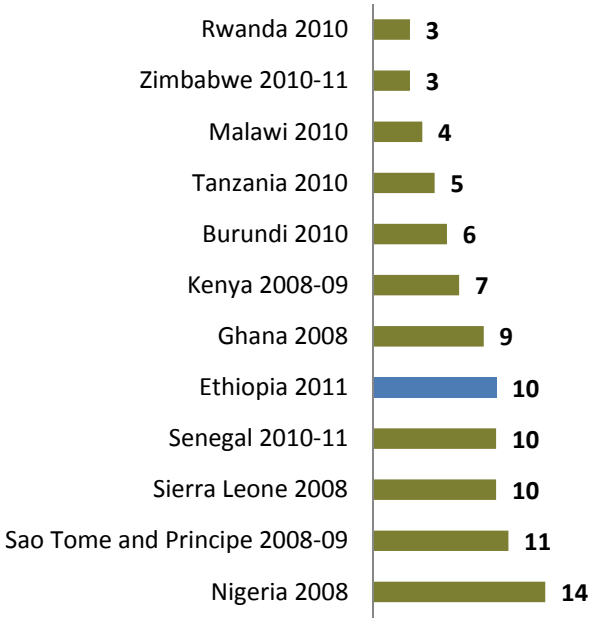
There has been a decrease in the overall percent of children who are wasted that is, whose weight-for-height is below minus two standard deviations from the median of the WHO reference population (WHO, 2006). Children in rural areas are more likely to be wasted than children in urban areas (Figure 7.11).

Figure 7.11
Percentage of Children Under Age Five Wasted, by Residence



The proportion of children who are wasted in Ethiopia is three times higher than in Rwanda and Zimbabwe which have the lowest proportion of children wasted among the 12 countries compared here (Figure 7.12).

Figure 7.12
Percentage of Children Under Age Five Wasted, Sub-Saharan Africa



The proportion of children who are underweight (whose weight-for-age is below minus two standard deviations from the median of the WHO reference population) in Ethiopia has decreased over the last 11 years by approximately 30% (WHO, 2006). Much of this decrease was between 2000 and 2005. Again, the proportion underweight is higher among children in rural than urban areas (Figure 7.13).

Figure 7.13
Percentage of Children Under Age Five Underweight, by Residence

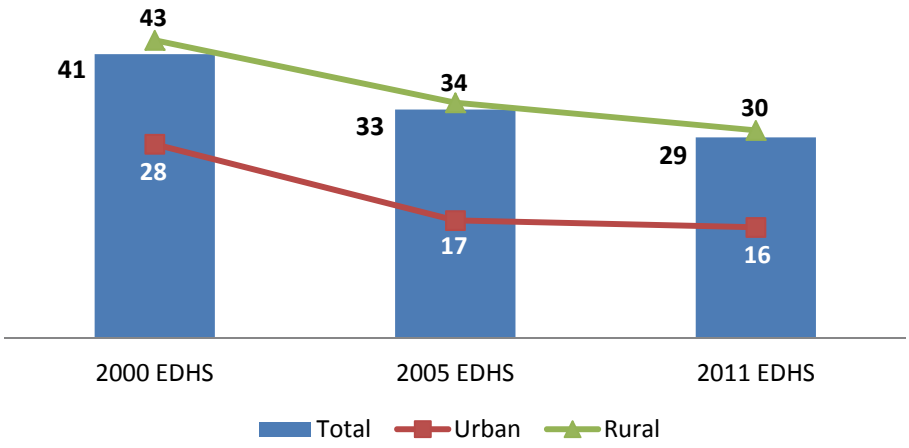
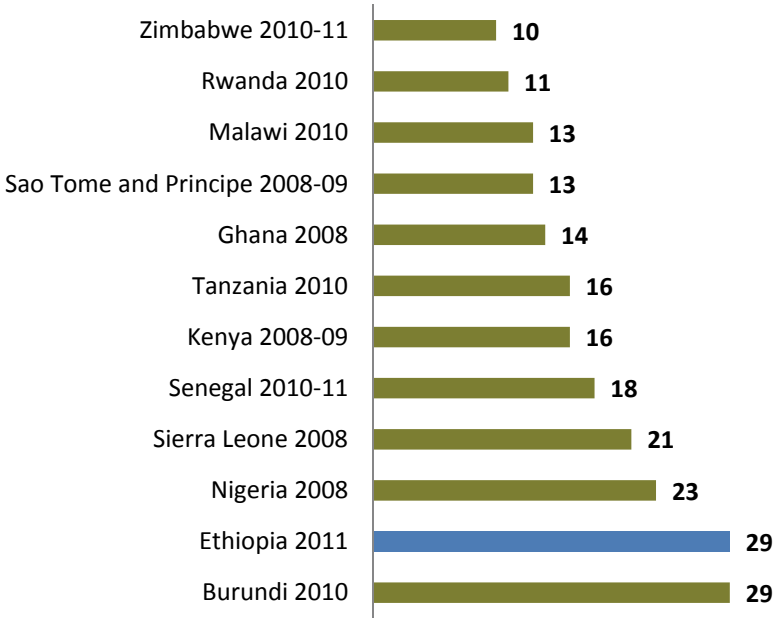


Figure 7.14 shows that Ethiopian children are the most likely to be underweight when compared with other sub-Saharan African countries, except for Burundi, that has the same percent. The proportion of Ethiopian children who are underweight is about three times the proportion of Zimbabwean children who are underweight.

