

# Uganda Demographic and Health Survey 2011

Uganda Bureau of Statistics Kampala, Uganda

MEASURE DHS ICF International Calverton, Maryland, USA

August 2012















The 2011 Uganda Demographic and Health Survey (2011 UDHS) was implemented by the Uganda Bureau of Statistics from May through December 2011. The funding for the 2011 UDHS was provided by the government of Uganda, USAID, UNFPA, UNICEF, WHO, Irish Aid, and the UK government. ICF International provided technical assistance 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. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Agency for International Development.

Additional information about the 2011 UDHS may be obtained from the Uganda Bureau of Statistics (UBOS), Plot 9 Collville Street, P.O Box 7186, Kampala, Uganda; Telephone: (256-41) 706000; Fax: (256-41) 237553/230370; Email: <a href="mailto:ubos@ubos.org">ubos@ubos.org</a>; Internet: <a href="http://www.ubos.org">http://www.ubos.org</a>.

Information about the MEASURE DHS project may be obtained from ICF International, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, USA; Telephone: 301-572-0200; Fax: 301-572-0999; E-mail: reports@measuredhs.com; Internet: http://www.measuredhs.com.

# Recommended citation:

Uganda Bureau of Statistics (UBOS) and ICF International Inc. 2012. *Uganda Demographic and Health Survey 2011*. Kampala, Uganda: UBOS and Calverton, Maryland: ICF International Inc.

# **PREFACE**

he 2011 Uganda Demographic and Health Survey (2011 UDHS) was designed as a follow-up to the 1988/89, 1995, 2000-01, and 2006 Uganda DHS surveys. The main objective of the 2011 UDHS was to obtain current statistical data on the Ugandan population's demographic characteristics, family planning efforts, maternal mortality, and infant and child mortality. Another objective was to collect information on health care services and activities, antenatal, delivery, and postnatal care, children's immunisations, and management of childhood diseases. In addition, the survey was designed to evaluate the nutritional status of mothers and children, to measure the prevalence of anaemia among women and children, to assess the level of knowledge about HIV and AIDS among men and women, and to determine the extent of interpersonal violence.

The findings of the 2011 UDHS are critical to measurement of the achievements of family planning and other health programmes. To better understand and utilise these findings, the results will be widely disseminated at different planning levels using diverse dissemination techniques to reach the various segments of society.

The Uganda Bureau of Statistics would like to acknowledge the efforts of a number of organisations and individuals who contributed immensely to the success of the survey. The Ministry of Health (MOH) chaired the Technical Working Committee, which offered guidance on the implementation of the survey. The Makerere University School of Public Health (MakSPH) and the Makerere University Department of Biochemistry and Sports Science under the College of Natural Sciences conducted the Quality Control and the laboratory testing for vitamin A deficiency respectively. ICF International is greatly appreciated for providing important technical support.

Financial assistance was provided by the government of Uganda, USAID/Uganda, the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the World Health Organisation (WHO), the UK Government and Irish Aid-the Government of Ireland.

We are grateful for the efforts of officials at national and local government levels who supported the survey. Finally, we highly appreciate all the hard work of field staff and, most important, the contributions of survey respondents whose participation was critical to the successful completion of this survey.

John B. Male-Mukasa Executive Director Uganda Bureau of Statistics

# MILLENNIUM DEVELOPMENT GOAL INDICATORS

Millennium	Davo	lanmant	Cool	Indiantara
willennium	Deve	iobment	Goal	indicators

Uganda 2011

		Se	ex	
Inc	dicator	Female	Male	Total
1.	Eradicate extreme poverty and hunger  1.8 Prevalence of underweight children under five years of age	12.7	14.9	13.8
2.	Achieve universal primary education 2.1 Net attendance ratio in primary education 2.3 Literacy rate of 15-24 year olds <sup>2</sup>	81.0 75.2ª	81.1 77.1	81.0 76.1 <sup>b</sup>
3.	Promote gender equality and empower women 3.1a Ratio of girls to boys in primary education <sup>3</sup> 3.1b Ratio of girls to boys in secondary education <sup>3</sup> 3.1c Ratio of girls to boys in tertiary education <sup>3</sup>	na na na	na na na	1.0 1.1 0.7
4.	Reduce child mortality 4.1 Under five mortality rate <sup>4</sup> 4.2 Infant mortality rate <sup>4</sup> 4.3 Proportion of 1 year-old children immunized against measles	98 59 76.6	114 70 74.8	90 54 75.8
5.	Improve maternal health 5.1 Maternal mortality ratio <sup>5</sup> 5.2 Percentage of births attended by skilled health personnel <sup>6</sup> 5.3 Contraceptive prevalence rate <sup>7</sup> 5.4 Adolescent birth rate <sup>8</sup> 5.5a Antenatal care coverage: at least 1 visit by a skilled health professional 5.5b Antenatal care coverage: four or more visits by any provider 5.6 Unmet need for family planning	na na 30.0 134.5 94.9 47.6 34.3	na na na na na na na	438 58.0 na na na na
6.	Combat HIV/AIDS, malaria and other diseases  6.2 Condom use at last high-risk sex <sup>9</sup> 6.3 Percentage of the population age 15-24 years with comprehensive correct knowledge of HIV/AIDS <sup>10</sup> 6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years  6.7 Percentage of children under 5 sleeping under insecticide treated bednets  6.8 Percentage of children under 5 with fever who are treated with appropriate antimalarial drugs <sup>11</sup>	26.8 a 38.1 a 0.92 44.0 66.7	61.1 39.5 0.83 41.6 62.1	43.9 b 38.8 b 0.87 42.8 64.5
		Resid		
	<del>-</del>	Urban	Rural	Total
7.	<ul> <li>Ensure environmental sustainability</li> <li>7.8 Percentage of population using an improved drinking water source<sup>12</sup></li> <li>7.9 Percentage of population with access to improved sanitation<sup>13</sup></li> </ul>	89.6 26.3	66.6 17.4	70.0 18.7

na = Not applicable

Refers to respondents who attended secondary school or higher or who could read a whole sentence or part of a sentence

Expressed in terms of maternal deaths per 100,000 live births in the 7-year period preceding the survey

<sup>6</sup> Among births in the five years preceding the survey

15-24 who had higher-risk sex in the past 12 months.

any anti-malarial drug <sup>12</sup> Percentage of de-jure population whose main source of drinking water is a household connection (piped), private and public tap, boreholes,

protected /dug well or spring, rain and bottled water

13 Percentage of de-jure population whose household has a flush toilet, ventilated improved pit latrine, pit latrine with a slab, composting toilet,

or Ecosan and does not share this facility with other households

Restricted to men in sub-sample of households selected for the male interview

The rate is based on reported attendance, not enrollment, in primary education among primary school age children (6-12 year-olds). The rate also includes children of primary school age enrolled in secondary education. This is proxy for MDG indicator 2.1, Net enrollment ratio.

<sup>&</sup>lt;sup>3</sup> Based on reported net attendance, not gross enrollment, among 6-12 year-olds for primary, 13-18 year-olds for secondary and 19-24 year-

olds for tertiary education

Expressed in terms of deaths per 1,000 live births. Mortality by sex refers to a 10-year reference period preceding the survey. Mortality rates for males and females combined refer to the 5-year period preceding the survey. The difference in the reference periods explains the apparent inconsistency between the sex-specific and total mortality rates.

Percentage of currently married women age 15-49 using any method of contraception
 Equivalent to the age-specific fertility rate for women age 15-19 for the 3-year preceding the survey, expressed in terms of births per 1,000 women age 15-19

Higher-risk sex refers to sexual intercourse with a non-marital, non-cohabitating partner. Expressed as a percentage of men and women age

Comprehensive knowledge means knowing that consistent use of a condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission or prevention of the AIDS virus.

11 Measured as the percentage of children age 0-59 months who were ill with a fever in the two weeks preceding the interview and received

<sup>&</sup>lt;sup>b</sup> The total is calculated as the simple arithmetic mean of the percentages in the columns for male and females

INTRODUCTION

# **Key Findings**

- The 2011 Uganda Demographic and Health Survey (UDHS) is a nationally representative survey of 10,086 households with 9,247 women age 15-49 and 2,573 men age 15-54.
- The 2011 UDHS is the fifth comprehensive survey conducted in Uganda as part of the worldwide Demographic and Health Surveys project.
- The primary purpose of the UDHS is to furnish policymakers and planners with detailed information on fertility and family planning; infant, child, adult, and maternal mortality; maternal and child health; nutrition; and knowledge of HIV/AIDS and other sexually transmitted infections.
- In all selected households, women age 15-49 and children age 6-59 months were tested for anaemia and for vitamin A deficiency.

# 1.1 HISTORY, GEOGRAPHY, AND ECONOMY

# History

Britain in 1962. Uganda became a republic in 1963 and maintained its British Commonwealth membership. There was conflict between supporters of a centralized state and supporters of a loose federation and a strong role of the tribally-based local kingdoms. In February 1966, the Prime Minister Milton Obote suspended the constitution, removed the president and the vice president, and abolished traditional kingdoms. In 1963, a new constitution proclaimed Uganda a republic and gave President Obote greater power.

In 1971, a military coup led by armed forces commander Idi Amin Dada overthrew President Obote's government. Amin became the President, dissolved the parliament, and amended the constitution to give himself absolute power. During Amin's rule, there was economic decline, social disintegration, and open human rights and ethnic violations. The Ugandan army attacked Tanzania because of a border dispute involving Ugandan exiles who had a camp close to the Ugandan border of Mutukula. In 1978, the Tanzanian armed forces fought against Amin's troops that invaded the Tanzanian territory. In return, the Tanzanian army, helped by Ugandans in exile, started a war against Amin's troops and in April 1979 captured Kampala and forced Amin and his remaining forces to flee to Libya.

After Amin's removal, there was a succession of leaders before the return of President Milton Obote in 1980. The security forces of Uganda had one of the world's worst human rights records under President Obote. He ruled until July 1985, when an army brigade took over and proclaimed a military government. Obote fled to exile in Zambia. The new government was headed by the former defense force commander General Tito Okello. The Okello government carried out a brutal counterinsurgency in an attempt to destroy the support for the National Resistance Army (NRA) led by Yoweri Kaguta Museveni.

Despite negotiations between the Okello government and the NRA and an agreement to a cease-fire in late 1985, the NRA continued the resistance and seized Kampala and the country in late January 1986, forcing Okello's forces to flee to Sudan. The NRA organized a government and proclaimed

Museveni as president. The new government ended human rights abuses of earlier governments in Uganda, instituted broad economic reforms, and started political liberalization and freedom of the press.

The armed resistance against the government has continued since 1986 in northern areas of the country, such as Acholiland. Some of the rebel groups include the Uganda People's Democratic Army, the Holy Spirit Movement, and the Lord's Resistance Army, headed by Joseph Kony, which carried out widespread abduction of children to serve as soldiers or sex slaves. Peace has however started returning to the Northern region and people originally living in internally displaced peoples camps have started settling in their villages.

# Geography

The republic of Uganda is located in East Africa and lies astride the equator. It is a landlocked country that borders Kenya to the east, Tanzania to the south, Rwanda to the southwest, the Democratic Republic of Congo to the west, and South Sudan to the north. The country has an area of 241,039 square kilometres and is administratively divided into 112 districts. Uganda has a decentralized system of governance and several functions have been ceded to the local governments. However, the central government retains the role of formulating policy, setting and supervising standards, and providing national security.

Uganda has a favourable climate because of its relatively high altitude. The Central, Eastern, and Western regions of the country have two rainy seasons per year, with relatively heavy rains from March through May and light rains from September through December. The level of rainfall decreases as one travels northward, turning into just one rainy season a year. The soil fertility varies accordingly, being generally fertile in the Central and Western regions and becoming less fertile as one moves to the east and the north. Because climate varies, Uganda's topography ranges from tropical rain forest vegetation in the south to savannah woodlands and semi-arid vegetation in the north. Climate determines the agricultural potential and thus the land's capacity to sustain human population; population densities are high in the Central and Western regions and decline towards the north.

# **Economy**

The economy is predominantly agricultural, with the majority of the population dependent on subsistence farming and light agro-based industries. The country is self-sufficient in food, although its distribution is uneven over all areas. Coffee remains the main foreign exchange earner for the country. During the period immediately following independence, from 1962 to 1970, Uganda had a flourishing economy with a 5 percent growth Gross Domestic Product (GDP) per annum; this contrasted with a population growth rate of 2.6 percent per annum. In the 1970s through the early 1980s, Uganda faced a period of civil and military unrest, resulting in the destruction of the economic and social infrastructure. The growth of the economy and the provision of social services such as education and health care were seriously affected.

Since 1986, however, the government has introduced and implemented several reform programmes that have steadily reversed prior setbacks and aimed the country towards economic prosperity. Between 2006 and 2011, the country's growth in GDP varied between 5.6 percent and 7.1 percent a year (UBOS, 2006a).

# 1.2 POPULATION

In the past, most demographic statistics in Uganda were derived from population censuses, which began in 1948. Subsequent censuses have been held in 1959, 1969, 1980, 1991, and 2002. In addition, Demographic and Health Surveys have been conducted in 1988-1989, 1995, 2000-2001, 2006, and most recently in 2011, the subject of the present report. Additional demographic data have been obtained from other surveys devoted to specific subjects.

Civil registration was made compulsory in Uganda in 1973. However, its coverage is incomplete, and it is therefore not viable as a source of demographic statistics. Efforts to streamline the system were made between 1974 and 1978, but the achievements from this effort were later frustrated by the economic and civil instability.

Table 1.1 presents several demographic indices compiled from the population censuses of 1969 through 2002. Over that period, the population has increased as a result of high fertility and declining mortality. The annual population growth rate between 1969 and 1980 was 2.7 percent, which decreased to 2.5 percent between 1980 and 1991. Instability in Uganda during the early 1980s may have contributed to this decline. The annual population growth rate increased to 3.2 percent between the 1991 census and the 2002 census. The level of urbanization is still low but has been increasing over time. In 2002, a little more than 12 percent of the population lived in urban areas (UBOS, 2006a).

Table 1.1 Basic demographic indicators											
Selected demographic indicators, Uganda 1969-2002											
Indicator	1969	1980	1991	2002							
Population (thousands) Intercensal growth rate (percent) Density (population/kilometre²)	9,535.1 3.9 48	12,632.2 2.7 64	16,672.7 2.5 85	24,227.3 3.2 124							
Percent urban Life expectancy	6.6 <sup>a</sup>	6.7	9.9	12.3							
Male       46.0       u       45.7       48.8         Female       47.0       u       50.5       52.0											
Total	46.5	u	48.1	50.4							

u = Unknown (not available)

### 1.3 POPULATION AND HEALTH POLICIES

# **National Population Policy**

Uganda's first explicit National Population Policy was promulgated by the government in 1995. That policy elaborated clear strategies with an overall goal of contributing to the improvement of the quality of life of the people of Uganda. Since its foundation, a number of lessons have been learnt. Some important targets were achieved, but others were not. There have also been some major challenges and opportunities at local, regional, and international levels, which need to be taken into account as the country moves forward.

It is against this backdrop that the government began to revise the National Population Policy to accommodate new and emerging challenges. The revised policy is a clarion call to plan for and invest in the increasing population, so that the country's human capital develops to its full potential. Only then can Ugandans hope to benefit from an increasing population as a demographic 'bonus' instead of a demographic 'burden' (POPSEC, 2008). A National Population Action Plan was also developed and rolled out at the subnational level.

# Health Policy

The first Health Sector Strategic Plan (HSSP I) for Uganda covered the period 2000/01 to 2004/05. The plan helped to guide the government of Uganda in its health sector investments, which were led by the Ministry of Health, health development partners (HDPs), and other stakeholders over this period. Continuous monitoring through quarterly and mid-term reviews helped to assess key achievements and challenges during the implementation of HSSP I and formed the basis for the development of HSSP II for the period 2005/06 to 2009/10. HSSP II was completed in June 2010.

<sup>&</sup>lt;sup>a</sup> The 1969 data are based on a different definition of urban Source: UBOS, 2006b

The government of Uganda, with the stewardship of the Ministry of Health (MOH), developed the second National Health Policy (NHP II) to cover a ten-year period from 2010/11 to 2019/20. The third Health Sector Strategic Plan (HSSP III) was developed to operationalize the NHP II and the health sector component of the National Development Plan (NDP) 2010/11-2014/15, which is the overall development plan for Uganda.

The HSSP III provides an overall framework for the health sector. Its major aim is to contribute towards the overall development goal of the government of Uganda by accelerating economic growth to reduce poverty.

# 1.4 OBJECTIVES OF THE 2011 UDHS SURVEY

The 2011 Uganda Demographic and Health Survey (UDHS) was designed to provide information on demographic, health, and family planning status and trends in the country. Specifically, the UDHS collected information on fertility levels, marriage, sexual activity, fertility preferences, breastfeeding practices, and awareness and use of family planning methods. In addition, data were collected on the nutritional status of mothers and young children; infant, child, adult, and maternal mortality; maternal and child health; awareness and behaviour regarding HIV/AIDS and other sexually transmitted infections; and levels of anaemia and vitamin A deficiency.

The 2011 UDHS is a follow-up to the 1988-1989, 1995, 2000-2001, and 2006 UDHS surveys, which were implemented by the Statistics Department of Ministry of Finance and Planning, and later by the Uganda Bureau of Statistics (UBOS). The specific objectives of the 2011 UDHS were as follows:

- To provide data at the national and subnational level that would allow the calculation of demographic rates, particularly fertility and infant mortality rates
- To analyse the direct and indirect factors that determine the level of and trends in fertility and mortality
- To measure the level of contraceptive knowledge and practice of women and men by method, by urban-rural residence, and by region
- To collect data on knowledge and attitudes of women and men about sexually transmitted infections and HIV/AIDS, and to evaluate patterns of recent behaviour regarding condom use
- To assess the nutritional status of children under age 5 and women by means of anthropometric measurements (weight and height), and to assess child feeding practices
- To collect data on family health, including antenatal visits, assistance at delivery, breastfeeding, immunizations, and prevalence and treatment of diarrhoea and other diseases among children under age 5
- To measure vitamin A deficiency in women and children, and to measure anaemia in women, men, and children
- To measure key education indicators, including school attendance ratios and primary school grade repetition and dropout rates
- To collect information on the extent of disability
- To collect information on the extent of gender-based violence

This information is essential for informed policy-making and planning, monitoring, and evaluation of health programmes in general and reproductive health programmes in particular, at both the national and regional levels. A long-term objective of the survey was to strengthen the technical capacity of the National Statistics Office to plan, conduct, process, and analyse data from complex national population and health surveys.

The 2011 UDHS provides national and regional estimates on population and health that are comparable to data collected in Uganda's four previous DHS surveys and similar surveys in other developing countries. Data collected in the 2011 UDHS add to the large and growing international database of demographic and health indicators.

# 1.5 ORGANIZATION OF THE SURVEY

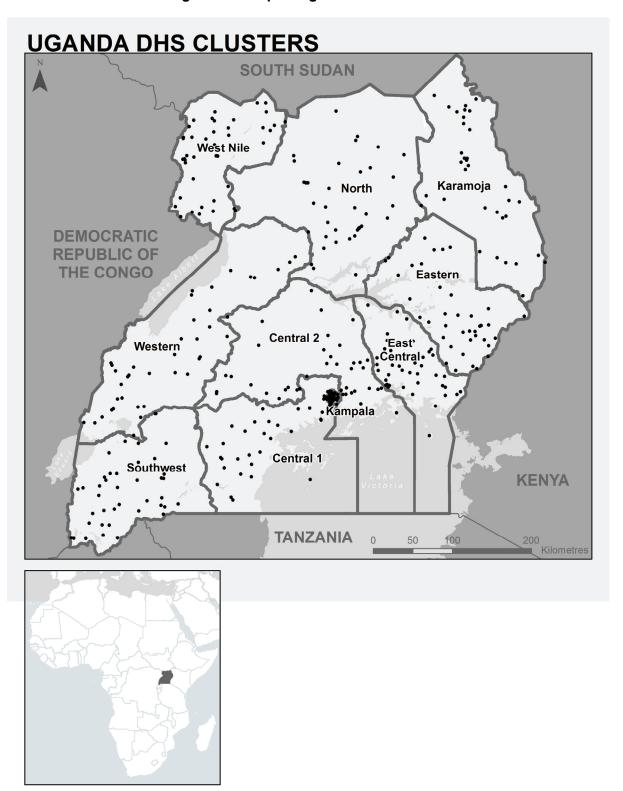
The Uganda Bureau of Statistics (UBOS) was the major implementer of the survey. Other agencies and organizations that facilitated the successful implementation of the survey through their technical support include the Ministry of Health, Makerere University School of Public Health, and the Biochemistry Department of Makerere University. A multi-sect oral Technical Working Committee was also constituted to provide technical backstopping. The same team was also responsible for questionnaire design, training, and report writing. Financial assistance was provided by the government of Uganda, USAID/Uganda, the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the UK Government and Irish Aid-the Government of Ireland.