Figure 7.14
Percentage of Children Under Age Five Underweight, Sub-Saharan Africa

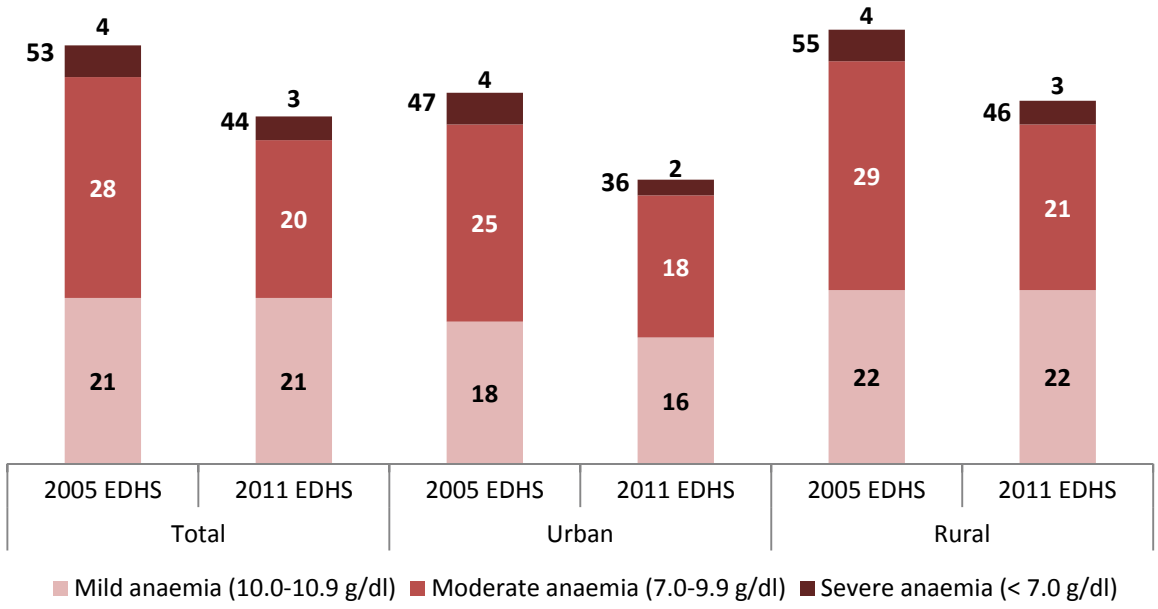


7.5 Anaemia Among Children

Anaemia is a condition characterised by a low level of haemoglobin in the blood. Haemoglobin is necessary for transporting oxygen to tissues and organs in the body. Approximately half the global burden of anaemia is due to iron deficiency. Iron deficiency, in turn, is largely due to an inadequate dietary intake of bioavailable iron, inadequate dietary iron during periods of increased iron requirements (such as childhood), increased blood loss due to hookworm infestation, and infections such as malaria. Nutritional anaemia includes anaemia due to deficiency in iron plus deficiencies in folate, vitamins B and B12, and certain trace elements involved with red blood cell production. Anaemia in children is associated with impaired mental and physical development and with increased morbidity and mortality.

The prevalence of any anaemia among children 6-59 months has decreased since 2005 from 53% to 44% in 2011. The proportion of any anaemia among children living in rural areas decreased from 55% to 46%, due in large part to a reduction in moderate anaemia. All types of anaemia are more prevalent among children living in rural areas than in urban areas (Figure 7.15).

Figure 7.15
Percentage of Children 6-59 Months with Anaemia, by Severity and Residence



8. MATERNAL HEALTH

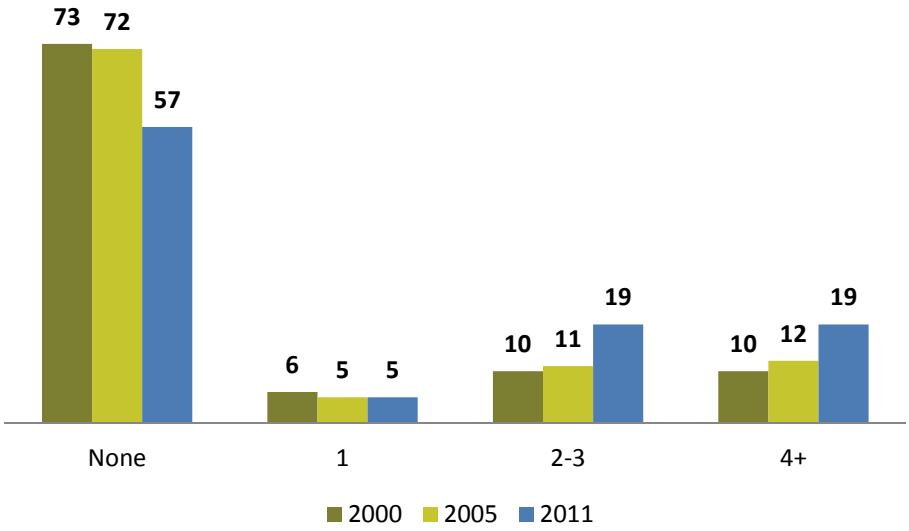
Child survival is directly linked to access to professional maternity care. In addition, there is overwhelming evidence to support the benefits of professional maternity care in lowering maternal mortality.

8.1 Antenatal Care

Regular antenatal check-ups from trained health providers are necessary to monitor the progress of a pregnancy and identify early on if a woman shows signs of complications. It is commonly recommended that a woman see a trained health provider at least four times during her pregnancy.

Figure 8.1 shows an increase in the utilization of antenatal care services by pregnant women in the 11 years between the 2000 and 2011 surveys. During the same period, the percent of women who made four or more ANC visits nearly doubled and the percentage who did not go for an ANC visit decreased, especially between 2005 and 2011.

Figure 8.1
Percentage of Women 15-49 Who Had a Live Birth in the Five Years Preceding the Survey, by ANC Visits for the Most Recent Pregnancy



Ethiopia ranks lowest in the utilization of antenatal care services when compared with other sub-Saharan African countries. The proportion of women age 15-49 in Ghana who had four or more ANC visits during their last live birth is nearly four times higher when compared with Ethiopia (Figure 8.2).

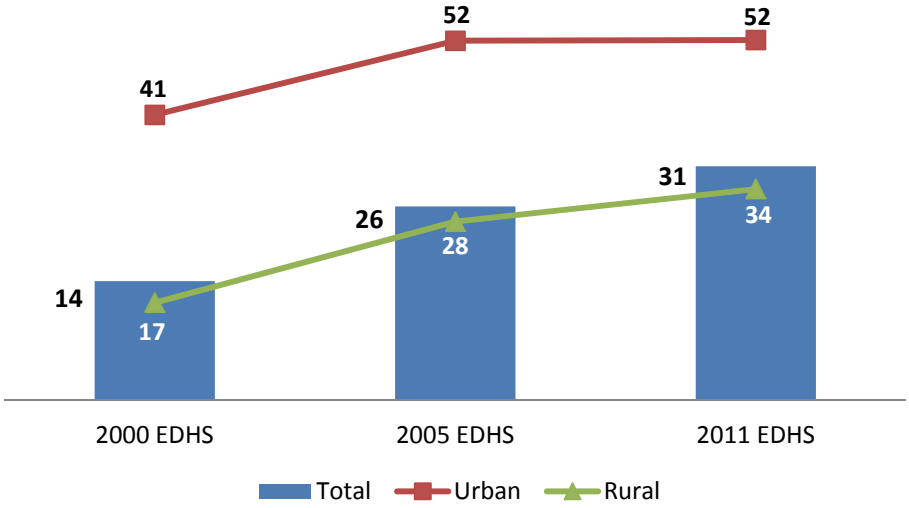
Figure 8.2
Percentage of Women 15-49 Who Had a Live Birth in the Five Years Preceding the Survey Who Had Four or More ANC Visits for the Most Recent Pregnancy, Sub-Saharan Africa

8.2 Tetanus Toxoid Injections

Neonatal tetanus is a leading cause of neonatal deaths in Ethiopia and other developing countries where a high proportion of deliveries are conducted at home or in other places where hygienic conditions do not exist. Tetanus toxoid (TT) immunisation is given to pregnant women to prevent neonatal tetanus. If a woman has received no previous TT injections, she needs two doses of TT during pregnancy for full protection.