In addition, ICF International provided limited technical assistance in data processing and report production through the MEASURE DHS project, a USAID-funded program supporting the implementation of population and health surveys in countries worldwide. The UDHS Technical Working Committee, composed of members drawn from the Ministry of Health, the Population Secretariat, and various development partners, oversaw technical issues related to the survey, such as questionnaire design, training, and report writing.

# 1.6 SAMPLE DESIGN

The sample for the 2011 UDHS was designed to provide population and health indicator estimates for the country as a whole and for urban and rural areas separately. Estimates were also reported for the 10 regions of Uganda shown in Figure 1.1.

Figure 1.1 Map of Uganda DHS clusters



A representative sample of 10,086 households was selected for the 2011 UDHS. The sample was selected in two stages. In the first stage, 404 enumeration areas (EAs) were selected from among a list of clusters sampled for the 2009/10 Uganda National Household Survey (2010 UNHS). This matching of samples was done to allow linking of the 2011 UDHS health indicators to poverty data from the 2010 UNHS. The clusters in the UNHS were selected from the 2002 Population Census sample frame.

In the second stage of sampling, households in each cluster were selected from a complete listing of households, which was updated prior to the survey. Households were purposively selected from those listed. All households in the 2010 UNHS that were in the 404 EAs were included in the UDHS sample.

All women age 15-49 who were either permanent residents of the households or visitors who slept in the households the night before the survey were eligible to be interviewed. In addition, in a subsample of one-third of households selected for the survey, all men age 15-54 were eligible to be interviewed if they were either permanent residents or visitors who slept in the household on the night before the survey. Details about the sample design are presented in Appendix A.

# 1.7. QUESTIONNAIRES

Four types of questionnaires were used in the 2011 UDHS: the Household Questionnaire, the Woman's Questionnaire, the Maternal Mortality Questionnaire, and the Man's Questionnaire. These questionnaires were adapted from model survey instruments developed by ICF for the MEASURE DHS project and by UNICEF for the Multiple Indicator Cluster Survey (MICS) project. The intent was to reflect the population and health issues relevant to Uganda. Questionnaires were discussed at a series of meetings with various stakeholders, ranging from government ministries and agencies to nongovernmental organizations (NGOs) and development partners. The questionnaires were translated into seven major languages: Ateso, Ngakarimojong, Luganda, Lugbara, Luo, Runyankole-Rukiga, and Runyoro-Rutoro.

The Household Questionnaire was used to list all the usual members and visitors who spent the previous night in the selected households. Basic information was collected on the characteristics of each person listed, including his or her age, sex, education, relationship to the head of the household, and disability status. For children under age 18, survival status of the parents was determined. Data on the age and sex of household members were used to identify women and men eligible for an individual interview. In addition, the Household Questionnaire collected information on characteristics of the household's dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor of the house, ownership of various durable goods, and ownership and use of mosquito bednets.

The Woman's Questionnaire was used to collect information from all eligible women age 15-49. The eligible women were asked questions on the following topics:

- Background characteristics (age, education, media exposure, etc.)
- Birth history and childhood mortality
- Knowledge and use of family planning methods
- Fertility preferences
- Antenatal, delivery, and postnatal care
- Breastfeeding and infant feeding practices
- Vaccinations and childhood illnesses
- Marriage and sexual activity
- Woman's work and husband's background characteristics
- Awareness and behaviour regarding AIDS and other sexually transmitted infections (STIs)

- Adult mortality, including maternal mortality
- Knowledge of tuberculosis and other health issues
- Gender-based violence

The Maternal Mortality Questionnaire was administered to all eligible women age 15-49 in 35 additional households in 394 out of 404 EAs. It collected data on maternal mortality using the Sibling Survival Module (commonly referred to as the 'Maternal Mortality Module').

The Man's Questionnaire was administered to all eligible men age 15-54 years in every third household in the 2011 UDHS sample. The Man's Questionnaire collected information similar to that in the Woman's Questionnaire but was shorter because it did not contain a detailed reproductive history or questions on maternal and child health.

# 1.8 ANTHROPOMETRY, ANAEMIA, AND HIV TESTING

The 2011 UDHS included height and weight measurements, testing for anaemia, and blood sample collection on filter paper cards for vitamin A testing in the laboratory. The protocol for anaemia testing and for the blood specimen collection for vitamin A testing was similar to that used in the 2006 UDHS.

# Height and Weight Measurement

Height and weight measurements were carried out on eligible women age 15-49 and children under age 5 in all selected households, and eligible men age 15-54 in one-third of the households. Weight measurements were obtained using lightweight, SECA mother-infant scales with a digital screen that were designed and manufactured under the guidance of UNICEF. Height measurements were carried out using a measuring board. Children younger than 24 months were measured for height while lying down, and older children were measured while standing.

# Anaemia Testing

Blood specimens were collected to test for anaemia in all children age 6-59 months, women age 15-49 years, and men age 15-54 years who voluntarily consented to the testing. Blood samples were drawn from a drop of blood taken from a finger prick (or a heel prick in the case of young children with small fingers) and collected in a microcuvette.

Haemoglobin analysis was carried out on site using a battery-operated portable HemoCue analyzer. Results were given verbally and in writing. Parents of children with a haemoglobin level under 7 grams per decilitre (g/dl) were instructed to take the child to a health facility for follow-up care. Likewise, non-pregnant women, pregnant women, and men were referred for follow-up care if their haemoglobin level was below 7 g/dl, 9 g/dl, and 9 g/dl, respectively. All households in which testing was conducted were given a brochure explaining the causes and prevention of anaemia. Resulting data were adjusted for altitude prior to being tabulated.

# Vitamin A Testing

Blood specimens were collected by the health technicians to test for vitamin A in all women age 15-49 who consented and all children age 6-59 months whose parent or responsible adult consented. The protocol for the blood specimen collection and analysis was based on the anonymous linked protocol developed for the MEASURE DHS project. This protocol allows the merging of the vitamin A test results with the socio-demographic data collected from the individual questionnaires, (after removal of all identifying information).

The health technicians explained the procedure, the confidentiality of the data, and the fact that the vitamin A test results would not be made available to the respondent. If a respondent consented to the vitamin A testing, a maximum of three blood drops from the finger prick were collected on a filter paper card to which a barcode label unique to the respondent was affixed. Respondents were asked whether they consented to having the laboratory store their blood sample for future unspecified testing. If the respondent did not consent to additional testing using their sample, the words 'no additional testing' were written on the filter paper card.

Each dried blood spot sample was given a unique barcode label in triplicate. The first copy was affixed to the filter paper card. The second copy was attached to the biomarker data collection page of the Household Questionnaire. The third copy of the barcode label was attached to the blood sample transmittal form to track the blood samples as they moved from the field to the laboratory. Blood samples were dried overnight and packaged for storage the following morning. Samples were periodically collected from the field and transported to the laboratory at the biochemistry department of Makerere University in Kampala to be logged in, checked, and stored.

# 1.9 LISTING, PRETEST, MAIN TRAINING, FIELDWORK, AND DATA PROCESSING

# Listing

A household listing operation was conducted in the 404 selected clusters and 10 regions for about three months, starting in April 2011. For this purpose, 18 listing staff were recruited from the UBOS head office to carry out the household listing and prepare the sketch map for each selected EA. A manual of instructions that described the listing and mapping procedures was prepared as a guideline, and the training involved both classroom demonstrations and field practice. Instructions were given on the use of global positioning system (GPS) units to obtain location coordinates for the selected clusters. The listing was performed by organizing the listing staff into six teams, with two listers per team. Six supervisors were also assigned from the UBOS offices to perform quality checks and handle all administrative and technical aspects of the listing operation. Rounds of supervision were also carried out to assess the quality of the field operation and to ensure proper listing.

# Pretest

Before the start of fieldwork, the questionnaires were pretested in all seven local languages to make sure that the questions were clear and could be understood by the respondents. Thirty field workers, comprising of women and men were hired to conduct the pretest. They were trained from August 30, 2010, to September 14, 2010, on how to administer the UDHS survey questionnaires. Seven days of fieldwork and one day of interviewer debriefing and examination followed. Pretest fieldwork was conducted in two clusters each (one urban and one rural) in seven districts. The majority of pretest participants attended the 2011 UDHS training and served as field editors and team leaders in the survey.

A second pretest was undertaken to test the management and implementation of the computer-assisted field data editing (CAFE) program and, more specifically, to develop data editing guidelines for the 2011 UDHS. The 2011 UDHS marked the first time tablet computers were used to collect data from the field. The data file transfer process was tested using the internet file streaming system (IFSS) developed by the DHS programme, through which data from the field could be transferred to the UBOS main office via the internet.

# Main Training

UBOS recruited and trained 146 field workers to serve as team supervisors, field editors, male and female interviewers, and reserve interviewers for the main survey. The training, which was conducted from 2 May 2011 to 1 June 2011, consisted of instruction regarding interviewing techniques and field procedures, a detailed review of questionnaires, tests, and instruction and practice in weighing and

measuring children. The training also included mock interviews and role plays among participants in the classroom and in the neighbouring villages. Team supervisors and editors were further trained in data quality control procedures and fieldwork coordination. The training mainly used the English questionnaires, while the translated versions were simultaneously checked against the English questionnaires to ensure accurate translation.

# **Fieldwork**

Sixteen data collection teams were formed, each comprised of a team supervisor, a field editor, three female interviewers, one male interviewer, one health technician, and a driver. UBOS staff coordinated and supervised fieldwork activities. USAID/Uganda technical staff also participated in the fieldwork monitoring. A data validation team was formed for each of the 10 regions. Each data validation team included a field supervisor and three interviewers. An independent quality control team that was looking at survey protocol issues also visited the data collection teams. Data collection took place over a six-month period, from end of June 2011 to early December 2011. Fieldwork was carried out in six separate field trips. Between trips, all teams met in Kampala to discuss problems with fieldwork logistics or data collection and to receive feedback and training reinforcement from UBOS staff.

# Data Processing

As mentioned above, questionnaire data were entered in the field by the field editors on each team and the files were periodically sent to the UBOS office by internet. All the paper questionnaires were also returned to UBOS headquarters in Kampala for data processing, which consisted of office editing, coding of open-ended questions, a second data entry, and finally, editing computer-identified errors. The data were processed by a team of eight data entry operators, two office editors, and one data entry supervisor. Data entry and editing were accomplished using CSPro software. The processing of data was initiated in August 2011 and completed in January 2012.

### 1.10 **RESPONSE RATES**

Table 1.2 shows household and individual response rates for the 2011 UDHS. A total of 10,086 households were selected for the sample, of which 9,480 were found to be occupied during data collection. Of these, 9,033 households were successfully interviewed, giving a household response rate of 95 percent.

Of the 9,247 eligible women identified in the selected households, interviews were completed with 8,674 women, yielding a response rate of 94 percent for women.

Of the 2,573 eligible men identified in the selected subsample of households for men, 2,295 were successfully interviewed, yielding a response rate of 89 percent for men.

Response rates were higher in rural than in urban areas, with the rural-urban difference being more pronounced among men (92 and 82 percent, respectively) than among women (95 and 91 percent, respectively).

Table 1.2 Results of the household and individual interviews Number of households, number of interviews, and response rates, according to residence (unweighted), Uganda 2011

	Resid	dence	
Result	Urban	Rural	Total
Household interviews Households selected Households occupied Households interviewed	2,977 2,794 2,551	7,109 6,686 6,482	10,086 9,480 9,033
Household response rate <sup>1</sup>	91.3	96.9	95.3
Interviews with women age 15-49 Number of eligible women Number of eligible women interviewed	2,805 2,562	6,442 6,112	9,247 8,674
Eligible women response rate <sup>2</sup>	91.3	94.9	93.8
Interviews with men age 15-54 Number of eligible men Number of eligible men interviewed	772 631	1,801 1,664	2,573 2,295
Eligible men response rate <sup>2</sup>	81.7	92.4	89.2

Households interviewed/households occupied

<sup>&</sup>lt;sup>2</sup> Respondents interviewed/eligible respondents

CHILD HEALTH 10

# **Key Findings**

- Half of children age 12-23 months (52 percent) were fully vaccinated at the time of the survey, an increase from the level of 46 percent reported in the 2006 UDHS.
- Fifteen percent of children under age 5 showed symptoms of acute respiratory infection (ARI) in the two weeks before the survey; for 79 percent of them, advice or treatment was sought from a health care facility or provider.
- Forty percent of children under age 5 had a fever in the two weeks before the survey; for 80 percent, advice or treatment was requested from a health care facility or provider.
- Twenty-three percent of children under age 5 had diarrhoea, including 4 percent with bloody diarrhoea, in the two weeks before the survey; 72 percent of them were taken for advice or treatment.

his chapter presents findings relevant to child health and survival, including characteristics of the neonate (birth weight and size), the vaccination status of young children, and treatment practices—particularly contact with health services—among children suffering from three childhood illnesses: acute respiratory infection (ARI), fever, and diarrhoea. Because appropriate sanitary practices can help prevent and reduce the severity of diarrhoeal disease, information is also provided on how children's faecal matter is disposed of. These results from the 2011 UDHS are expected to assist policymakers and program managers as they formulate appropriate strategies and interventions to improve the health of children in Uganda. In particular, the results can be used to assess the Health Sector Strategic Plan (HSSP) III. One of the four priority intervention areas of the plan is improving child health, with the goal being to ensure that Uganda achieves Millennium Development Goal 4 (MOH, 2010c).

# 10.1 CHILD'S SIZE AT BIRTH

A child's birth weight or size at birth is an important indicator of the child's vulnerability to the risk of childhood illnesses and the child's chances of survival. Children whose birth weight is less than 2.5 kilograms, or children reported to be 'very small' or 'smaller than average, have a higher-than-average risk of early childhood death. The 2011 UDHS questionnaire recorded birth weight, if available from written records or mother's recall, for all births in the five years preceding the survey. Because birth weight may not be known for many babies, and particularly for babies delivered at home and not weighed at birth, the mother's estimate of the baby's size at birth was also obtained. Although subjective, mothers' estimates can be a useful proxy for the weight of the child. Table 10.1 presents information on children's weight and size at birth.

Table 10.1 Child's weight and size at birth

Percentage of live births in the five years preceding the survey that have a reported birth weight; among live births in the five years preceding the survey that have a reported birth weight, percent distribution by birth weight; and percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics, Uganda 2011

	Percentage of all births	Perce	ent distribution reported bir		with a	Per	cent distribu	tion of all live b	oirths by size	e of child a	t birth
Background characteristic	that have a reported birth weight <sup>1</sup>	Less than 2.5 kg	2.5 kg or more	Total	Number of births	Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Number of births
Mother's age at birth											
<20	57.9	13.5	86.5	100.0	782	6.3	20.2	71.6	2.0	100.0	1,351
20-34	50.1	9.7	90.3	100.0	2,823	5.0	14.8	77.5	2.7	100.0	5,632
35-49	43.3	7.9	92.1	100.0	474	6.4	12.3	78.5	2.8	100.0	1,092
Birth order											
1	64.4	13.0	87.0	100.0	917	6.4	19.5	72.5	1.6	100.0	1,423
2-3	55.3	10.4	89.6	100.0	1,396	4.7	15.2	76.9	3.2	100.0	2,523
4-5	45.1	9.5	90.5	100.0	819	5.4	14.8	77.7	2.1	100.0	1,816
6+	40.9	8.0	92.0	100.0	947	5.4	13.4	78.2	3.0	100.0	2,313
Mother's smoking status Smokes cigarettes/											
tobacco	(35.0)	(12.9)	(87.1)	100.0	23	5.2	7.3	85.9	1.6	100.0	66
Does not smoke	50.6	10.2	89.8	100.0	4,049	5.4	15.4	76.6	2.6	100.0	8,000
Residence											
Urban	86.4	11.3	88.7	100.0	991	5.3	14.6	78.6	1.5	100.0	1,147
Rural	44.5	9.9	90.1	100.0	3,087	5.4	15.5	76.4	2.8	100.0	6,928
Region											
Kampala	90.8	10.5	89.5	100.0	444	3.9	13.6	80.8	1.7	100.0	489
Central 1	49.9	14.4	85.6	100.0	399	5.4	16.5	76.6	1.4	100.0	797
Central 2	57.1	12.5	87.5	100.0	481	4.0	18.4	71.0	6.6	100.0	842
East Central	49.0	11.9	88.1	100.0	452	8.4	19.6	69.9	2.0	100.0	923
Eastern	50.4	6.8	93.2	100.0	685	4.0	14.7	79.1	2.2	100.0	1,358
Karamoja	25.1	9.8	90.2	100.0	81	9.9	20.4	69.5	0.2	100.0	322
North	53.1	11.4	88.6	100.0	374	5.1	11.5	74.3	9.1	100.0	704
West Nile	58.3	10.6	89.4	100.0	282	8.3	20.2	68.0	3.5	100.0	484
Western	48.3	8.3	91.7	100.0	568	5.0	12.9	81.6	0.6	100.0	1,177
Southwest	31.9	7.9	92.1	100.0	312	4.0	10.9	85.1	0.0	100.0	978
Mother's education											
No education	29.0	9.9	90.1	100.0	337	7.4	14.6	74.5	3.4	100.0	1,161
Primary	46.7	10.2	89.8	100.0	2,412	5.3	15.6	76.3	2.8	100.0	5,161
Secondary+	75.8	10.4	89.6	100.0	1,329	4.2	14.9	79.2	1.6	100.0	1,754
Wealth quintile											
Lowest	39.5	10.5	89.5	100.0	716	7.5	16.5	71.9	4.2	100.0	1,812
Second	41.0	8.5	91.5	100.0	709	4.7	15.9	76.6	2.7	100.0	1,727
Middle	44.2	9.3	90.7	100.0	714	4.9	14.2	78.9	2.1	100.0	1,616
Fourth	51.8	10.9	89.1	100.0	739	4.1	15.0	78.0	2.9	100.0	1,425
Highest	80.2	11.2	88.8	100.0	1,200	5.3	14.9	78.9	0.9	100.0	1,496
Total	50.5	10.2	89.8	100.0	4,078	5.4	15.3	76.7	2.6	100.0	8,076
· Ottal	50.5	10.2	00.0	100.0	4,010	J. <del>-</del>	10.0	10.1	2.0	100.0	0,070

Figures in parentheses are based on 25-49 unweighted cases.

Half of the children (51 percent) in Uganda are weighed at birth, a practice that has steadily increased in the past few years since the 2006 UDHS when only 35 percent of newborns were reported to have been weighed. This is not surprising because a substantial percentage of births in Uganda take place in a health facility (see Chapter 9). Among children born in the five years before the survey with a reported birth weight, 10 percent had a low birth weight (less than 2.5 kg). In Uganda, low birth weight of children tends to decrease as a woman's age at birth increases. For example, younger mothers, those less than age 20, are more likely than women age 35-49 to have infants with low birth weight (14 percent and 8 percent, respectively). By birth order, first births are more likely to result in low birth weight relative to subsequent births. The likelihood of low birth weight decreases as birth order increases.

The birth weight of a child also varies somewhat by mother's region of residence. Low birth weight ranges from a low of 7 percent in the Eastern region to a high of 14 percent in the Central 1 region. There is no clear relationship between low birth weight and urban or rural residence, mother's education, or wealth quintile.

<sup>&</sup>lt;sup>1</sup> Based on either a written record or the mother's recall

As noted, a mother's subjective assessment of the size of the baby at birth, in the absence of birth weight, may be useful. Mothers reported 5 percent of all live births in the five years preceding the survey to be very small and 15 percent as smaller than average. Children born to very young mothers (<20 years) and first-order births are the most likely to be reported as very small or smaller than average. In addition, children of mothers with less than secondary education and children born to mothers in the lowest wealth quintile are slightly more likely to be reported as very small or smaller than average at birth. Among the regions, nearly three in ten children born to mothers residing in Karamoja (30 percent), West Nile (29 percent), and East Central (28 percent) were reported as either very small or smaller than average at birth.

# 10.2 VACCINATION COVERAGE

Immunization of children against the eight vaccine-preventable diseases (tuberculosis, diphtheria, whooping cough (pertussis), tetanus, hepatitis B, Haemophilus influenzae, polio, and measles) is crucial to reducing infant and child mortality. Differences in vaccination coverage among subgroups of the population are useful for programme planning and targeting resources to areas most in need. Additionally, information on immunization coverage is important for the monitoring and evaluation of the Expanded Programme on Immunization (EPI).

According to guidelines developed by the World Health Organization, children are considered fully vaccinated when they have received a vaccination against tuberculosis (BCG), three doses each of the diphtheria, pertussis, and tetanus (DPT) and polio vaccines, and a measles vaccination by the age of 12 months. The pentavalent vaccine DPT-HepB-Hib that protects against diphtheria, pertussis (whooping cough), tetanus, hepatitis B, and Haemophilus influenzae type b has replaced the DPT vaccine. In Uganda, the vaccination policy calls for BCG vaccine given at birth or at first clinical contact, three doses of DPT-HepB-Hib vaccine given at approximately age 4, 8, and 12 weeks, four doses of oral polio vaccine given approximately at age 0-2, 4, 8, and 12 weeks, and measles vaccine given at or soon after reaching age 9 months.

Information on vaccination coverage was obtained in two ways – from child health cards and from mothers' verbal reports. All mothers were asked to show the interviewer the child health cards in which immunization dates were recorded for all children born since January 2006. If a card was available, the interviewer recorded onto the questionnaire the dates of each vaccination received by the child. If a child never received a health card, if the mother was unable to show the card to the interviewer, or if a particular vaccination was not recorded on the child's health card, the vaccination information for the child was based on the mother's report.

Questions were asked for each vaccine type. Mothers were asked to recall whether the child had received BCG, polio, pentavalent (DPT-HepB-Hib), and measles vaccinations. If the mother indicated that the child had received the polio or DPT/pentavalent vaccines, she was asked about the number of doses that the child received. The mother was then asked whether the child had received other vaccinations that were not recorded on the card, and they too were noted on the questionnaire. The results presented here are based on both health card information and, for children without a card, information provided by the mother.

Table 10.2 presents information on vaccination coverage for children age 12-23 months. Coverage levels include data from both health cards and verbal reports of mothers. Overall, only 52 percent of children age 12-23 months are fully vaccinated: almost all (94 percent) had received the BCG vaccine, 72 percent had received DPT 1-3 vaccinations, 63 percent had received polio 1-3, and 76 percent had received the measles vaccine at any time before the survey. Four percent of children age 12-23 months have not received any vaccinations. The coverage of the first DPT and polio vaccine is very high (93 percent for each). However, coverage for all three vaccination dosages of DPT and polio declines with subsequent doses; only 72 percent of children received all three DPT vaccines and 63 percent of children received all three of the recommended polio vaccinations. These figures reflect dropout rates (the proportion of

children who received the first dose of a vaccine but who did not get the third dose) of 23 percent for DPT and 33 percent for polio.

Table 10.2 also shows vaccination coverage for children who have reached age 12 months. The coverage rates for each vaccination by the time the child reaches 12 months is a measure of the children receiving vaccines on time. Overall, only 4 in 10 children are fully vaccinated by 12 months, while 6 in 10 are not.

Table 10.2 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by age 12 months, Uganda 2011

			DPT			Po	olio <sup>1</sup>			All basic	Nọ	Number
Source of information	BCG	DPT 1	DPT 2	DPT 3	Polio 0	Polio 1	Polio 2	Polio 3	Measles	vaccina- tions <sup>2</sup>	vaccina- tions	of children
Vaccinated at any time before survey Vaccination card Mother's report Either source	58.2 35.5 93.7	58.0 35.1 93.1	55.2 30.3 85.4	49.8 21.7 71.5	41.8 25.4 67.1	58.2 35.0 93.3	54.8 28.5 83.4	49.1 13.8 62.9	47.1 28.7 75.8	42.4 9.2 51.6	0.0 3.7 3.7	876 604 1,480
Vaccinated by 12 months of age <sup>3</sup>	92.1	91.4	83.6	67.9	66.1	90.9	81.1	59.5	58.4	40.3	5.6	1,480

Polio 0 is the polio vaccination given at birth

Table 10.3 presents information on vaccine coverage among children age 12-23 months from vaccination cards and mother's report, by background characteristics. There is no notable difference in vaccination coverage between male and female children. Vaccination coverage decreases as birth order increases; first births are more likely to be fully immunised (58 percent) than births of order six and higher (43 percent). Children living in urban areas are more likely than those living in rural area to be fullyvaccinated (61 percent and 50 percent, respectively). Among the regions, the proportion of children that received all of their basic vaccinations varies. Children residing in Kampala are the most likely to have received all of their vaccinations (63 percent), while children living in the East Central region (39 percent) are the least likely to be fully immunized when compared with children living in other regions. Vaccination coverage increases as the educational attainment of a child's mother also increases. For example, 45 percent of children whose mothers have no education are fully immunized compared with 62 percent among children of mothers with secondary or higher education. Similarly, children in households in the middle wealth quintile are slightly less likely to have been fully immunized compared with children in households in the other wealth quintiles.

Table 10.3 also shows that an immunization card/book was seen for 59 percent of children age 12-23 months. A higher proportion of first-order births (62 percent), children living in rural areas (60 percent), children living in the Southwest region (74 percent), and children of mothers with at least some education (60 percent) had a vaccination card seen compared with their counterparts. Children of households in the highest wealth quintile were less likely to have a vaccination card seen compared with children in the other quintiles.

FOCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

For children whose information is based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccination

Table 10.3 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, Uganda 2011

			DPT			Po	olio <sup>1</sup>			All basic	Nọ	Percent- age with a vaccina-	Number
Background characteristic	BCG	DPT 1	DPT 2	DPT 3	Polio 0	Polio 1	Polio 2	Polio 3	Measles	vaccina- tions <sup>2</sup>	vaccina- tions	tion card seen	of children
Sex													
Male	94.1	94.3	87.9	72.0	67.8	94.2	84.4	63.9	74.8	51.6	3.0	59.6	679
Female	93.3	92.0	83.3	71.0	66.6	92.5	82.5	62.1	76.6	51.7	4.4	58.9	800
Birth order													
1	94.9	93.7	85.5	74.2	69.0	94.8	85.0	68.2	80.5	57.9	3.8	62.1	278
2-3	95.2	95.0	90.2	77.0	69.8	95.1	86.5	67.4	78.9	57.6	2.2	59.4	460
4-5	94.2	94.0	84.5	72.1	68.7	92.8	84.2	60.1	77.7	48.7	3.1	60.7	318
6+	90.9	89.9	80.9	63.1	61.8	90.7	78.3	56.7	67.9	43.3	5.8	55.9	425
Residence													
Urban	96.3	94.6	87.7	75.4	83.3	92.1	83.3	69.2	8.08	60.8	3.4	55.3	204
Rural	93.3	92.8	85.1	70.8	64.5	93.5	83.4	61.9	75.0	50.2	3.8	59.8	1,275
Region													
Kampala	94.6	91.8	85.9	73.5	76.3	91.6	82.1	71.6	82.0	63.4	5.4	54.1	86
Central 1	85.2	84.4	79.8	66.4	55.3	87.3	78.2	51.1	75.0	43.9	10.1	44.0	153
Central 2	94.5	89.3	80.1	61.7	67.3	91.9	78.6	54.0	70.7	43.0	3.3	52.9	169
East Central	95.5	94.1	79.6	52.8	67.0	93.3	81.2	54.3	71.4	39.2	1.3	53.1	169
Eastern	97.5	95.4	89.3	74.2	81.2	97.3	87.5	62.3	76.8	52.4	0.6	54.0	260
Karamoja	99.8	98.7	93.6	89.5	93.1	97.7	88.7	65.4	90.6	62.2	0.2	62.6	58
North	94.0	95.3	89.1	73.4	77.5	93.4	80.3	59.5	72.0	49.0	2.4	68.4	140
West Nile Western	98.5	97.6	90.0	82.0	91.9	97.4 05.4	90.2	64.3	77.7	52.1	0.0	67.4	78 106
Southwest	95.4 85.9	98.2 88.9	86.9 86.1	77.6 79.2	55.2 36.7	95.1 88.9	83.9 86.2	72.2 78.1	81.7 71.4	59.7 61.6	1.8 11.1	66.9 74.2	196 171
	05.5	00.9	00.1	19.2	30.7	00.9	00.2	70.1	71.4	01.0	11.1	14.2	17.1
Mother's education		00.4				0.4 =	<b>-</b> 0.4	4	=0.0		- 0		404
No education	92.5	93.1	81.4	69.7	63.8	91.5	79.4	55.1	72.6	45.0	5.2	54.7	191
Primary	93.8	93.1	84.9	68.9	64.1	93.8	83.0	61.9	73.7	49.2	3.1	59.7	937
Secondary+	94.0	93.0	89.2	79.2	77.1	92.8	86.4	69.8	83.1	61.7	4.6	60.4	351
Wealth quintile													
Lowest	95.6	94.3	87.7	73.8	71.3	95.3	86.1	8.06	75.1	50.6	2.3	61.4	328
Second	94.6	95.4	88.2	71.6	64.3	93.9	83.7	65.5	72.1	51.4	3.0	64.6	321
Middle	92.4	91.0	80.8	66.0	57.7	94.4	79.6	61.5	74.1	48.7	3.1	61.1	271
Fourth	90.6	90.3	83.6	70.6	64.8	89.3	83.1	62.3	76.4	52.6	6.8	57.1	276
Highest	94.7	93.7	86.0	74.7	76.8	92.9	83.7	64.3	81.6	54.9	3.9	50.7	283
Total	93.7	93.1	85.4	71.5	67.1	93.3	83.4	62.9	75.8	51.6	3.7	59.2	1,480

<sup>&</sup>lt;sup>1</sup> Polio 0 is the polio vaccination given at birth.

# 10.3 TRENDS IN VACCINATION COVERAGE

Trends in vaccination coverage can be seen by comparing coverage among children of different age groups in the 2011 UDHS. Table 10.4 shows the percentage of children who have received vaccinations during the first year of life by current age. These data provide information on trends in vaccination coverage over the past five years.

The percentage of children who have received no vaccinations at all by age 12 months has remained constant over the past four years. At the time of the survey, 6 percent of children age 48-59 months had not received any vaccinations compared with 6 percent of children age 12-23 months. Among children who had received all basic vaccinations by age 12 months, there is a slight increase, from 38 percent of children age 48-59 months to 40 percent of children age 12-23 months within the same period. This shows some improvement in vaccination coverage in recent years. Not surprisingly, vaccination cards were shown for 59 percent of children age 12-23 months but for only 43 percent of children age 48-59 months. This may be because vaccination cards for older children have been discarded or lost.

<sup>&</sup>lt;sup>2</sup> BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

### Table 10.4 Vaccinations in first year of life

Percentage of children age 12-59 months at the time of the survey who received specific vaccines by age 12 months, and percentage with a vaccination card, by current age of child, Uganda 2011

Age in		DPT Po		lio <sup>1</sup>			All basic	No vaccina-	Percentage with a vaccination card	Number of			
months	BCG	DPT 1	DPT 2	DPT 3	Polio 0	Polio 1	Polio 2	Polio 3	Measles	tions <sup>2</sup>	tions	seen	children
12-23	92.1	91.4	83.6	67.9	66.1	90.9	81.1	59.5	58.4	40.3	5.6	59.2	1,480
24-35	92.7	90.4	81.3	64.3	66.9	90.6	81.0	55.2	58.5	37.0	6.7	46.6	1,515
36-47	91.1	90.4	82.1	66.7	64.4	90.4	79.2	54.8	60.6	37.1	6.9	44.7	1,473
48-59	93.0	90.5	81.6	65.0	63.7	91.6	82.3	54.0	63.9	38.2	6.0	43.0	1,438
12-59	92.3	90.8	82.3	66.1	65.3	90.9	81.1	56.0	60.5	38.2	6.2	48.4	5,906

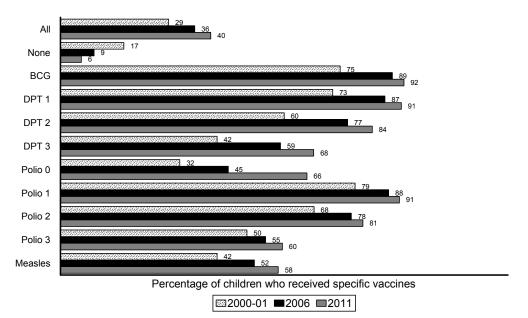
Note: Information was obtained from the vaccination card or, if there was no written record, from the mother. For children whose information is based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccinations.

1 Polio 0 is the polio vaccination given at birth.

Trends in immunization coverage can also be identified by comparing data collected from the UDHS throughout the years. Figure 10.1 shows trends in vaccination coverage seen by comparing the results of the 2000-01, 2006, and 2011 UDHS surveys. It should be noted that the 2006 and 2011 UDHS surveys collected data from the entire country, but the 2000-01 survey excluded several districts for security reasons. Therefore, the trends presented here should be interpreted in that light.

Figure 10.1 shows that vaccination coverage in Uganda has improved over the past ten years. The percentage of children age 12-23 months fully vaccinated by 12 months of age has increased from 29 percent in 2000-01 to 36 percent in 2006 and 40 percent in 2011. There has also been a steady decrease in the proportion of children who received none of the basic, recommended vaccinations, from 17 percent in 2000-2001 to 9 percent in 2006 and to 6 percent in 2011. The percentage of children who received each specific vaccination has also increased in the past ten years.

Figure 10.1 Trends in vaccination coverage during the first year of life among children 12-23 months



Note: In the 2000-2001 UDHS, areas making up the current districts of Amuru, Bundibugyo, Gulu, Kasese, Kitgum, and Pader, comprising around 7 percent of the national population of Uganda, were excluded from the sample. Thus, the trends need to be viewed in that light.

<sup>&</sup>lt;sup>2</sup> BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

# 10.4 ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI) is among the leading causes of child morbidity and mortality in Uganda and throughout the world. Pneumonia is the most serious illness of ARI in young children. Early diagnosis and treatment of pneumonia with antibiotics can prevent a large proportion of deaths. In the 2011

UDHS, ARI prevalence was estimated by asking mothers whether anv of their children under age 5 had been ill with a cough accompanied by short, rapid breathing in the two weeks preceding the survey. These data are subjective (i.e., the mother's based on perception of illness) and not validated by a medical examination.

Table 10.5 shows the percentage of children under age 5 who experienced symptoms of ARI in the two weeks preceding the survey. Fifteen percent of children showed symptoms of ARI in the two weeks before the survey. The percentage of children with reported ARI symptoms peaks at age 6-11 months (21 percent) and declines thereafter. There no significant are differences prevalence of ARI between female and male children. Slightly more children of mothers who do not smoke experience ARI symptoms (15 percent) when compared with children of mothers who smoke (13 percent). Furthermore, children living households that use Table 10.5 Prevalence and treatment of symptoms of ARI

Among children under age 5, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and among children with symptoms of ARI, the percentage for whom advice or treatment was sought from a health facility or provider and the percentage who received antibiotics as treatment, according to background characteristics, Uganda 2011

Among children under age 5 with

				mptoms of ARI:	: 5 With
	Among o under a		Percentage for whom advice or	•	
Background characteristic	Percentage with symptoms of ARI <sup>1</sup>	Number of children	treatment was sought from a health facility or provider <sup>2</sup>	Percentage who received antibiotics	Number of children
Age in months					
<6	13.9	802	68.4	57.1	112
6-11 12-23	20.7 18.3	827 1.480	78.3 83.0	56.2 49.6	171 271
24-35	18.3	1,480	78.8	49.6 45.6	2/1
36-47	12.5	1,473	81.3	42.2	184
48-59	11.7	1,438	75.9	36.6	168
Sex					
Male	15.4	3,757	74.9	45.6	578
Female	14.3	3,778	82.8	49.4	540
Mother's smoking					
status					
Smokes cigarettes/ tobacco	13.3	62	*	*	8
Does not smoke	14.9	7,463	78.7	47.0	1,109
Cooking fuel	11.0	7,100	70.7	17.0	1,100
Charcoal	11.4	1,515	82.6	65.9	172
Wood/straw <sup>3</sup>	15.8	5,979	78.0	44.1	946
Residence					
Urban	13.0	1,089	80.8	60.0	141
Rural	15.2	6,447	78.4	45.6	977
Region					
Kampala	13.9	467	87.2	65.5	65
Central 1 Central 2	9.4 11.9	743 794	78.7 78.9	53.9 51.8	70 94
East Central	15.1	852	78.3	33.3	129
Eastern	16.7	1,284	80.0	37.4	214
Karamoja	20.0	281	86.0	29.8	56
North	22.1	669	80.5	43.6	148
West Nile	14.0	446	81.3	53.5	62
Western	16.8	1,096	76.0	68.6	184
Southwest	10.6	903	66.8	39.4	96
Mother's education No education	15.0	1,081	69.6	42.1	162
Primary	15.8	4,792	79.9	43.5	755
Secondary+	12.1	1,662	81.6	66.5	201
Wealth quintile		•			
Lowest	20.1	1,673	77.8	40.3	336
Second	16.5	1,594	78.9	42.7	263
Middle	12.6	1,510	78.1	55.0	190
Fourth	12.1 11.9	1,331	77.2 82.3	45.2 62.6	161 170
Highest	11.9	1,428	62.3 78.7	62.6 47.4	
Total	14.8	7,535	18.1	41.4	1,118

An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

wood/straw for cooking are more likely to exhibit symptoms of ARI than children living in households using charcoal (16 percent compared with 11 percent).

<sup>&</sup>lt;sup>1</sup> Symptoms of ARI (cough accompanied by short, rapid breathing, which was chest-related, and/or by difficult breathing, which was chest-related) is considered a proxy for pneumonia

difficult breathing, which was chest-related) is considered a proxy for pneumonic <sup>2</sup> Excludes pharmacy, shop, and traditional practitioner

Includes grass, shrubs, crop residues

A slightly lower proportion of children in rural areas have symptoms of ARI than do children in urban areas. The proportion of children with ARI symptoms ranges from 9 percent of children living in the Central 1 region to 22 percent of children in the North region. ARI prevalence tends to decrease with a woman's increase in educational attainment. Children of mothers with only primary education are slightly more likely to experience ARI symptoms (16 percent) than children of mothers with secondary or higher education (12 percent). ARI symptoms are less common in children in higher wealth quintiles compared with those in the lower quintiles. For example, children in the lowest wealth quintile are 1.7 times more likely to have experienced ARI symptoms in the past two weeks compared with those in the highest wealth quintile (20 percent and 12 percent, respectively).

Almost eight in ten children under age 5 with symptoms of ARI (79 percent) were taken to a health facility or provider for advice or treatment. This represents a slight increase over 73 percent in 2006. Health-treatment-seeking behaviour for children with ARI symptoms is more common among children age 12-23 months, female children, and those living in households that cook with charcoal. Urban children are also more likely than rural children to have been taken to a health facility or provider for treatment, as are those children residing in Kampala. Children of women with no education are least likely to be taken to a health facility or provider when they have ARI symptoms compared with children of mothers with secondary education or higher (70 percent and 82 percent, respectively).

Overall, almost half (47 percent) of children with ARI symptoms received antibiotics. The likelihood of receiving antibiotics increases with the mother's education but decreases among older children. Urban children are more likely than those living in rural areas to have received an antibiotic for their ARI symptoms (60 percent and 46 percent, respectively).

# 10.5 FEVER

Fever is a symptom of malaria, but it may also be due to other illnesses, including pneumonia, common colds, and influenza. Because malaria is a major cause of death in infancy and childhood in many developing countries, the presumptive treatment of fever with antimalarial medication has been advocated in many countries where malaria is endemic. Although fever can occur year-round, malaria is more prevalent after the end of the rainy season (June-July and November-December), which coincided with the UDHS fieldwork (June-December). The temporal factors must be taken into account when interpreting fever as an indicator of malaria prevalence. The prevention and treatment of malaria is discussed in detail in Chapter 12.

Table 10.6 shows the percentage of children under 5 with fever during the two weeks preceding the survey, the percentage for whom advice or treatment was sought from a health facility or provider, and the percentage receiving various treatments, by selected background characteristics. Overall, two-fifths of children under age 5 were reported to have had fever in the two weeks preceding the survey. The prevalence of fever varies by the age of the child. The prevalence of fever increases as the children's age increases until it peaks among children 12-23 months (48 percent). Thereafter, the proportion of children reporting fever decreases. There is no difference in the prevalence of fever by sex of the child. However, there is notable difference in the prevalence of fever between children in urban and rural areas. Three in ten urban children under age 5 were reported to have had fever in the two weeks preceding the survey compared with more than four in ten (42 percent) rural children. Regional variations are also present; prevalence of fever ranges from a low of 13 percent in the Southwest region to a high of 69 percent in the East Central region.

Children of mothers with only primary education (43 percent) have the highest prevalence of fever when compared with their counterparts. The proportion of children with fever decreases with increasing wealth quintile of the household, from a high of 50 percent among children living in households in the lowest wealth quintile to a low of 30 percent among children living in households in the highest wealth quintile.

Four-fifths of children with fever were taken to a health facility or provider for treatment. Children under 6 months were less likely to be taken to a health facility or provider for treatment compared with the other children. Likewise, children living in the East Central region were less likely to be treated in a health facility or by a provider when compared with children living in other regions. Urban children are more likely than rural children to have been taken to a health facility or provider for advice or treatment. A higher proportion of children whose mothers have secondary education or higher, and children of households in the highest wealth quintile were taken for treatment or advice compared with their counterparts. Children with fever were more likely to have received an antimalarial drug than an antibiotic: 65 percent of children with fever received antimalarial drugs, and 32 percent received antibiotic drugs. Use of antimalarial and antibiotic drugs among children varies by background characteristics. The differences are similar to those observed for children for whom advice or treatment was sought from a health facility or provider.