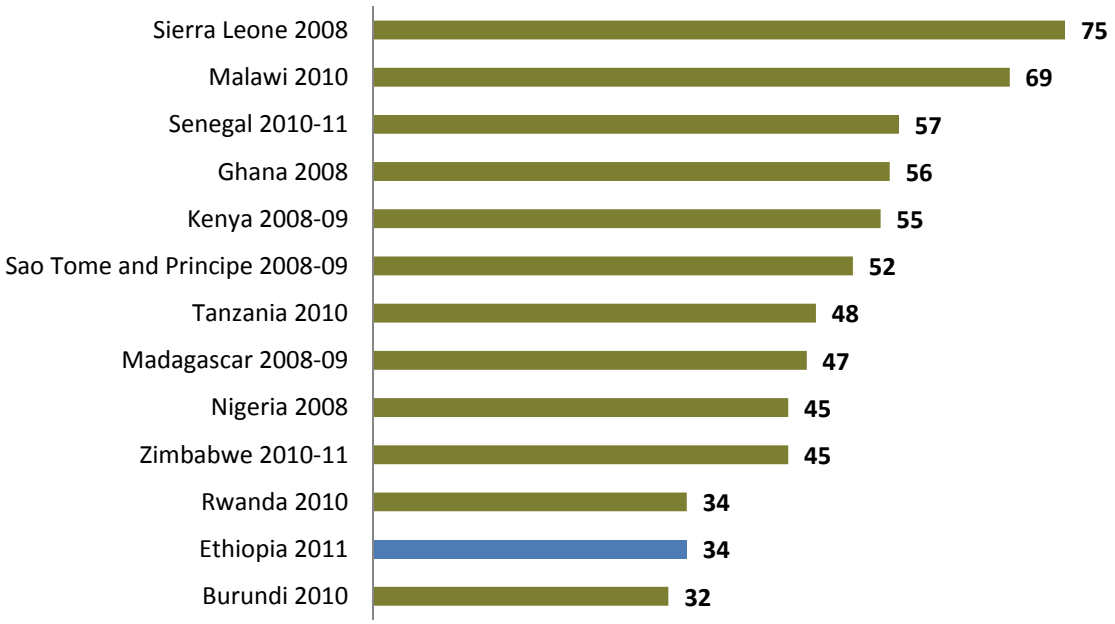
Between 2000 and 2011, there has been a marked improvement in the percent of women who had two or more doses of TT injections during their last pregnancy and a reduction in the urban-rural gap (Figure 8.3).

Figure 8.3
Percentage of Women 15-49 Who Had a Live Birth in the Five Years Preceding the Survey and Who Received Two or More Doses of Tetanus Toxoid Injections During the Last Pregnancy, by Residence



The proportion of women in Ethiopia who received at least two doses of TT injections during their most recent pregnancy is among the lowest when compared with other sub-Saharan countries. The percent of women receiving two or more doses of TT injections is more than twice as high in Malawi and Sierra Leone as in Ethiopia (Figure 8.4).

Figure 8.4
Percentage of Women 15-49 Who Had a Live Birth in the Five Years Preceding the Survey and Who Received Two or More Doses of Tetanus Toxoid Injections During the Last Pregnancy, Sub-Saharan Africa



8.3 Place of Delivery

An important contributor to lowering the health risks to mothers and children associated with a pregnancy is increasing the proportion of babies delivered in a health facility and under the supervision of a health professional. Figure 8.5 presents trends in the percent of live births in the five years preceding the survey delivered at a health facility.

Only 1 in 25 live births among women in rural areas are delivered in a health facility compared with half of live births among women in urban areas. However, the overwhelming majority of births in Ethiopia (90%) continue to take place at home.

Figure 8.5
Percentage of Live Births in the Five Years Preceding the Survey Delivered in a Health Facility, by Residence