Table 10.6 Prevalence and treatment of fever

Among children under age 5, the percentage who had a fever in the two weeks preceding the survey; and among children with fever, the percentage for whom advice or treatment was sought from a health facility or provider, percentage who took antimalarial drugs, and percentage who received antibiotics as treatment, by background characteristics, Uganda 2011

			Am	nong children un	der age 5 with feve	er
	Among childrer Percentage	Number	Percentage for whom advice or treatment was sought from a	Percentage who took	Percentage who took	Number
Background	with	of children	health facility	antimalarial	antibiotic	of children
characteristic	fever	chilaren	or provider <sup>1</sup>	drugs	drugs	children
Age in months						
<6	26.3	802	75.0	31.9	46.9	211
6-11	46.6	827	81.2	60.7	38.0	385
12-23	48.4	1,480	82.1	68.7	30.6	716
24-35	43.0	1,515	80.9	67.7	33.0	651
36-47	37.7	1,473	81.1	66.8	29.3	555
48-59	36.4	1,438	76.6	68.2	27.0	524
Sex						
Male	39.3	3,757	78.2	62.1	31.4	1,478
Female	41.4	3,778	81.9	66.7	33.2	1,564
Residence						
Urban	30.3	1,089	87.2	63.4	43.8	330
Rural	42.1	6,447	79.2	64.6	30.9	2,712
Region						
Kampala	24.0	467	88.2	60.2	50.3	112
Central 1	42.4	743	85.0	63.4	33.5	315
Central 2	42.4	794	82.4	59.4	34.3	337
East Central	69.3	852	67.1	46.0	30.1	590
Eastern	55.6	1,284	79.8	75.9	27.5	714
Karamoja	40.9	281	88.4	75.5	28.5	115
North	38.5	669	87.8	79.7	26.5	258
West Nile	37.6	446	82.7	70.6	30.0	168
Western	29.1	1,096	87.9	66.4	49.2	319
Southwest	12.7	903	69.7	50.7	21.0	115
Mother's education						
No education	39.7	1,081	74.6	56.3	29.1	430
Primary	43.1	4,792	80.0	66.1	30.8	2,064
Secondary+	33.0	1,662	84.7	64.9	40.4	549
Wealth quintile						
Lowest	49.8	1,673	78.8	64.5	28.0	832
Second	42.6	1,594	79.1	66.6	27.5	679
Middle	36.8	1,510	82.3	62.2	33.9	556
Fourth	40.7	1,331	77.6	61.9	34.4	542
Highest	30.3	1,428	84.5	67.4	43.8	432
Total	40.4	7,535	80.1	64.5	32.3	3,042

<sup>&</sup>lt;sup>1</sup> Excludes pharmacy, shop, and traditional practitioner

# 10.6 DIARRHOEAL DISEASE

Dehydration caused by severe diarrhoea is a major cause of morbidity and mortality among young children, although the condition can be easily treated with oral rehydration therapy (ORT). Exposure to diarrhoea-causing agents is frequently related to the use of contaminated water and to unhygienic practices in food preparation and disposal of excreta. In the 2011 UDHS, mothers were asked whether any of their children under age 5 had diarrhoea at any time during the two-week period preceding the survey. If the child had had diarrhoea, the mother was asked about feeding practices during the diarrhoeal episode. The mother was also asked whether there was blood in the child's stools. Diarrhoea with blood in the stools needs to be treated differently from diarrhoea, which is not accompanied by blood in the stools.

Prevalence of diarrhoea is affected by the mother's perception of diarrhoea as an illness and her capacity to recall the events. In interpreting the findings of the 2011 UDHS, it should be borne in mind that prevalence of diarrhoea varies seasonally and peaks at the end of the rainy season, which occurs during the period of survey data collection.

# 10.6.1 Prevalence of Diarrhoea

Table 10.7 shows the percentage of children under age 5 with diarrhoea in the two weeks preceding the survey, according to selected background characteristics. Overall, nearly one-quarter (23 percent) of all children under five had diarrhoea, while 4 percent had diarrhoea with blood.

The occurrence of diarrhoea varies by age of the child. Young children age 6-23 months are more prone to diarrhoea than children in the other age groups; those age 6-11 months have the highest prevalence of diarrhoea among the age cohorts. There is little variation in the prevalence of diarrhoea by child's sex or source of drinking water. However, diarrhoea is more common among children who live in households with a non-improved toilet facility or a shared toilet facility compared with children who live in households with improved, not shared facilities (24 percent and 19 percent, respectively). Rural children are only slightly more likely than urban children to get sick with diarrhoea (24 percent versus 22 percent). Among the regions, prevalence of diarrhoea varies. Children living in the East Central and Eastern regions are more susceptible to episodes of diarrhoea (32 and 33 percent) compared with children living in the

Table 10.7 Prevalence of diarrhoea

Percentage of children under age five who had diarrhoea in the two weeks preceding the survey, by background characteristics, Uganda 2011

		the two weeks the survey	
Background characteristic	All diarrhoea	Diarrhoea with blood	Number of children
Age in months <6 6-11 12-23 24-35 36-47 48-59	19.2 43.0 37.6 22.2 14.6 10.3	2.7 6.0 6.5 4.6 3.0 2.3	802 827 1,480 1,515 1,473 1,438
Sex Male Female	24.1 22.8	4.8 3.6	3,757 3,778
Source of drinking water <sup>1</sup> Improved Not improved	23.8 22.6	4.3 3.9	5,347 2,188
Toilet facility <sup>2</sup> Improved, not shared Shared <sup>3</sup> Non-improved	18.7 23.9 24.4	4.0 3.1 4.4	1,173 1,112 5,246
Residence Urban Rural	21.8 23.7	2.9 4.4	1,089 6,447
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	24.1 22.3 20.9 31.9 32.5 20.3 23.8 18.7 18.8 14.0	1.8 3.8 3.3 6.8 6.3 4.6 2.5 3.4 1.8	467 743 794 852 1,284 281 669 446 1,096 903
Mother's education No education Primary Secondary+	21.4 25.2 19.6	5.1 4.6 2.3	1,081 4,792 1,662
Wealth quintile Lowest Second Middle Fourth Highest	28.8 25.2 21.8 20.6 19.5	7.1 4.1 3.5 3.5 2.3	1,673 1,594 1,510 1,331 1,428
Total	23.4	4.2	7,535

See Table 2.1 for definition of categories

other regions. Children living in the Southwest region have the lowest prevalence of diarrhoea (14 percent) when compared with children living in the other regions. The prevalence of diarrhoea decreases steadily with increasing wealth quintile and is lowest among children whose mothers have at least a secondary

<sup>&</sup>lt;sup>2</sup> See Table 2.2 for definition of categories

 $<sup>^{\</sup>rm 3}$  Facilities that would be considered improved if they were not shared by two or more households

education. The prevalence of diarrhoea with blood follows a pattern similar to that observed for diarrhoea in general.

# 10.6.2 Treatment of Diarrhoea

Mothers of children with diarrhoea in the two weeks preceding the survey were asked what was done to manage or treat the illness. Table 10.8 shows the percentage of children with diarrhoea in the two weeks before the survey who were taken to a health facility or provider for treatment, the percentage who received ORT, and the percentage who were given other treatments, by background characteristics.

Overall, 72 percent of the children with diarrhoea were taken for advice or treatment to a health facility or provider. Children age 12-23 months were more likely than children in other age groups to be taken to a health facility or provider for treatment (77 percent). The differences in percentages of children taken for treatment were small between male and female children. Treatment-seeking behaviour is more prevalent for children with bloody diarrhoea. Children suffering from diarrhoea in rural areas (73 percent) and in the Karamoja region (93 percent) and North regions (88 percent) are more likely than their counterparts to have been taken for treatment or advice. Advice or treatment for children with diarrhoea is less often sought for children whose mothers have secondary education or higher and for children from households in the highest wealth quintile.

Oral rehydration therapy (ORT) is a simple and effective remedy for the dehydration often caused by diarrhoea. It involves giving the child a solution prepared by mixing water with a commercially prepared packet of oral rehydration salts (ORS) or recommended home fluids (RHF), usually a home-made sugar-salt-water solution. Some form of ORT, either fluid from ORS sachets or recommended home fluids (RHF), was used to treat the diarrhoea in about half of the children (48 percent). Forty-four percent of these children suffering from diarrhoea in the two weeks preceding the survey were given fluid from ORS packets, and 12 percent were given fluid from RHF. Almost one-fifth (18 percent) of the children with diarrhoea were given increased amounts of other fluids. Overall, slightly more than half (55 percent) of children were given either ORT or increased fluids. The other treatments given to children with diarrhoea were antibiotics (32 percent) and anti-motility drugs (6 percent), while a few children received zinc supplements (2 percent) or intravenous solutions (1 percent). Home remedies were used to treat more than one-third (36 percent) of children. Fourteen percent of children with diarrhoea did not receive any treatment.

## Table 10.8 Diarrhoea treatment

Among children under age 5 who had diarrhoea in the two weeks preceding the survey, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage given oral rehydration therapy (ORT), the percentage given increased fluids, the percentage given ORT or increased fluids, and the percentage who were given other treatments, by background characteristics, Uganda 2011

	Percentage of children with diarrhoea for whom advice or treatment was sought from a health	Oral rehyd	Recom- mended home	apy (ORT)  Either	In-	ORT or		Otl Anti-	her treatme Zinc	nts Intra-	Home		Number of children
Background characteristic	facility or provider <sup>1</sup>	from ORS packets	fluids (RHF)	ORS or RHF	creased fluids	increased fluids	Antibiotic drugs	motility drugs	supple- ments	venus solution	remedy/ other	No treatment	with diarrhoea
Age in months													
<6 6-11 12-23 24-35 36-47 48-59	55.1 73.2 76.7 74.7 71.4 67.9	25.0 41.0 52.8 45.8 41.7 31.8	6.7 11.9 11.9 13.6 9.7 11.8	27.6 46.6 56.3 51.8 46.0 37.4	10.4 15.0 18.8 22.6 19.7 20.0	31.8 54.2 62.4 59.2 55.3 46.2	26.5 29.1 30.2 35.1 33.6 38.8	2.6 8.0 6.3 5.4 4.7 1.2	2.8 2.3 2.2 1.9 1.2 0.2	0.1 0.7 1.2 0.7 0.0 2.5	26.9 34.2 39.9 33.1 36.9 44.4	33.1 12.5 12.3 11.5 12.3 12.3	154 356 556 337 215 148
<b>Sex</b> Male Female	71.2 73.6	40.5 46.8	11.3 11.7	46.0 50.5	18.6 17.8	53.5 57.1	31.8 31.7	5.6 5.5	2.1 1.7	1.1 0.6	35.1 37.6	14.1 13.9	904 862
<b>Type of diarrhoea</b> Non-bloody Bloody	71.7 77.2	43.2 45.5	11.2 13.2	47.5 51.2	18.9 16.4	55.2 56.2	31.4 32.1	5.7 4.8	1.7 3.0	0.8 1.5	36.2 38.3	14.1 12.8	1,430 315
<b>Residence</b> Urban Rural	70.2 72.7	46.2 43.1	18.4 10.4	54.4 47.2	21.7 17.7	63.9 53.9	32.8 31.6	5.0 5.6	3.3 1.7	0.5 1.0	29.8 37.3	14.5 13.9	237 1,528
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	68.7 73.2 66.0 73.2 75.9 93.0 87.5 76.0 64.4 51.7	46.3 37.4 50.6 56.2 37.9 77.3 46.3 43.4 37.9 22.0	19.4 25.2 9.9 10.0 15.0 1.1 2.5 6.7 3.3 12.6	53.8 50.9 54.1 60.8 42.4 77.4 46.5 49.3 38.5 27.3	21.9 25.7 23.9 4.2 21.7 16.6 33.5 18.2 5.4 19.3	62.4 60.4 62.9 61.8 49.5 82.1 61.4 57.6 41.0 38.9	36.0 18.5 18.8 32.1 51.9 22.6 32.9 29.2 17.9 21.4	5.1 3.1 9.8 0.5 3.7 2.7 16.3 9.5 7.9 1.3	2.7 1.7 3.2 0.0 1.0 4.0 5.3 3.6 0.0	0.5 0.0 1.1 0.9 2.0 1.6 0.0 0.0 1.0	26.6 49.5 24.6 51.2 27.2 30.9 35.6 27.3 44.8 36.4	13.9 12.4 16.9 10.4 14.5 6.0 8.2 9.5 15.7 29.5	112 166 166 272 418 57 159 83 206 126
Mother's education No education Primary Secondary+	74.4 73.0 68.5	47.5 41.6 47.9	11.0 11.0 13.5	52.4 45.8 53.9	12.2 18.8 20.7	55.5 54.0 59.8	27.3 31.1 37.0	2.9 6.2 4.7	0.8 1.8 3.3	0.4 1.0 0.9	35.4 38.1 30.2	12.6 14.2 14.1	232 1,208 326
Wealth quintile Lowest Second Middle Fourth Highest	73.7 72.5 74.4 72.7 67.1	42.9 40.4 40.9 50.7 45.4	8.4 8.1 12.8 11.7 20.0	45.5 44.1 45.2 57.0 53.4	18.9 16.4 18.3 16.7 21.3	53.3 51.5 52.5 62.0 60.7	32.2 34.4 30.3 28.7 31.8	5.5 7.4 3.8 3.8 6.6	2.2 2.1 1.5 2.1 1.7	1.2 0.7 0.8 0.8 0.9	35.1 37.2 36.8 39.8 33.2	13.9 13.5 14.2 12.6 15.9	481 402 329 274 279
Total	72.4	43.5	11.5	48.2	18.3	55.3	31.7	5.5	1.9	0.9	36.3	14.0	1,766

Note: ORT includes fluid prepared from oral rehydration salt (ORS) packets and recommended home fluids (RHF). 
<sup>1</sup> Excludes pharmacy, shop, and traditional practitioner

# 10.6.3 Feeding Practices during Diarrhoea

When a child has diarrhoea, mothers are encouraged to continue feeding their child the same amount of food as they would if the child did not have diarrhoea. They are also encouraged to increase the child's fluid intake. These practices help to reduce dehydration and minimise the adverse consequences of diarrhoea on the child's nutritional status. In the 2011 UDHS, mothers were asked whether they gave their child with diarrhoea less, the same amount, or more fluids and food than usual. Table 10.9 shows the percent distribution of children under age 5 who had diarrhoea in the two weeks preceding the survey by feeding practices during the episode of diarrhoea.

Table 10.9 shows that 18 percent of children with diarrhoea were given more fluids than usual, as recommended, while 37 percent of children who had diarrhoea were given the same amount of liquid as usual. One in five children was either given somewhat less to drink (22 percent) or much less to drink than usual (18 percent). Five percent of children who had diarrhoea were given no liquids. Regarding the amount of food offered to children who had diarrhoea, only 6 percent were given more food to eat than

usual, and one-third (34 percent) were given the same amount of food as usual. One-quarter of children with diarrheoa were given somewhat less than the usual amount of food to eat while sick, and one-fifth (19 percent) were given much less than usual to eat. Six percent of children with diarrhoea did not receive food during their illness. Overall, 13 percent of children had increased fluid intake and continued feeding. About one-third (36 percent) of children suffering from diarrhoea were given ORT and/or increased fluids, and continued feeding.

When feeding and treatment practices are observed by background characteristics, variations among certain groups become apparent. Among children suffering from diarrhoea, those under age 6 months are less likely than those in other age groups to be continually fed and given ORT and/or increased fluids during the episode. Female children, children in urban areas, children residing in Karamoja region, children of mothers with at least some secondary education, and children from the fourth wealth quintile are more likely than other children to receive ORT and/or increased fluids with continued feeding.

The percentage of children with diarrhoea who were given increased fluids and continued feeding has slightly declined in the last five years, from 17 percent as measured in the 2006 UDHS to 13 percent as reported in the current survey. Similarly, the practice of giving ORT and/or increased fluids along with continued feeding has declined over the same period, from 51 percent to 36 percent.

Table 10.9 Feeding practices during diarrhoea

Percent distribution of children under age five who had diarrhoea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhoea episode of diarrhoea, by background characteristics, Uganda 2011

			Amour	Amount of liquids given	given					▼	Amount of food given	food given				Percentage given	Percentage who continued feeding and	Number
Background characteristic	More	Same as usual	Some- what less	Much less	None	Don't know/ missing	Total	More	Same as usual	Some- what less	Much less	None	Never gave food	Don't know/ missing	Total	fluids and continued feeding	ORT and/or increased fluids	children with diarrhoea
Age in months <6 6-11 12-23 24-35 36-47 48-59	100 100 100 100 100 100 100 100 100 100	46.5 44.5 32.0 7.0 4.3 36.1	15.9 22.0 22.0 22.0 1.1	277777 0.6.2.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	04664 06664 06664	000-4- 004-6-	000000	- 6.6.8.8.8.6.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	15.0 34.2 32.5 38.0 38.0	200.00 200.00 32.00 3.00 3.00	8 2,84 2,48,5 4,65 6,65 7,66 8,67 8,67 8,67 8,67 8,67 8,67 8,67	2.0.0.4.2.0 8.0.8.2.2.0	66.2 15.7 1.8 0.0 0.0	-000%- 	100.00 100.00 100.00 100.00 100.00	2.7 9.7 13.4 17.1 16.0	9.05 4.20 4.20 7.24 8.0	154 356 337 215 148
<b>Sex</b> Male Female	18.6 17.8	37.3 37.2	21.4	17.8 17.5	4.7 4.3	0.8	100.0	5.7 6.5	34.5 33.0	23.3 26.2	20.2 18.0	5.1 6.6	10.4 9.1	0.8 0.6	100.0	13.2 13.0	34.6 38.2	904 862
<b>Type of diarrhoea</b> Non-bloody Bloody	18.9 16.4	38.0 34.1	21.3 21.5	15.7 25.1	5.2 2.6	0.8	100.0	5.3 9.0	35.1 27.9	24.8 24.2	17.8 25.1	5.8 6.3	10.3 7.2	0.8	100.0	13.5 12.2	36.5 36.2	1,430 315
<b>Residence</b> Urban Rural	21.7	37.5 37.2	21.2 21.5	16.5 17.8	1.7	1.4	100.0	8.5	34.1 33.8	21.8 25.2	15.2 19.7	7.6	11.4 9.5	1.4	100.0	16.3 12.6	43.3 35.2	237 1,528
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile West Nile	2,22,2 2,23,2,4,2,6,2,6,2,6,2,6,2,6,2,6,2,6,2,6,2,6	35.6 4 20.3 3.0.4 4 20.8 3.0.4 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	2000 2000 2000 2000 2000 2000 2000 200	22.1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	00000000000000000000000000000000000000	0000100110	0.000000000000000000000000000000000000	0.6.1 4.0.0.0.4 6.4	235.5 28.6 273.3 39.3 47.1 239.5 1.9	22222222222222222222222222222222222222	4.0.4.2.2.2.2.2.4.4.4.4.6.6.4.4.4.4.4.4.4.4	######################################	01 0 0 0 8 4 0 1 0 1 4 1 0 1 0 0 0 0 0 0 0 0 0 0 0	0.000100000000000000000000000000000000	66000000000000000000000000000000000000	£ <u>07</u> F. £. £. £. 4. £. £. £. £. £. £. £. £. £. £. £. £. £.	24.4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	111 166 176 157 159 126 126
Mother's education No education Primary Secondary+	12.2 18.8 20.7	42.8 35.8 38.6	19.3 22.0 21.0	17.9 17.4 18.6	7.8 5.1 1.0	0.0 0.9 0.2	100.0 100.0 0.0	8.08 8.14.	34.1 33.3 35.4	23.3 24.9 25.0	16.6 20.5 15.8	8.0 4.7.7	11.2 8.7 12.4	0.0 0.0 0.3	100.0 100.0 100.0	10.1 13.3 14.6	36.1 35.6 39.2	232 1,208 326
Wealth quintile Lowest Second Middle Fourth Highest	64.6.7.5.4.6.6.9.9.6.4.6.6.9.9.9.9.9.9.9.9.9.9.9	38.5 38.5 38.5 38.5 38.5 6 7 6	22.95 22.95 20.95 20.95 20.95 20.95	72027 7338 7433 7533 7533	2.22 1.00 1.00 1.00	0.00 0.05 0.55 7.00 7.00 7.00 7.00 7.00	0.00000	6.6.8.7.9. 6	39.7 32.2 34.7 34.7	24 29:6 29:6 20:6 20:4 20:4 20:4 20:4 20:4 20:4 20:4 20:4	200 600 600 600 600 600 600 600 600 600	047.87 27.7.80 0 0	9,7,12,0 1,2,1,1 1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	0.1.00 4.8.8.9.9.4	100.0 100.0 100.0 100.0 100.0	211121 6.02126 6.028 6.028 7.03 7.03 7.03 7.03 7.03 7.03 7.03 7.03	33.0 33.0 4 42.2 4 6.2 5 8	481 402 329 274 279
lotal		37.7	Z1.5	0. / L	4./	0.7	100.0	0.1	33.8	7.47	19.1		9.7	0.7	0.001	13.1	36.3	1,766

Note: It is recommended that children should be given more liquids to drink during diarrhoea and that food should not be reduced.

Continued feeding practices includes children who were given more, same as usual, or somewhat less food during the diarrhoea episode.

# 10.7 KNOWLEDGE OF ORS PACKETS

To ascertain respondents' knowledge of ORS in Uganda, women were asked whether they had heard of a special product called an ORS packet that can be used to treat diarrhoea. Table 10.10 shows that 9 in 10 mothers with a live birth in the five years preceding the survey had heard about ORS packets. ORS knowledge is slightly higher among urban women (93 percent) than among rural women (89 percent). Knowledge of ORS also varies by region; it ranges from a low of 77 percent among mothers in the Southwest region to a high of 99 percent in Karamoja region. Knowledge of ORS packets increases as a woman's educational attainment also increases: 87 percent of mothers with no education know about ORS packets while 93 percent of mothers with secondary or higher education know about ORS packets. There is a U-shaped relationship between knowledge of ORS packets and wealth.

# 10.8 STOOL DISPOSAL

The proper disposal of children's faeces is important in preventing the spread of disease. If faeces are not properly disposed of, disease may be spread by direct contact or through animal contact. The safe disposal of children's faeces is of particular importance because children's faeces are more likely to be the cause of faecal contamination in the household environment than other causes, as they are often not disposed of properly and may be mistakenly considered less harmful than adult faeces. Children's stools are considered to be safely disposed of if

Table 10.10 Knowledge of ORS packets

Percentage of women age 15-49 with a live birth in the five years preceding the survey who know about ORS packets for treatment of diarrhoea by background characteristics, Uaanda 2011

Background characteristic	Percentage of women who know about ORS packets	Number of women
Age 15-19 20-24 25-34 35-49	86.5 86.8 90.8 91.5	370 1,197 2,213 1,189
Residence Urban Rural	93.3 89.0	805 4,163
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	92.6 90.4 94.4 95.0 85.7 98.5 98.0 92.5 87.3 76.6	358 504 507 532 794 186 445 299 739 604
Education No education Primary Secondary+	87.2 89.1 92.8	713 3,079 1,177
Wealth quintile Lowest Second Middle Fourth Highest	91.8 87.9 84.4 89.7 94.2	1,055 1,026 963 897 1,027
Total	89.7	4,968

ORS = Oral rehydration salts

the child uses a toilet or latrine, the child's stool is put in or rinsed into a toilet or latrine, or the stool is buried.

Table 10.11 presents the percent distribution of the youngest child under age 5 living with their mother by how the child's stools are disposed of, according to background characteristics. Eighty-two percent of children's stools are safely disposed, that is, 15 percent of children use a toilet or latrine, 63 percent of children's stools are rinsed in the toilet or latrine, and 5 percent are buried.

There are marked differences in the way children's stools are disposed of, depending on background characteristics. A higher proportion of urban children's stools are disposed of safely than are rural children's stools (88 and 81 percent, respectively). In addition, children living in homes with improved, non-shared toilet facilities are more likely than those living in homes with shared or non-improved toilet facilities to safely dispose of faecal matter. Regional differentials in safe disposal also are substantial. For example, in Kampala, 89 percent of children's stools are disposed of safely compared with 41 percent in Karamoja. Safe disposal of children's stools increases with mother's level of education and with household wealth quintile. Comparable data from the 2006 UDHS show an increase in safe stool disposal, from 77 percent to 82 percent, over the five years between surveys.

Percent distribution of youngest children under age 5 living with the mother by the manner of disposal of the child's last faecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Uganda 2011

			Manr	ner of disposal	of children's	stools			Percentage of children		
Background characteristic	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Don't know/ Missing	Total	whose stools are disposed of safely <sup>1</sup>	Number of children
Age in months											
<6	3.6	44.2	1.3	19.7	13.2	2.8	14.7	0.5	100.0	49.1	784
6-11	4.6	69.5	4.8	5.4	6.8	1.9	6.9	0.0	100.0	78.9	812
12-23	5.4	79.2	6.1	1.7	2.7	1.4	3.5	0.0	100.0	90.7	1,324
24-35	13.8	72.0	6.2	1.1	1.2	3.2	2.1	0.4	100.0	92.0	885
36-47	47.2	42.4	2.5	0.3	2.3	2.4	2.8	0.0	100.0	92.1	517
48-59	63.6	24.7	4.1	0.5	0.5	3.3	3.2	0.1	100.0	92.4	309
Toilet facility <sup>2</sup>											
Improved, not shared	22.7	66.6	0.8	2.6	3.1	0.9	2.9	0.3	100.0	90.2	735
Shared <sup>3</sup>	13.9	71.4	1.1	7.0	2.7	0.5	3.2	0.2	100.0	86.4	679
Non-improved	13.6	59.6	6.1	5.2	5.5	3.0	6.7	0.1	100.0	79.3	3,215
Residence											
Urban	19.0	67.5	1.0	7.6	2.4	0.3	2.1	0.1	100.0	87.5	690
Rural	14.4	61.6	5.1	4.6	5.1	2.7	6.2	0.2	100.0	81.2	3,941
Region											
Kampala	19.0	69.9	0.0	7.5	2.2	0.0	1.5	0.0	100.0	88.9	299
Central 1	14.3	72.2	1.2	1.4	5.3	3.0	2.7	0.0	100.0	87.6	454
Central 2	17.8	69.5	0.3	2.8	4.6	0.0	5.0	0.0	100.0	87.6	473
East Central	14.7	65.3	1.1	6.3	7.0	1.2	3.5	0.9	100.0	81.0	502
Eastern	9.0	66.1	9.7	4.1	4.3	1.9	4.9	0.0	100.0	84.8	761
Karamoja	7.7	18.4	14.5	6.9	20.5	24.0	8.0	0.0	100.0	40.6	172
North	13.3	49.7	12.0	5.3	2.4	1.2	16.2	0.0	100.0	74.9	430
West Nile	12.3	66.6	5.8	3.7	1.4	0.9	8.6	0.8	100.0	84.7	280
Western	17.8	61.5	2.0	7.0	6.6	2.9	2.0	0.2	100.0	81.3	685
Southwest	21.9	59.7	3.0	6.3	0.0	0.8	7.6	0.0	100.0	84.7	575
Mother's education											
No education	15.3	52.0	7.3	4.4	6.2	6.9	7.7	0.1	100.0	74.6	675
Primary	13.5	63.5	5.0	5.3	4.2	2.0	6.2	0.3	100.0	82.0	2,877
Secondary+	19.4	66.3	1.4	4.9	5.1	0.2	2.7	0.0	100.0	87.1	1,078
•	10.4	00.0	1	4.5	0.1	0.2	2.7	0.0	100.0	07.1	1,070
Wealth quintile	7.0	47.0	40.0	0.0	0.0	0.7	40.4	0.4	400.0	00.4	4 000
Lowest	7.8	47.0	13.3	6.0	9.0	6.7	10.1	0.1	100.0	68.1	1,008
Second	15.0	63.0	4.4	4.7	3.2	2.3	7.4	0.0	100.0	82.4	981
Middle	13.8	67.8	2.1	5.1	4.7	1.6	4.5	0.5	100.0	83.7	908
Fourth	17.4	68.7	1.4	4.7	4.3	0.4	2.9	0.3	100.0	87.4	838
Highest	22.8	68.0	0.2	4.7	2.0	0.0	2.3	0.0	100.0	91.0	895
Total	15.1	62.5	4.5	5.1	4.7	2.3	5.6	0.2	100.0	82.1	4,631

<sup>&</sup>lt;sup>1</sup> Children's stools are considered to be disposed of safely if the child used a toilet or latrine, if the faecal matter was put/rinsed into a toilet or latrine, or if it was buried. <sup>2</sup> See Table 2.2 for definition of categories <sup>3</sup> Facilities that would be considered improved if they were not shared by two or more households

# **Key Findings**

- Six in ten households (60 percent) own at least one insecticide-treated net, while 28 percent of households have at least one net for every two people that slept in the household the preceding night.
- Forty-five percent of Ugandans have access to an insecticide-treated net; in other words, almost five in ten people could sleep under one if every net in a household were used by two people.
- Use of insecticide-treated nets has increased dramatically in Uganda during the past five years: 35 percent of the household population, 43 percent of children under age 5, and 47 percent of pregnant women slept under one the night before the survey.
- One-quarter of women received intermittent preventive treatment (IPTp) for malaria during pregnancy; that is, they received at least two doses of SP/Fansidar, with at least one dose during an antenatal care visit.
- Five percent of Ugandan children have severe anaemia (haemoglobin level less than 8.0 grams per decilitre).

# 12.1 INTRODUCTION

alaria remains the leading cause of morbidity and mortality in Uganda. The illness contributes, more than any other, to the high burden of disease in the country. This undermines investment in social and economic development (NPA, 2010). In Africa, Uganda ranks third in the number of deaths attributable to malaria and has some of the highest recorded malaria transmission rates. Whereas the 2009 Uganda Malaria Indicator Survey, which used rapid diagnostic blood testing (RDT), showed that 52 percent of children under age 5 had malaria (UBOS and ICF Macro, 2010), recent findings from the 2009-2010 Uganda National Household Survey (UNHS) revealed that slightly more than half of the population that fell sick 30 days prior to the survey reported malaria or fever as the major illness responsible (UBOS 2010).

The 2011 UDHS collected data on measures to prevent malaria, including indoor residual spraying, the possession and use of mosquito nets among the Ugandan population, especially women and children, and the use of prophylactic antimalarial drugs among pregnant women age 15-49.

# 12.2 OWNERSHIP OF MOSQUITO NETS

Nets and window screens have long been considered useful protection against mosquitoes and other insects (Lindsay and Gibson, 1988). Nets reduce the human-vector contact by acting as a physical barrier and thus reducing the number of bites from infected vectors (Bradley et al., 1986). However, nets and screens are often not well fitted or are torn, thus allowing mosquitoes to enter or feed on the part of the body adjacent to the netting fabric during the night (Lines et al., 1987). The problem of ill-used nets and screens provided a motive for impregnating nets with a fast-acting insecticide that will repel or kill mosquitoes before or shortly after feeding (Lines et al., 1987; Hossain and Curtis, 1989).

Treatment of nets has been made possible by the availability of synthetic pyrethroids, the only insecticides currently used for this purpose. This class of insecticides was developed to mimic the insecticidal compounds of the naturally occurring pyrethrum, an insecticide from the flowers of the chrysanthemum. Currently, insecticide-treated mosquito nets (ITNs) are regarded as a promising malaria control tool, and when used by all or most members of the community can reduce malaria transmission. ITNs have been shown to reduce malaria transmission by as much as 90 percent under trial conditions (Lengeler 2004). They also reduce malaria morbidity and mortality. Long-lasting insecticidal nets (LLINs) are a subset of ITNs. An LLIN is a factory-treated mosquito net made with netting material that has insecticide incorporated within or bound around the fibers. The net must retain its effective biological activity, without re-treatment for repeated washes, for three years of use under field conditions (WHO/Global Malaria Program 2007). The current generation of LLINs lasts three to five years, after which the net should be replaced. Insecticide-treated nets (ITNs) are a principal tool in efforts to reduce malaria transmission in Uganda.

All households interviewed in the 2011 UDHS were asked whether they owned a mosquito net and, if so, how many of each type of net they owned. Respondents were also asked to show the mosquito nets they owned to the interviewer so he or she might identify and record the brand name. Brand name and treatment history were used to classify nets as treated or untreated during analysis. Table 12.1 provides information on the percentage of households owning at least one mosquito net (any net, an ITN, or an LLIN), the average number of nets per household, and the percentage of households with at least one net for every two people who slept in the household the previous night.

Overall, 74 percent of Ugandan households own at least one mosquito net of any type, 60 percent own at least one insecticide-treated net (ITN), and 59 percent have at least one LLIN. The vast majority of ITNS in Uganda are LLINs. Furthermore, the findings show that, overall, the average number of nets owned per household is 1.6 nets of any type and 1.3 ITNs.

There is no difference between the percentages of urban and rural households that own at least one ITN (59 and 60 percent, respectively). Among the regions, however, ITN ownership varies. Households in the East Central region are the least likely to own an ITN (38 percent), while those in the West Nile region are the most likely (82 percent). ITN ownership also tends to increase as wealth quintile increases. For example, over half (56 percent) of households in the lowest wealth quintile own at least one ITN compared with six in ten (63 percent) households in the highest quintile.

Mosquito net ownership has dramatically increased within Uganda in the past five years. In the 2006 UDHS, 34 percent of households reported possession of a treated or untreated mosquito net, while only 16 percent reported ITN ownership. In the 2009 UMIS, the proportion of households with at least one ITN had climbed to 47 percent. The current survey shows more than a fourfold increase in ITN ownership among households since 2006 (from 16 to 60 percent).

Although mosquito net ownership is an important indicator of the success of a vector control program, it is also important to determine if a household has a sufficient number of nets for those sleeping within the home. By assuming that each net is shared by two people in the household, universal net

coverage within the population can be measured. Table 12.1 also shows the percentage of households with at least one mosquito net for every two persons staying in the household the night before the interview.

Table 12.1 Household possession of mosquito nets

Percentage of households with at least one mosquito net (treated or untreated), insecticide-treated net (ITN), and long-lasting insecticidal net (LLIN); average number of nets, ITNs, and LLINs per household; and percentage of households with at least one net, ITN, and LLIN per two persons who stayed in the household last night, by background characteristics, Uganda 2011

		ge of househo			age number o			least one	ge of househo net for every to ayed in the hou last night	vo persons	Number of households with at least one person
Background characteristic	Any mosquito net	Insecticide- treated mosquito net (ITN) <sup>2</sup>	Long- lasting insecticidal net (LLIN)	Any mosquito net	Insecticide- treated mosquito net (ITN) <sup>2</sup>	Long- lasting insecticidal net (LLIN)	Number of households	Any mosquito net	Insecticide- treated mosquito net (ITN) <sup>2</sup>	Long- lasting insecticidal net (LLIN)	who stayed in the household last night
Residence Urban Rural	80.9 72.4	58.7 60.1	56.9 59.5	1.9 1.6	1.3 1.3	1.2 1.3	1,691 7,342	59.7 33.2	38.5 25.2	36.8 24.8	1,686 7,313
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	82.0 74.0 71.6 61.0 73.4 68.4 75.0 88.1 77.8 71.8	57.5 59.4 59.8 38.0 56.2 57.5 67.1 82.1 69.4 58.6	55.5 58.5 59.0 36.3 55.4 57.5 66.7 82.1 69.2 57.6	1.9 1.6 1.6 1.2 1.7 1.3 1.6 2.1 1.8	1.2 1.3 1.3 0.8 1.2 1.0 1.4 1.9 1.6	1.2 1.2 1.3 0.7 1.1 1.0 1.4 1.9 1.6	797 1,140 1,038 904 1,226 306 757 508 1,228 1,128	64.4 45.8 41.0 25.6 32.3 27.2 30.5 42.7 37.1 33.0	41.1 32.9 33.2 14.1 20.5 20.5 25.1 37.7 28.6 24.9	38.9 32.2 33.0 13.3 19.9 20.5 24.9 37.5 28.2 24.2	795 1,134 1,036 899 1,224 305 755 504 1,220 1,128
Wealth quintile Lowest Second Middle Fourth Highest Total	67.2 69.8 70.8 75.5 84.2 74.0	55.5 57.7 60.6 61.9 62.7 59.8	55.1 57.5 59.7 61.0 61.1 59.0	1.2 1.4 1.5 1.8 2.1	1.0 1.2 1.3 1.4 1.5	1.0 1.2 1.3 1.4 1.4	1,719 1,767 1,672 1,723 2,152 9,033	23.4 29.7 29.9 39.9 61.9 38.2	17.8 22.8 23.6 28.7 41.9	17.7 22.6 23.4 28.0 40.3	1,715 1,761 1,661 1,719 2,144 8,999

De facto household members

About three in ten Ugandan households (28 percent) have reached universal ITN coverage; that is, these households have at least one ITN for every two people who slept in the household the previous night. Households in urban areas are more likely to own at least one ITN for every two persons who stayed in the household the night before the survey when compared with those in rural areas (39 percent and 25 percent, respectively). Two-fifths (41 percent) of those residing in Kampala have at least one ITN for every two people, while 14 percent of households in East Central region have at least one ITN for every two people who stayed in the household the preceding night. By wealth quintile, households in the highest quintile are twice as likely to have reached universal ITN coverage when compared with those in the lowest quintile (42 percent versus 18 percent).

# 12.3 INDOOR RESIDUAL SPRAYING

Indoor residual spraying (IRS) is considered one effective method of malaria prevention through vector control. Specially trained staff of a government or non-government malaria control programme visit a household dwelling and spray insecticide on the interior walls. The insecticide kills mosquitoes for several months, especially in endemic areas. Uganda is committed to increasing use of this intervention, although its cost remains a challenge. The 2011 UDHS collected information on whether the interior walls of the household's dwelling had been sprayed in the 12 months preceding the survey and, if so, who sprayed the dwelling. The percentage of households with IRS in the past 12 months is presented in Table 12.2.

Seven percent of the households in Uganda have been sprayed by IRS in the 12 months preceding the survey. Rural households are almost twice as likely to have been sprayed by IRS as those in urban areas (8 percent and 4 percent, respectively). Regional variations further show that two-thirds (66 percent)

<sup>&</sup>lt;sup>2</sup> An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a net that has been soaked with insecticide within the past 12 months

of households in the North region had IRS in the preceding 12 months. This is due to the intensive IRS interventions carried out in ten districts in the malaria-endemic North region every 6 months that have been spearheaded by governmental as well as nongovernmental organisations (NGOs). Households in the lowest wealth quintile are much more likely to have been sprayed by IRS (14 percent) compared with their counterparts in the higher three quintiles (less than 5 percent). The majority of IRS activities in Uganda are conducted by the government, as 80 percent of all households reported that their dwelling was sprayed by government workers (data not shown).

Table 12.2 also shows which households are covered by vector control. They are considered to be covered if they own at least one ITN and/or they have been sprayed by IRS at any time in the past 12 months. Overall, 62 percent of households in Uganda are covered by vector control; that is, they reported either ownership of at least one ITN and/or IRS of their dwelling places in the 12 months preceding the survey. There is little difference between vector control coverage among the urban and rural populations or among wealth quintiles. The percentage of households that owned at least one ITN and/or were sprayed by IRS in the past 12 months ranges from a low of 39 percent in the East Central region to a high of 85 percent in the North region.

# 12.4 Access to Insecticide-TREATED NETS

Use of ITNs is one of the most effective measures for preventing malaria. The government of Uganda, with support from several NGO partners, has distributed millions of mosquito nets across the country. In addition,

Table 12.2 Indoor residual spraying against mosquitoes

Percentage of households in which someone has come into the dwelling to spray the interior walls against mosquitoes (IRS) in the past 12 months, and the percentage of households with at least one ITN and/or IRS in the past 12 months, by background characteristics, Uganda 2011

Dookersund	Percentage of households with IRS <sup>1</sup> in the past	Percentage of households with at least one ITN <sup>2</sup> and/or IRS in the	Number of
Background characteristic	12 months	past 12 months	households
Residence			
Urban Rural	4.4 7.8	60.2 62.1	1,691 7,342
	7.0	02.1	7,342
Region	<b>5</b> 0	50.7	707
Kampala Central 1	5.2 2.4	59.7 59.5	797
Central 2	2. <del>4</del> 1.8	59.5 60.3	1,140
East Central	1.0	38.6	1,038 904
Eastern	2.6	56.7	1,226
Karamoja	0.4	57.6	306
North	66.1	84.8	757
West Nile	1.4	82.3	508
Western	0.3	69.5	1,228
Southwest	0.6	58.6	1,128
Wealth quintile			
Lowest	13.6	60.4	1,719
Second	10.5	59.7	1,767
Middle	4.5	61.4	1,672
Fourth	3.4	62.5	1,723
Highest	4.5	64.1	2,152
Total	7.2	61.7	9,033

<sup>&</sup>lt;sup>1</sup> Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or nongovernmental organization.

increasing knowledge among the populace of the importance of using mosquito nets has led to increased demand. The 2011 UDHS data show the proportion of the population that could sleep under an ITN, if each ITN in the household were used by up to two people. This population is referred to as having access to an ITN. Coupled with data on actual mosquito net usage, ITN access data can provide useful information on the magnitude of the behavioural gap in ITN ownership and use, or, in other words, the population with access to an ITN but not using it. If the difference between these indicators is substantial, the programme may need to focus on behaviour change and identify the main drivers or barriers to ITN use to design an appropriate intervention. This analysis helps ITN programmes determine whether they need to achieve higher ITN coverage, promote ITN use, or both. Table 12.3 shows the percent distribution of the de facto household population by the number of ITNs that the household owns, according to the number of persons who stayed in the household the night before the survey.

government, private, or nongovernmental organization.