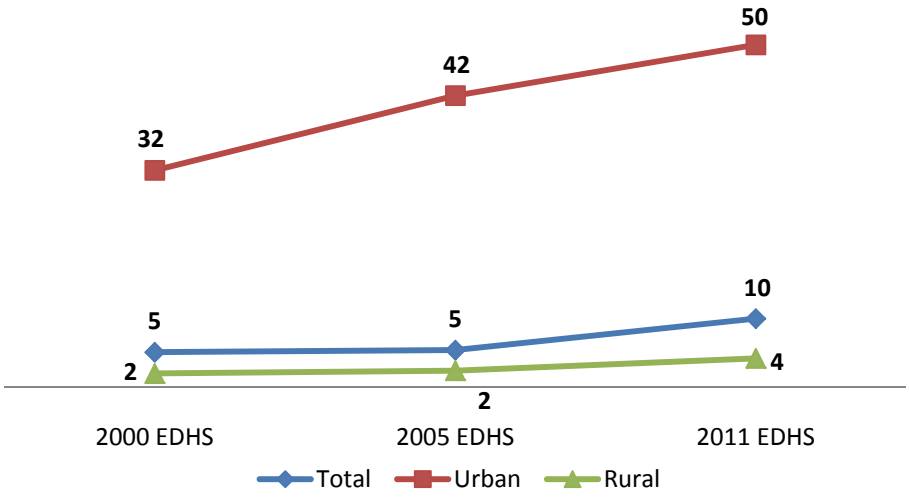
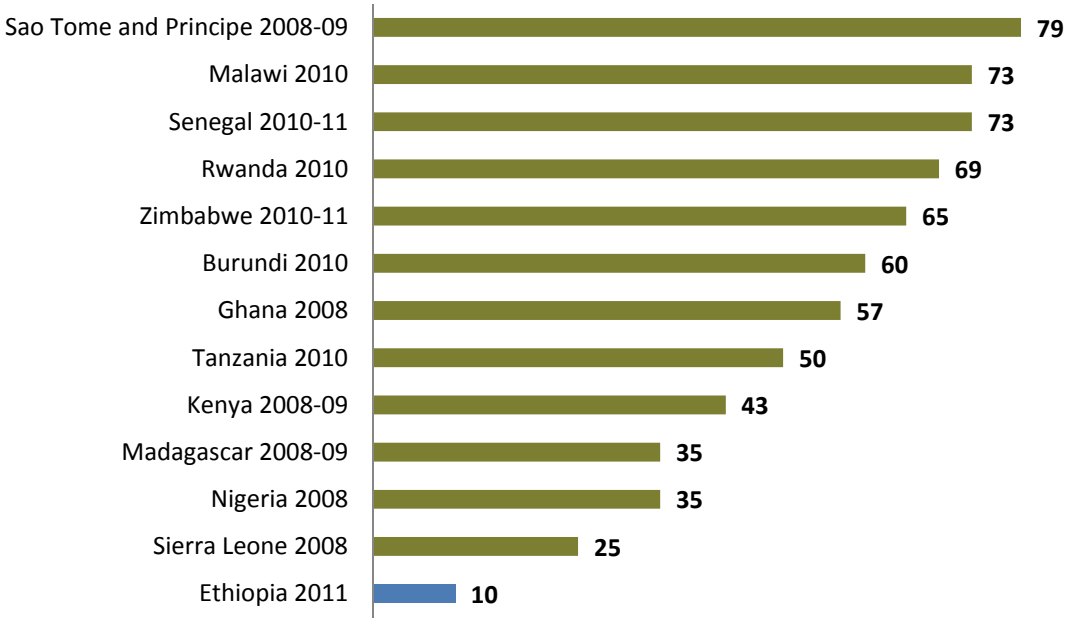


Figure 8.6 shows that Ethiopia ranks lowest in terms of delivery at a health facility when compared with the other sub-Saharan countries included in this report. The percent of births delivered in a health facility is more than seven times higher in Senegal, Malawi, and Sao Tome and Principe than in Ethiopia.

Figure 8.6
Percentage of Live Births in the Five Years Preceding the Survey Delivered in a Health Facility, Sub-Saharan Africa

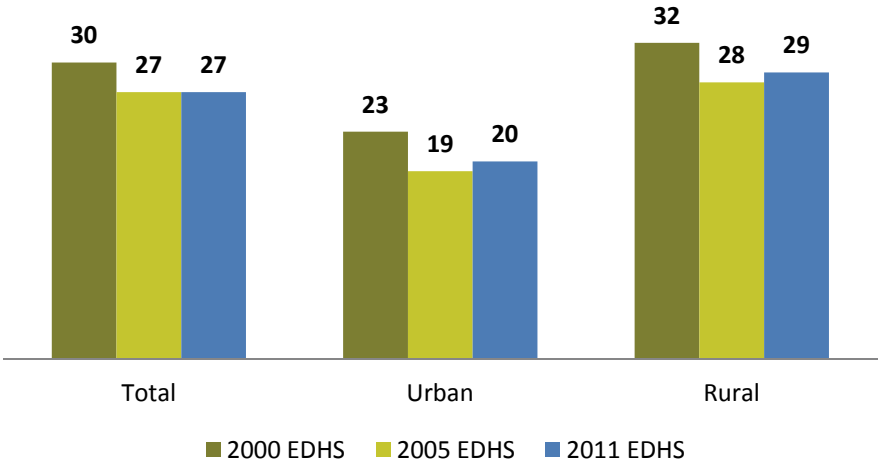


8.4 Nutritional Status

Maternal nutritional status has important implications for the health of mothers and children. Women with poor nutritional health face a greater risk of an adverse pregnancy and are more likely to give birth to children who are not healthy. Body mass index (BMI) is an important indicator of adult nutritional status and is defined as weight in kilograms divided by height in metres squared (kg/m^2). A cut-off point of 18.5 is used to define thinness or acute undernutrition.

Although the percent of women who are malnourished decreased between the 2000 and 2005 EDHS, the survey findings show basically no change between the 2005 and 2011 surveys. Almost 3 in 10 women age 15-49 have a BMI below 18.5. The percent of women with a low BMI is somewhat higher among women in rural than in urban areas (Figure 8.7).