An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a net that has been soaked with insecticide within the past 12 months,

A sizable proportion of the Ugandan population either does not have or has limited access to ITNs. One-third of the population (36 percent) slept in homes without any ITN the night before the survey and therefore was not able to use an ITN. About two in ten individuals stayed in households that own one ITN (18 percent) or two ITNs (21 percent), and 15 percent of the population slept in a home with three ITNs. Few individuals slept in homes with more than four ITNs.

Table 12.3 Access to an insecticide-treated net (ITN)

Percent distribution of the de facto household population by number of ITNs the household owns, according to number of persons who stayed in the household the night before the survey, Uganda 2011

	Nu	mber of per	sons who s	tayed in the	household	the night be	fore the sur	vey	
Number of ITNs	1	2	3	4	5	6	7	8+	Total
0	59.9	49.0	44.5	38.6	34.4	34.6	30.8	31.7	35.7
1	30.2	31.0	25.7	23.4	19.6	15.9	18.8	11.7	18.1
2	7.8	16.6	20.2	24.4	25.6	22.7	22.4	18.8	21.2
3	1.6	3.0	8.4	10.0	14.3	17.2	16.3	19.8	15.0
4	0.4	0.4	0.8	2.7	3.7	4.3	6.2	10.3	5.7
5	0.1	0.1	0.3	0.7	1.5	2.7	3.2	4.1	2.5
6	0.0	0.0	0.1	0.1	0.6	2.2	1.9	2.0	1.3
7+	0.0	0.0	0.0	0.1	0.2	0.4	0.4	1.5	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,086	1,847	3,614	4,829	6,058	6,363	5,577	14,134	43,508
Percent with access to an ITN1	40.1	51.0	46.9	49.7	48.7	47.3	43.9	39.4	44.7

<sup>&</sup>lt;sup>1</sup> Percentage of the de facto household population who could sleep under an ITN if each ITN in the household were used by up to two people

As a nation, 45 percent of the population has access to an ITN. As expected, the proportion of persons with access to an ITN is indirectly proportional to the number of nets within a household. ITN access tends to gradually decrease as household size increases. For example, 51 percent of households where two persons slept the night before the survey had access to an ITN, whereas 39 percent of households where more than eight people slept had access to an ITN.

Figure 12.1 shows the percentage of the population with access to an ITN in the household, by background characteristics. Those living in urban areas are more likely than those living in rural areas to have access to an ITN (52 percent and 44 percent, respectively). Residents of the West Nile region are the most likely to have access to an ITN when compared to individuals living in other regions, while the East Central residents are the least likely. ITN access steadily increases as household wealth increases, making those in the highest wealth quintile the most likely to have access to an ITN.

Total RESIDENCE Urban 7 44 REGION 52 Kampala Central 1 49 Central 2 25 East Central Eastern Karamoja 38 37 46 North West Nile 60 Western Southwest WEALTH QUINTILE Lowest Second Middle Fourth Highest 0 10 20 30 40 50 60 Percent

Figure 12.1 Percentage of the de facto household population with access to an insecticide-treated net

Uganda 2011 DHS

# 12.5 USE OF MOSQUITO NETS

# 12.5.1 Overall Use of Mosquito Nets

Mosquito net coverage of the entire population is necessary to achieve a large reduction in the malaria burden. Although vulnerable groups, such as children under age 5 and pregnant women, should still be prioritized, the equitable and communal benefits of wide-scale ITN use by older children and adults should be promoted and evaluated by national malaria control programs (Killeen, 2007). The 2011 UDHS asked about use of mosquito nets by household members during the night before the survey.

Table 12.4 presents the percentages of the de facto household population that slept under a mosquito net of any type, under an ITN, or under an LLIN the night before the survey.

Overall, 45 percent of the Ugandans reported that they had slept under any net, 35 percent under an ITN, and 35 percent under a LLIN the night before the survey (first three columns of Table 12.4). Children under age 5 (42 percent) and adults age 35-49 (41 percent) report the highest use of ITNs. Women are slightly more likely than men to have slept under an ITN the night before the survey (37 percent and 33 percent, respectively). Urban residents, those in the West Nile region, and those in the highest wealth quintile are more likely than their counterparts to report having slept under an ITN the night before the survey.

Among households with at least one ITN (final two columns), net utilization is high. Half (55 percent) of those in households that own at least one ITN slept under the ITN the previous night. Net usage among the population that owns at least one ITN is greater than that of the general population, indicating that ITN ownership increases the likelihood of net usage. Variations of ITN use among those households that own at least one ITN, however, are similar to those within the general population, except those in Kampala households with at least one ITN reported the highest ITN utilization of all regions (70 percent).

Table 12.4 Use of mosquito nets by persons in the household

Percentage of the de facto household population who slept the night before the survey under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months; and among the de facto household population in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, Uganda 2011

			Household popu	lation		Household po	
				Percentage who slept under an ITN <sup>1</sup>		household least on	
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ITN <sup>1</sup> last night	Percentage who slept under an LLIN last night	last night or in a dwelling sprayed with IRS <sup>2</sup> in the past 12 months	Number	Percentage who slept under an ITN <sup>1</sup> last night	Number
Age (in years)							
5-14 15-34 35-49 50+	53.0 35.8 46.1 53.6 42.7	42.8 29.0 35.3 41.7 31.5	42.2 28.5 34.6 40.9 31.2	46.5 34.6 39.6 46.0 37.0	8,295 14,198 12,662 4,725 3,619	62.9 44.7 55.4 64.5 56.9	5,641 9,212 8,074 3,057 2,004
Sex Male Female	42.2 46.9	32.8 37.2	32.2 36.6	37.8 41.7	21,223 22,285	51.6 57.1	13,489 14,504
Residence Urban Rural	59.4 42.0	42.2 33.8	40.9 33.3	45.1 38.9	6,383 37,125	65.2 52.6	4,133 23,859
Region							
Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest Wealth quintile Lowest	64.5 45.8 44.9 33.2 49.8 39.8 42.3 50.7 45.1 36.2	43.8 35.0 37.0 19.4 35.1 35.1 36.3 46.4 40.5 29.5	41.9 34.5 36.5 18.6 34.2 35.1 36.0 46.3 40.3 29.0	47.5 36.0 37.5 20.8 36.8 35.4 77.3 47.0 40.7 30.1	2,735 4,806 4,858 4,656 6,676 1,556 4,014 2,677 6,313 5,488	69.8 52.0 57.6 47.8 58.2 59.9 52.5 54.2 54.0 46.8	1,714 3,232 2,945 1,890 4,030 913 2,773 2,292 4,740 3,463
Second Middle Fourth Highest	41.9 39.6 42.3 59.0	33.4 32.8 33.6 42.3	33.1 32.4 32.9 41.2	39.7 36.0 35.4 45.0	8,629 8,692 8,764 8,758	53.7 50.8 50.2 61.9	5,362 5,611 5,873 5,988
Total	44.6	35.0	34.5	39.8	43,508	54.5	27,992

<sup>&</sup>lt;sup>1</sup> An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN), or (2) a net that has been soaked with insecticide within the past 12 months

soaked with insecticide within the past 12 months <sup>2</sup> Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or nongovernmental organization.

Figure 12.2 presents ownership of, access to, and use of ITNs in Uganda. As shown in column 1, half of households own at least one ITN. Among the population, however, only 45 percent of individuals have access to an ITN. Thirty-five percent of people in Uganda slept under an ITN the night before the survey. When comparing column one and column two, the graph shows that Ugandan households do not have a sufficient number of nets to be used by the number of people sleeping in the household; ITN coverage for individuals is lower than it appears at the household level. When column 2 and column 3 are compared, net access is higher than net usage. This implies that among those with an opportunity to sleep under an ITN, not everyone is taking advantage of the ITN. In other words, there are individuals in the population that could sleep under a net, but they are not.

Percent of households with at least one ITN

Percent of households population with access to an ITN within their household

an ITN within their household

be a population with access to an ITN within their household

Figure 12.2 Ownership of, access to, and use of ITNs

Uganda 2011 DHS

# 12.5.2 Use of Mosquito Nets by Children under Age 5

Those living in areas of high malaria transmission naturally acquire immunity to the disease over time (Doolan et al., 2009). Acquired immunity is not the same as sterile immunity—that is, acquired immunity does not prevent *P. falciparum* infection but rather protects against severe disease and death. Age is an important factor in determining levels of acquired immunity to malaria. For about six months following birth, antibodies acquired from the mother during pregnancy protect children born in areas of endemic malaria. This immunity is gradually lost, and children start to develop their own immunity to malaria. The pace at which immunity develops depends on their exposure to malaria infection, and in high malaria-endemic areas, children are thought to have attained a high level of immunity by their fifth birthday. Such children may experience episodes of malaria illness but usually do not suffer from severe, life-threatening malaria. Immunity in areas of low malaria transmission is acquired more slowly. Malaria affects all age groups of the population.

Table 12.5 shows the percentage of children under age 5 who slept under various categories of mosquito nets the night before the survey. The survey findings show that half (53 percent) of children under age 5 slept under a mosquito net of any type, 43 percent slept under an ITN, and 42 percent of children slept under an LLIN the night before the survey (first three columns). Children under age 2 are more likely than older children to have slept under an ITN last night, while ITN utilization is slightly higher among female children (44 percent) than male children (42 percent). Sleeping under an ITN is more common for urban children compared with those living in rural areas (49 percent and 42 percent, respectively). A higher proportion of children living in the West Nile (57 percent) region and those from the highest wealth quintile (49 percent) slept under an ITN last night relative to children living in other parts of Uganda or from other quintiles. Additionally, among children under age 5 in households with at least one ITN (final two columns in table), six in ten (63 percent) slept under an ITN the night before the survey. Differences by background characteristic among this group are similar to those observed for children under age 5 who slept under a net in all households.

Table 12.5 Use of mosquito nets by children

Percentage of children under age 5 who, the night before the survey, slept under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months; and among children under age 5 in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, Uganda 2011

	Children under age 5 in all households								
			Percentage who slept under an ITN <sup>1</sup>						
Percentage who slept under any net last night	Percentage who slept under an ITN <sup>1</sup> last night	Percentage who slept under an LLIN last night	last night or in a dwelling sprayed with IRS <sup>2</sup> in the past 12 months	Number of children	Percentage who slept under an ITN <sup>1</sup> last night	Number of children			
57.4 59.7 49.3 50.0 48.9	46.7 48.7 40.3 39.6 38.7	45.6 48.1 39.7 39.4 38.6	49.9 51.9 44.2 43.5 43.3	1,681 1,606 1,705 1,645 1,657	67.3 68.5 61.0 59.4 57.8	1,165 1,141 1,127 1,096 1,111			
52.3 53.7	41.6 44.0	40.9 43.5	45.0 48.1	4,163 4,132	62.2 63.6	2,783 2,858			
66.7 51.0	48.9 41.9	47.8 41.4	51.3 45.8	1,060 7,235	70.5 61.7	736 4,905			
74.1 54.0 52.5 38.7 58.9 54.4 54.8 60.1 55.3 40.8	52.1 41.6 43.9 23.9 42.5 49.9 49.3 57.1 49.9 34.0	50.6 40.7 43.1 23.5 41.4 49.9 49.1 57.1 49.8 33.7	55.4 43.0 44.4 25.1 44.2 50.5 81.3 57.5 50.0 34.5	431 873 874 943 1,379 304 740 521 1,203 1,027	74.8 57.7 64.2 59.0 68.8 79.0 67.4 63.6 61.7 49.5	301 629 597 382 851 192 542 468 974 705			
52.8 50.7 46.3 48.8 67.9	44.8 40.7 39.0 41.3 48.6	44.3 40.6 38.6 40.6 47.4	52.3 45.2 41.3 43.0 50.5	1,849 1,760 1,693 1,520 1,472	69.8 61.8 55.7 59.2 68.0	1,185 1,160 1,185 1,059 1,052 5.641			
	who slept under any net last night  57.4 59.7 49.3 50.0 48.9  52.3 53.7  66.7 51.0  74.1 54.0 52.5 38.7 58.9 54.4 54.8 60.1 55.3 40.8	Percentage who slept under any net last night  57.4 46.7 59.7 48.7 49.3 40.3 50.0 39.6 48.9 38.7  52.3 41.6 53.7 44.0  66.7 48.9 51.0 41.9  74.1 52.1 54.0 41.6 52.5 43.9 38.7 23.9 58.9 42.5 54.4 49.9 54.8 49.3 60.1 57.1 55.3 49.9 40.8 34.0  52.8 44.8 50.7 40.7 46.3 39.0 48.8 50.7 40.7 46.3 39.0 48.8 67.9	Percentage who slept under any net last night  57.4	Percentage who slept under an ITN1 last night or in a dwelling sprayed with IRS2 in the past 12 months	Percentage who slept under any net last night         Percentage who slept under an ITN¹ last night         Number of children           57.4         46.7         45.6         49.9         1,681           59.7         48.7         48.1         51.9         1,606           49.3         40.3         39.7         44.2         1,705           50.0         39.6         39.4         43.5         1,645           48.9         38.7         38.6         43.3         1,657           52.3         41.6         40.9         45.0         4,163           53.7         44.0         43.5         48.1         4,132           66.7         48.9         47.8         51.3         1,060           51.0         41.9         41.4         45.8         7,235           74.1         52.1         50.6         55.4         431           54.0         41.6         40.7         43.0         873           52.5         43.9         43.1         44.4         874           58.9         42.5	Percentage who slept under an ITN   last night   Percentage who slept under an ITN   last night   last nigh			

Note: Table is based on children who stayed in the household the night before the interview.

ITN usage has substantially increased within the past five years in Uganda. As measured in the 2006 UDHS, only one in ten children under age 5 slept under an ITN the night before the survey. It increased to 33 percent in the 2009 UMIS. The 2011 UDHS shows that more than four in ten children slept under an ITN the night before the survey. This represents a more than fourfold increase in ITN utilization among children since 2006. These substantial increases have undoubtedly been driven by the free distribution of nets by the government and other key players that contribute to the development of the health sector.

## 12.5.3 Use of Mosquito Nets by Pregnant Women

In malaria-endemic areas, adults usually have acquired some degree of immunity to severe, life-threatening malaria. However, pregnancy depresses the immune system so that pregnant women, especially those in their first pregnancy, have a higher risk of malaria. Moreover, malaria among pregnant women may be asymptomatic. Malaria during pregnancy is a major contributor to low birth weight, maternal anaemia, infant mortality, spontaneous abortion, and stillbirth. Pregnant women can reduce the risk of the adverse effects of malaria by sleeping under insecticide-treated mosquito nets.

Table 12.6 shows that almost three in five pregnant women in Uganda (59 percent) slept under a mosquito net of any type, 47 percent slept under an ITN, and 46 percent slept under an LLIN the night before the survey. Pregnant women living in urban areas (55 percent), as well as those residing in the West

<sup>&</sup>lt;sup>1</sup> An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a net that has been soaked with insecticide within the past 12 months.

<sup>&</sup>lt;sup>2</sup> Indoor residual spraying (IRS) is limited to spraying conducted by a government, private or non-governmental organization.

Nile region (72 percent) were more likely than pregnant women living in other areas to have slept under an ITN the night before the survey. Relative to their counterparts, a higher proportion of pregnant women with no education (58 percent) and those in the second wealth quintile (49 percent) slept under an ITN the previous night. Not surprisingly, ITN utilization is 1.5 times higher for pregnant women in households that own at least one ITN compared with ITN utilization among pregnant women in the general population: seven in ten (71 percent) pregnant women age 15-49 in households that own at least one ITN report having slept under an ITN the night before the survey.

Table 12.6 Use of mosquito nets by pregnant women

Percentages of pregnant women age 15-49 who, the night before the survey, slept under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months; and among pregnant women age 15-49 in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, Uganda 2011

		Among pregnar	nt women age 15	5-49 in all households		Among pregna	
				Percentage who slept under an ITN <sup>1</sup>		15-49 in hous least or	eholds with at ne ITN <sup>1</sup>
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ITN <sup>1</sup> last night	Percentage who slept under an LLIN last night	last night or in a dwelling sprayed with IRS <sup>2</sup> in the past 12 months	Number of women	Percentage who slept under an ITN <sup>1</sup> last night	Number of women
Residence Urban	71.1	55.4	53.3	57.1	135	85.0	88
Rural	57.0	45.6	45.1	48.7	874	68.6	581
Region							
Kampala Central 1	74.9 63.2	59.5 41.9	55.9 41.6	61.7 42.7	65 95	87.8 62.3	44 63
Central 2	51.2	43.1	43.1	43.1	87	67.4	56
East Central Eastern	43.4 65.8	25.6 50.5	24.4 49.6	26.4 50.5	119 159	59.3 77.9	51 103
Karamoja North	64.5 54.1	52.4 45.5	52.4 45.5	52.4 74.4	54 92	76.0 68.5	37 61
West Nile Western	75.6 61.4	72.1 55.2	71.8 55.2	72.1 55.2	51 161	81.3 71.1	45 125
Southwest	49.7	40.0	38.9	40.0	127	61.6	82
Education							
No education Primary Secondary +	63.8 56.3 63.1	58.4 43.8 48.6	58.4 43.1 47.6	59.4 47.5 50.6	133 639 238	84.9 68.4 68.8	91 409 168
Wealth quintile							
Lowest Second Middle Fourth Highest	56.3 58.5 53.1 57.6 69.8	47.6 49.1 43.0 47.4 46.8	47.0 49.1 41.7 47.3 45.4	52.8 54.9 43.6 48.2 48.0	231 232 199 161 186	75.5 74.4 69.6 62.8 69.7	146 153 123 121 125
Total	58.9	46.9	46.2	49.8	1,009	70.8	669

Note: Table is based on women who stayed in the household the night before the interview.

ITN use among pregnant women also dramatically increased over the past five years. Compared with results of the 2006 UDHS, which measured ITN use among pregnant women at 10 percent, the percentage of pregnant women that slept under an ITN has increased to 44 percent in 2009 and to 47 percent in 2011. This represents more than a 350 percent increase since 2006.

An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN), or (2) a net that has been soaked with insecticide within the past 12 months.

2 Indoor residual spraying (IRS) is limited to spraying conducted by a government, private or nongovernmental organization.

#### 12.6 Preventive Malaria Treatment during Pregnancy

Intermittent preventive treatment during pregnancy (IPTp), an important component of the malaria control programme, is intended to reduce malaria during pregnancy. IPTp comprises at least two doses of an effective antimalarial drug, such as sulfadoxine-pyrimethamine (SP), given during pregnancy as part of a routine antenatal clinic visit. IPTp prevents development of malaria and eliminates malaria parasites from the placenta. The Ministry of Health aims to prevent malaria by increasing the percentage of antenatal care (ANC) clients who receive at least two doses of IPTp and by promoting the use of ITNs among pregnant women in both the public and private sectors as indicated in the 2005/06-2009/10 Uganda Malaria Control Strategic Plan or UMCSP (MOH, 2005).

In the 2011 UDHS, women who had a live birth in the two years preceding the survey were asked several questions regarding the time they were pregnant with their most recent birth. They were asked if anyone told them during their pregnancy that pregnant women need to take medicine to keep them from getting malaria. They were also asked if they had taken any drugs to prevent getting malaria during that pregnancy and, if yes, which drug. If the respondent did not know the name of the drug she took, interviewers were instructed to show her some examples of common antimalarials. If respondents had taken SP or Fansidar, they were further asked how many times they took it and whether they had received it during a prenatal care visit. IPTp data are presented in Table 12.7.

Table 12.7 shows that, overall, six in ten (62 percent) women in Uganda reported that they took antimalarial drugs (any type) for malaria prevention during pregnancy in the two years preceding the survey. Almost half of women (48 percent) took at least one dose of SP/Fansidar, and 45 percent took at least one dose of SP/Fansidar at an ANC visit. Almost three in ten (27 percent) women reported taking two or more doses of SP/Fansidar during their last pregnancy, as recommended. Almost all of the women who took at least two doses of SP/Fansidar received at least one dose during an antenatal care (ANC) visit, or received IPTp.

IPTp usage is higher among women living in urban areas (29 percent) compared with those living in rural areas (24 percent). The proportion of pregnant women that received IPTp varies by region. For example, pregnant women living in the Eastern region are 2.7 times more likely to have received IPTp compared with those in the East Central region (33 percent and 12 percent, respectively). A woman's likelihood of having received IPTp increases as her education attainment increases. Those with at least some secondary education are 1.5 times more likely to have received IPTp than those with no education. By wealth quintile, a greater proportion of women in the highest quintile received IPTp during their last pregnancy when compared with women in other quintiles.

There has been a 51 percent increase in the proportion of Ugandan women receiving IPTp in the past five years. The 2006 UDHS showed that only 16 percent of pregnant women received IPTp, whereas the current survey reports that one-quarter of Ugandan women received IPTp for their last pregnancy.