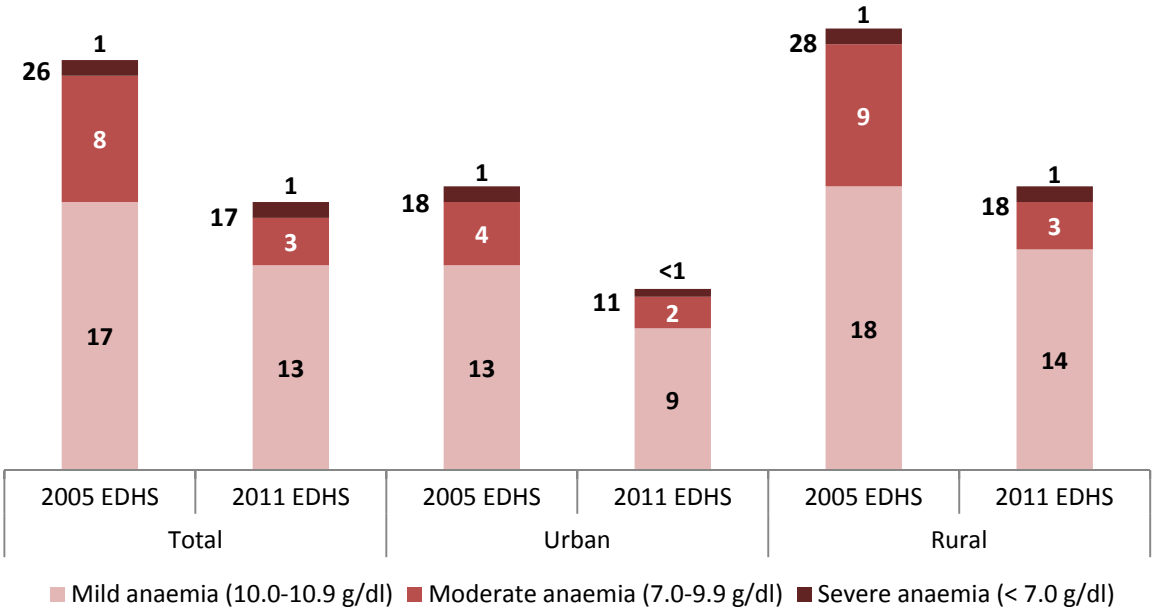
Figure 8.7
Percentage of Women 15-49 with a Body Mass Index (BMI) <18.5 Kg/M2, by Residence



Note: Excludes pregnant women and those who had a birth in the two months before the survey.

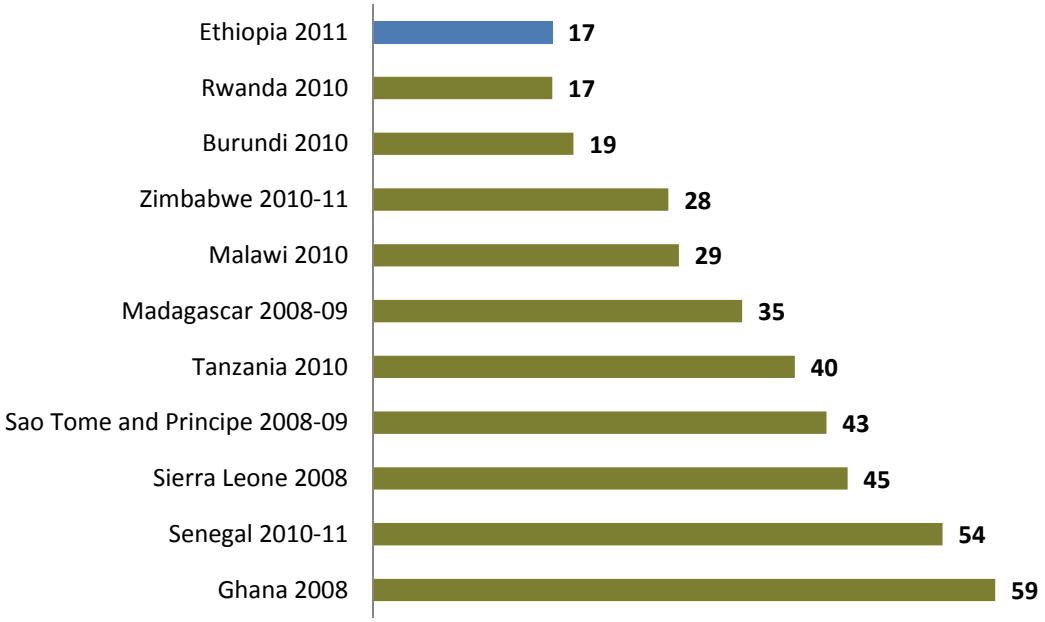
Anaemia in pregnant women results in an increased risk of premature delivery and low birth weight. The percent of any anaemia among women age 15-49 decreased in Ethiopia in the last six years, with a reduction in both mild and moderate anaemia. The total percent of any anaemia among women decreased from 26% in 2005 to 17% in 2011 (Figure 8.8).

Figure 8.8
Percentage of Women 15-49 with Any Anaemia, by Severity and Residence



The percent of women age 15-49 with any anaemia in Ethiopia is the lowest of the sub-Saharan countries compared here, except for Rwanda which has the same percent. The prevalence of anaemia is much higher in most other sub-Saharan countries (Figure 8.9).

Figure 8.9
Percentage of Women 15-49 with Any Anaemia, Sub-Saharan Africa



9. HIV AND AIDS

Acquired immune deficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV). HIV weakens the immune system making the body susceptible to secondary and opportunistic infections. Without treatment, HIV infection leads to AIDS and death. The predominant mode of HIV transmission is through sexual contact. Other modes of transmission are mother-to-child transmission (in which the mother passes HIV to her child during pregnancy, delivery, or breastfeeding), use of contaminated blood supplies for transfusions, and injections using contaminated needles or syringes.

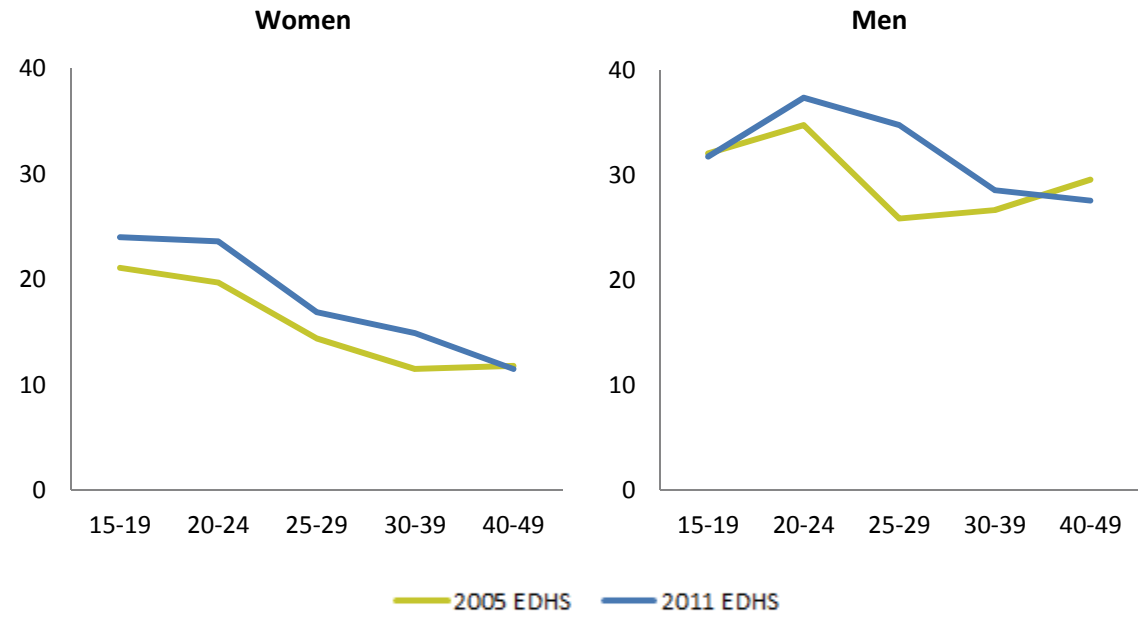
HIV/AIDS is one of the most serious public health and development challenges in sub-Saharan Africa. HIV/AIDS is now affecting all sectors of Ethiopian society. The future course of the HIV/AIDS epidemic in Ethiopia depends on a number of factors including HIV/AIDS-related knowledge, social stigmatisation, risk behaviour modification, access to high-quality services for sexually transmitted infections, provision and uptake of HIV counselling and testing, and access to antiretroviral therapy.

9.1 Comprehensive Knowledge

Comprehensive knowledge about HIV/AIDS is defined as (1) knowing that both condom use and limiting sex partners to one uninfected partner are HIV prevention methods, (2) being aware that a healthy-looking person can have HIV, and (3) rejecting the two most common local misconceptions in Ethiopia—that HIV can be transmitted through mosquito bites and by supernatural means.

Comprehensive knowledge of HIV/AIDS has increased since 2005 among both women and men age 15-49. However, men continue to have greater knowledge at every age group than women. The largest increase in knowledge has been observed among men age 25-29 (Figure 9.1).