Table 12.7 Prophylactic use of antimalarial drugs and use of intermittent preventive treatment (IPTp) by women during pregnancy

Percentage of women age 15-49 with a live birth in the two years preceding the survey who, during the pregnancy preceding the last birth, took any antimalarial drug for prevention, who took one dose of SP/Fansidar, and who received intermittent preventive treatment (IPTp)<sup>1</sup>, by background characteristics, Uganda 2011

		SP/F	ansidar		ent preventive atment <sup>1</sup>	
Background characteristic	Percentage who took any antimalarial drug	Percentage who took any SP/Fansidar	Percentage who received any SP/Fansidar during an ANC visit	Percentage who took 2+ doses of SP/Fansidar	Percentage who took 2+ doses of SP/Fansidar and received at least one during an ANC visit	Number of women with a live birth in the two years preceding the survey
Residence Urban Rural	65.1 61.7	55.1 47.3	53.0 43.5	30.2 26.1	29.4 23.7	450 2,642
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	64.1 59.9 58.3 43.5 76.1 61.0 68.8 57.1 65.2 58.8	55.2 40.7 42.5 26.2 65.8 56.0 51.0 40.2 51.3 49.5	52.3 37.2 38.5 21.2 60.2 55.4 48.9 38.3 47.5 48.1	30.1 22.5 25.9 15.6 35.5 28.6 25.9 21.9 31.8 23.5	28.5 20.7 23.2 12.1 32.5 28.2 24.3 20.5 29.0 22.8	187 322 340 345 529 107 276 187 423 375
Education No education Primary Secondary +	55.6 61.1 68.9	44.5 47.1 54.2	40.6 43.6 50.9	21.4 26.2 30.9	19.9 23.6 29.4	399 1,975 718
Wealth quintile Lowest Second Middle Fourth Highest	63.9 57.9 61.8 58.7 69.1	53.1 43.8 43.3 45.8 56.2	49.1 40.6 39.2 43.1 52.6	28.4 24.2 25.1 23.1 32.9	26.2 21.7 22.5 21.1 31.3	694 679 602 561 556
Total	62.2	48.4	44.9	26.7	24.5	3,092

<sup>&</sup>lt;sup>1</sup> IPTp: Intermittent preventive treatment during pregnancy is preventive treatment with two or more doses of SP/Fansidar.

## 12.7 FEVER AMONG CHILDREN UNDER AGE 5

Fever is a major manifestation of malaria in young children, although it also accompanies other illnesses. Most malarial fevers and convulsions occur at home. Prompt and effective malaria treatment is important to prevent the disease from becoming severe and complicated. The 2011 UDHS asked mothers whether their children under age 5 had had a fever in the two weeks preceding the survey and if so, whether any treatment was sought. Questions were also asked about blood testing, the types of drugs given to the child, and how soon the drugs had been taken.

#### 12.7.1 Prevalence and Treatment of Fever among Children

Table 12.8 shows the percentage of children under age 5 who had fever in the two weeks preceding the survey and, among those children under age 5, the percentage for whom advice or treatment was sought from a health facility, provider, or pharmacy, the percentage of such children who had a drop of blood taken from a finger or heel-prick (presumably for a malaria test), the percentage who took antimalarial drugs, and the percentage taking drugs on the same or next day.

Nationally, four in ten Ugandan children under age 5 had fever in the two weeks preceding the survey. Rural children suffered from fever more often than urban children (42 percent and 30 percent, respectively). By region, children living in the East Central (69 percent) region were the most likely to have been reported as suffering from fever compared with children of other regions. The prevalence of fever was highest among children age 12-23 months (48 percent), female children (41 percent), children whose mothers have only primary education (43 percent), and children from the lowest wealth quintile (50 percent).

Table 12.8 Prevalence, diagnosis, and prompt treatment of children with fever

Percentage of children under age 5 with fever in the two weeks preceding the survey; and among children under age 5 with fever, the percentage for whom advice or treatment was sought from a health facility, provider, or pharmacy, the percentage who had blood taken from a finger or heel, the percentage who took artemisinin-based combination therapy (ACT), the percentage who took ACT the same or next day following the onset of fever, by background characteristics, Uganda 2011

					children under 5 with fever:	age	
	Among o under a		Percentage for whom advice				
Background characteristic	Percentage with fever in the two weeks preceding the survey	Number of children	or treatment was sought from a health facility, provider, or pharmacy <sup>1</sup>	Percentage who had blood taken from a finger or heel for testing	Percentage who took antimalarial drugs	Percentage who took antimalarial drugs same or next day	Number of children
Age (in months)							
<12	36.6	1,630	80.3	24.7	50.5	32.4	596
12-23	48.4	1,480	83.0	29.4	68.7	44.2	716
24-35	43.0	1,515	82.2	28.8	67.7	44.8	651
36-47	37.7	1,473	82.8	22.9	66.8	45.6	555
48-59	36.4	1,438	79.4	22.2	68.2	45.6	524
Sex							
Male	39.3	3,757	79.7	25.3	62.1	41.7	1,478
Female	41.4	3,778	83.4	26.5	66.7	43.3	1,564
Residence							
Urban	30.3	1,089	90.5	52.6	63.4	43.8	330
Rural	42.1	6,447	80.6	22.7	64.6	42.3	2,712
Region							
Kampala	24.0	467	92.9	56.6	60.2	43.1	112
Central 1	42.4	743	86.9	25.1	63.4	38.6	315
Central 2	42.4	794	83.7	29.9	59.4	44.8	337
East Central	69.3	852	71.1	17.7	46.0	26.7	590
Eastern	55.6	1,284	80.2	22.8	75.9	52.9	714
Karamoja	40.9	281	88.4	40.1	75.5	61.2	115
North	38.5	669	87.8	28.2	79.7	49.9	258
West Nile	37.6	446	84.7	22.5	70.6	57.0	168
Western	29.1	1,096	88.3	28.9	66.4	37.7	319
Southwest	12.7	903	69.7	25.5	50.7	19.3	115
Mother's education							
No education	39.7	1,081	75.1	21.6	56.3	36.6	430
Primary	43.1	4,792	81.4	24.3	66.1	43.0	2,064
Secondary +	33.0	1,662	87.8	35.4	64.9	45.3	549
Wealth quintile							
Lowest	49.8	1,673	79.2	25.3	64.5	43.0	832
Second	42.6	1,594	79.3	18.2	66.6	45.5	679
Middle	36.8	1,510	84.3	22.5	62.2	37.4	556
Fourth	40.7	1,331	80.3	23.8	61.9	39.7	542
Highest	30.3	1,428	88.2	46.3	67.4	46.9	432
Total	40.4	7,535	81.6	25.9	64.5	42.5	3,042

<sup>&</sup>lt;sup>1</sup> Excludes market, shop, and traditional practitioner

Among children with fever, treatment or advice was sought from a health facility, provider, or pharmacy for four in five children (82 percent), whereas one-quarter of children with fever had blood taken from a finger or heel for testing (26 percent). There is little variation by age of children in the proportion of children for whom advice or treatment for fever was sought. Female children are slightly more likely than male children to have been taken for treatment or advice (83 percent and 80 percent, respectively). Treatment-seeking behaviour is more prevalent for urban children with fever (91 percent) relative to rural children (81 percent). Likewise, children living in Kampala (93 percent) are more likely than others to be taken for treatment or advice. Treatment-seeking behaviour increases with both education and wealth. Similar patterns are presented for children with fever who had blood taken from their finger or heel for testing.

More than three in five (65 percent) children suffering from fever took an antimalarial drug, and 43 percent took it within the recommended timeframe, the same or next day. Children less than age 1 are the least likely to have taken an antimalarial. Female children are only slightly more likely than male children to have taken an antimalarial drug, and there is no meaningful difference observed by urban-rural residence. By region, on the other hand, the highest percentage of children taking an antimalarial reside in the North region (80 percent), while the lowest percentage of children taking an antimalarial drug live in the East Central region (46 percent). Children whose mothers have at least some primary education are more likely than children of women with no education to have taken an antimalarial. Nearly seven in ten children with fever who were in the second and the highest wealth quintiles (67 percent) took an antimalarial drug.

# 12.7.2 Type and Timing of Antimalarial Drugs

In Uganda, a range of antimalarial drugs are marketed. The 2011 UDHS collected information on the type of antimalarial drugs taken and the timing (same or next day); this was assessed for children under age 5 with reported fever in the two weeks prior to the survey who also took antimalarial drugs. Table 12.9 depicts the type and timing of antimalarial drugs used among children under 5 with fever in the two weeks preceding the survey and the percentage of children who took specific antimalarial drugs the same or next day after developing fever, by the various background characteristics.

Among children with fever that took an antimalarial drug, almost seven in ten (69 percent) took Coartem or ACT, the recommended malaria treatment. One-quarter (24 percent) of these children took quinine, 6 percent took chloroquine, and 4 percent took SP/Fansidar. By age, older children age 36-47 months with fever that received an antimalarial are more likely to have taken ACT compared with other children. Male children (70 percent) and urban children (70 percent) are slightly more likely to have taken an ACT compared with female children (67 percent) and those living in rural areas (68 percent). Adherence to the recommended malaria treatment, ACT, is particularly low for children living in the Southwest (59 percent) region, where use of chloroquine and quinine are high relative to other regions. ACT use is lowest for children whose mothers have no education (66 percent), and highest for children from households in the highest wealth quintile (72 percent).

Table 12.9 also shows the percentage of children who took a specific drug the same or next day among those children with fever that took an antimalarial drug. Of children who took an antimalarial drug, the majority were treated within the recommended time frame. For example, more than four in ten children (46 percent) taking an antimalarial took ACT the same or next day, which represents two-thirds of those who took ACT (46 percent out of 69 percent).

Table 12.9 Type and timing of antimalarial drugs used

Among children under age 5 with fever in the two weeks preceding the survey who took any antimalarial medication, the percentage who took specific antimalarial drugs and the percentage who took each type of drug the same or next day after developing fever, by background characteristics, Uganda 2011

		Percentage of children who took drug:						tage of ch	ildren who to	ook drug the	Percentage of children who took drug the same or next day:				
Background characteristic	SP/ Fansidar	Chloro- quine	Chloro- quine with Fansidar	Coartem/ ACT	Quinine	Other anti- malarial	SP/ Fansidar	Chloro- quine	Chloro- quine with Fansidar	Coartem/ ACT	Quinine	Other anti- malarial	- fever who took anti- malarial drug		
Age (in months)															
<12	3.2	6.1	0.8	60.9	31.9	1.8	2.1	3.7	8.0	38.9	20.9	0.0	301		
12-23	5.5	4.7	0.5	71.0	24.9	1.4	3.3	2.0	0.2	46.1	14.5	0.0	491		
24-35	2.5	7.2	0.9	69.1	22.1	4.3	1.7	4.0	0.3	48.5	12.8	0.3	441		
36-47	2.6	5.4	2.4	72.1	21.2	2.8	1.3	3.7	1.1	50.8	14.0	0.0	371		
48-59	4.5	5.2	2.0	67.6	22.3	2.8	3.0	2.9	1.0	46.1	15.3	0.0	357		
Sex															
Male	4.1	5.0	1.6	70.0	22.3	2.8	2.5	2.7	1.0	49.0	13.6	0.1	918		
Female	3.4	6.2	0.9	67.4	25.8	2.4	2.2	3.6	0.3	44.1	16.5	0.1	1,043		
Residence															
Urban	2.2	4.9	1.1	70.0	24.6	4.0	1.6	2.5	0.9	50.6	15.6	0.2	209		
Rural	3.9	5.8	1.3	68.4	24.1	2.5	2.4	3.3	0.6	45.9	15.1	0.1	1,752		
Region															
Kampala	1.7	4.9	1.6	79.0	12.8	3.5	1.0	4.0	1.0	57.3	7.6	0.8	68		
Central 1	3.7	6.4	2.1	74.2	18.0	2.3	1.5	2.4	1.4	49.8	7.4	0.0	200		
Central 2	2.0	6.6	0.7	65.6	25.5	3.2	2.0	4.9	0.0	48.9	20.4	0.5	200		
East Central	7.6	12.5	3.5	63.3	17.5	4.0	5.3	5.7	1.8	38.7	10.7	0.0	272		
Eastern	3.7	4.6	8.0	59.8	35.6	2.8	2.7	3.1	0.2	40.7	24.9	0.0	542		
Karamoja	2.4	7.9	0.9	81.3	15.0	0.5	8.0	7.7	0.9	66.3	9.1	0.0	87		
North	1.0	0.6	1.0	82.3	15.8	2.8	0.0	0.6	1.0	52.3	8.8	0.0	205		
West Nile	3.7	1.9	0.9	76.2	21.6	0.0	2.2	1.9	0.0	62.6	15.6	0.0	118		
Western	3.5	2.2	0.0	72.0	22.6	2.9	2.7	0.0	0.0	45.7	8.9	0.0	212		
Southwest	6.1	13.8	0.0	59.1	31.9	0.0	0.0	4.3	0.0	20.8	15.1	0.0	58		
Mother's education															
No education	2.8	5.2	1.3	73.6	21.8	1.9	1.9	4.2	0.3	47.7	13.9	0.0	242		
Primary	4.2	6.3	1.3	66.3	25.3	2.5	2.7	3.4	0.7	44.2	15.6	0.0	1,363		
Secondary +	2.3	3.7	1.2	74.0	21.2	3.5	1.3	1.5	0.5	53.9	14.4	0.4	356		
Wealth quintile															
Lowest	3.4	5.9	1.2	66.0	27.5	2.1	1.9	4.6	0.4	44.3	18.6	0.0	537		
Second	3.6	4.9	0.7	69.5	25.8	1.5	2.9	2.6	0.4	47.7	15.8	0.0	452		
Middle	2.8	8.6	2.3	68.0	22.6	2.2	1.5	3.0	1.5	42.6	12.4	0.0	346		
Fourth	6.2	4.6	1.2	69.1	21.7	3.5	4.1	2.8	0.3	45.6	13.7	0.0	335		
Highest	2.7	4.2	1.0	72.4	20.0	4.8	1.2	2.1	0.6	53.6	12.9	0.5	291		
Total	3.7	5.7	1.2	68.6	24.2	2.6	2.3	3.2	0.6	46.4	15.2	0.1	1,962		

ACT = Artemisinin-based combination therapy

## 12.8 ANAEMIA PREVALENCE AMONG CHILDREN AGE 6-59 MONTHS

Anaemia—a low level of functional haemoglobin in the blood—decreases the amount of oxygen reaching the tissues and organs of the body, reducing their capacity to function. It is associated with impaired cognitive and motor development in children. Although there are many causes of anaemia, inadequate intake of iron folate, vitamin B12, or other nutrients usually account for the majority of cases in many populations. Severe malaria also accounts for a large proportion of anaemia in children under 5 in malaria endemic areas. Other causes of anaemia include thalassemia, sickle cell disease, and intestinal worm infestation. Promotion of the use of insecticide-treated bed nets and deworming medication every six months for children under age 5 reduces anaemia prevalence among children.

As mentioned earlier, malaria is the leading cause of sickness and death among children under age 5 in Uganda. In areas of constant, high malaria transmission, partial immunity develops within the first two years of life. Many people, including children, may have malaria parasites in their blood without showing outward signs of infection. asymptomatic infection not only contributes to further transmission of malaria but also takes a toll on the health of individuals by contributing to anaemia. Anaemia is a major cause of morbidity and mortality associated with malaria, making prevention and treatment of malaria among children and pregnant women very important. Table 12.10 shows the percentage of children age 6-59 months classified as having severe anaemia (haemoglobin concentration of less than 8.0 grams per decilitre) by background characteristics. A haemoglobin level below 8.0 grams per decilitre is often associated with malaria infection in malaria-endemic regions.

Five percent of Ugandan children 6-59 months old are severely anaemic. Young children, those 6-8 months (13 percent), are much more likely to be severely anaemic than older children. Severe anaemia threatens slightly fewer children in urban areas than in rural areas (2 percent and 5 percent, respectively). By region, the prevalence of severe anaemia varies greatly, ranging from a low of less than 1 percent in the Southwest region to a high of 9 percent among children living in the East Central region. Children of households in the highest wealth quintile have the lowest prevalence of severe anaemia. There is little variation in the

Table 12.10 Haemoglobin <8.0 g/dl in children

Percentage of children age 6-59 months with haemoglobin lower than 8.0 g/dl, by background characteristics, Uganda 2011

o.o g/di, by background characteristics, og	gariaa 2011	
Background characteristic	Hemoglobin <8.0 g/dl	Number of children
Age (in months) 6-8 9-11 12-17 18-23 24-35 36-47 48-59	12.5 6.7 5.0 7.4 5.6 0.7 3.5	124 120 250 265 444 480 459
Sex Male Female	3.8 5.5	1,064 1,078
Mother's interview status Interviewed Not interviewed but in household Not interviewed, and not in the household <sup>1</sup>	4.8 5.0 3.5	1,796 106 240
Residence Urban Rural	1.5 5.1	265 1,877
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	1.4 6.2 3.3 8.9 7.9 6.4 0.4 5.2 3.0 0.4	122 209 199 257 419 79 178 141 285 253
Mother's education <sup>2</sup> No education Primary Secondary +	3.2 5.5 3.5	253 1,238 395
Wealth quintile Lowest Second Middle Fourth Highest	6.7 5.7 4.8 4.3 0.8 4.7	477 453 460 394 357 2,142

Note: Table is based on children who stayed in the household the night before the interview. Prevalence of anemia is based on hemoglobin levels and is adjusted for altitude using CDC formulas (CDC, 1998). Hemoglobin is measured in grams per deciliter (g/dl).

proportion of children with severe anaemia by sex or mother's education level.

The results show improvement in severe anaemia in young children. The proportion of children age 6-59 months with severe anaemia declined from 10 percent in 2009 to 5 percent in 2011 (UBOS and ICF Macro, 2010).

<sup>&</sup>lt;sup>1</sup> Includes children whose mothers are deceased

<sup>&</sup>lt;sup>2</sup> For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

## **Key Findings**

- Nearly all Ugandans have heard of HIV, but only 4 in 10 (38 percent of women and 43 percent of men) have a comprehensive knowledge of HIV/AIDS prevention and transmission; that is, they know that both condom use and limiting sexual intercourse to one uninfected partner can prevent HIV, they are aware that a healthy-looking person can have HIV, and they reject the two most common local misconceptions about HIV: that HIV can be transmitted by mosquitoes and by sharing food.
- Among those who had more than one sexual partner in the past 12 months, nearly one-third (31 percent) of women and one-fifth (19 percent) of men report using a condom during their last sexual intercourse.
- HIV testing has increased dramatically in the past five years. The current survey shows that 7 in 10 women (71 percent) and 1 in 2 men (52 percent) age 15-49 have been tested for HIV and received their results. Testing has increased from 25 percent of women and 21 percent of men in the 2006 UDHS.
- Sixty-four percent of never-married young women and 51 percent of never-married young men have never had sexual intercourse. Overall, one-quarter of never-married young women (24 percent) and 3 in 10 never-married young men report sexual intercourse in the past 12 months.

## 13.1 Introduction

cquired 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.

AIDS is one of the most serious public health and development challenges in sub-Saharan Africa. All sectors of Ugandan society are affected. The future course of the AIDS epidemic in Uganda depends on a number of factors including HIV/AIDS-related knowledge, degree of social stigmatisation, risky behaviour, access to high-quality services for sexually transmitted infections (STIs), provision and uptake of HIV counseling and testing, and access to antiretroviral therapy (ART).

The key objective of this chapter is to establish the prevalence of relevant knowledge, attitudes, and behaviours at the national level and within the geographic and socioeconomic subgroups of the population, using data from the 2011 UDHS. This chapter presents findings from the survey of the general adult population and, specifically, from young people. The chapter concludes with information on patterns of sexual activity among young people, as they are the main target of many HIV prevention efforts. The findings in this chapter will help control and prevention programmes to target the groups of people most in

need of information and services and most vulnerable to the risk of HIV infection. The findings presented in this chapter may be compared with the findings from the 2006 UDHS.

# 13.2 HIV/AIDS KNOWLEDGE, TRANSMISSION, AND PREVENTION METHODS

#### 13.2.1 Awareness of HIV/AIDS

The 2011 UDHS respondents were asked whether they had heard of AIDS. Those who reported having heard of AIDS were then asked a number of questions about whether and how infection can be avoided. The past five DHS and AIS surveys in Uganda have shown that general awareness of HIV and AIDS among the population is universal. It is not surprising, therefore, that almost everyone interviewed in the 2011 UDHS had heard of AIDS. Table 13.1 shows that in Uganda today knowledge of AIDS is universal among all sub-groups of men and women.