Figure 9.1
Percentage of Women and Men 15-49 with Comprehensive Knowledge of HIV/AIDS, by Age Group

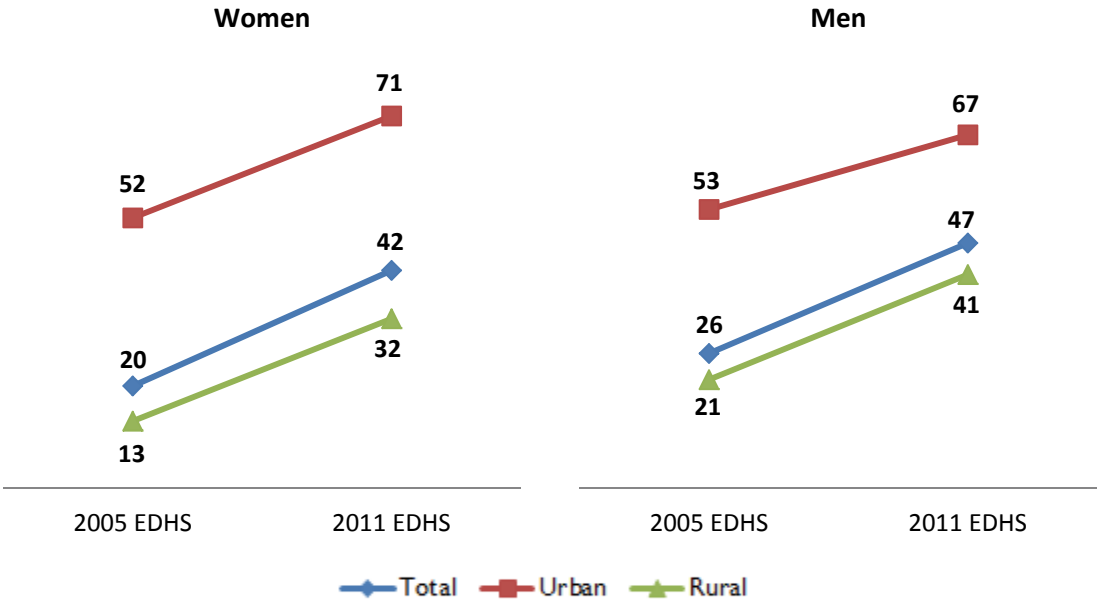


9.2 Knowledge of Mother-to-Child Transmission

Increasing knowledge of ways in which HIV can be transmitted from mother to child and of the fact that the risk of transmission can be reduced by using antiretroviral drugs is critical to reducing mother-to-child transmission (MTCT) of HIV.

Knowledge of MTCT in Ethiopia has increased nearly two-fold for women and men age 15-49 in the last six years. Women and men living in urban areas are more likely to know about MTCT compared with those living in rural areas (Figure 9.2).

Figure 9.2
Percentage of Women and Men 15-49 Who Know That HIV Can be Transmitted by Breast-feeding and the Risk of MTCT Can be Reduced by the Mother Taking Special Drugs During Pregnancy, by Residence

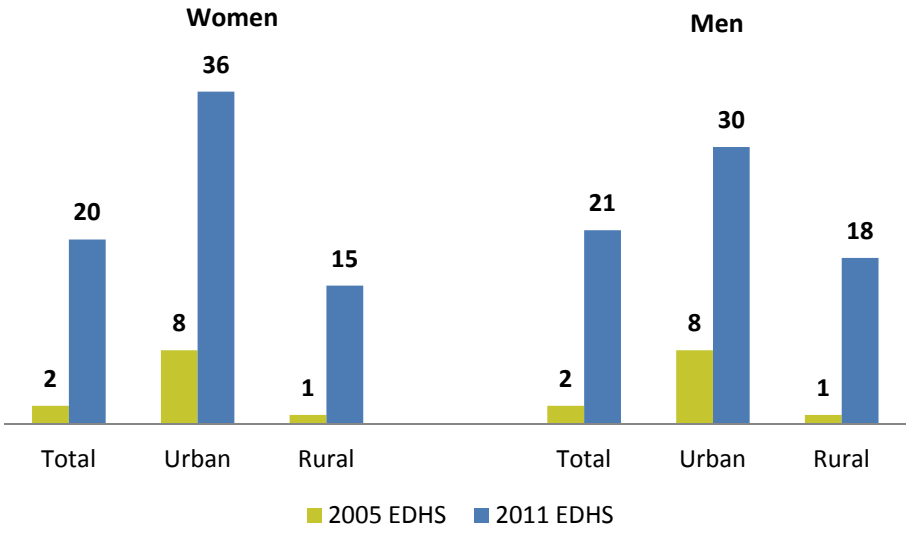


9.3 Recent HIV Test and Result

Knowledge of their HIV status helps HIV negative individuals make specific decisions to reduce their risk and increase safer sex practices so that they can remain free of the disease. For those who are infected with HIV, knowledge of their status allows them to take action to protect their sexual partners, to seek treatment, and to plan for the future.

In 2011 in Ethiopia, 1 in 5 women and men were tested for HIV and received their result during the year preceding the survey (Figure 9.3). This figure is 10 times higher than that observed in 2005, showing an increased awareness and utilization of opportunities for HIV testing and learning one's HIV status.

Figure 9.3
Percentage of Women and Men 15-49 Who Were Tested for HIV in the Twelve Months Preceding the Survey and Received the Results, by Residence



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