<u>Table 13.1 Knowledge of AIDS</u>

Percentage of women and men age 15-49 who have heard of AIDS, by background characteristics, Uganda 2011

	Wo	men	Men			
Background characteristic	Has heard of AIDS	Number of women	Has heard of AIDS	Numbe of men		
Age						
15-24	99.6	3,677	99.4	872		
15-19	99.3	2,048	99.1	554		
20-24	99.9	1,629	99.9	318		
25-29	99.6	1,569	99.8			
				361		
30-39	99.8	2,112	100.0	592		
40-49	99.9	1,316	100.0	348		
Marital status						
Never married	99.1	2,123	99.3	834		
Ever had sex	99.9	837	100.0	438		
Never had sex	98.6	1,286	98.5	397		
Married/Living together	99.9	5,418	100.0	1,228		
Divorced/Separated/Widowed	99.6	1,134	100.0	111		
Residence						
Urban	99.7	1,717	99.9	439		
Rural	99.7	6,957	99.7	1,734		
Region						
Kampala	99.7	839	100.0	221		
Central 1	99.7	956	100.0	209		
Central 2	100.0	902	100.0	236		
East Central	99.4	869	100.0	236		
Eastern	99.5	1,267	100.0	289		
Karamoja	99.9	289	99.1	55		
North	99.9	735	100.0	199		
West Nile	99.9	500	99.4	133		
Western	99.2	1,221	98.5	322		
Southwest	99.9	1,097	100.0	273		
Education		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
No education	99.7	1,120	99.6	90		
Primary	99.7	5,152	99.6 99.6	1,309		
Secondary +	99.6 99.8	5,152 2,402	100.0	774		
•	99.0	2,402	100.0	774		
Wealth quintile	00.7	1.510	00.4	245		
Lowest	99.7	1,519	98.4	345		
Second	99.7	1,579	100.0	423		
Middle	99.4	1,608	100.0	402		
Fourth	99.8	1,726	99.9	486		
Highest	99.8	2,242	100.0	517		
Total 15-49	99.7	8,674	99.7	2,173		
50-54	na	na	100.0	122		
Total 15-54	na	na	99.7	2,295		

## 13.2.2 Knowledge of HIV Prevention

Among Ugandan adults, HIV is mainly transmitted through sexual contact between an infected partner and an uninfected partner. Consequently the HIV prevention programme has mainly sought to reduce further sexual transmission through three programmatically important ways: promotion of sexual abstinence, mutually faithful monogamy among uninfected individuals, and condom use among the sexually active.

In the 2011 UDHS, men and women were prompted with specific questions about whether it is possible to reduce the chance of getting the virus that causes AIDS by having just one faithful sexual partner and by using a condom at every sexual encounter. As can be shown in Table 13.2, eight in 10 respondents (79 percent of women and 84 percent of men) agreed that condom use can reduce the risk of getting AIDS. Nine in ten respondents (89 percent of women and 91 percent of men) know that the risk of getting HIV can be reduced by limiting sexual intercourse to one uninfected partner. Three-quarters (74 percent) of women and four-fifths (79 percent) of men recognize that both using condoms and limiting sexual intercourse to one uninfected partner are methods to reduce the risk of getting HIV.

Table 13.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, and by having one sex partner who is not infected and has no other partners, by background characteristics, Uganda 2011

		Wo	men			N	len	
		ige who say the be prevented b		_	Percenta	age who say that be prevented b		
Background	Using	one uninfected	Using condoms and limiting sexual intercourse to one uninfected partner <sup>1,2</sup>	Number of	Using condoms <sup>1</sup>	one uninfected	Using condoms and limiting sexual intercourse to one uninfected partner <sup>1,2</sup>	Number of men
characteristic	condoms'	partner <sup>2</sup>	partner	women	CONDOMS	partner <sup>2</sup>	partner	or men
Age 15-24 15-19 20-24 25-29 30-39 40-49	79.0 75.7 83.1 79.2 80.7 75.5	87.3 85.1 90.1 89.6 89.6 90.5	73.6 69.5 78.8 75.1 75.5 72.0	3,677 2,048 1,629 1,569 2,112 1,316	83.9 82.4 86.7 87.1 82.6 83.1	90.9 89.8 93.0 92.6 91.6 89.5	79.1 77.2 82.4 83.0 78.3 76.9	872 554 318 361 592 348
Marital status								
Never married Ever had sex	76.3 85.0	85.8 89.7	70.4 79.5	2,123 837	83.9 88.5	91.0 94.1	79.0 85.0	834 438
Never had sex	70.7	83.2	64.4	1.286	78.8	87.5	72.3	397
Married/living together	79.8	89.9	75.4	5,418	84.0	90.6	78.9	1,228
Divorced/separated/widowed	79.8	88.9	74.9	1,134	84.2	99.1	84.2	111
Residence Urban Rural	86.4 77.1	91.7 88.0	82.1 72.1	1,717 6,957	87.2 83.1	93.5 90.6	83.5 78.1	439 1,734
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	88.7 87.6 84.4 88.2 70.3 38.3 87.7 65.5 78.8 73.0	90.3 91.9 91.7 91.8 81.1 85.1 94.8 86.2 87.0 89.0	83.0 81.3 80.0 83.9 66.4 37.3 85.5 59.9 72.5 67.5	839 956 902 869 1,267 289 735 500 1,221 1,097	85.2 88.4 92.9 86.5 79.4 53.1 92.3 55.6 88.6 82.7	94.6 98.5 98.4 91.1 70.4 80.9 98.2 91.9 95.1 90.7	84.0 87.5 91.9 81.8 60.9 52.9 91.1 50.6 85.7 77.8	221 209 236 236 289 55 199 133 322 273
Education				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
No education Primary Secondary +	65.0 78.4 86.6	84.2 88.1 92.3	59.9 73.4 82.2	1,120 5,152 2,402	71.3 83.9 85.5	84.4 90.6 93.0	62.8 78.9 81.6	90 1,309 774
Wealth quintile Lowest Second Middle Fourth Highest Total 15-49	66.7 75.2 80.0 83.2 85.7 78.9	83.4 88.0 89.2 90.3 91.4 88.8	62.1 71.0 74.1 78.9 80.7	1,519 1,579 1,608 1,726 2,242	76.3 81.1 84.4 87.5 87.7	76.5 90.1 94.4 94.8 96.0	63.2 76.4 81.2 84.5 85.5	345 423 402 486 517
10tal 15-49 50-54	78.9 na	88.8 na	74.1 na	8,674 na	83.9 82.5	91.2 90.0	79.2 74.8	2,173 122
Total 15-54	na	na	na	na	83.9	91.1	78.9	2,295

na = Not applicable

<sup>2</sup> Partner who has no other partners

Using condoms every time they have sexual intercourse

There are notable differences in knowledge of prevention. Those in the youngest (15-19) and oldest (40-49) age cohorts generally have lower levels of knowledge than those in other age categories. Never-married respondents who have not had sex are also less likely to know about HIV prevention methods than those that have married or ever had sex. Knowledge of HIV prevention methods is higher among urban residents than among those living in rural areas. Variation in knowledge levels by region is particularly striking. For example, 86 percent women of residing in the North region recognize that both using condoms and limiting sexual intercourse to one uninfected partner are ways to reduce the risk of getting HIV, compared with slightly more than one-third (37 percent) of women living in the Karamoja region. Men and women with higher levels of education are more likely than those with lower levels of education to be aware of HIV prevention methods. For example, 82 percent of women with secondary or higher education know that both using condoms and limiting sexual intercourse to one uninfected partner are methods to reduce the risk of getting HIV compared with 60 percent of women with no education. Knowledge of HIV prevention also increases as wealth of the respondents increases.

## 13.2.3 Rejection of Misconceptions about HIV/AIDS

In addition to knowing effective ways to avoid contracting HIV, it is useful to be able to identify incorrect beliefs about AIDS. Common misconceptions about AIDS include the idea that all HIV-infected people always appear ill and the belief that the virus can be transmitted through mosquito or other insect bites, by sharing food with someone who is infected, or by witchcraft or other supernatural means.

Tables 13.3.1 and 13.3.2 show the proportions of women and men who know that a healthy-looking person can have HIV and who reject common misconceptions about HIV transmission. Eighty-seven percent of women and 92 percent of men know that a healthy-looking person can have the AIDS virus. Fewer respondents understand that the AIDS virus cannot be transmitted by mosquito bites (60 percent of women and 62 percent of men). Knowledge that people cannot get the AIDS virus by sharing food with a person who has AIDS is slightly more prevalent, as 78 percent of women and 83 percent of men said a person cannot become infected by sharing food with a person who has AIDS. Respondents were also asked if they thought that people could get the AIDS virus by witchcraft or other supernatural means. Nearly 9 in 10 respondents (87 percent of women and 91 percent of men) knew that the AIDS virus cannot be transmitted by supernatural means.

Table 13.3.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS, by background characteristics, Uganda 2011

	Perc	entage of respo	ndents who say	that:	Percentage		
		The AIDS	The AIDS virus	A person cannot become infected by	who say that a healthy looking person can have the AIDS virus and who	Percentage	
	A healthy- looking person	virus cannot	cannot be transmitted by	sharing food with a person	reject the two most common	with a compre- hensive	
Background	can have the	by mosquito	supernatural	who has the	local miscon-	knowledge	Number of
characteristic	AIDS virus	bites	means	AIDS virus	ceptions <sup>1</sup>	about AIDS <sup>2</sup>	women
Age							
15-24	84.5	62.4	87.8	77.6	47.5	38.1	3,677
15-19	81.5	63.0	85.6	77.7	46.8	35.6	2,048
20-24	88.2	61.6	90.6	77.6	48.5	41.1	1,629
25-29	88.1	59.2	89.3	78.3	47.8	38.6	1,569
30-39	89.9	59.5	86.5	77.5	48.2	38.5	2,112
40-49	86.6	54.3	84.0	76.9	43.4	34.5	1,316
Marital status							
Never married	83.1	66.7	86.6	80.2	51.7	39.8	2,123
Ever had sex	88.4	69.1	88.9	82.1	54.8	45.0	837
Never had sex	79.6	65.2	85.1	79.0	49.6	36.4	1,286
Married/Living together	87.6	57.6	87.5	76.8	45.3	36.7	5,418
Divorced/Separated/Widowed	89.8	58.3	86.5	76.5	47.2	38.8	1,134
Residence							
Urban	93.5	69.4	91.6	82.3	59.4	50.5	1,717
Rural	85.1	57.6	86.1	76.5	44.1	34.6	6,957
Region							
Kampala	95.5	74.1	91.3	83.3	64.6	55.4	839
Central 1	96.1	63.6	92.3	78.2	53.8	44.8	956
Central 2	94.2	55.6	87.5	72.4	45.4	39.2	902
East Central	92.3	53.4	86.8	71.0	41.0	35.5	869
Eastern	76.3	53.9	83.9	78.2	38.2	27.1	1,267
Karamoja	58.7	52.9	74.3	66.9	31.4	20.3	289
North	84.4	62.9	92.3	85.5	51.8	46.6	735
West Nile	81.3	43.7	76.2	75.0	29.8	19.1	500
Western	81.8	61.9	87.6	79.4	46.9	37.4	1,221
Southwest	90.6	66.3	87.8	78.4	53.5	38.4	1,097
Education							
No education	76.5	46.8	78.2	68.5	31.6	22.8	1,120
Primary	86.0	54.6	86.1	74.7	41.2	32.6	5,152
Secondary +	93.3	77.5	93.6	88.0	67.0	55.7	2,402
Wealth quintile							
Lowest	76.3	50.6	80.6	74.2	35.3	26.1	1,519
Second	83.1	53.0	84.5	73.3	38.7	30.0	1,579
Middle	87.3	57.3	88.2	76.9	44.8	35.0	1,608
Fourth	89.6	60.0	87.7	75.9	46.4	38.4	1,726
Highest	94.0	72.7	92.4	84.8	63.2	52.5	2,242
Total 15-49	86.8	59.9	87.2	77.6	47.1	37.7	8,674

<sup>&</sup>lt;sup>1</sup> Two most common local misconceptions: AIDS can be transmitted by mosquito bites and a person can become infected by sharing food with a

person who has AIDS

Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Table 13.3.2 Comprehensive knowledge about AIDS: Men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS by background characteristics, Uganda 2011

	Pero	entage of respo	ndents who say	that:	Percentage		
Background characteristic	A healthy- looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has the AIDS virus	who say that a healthy looking person can have the AIDS virus and who reject the two most common local miscon- ceptions <sup>1</sup>	Percentage with a compre- hensive knowledge about AIDS <sup>2</sup>	Number of men
Ago							
Age 15-24 15-19 20-24 25-29 30-39 40-49	88.4 86.9 90.9 92.8 94.4 94.2	62.7 59.1 69.1 58.6 63.5 63.3	90.3 89.3 92.0 91.6 91.4 92.1	82.8 82.1 83.8 81.2 84.9 84.1	49.5 45.1 57.2 52.0 56.4 56.3	39.5 34.8 47.7 42.8 45.3 46.0	872 554 318 361 592 348
Marital status Never married Ever had sex Never had sex Married/Living together Divorced/Separated/Widowed	88.6 90.3 86.8 93.7 92.0	64.4 66.5 62.0 61.6 55.1	90.3 91.7 88.6 92.1 86.6	83.7 84.2 83.2 83.4 78.6	51.2 53.4 48.7 54.5 47.5	40.6 45.2 35.6 44.3 40.1	834 438 397 1,228 111
<b>Residence</b> Urban Rural	96.1 90.6	76.6 58.8	94.6 90.2	85.2 82.8	67.9 49.1	57.8 38.8	439 1,734
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	96.3 98.1 97.1 91.3 83.5 83.1 97.5 90.7 89.4 88.0	78.5 43.4 61.8 54.2 55.2 64.9 71.7 81.4 67.1 56.7	96.5 88.6 92.6 93.0 87.8 71.6 96.5 81.9 94.4 90.0	84.2 71.8 76.2 80.2 85.0 78.1 94.8 88.6 86.6 84.4	69.4 36.3 53.2 44.9 42.7 58.9 67.9 68.5 57.1	59.5 34.5 49.5 35.8 27.3 43.9 61.3 29.5 51.1	221 209 236 236 289 55 199 133 322 273
Education No education Primary Secondary +	85.9 90.4 94.5	40.3 53.9 79.2	73.6 90.6 94.1	56.3 79.5 92.7	25.3 44.0 71.1	19.3 35.2 58.0	90 1,309 774
Wealth quintile Lowest Second Middle Fourth Highest	85.2 92.3 90.5 91.9 96.2	59.1 59.6 57.0 61.6 71.7	85.6 89.1 91.5 93.5 93.9	80.9 81.3 83.1 84.4 85.5	48.3 49.6 47.6 52.1 63.6	34.8 37.5 35.1 44.9 55.9	345 423 402 486 517
Total 15-49 50-54 Total 15-54	91.7 97.0 92.0	62.4 48.4 61.6	91.1 89.4 91.0	83.3 76.0 82.9	52.9 40.7 52.2	42.7 32.5 42.1	2,173 122 2,295

<sup>&</sup>lt;sup>1</sup> Two most common local misconceptions: AIDS can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has AIDS

Two composite measures of HIV/AIDS knowledge are included in Tables 13.3.1 and 13.3.2. The first measure indicates that approximately half of respondents (47 percent of women and 53 percent of men) know that the two most common misconceptions about HIV/AIDS (i.e., HIV can be transmitted by mosquitoes or by sharing food with a person who has AIDS) are incorrect and also are aware that a healthy-looking person can have HIV. The second measure shows that about 4 in 10 Ugandans (38 percent of women and 43 percent of men) have what can be considered comprehensive knowledge of HIV/AIDS prevention and transmission; that is, they know that both condom use and limiting sexual intercourse to

<sup>&</sup>lt;sup>2</sup> Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

one uninfected partner can prevent HIV, they are aware that a healthy-looking person can have HIV. They reject the two most common local misconceptions (that HIV can be transmitted through mosquitoes and that a person can become infected with HIV by sharing food with a person who has AIDS).

In Uganda, comprehensive knowledge about AIDS is generally lowest among the youngest age cohort, those age 15-19; however, among women, comprehensive knowledge about AIDS is also low among the oldest age cohort, those age 40-49. By marital status, respondents that have never married, but who have had sex, are more likely than their counterparts to have comprehensive knowledge about AIDS. Among both men and women, urban residents are 1.5 times more likely than those living in rural areas to have comprehensive knowledge about AIDS. Comprehensive knowledge varies widely by region in Uganda. Among women, those living in Karamoja (20 percent) and West Nile (19 percent) have the lowest levels of comprehensive knowledge in the country. Among men, the lowest proportion is in Eastern region(27 percent). Of note is the increase in comprehensive knowledge about AIDS among respondents in the North region. There has been tremendous improvement in respondents' knowledge levels since the 2006 UDHS. The current survey shows that 47 percent of women and 61 percent of men residing in the North region have comprehensive knowledge about AIDS. In the 2006 UDHS, only 20 percent of women and 39 percent of men living in the North region were considered to have a comprehensive knowledge of HIV. Within the past five years, comprehensive knowledge of AIDS has more than doubled among women in the North region, while among men living in the North region, it has increased by 56 percent.

## 13.2.4 Knowledge of Prevention of Mother-to-Child Transmission of HIV

Increasing knowledge of ways in which HIV can be transmitted from mother to child and reducing the risk of transmission using antiretroviral drugs are critical to reducing mother-to-child transmission (MTCT) of HIV. In Uganda, about 21 percent of HIV transmission is currently believed to be caused by MTCT (UAC, 2007) and, as such, the country has implemented strategies for prevention of mother-to-child transmission (PMTCT). To assess MTCT and PMTCT knowledge, the 2011 UDHS asked respondents if the virus that causes AIDS can be transmitted from a mother to a child during pregnancy, delivery, and breastfeeding. Respondents were also asked whether a mother with HIV can reduce the risk of transmission to the baby by taking certain drugs (antiretrovirals) during pregnancy.

Table 13.4 shows that Ugandan women are slightly more knowledgeable than Ugandan men about MTCT and PMTCT. Eighty-six percent of women know that HIV can be transmitted to a baby through breastfeeding, compared with 79 percent of men, while 78 percent of women and 73 percent of men are aware that the risk of MTCT can be reduced by taking special drugs during pregnancy. Overall, 7 in 10 women (71 percent) and 6 in 10 men (61 percent) are aware both that HIV can be transmitted through breastfeeding and that HIV-positive women can reduce the risk of MTCT by taking special drugs during pregnancy. MTCT and PMTCT knowledge has increased considerably in the past five years. The 2006 UDHS showed that 52 percent of women and 43 percent of men knew that HIV can be transmitted through breastfeeding and that HIV positive women could reduce the risk of MTCT by taking special drugs during pregnancy.

Table 13.4 Knowledge of prevention of mother to child transmission of HIV

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother to child transmission (MTCT) of HIV can be reduced by mother taking special drugs during pregnancy, by background characteristics, Uganda 2011

		Woi	men			M	en	
Background characteristic	HIV can be transmitted by breast- feeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	can be reduced by	Number of women	HIV can be transmitted by breast- feeding		HIV can be transmitted by breast-feeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Age								
15-24 15-19 20-24 25-29 30-39	84.4 80.0 90.0 87.9 88.1	74.1 67.7 82.2 82.4 81.5	67.2 59.6 76.7 76.0 75.0	3,677 2,048 1,629 1,569 2,112	77.7 77.4 78.3 83.4 77.9	67.8 64.7 73.3 79.8 74.5	56.8 54.7 60.5 70.3 60.3	872 554 318 361 592
40-49	83.6	77.6	69.5	1,316	80.1	73.6	62.6	348
Marital status  Never married  Ever had sex  Never had sex  Married/Living together  Divorced/Separated/Widowed	81.4 86.7 77.9 87.0 88.5	70.3 77.7 65.6 79.8 83.3	62.8 70.6 57.8 73.1 76.6	2,123 837 1,286 5,418 1,134	77.9 78.4 77.2 80.3 74.9	68.0 73.0 62.5 75.3 76.1	58.0 61.4 54.1 63.1 58.5	834 438 397 1,228 111
Currently pregnant				,,				
Pregnant Not pregnant or not sure	86.4 85.8	77.9 78.0	71.6 71.0	1,011 7,663	na na	na na	na na	na na
<b>Residence</b> Urban Rural	91.2 84.5	85.2 76.2	79.6 68.9	1,717 6,957	79.2 79.1	78.1 71.1	64.2 60.1	439 1,734
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	92.3 86.8 87.6 79.5 86.5 63.2 91.8 82.0 84.4 88.1	89.5 84.5 83.5 76.3 77.1 47.5 88.2 52.5 73.3 79.0	83.9 76.2 76.2 65.5 70.0 38.8 82.7 46.5 66.5 75.0	839 956 902 869 1,267 289 735 500 1,221 1,097	79.0 70.4 76.5 70.2 76.9 87.4 87.2 91.6 82.9 79.9	79.4 69.9 79.8 72.2 65.8 48.5 72.8 79.1 75.9 67.7	64.9 53.3 64.1 54.4 55.6 45.7 63.7 76.4 67.8 57.5	221 209 236 236 289 55 199 133 322 273
Education No education Primary Secondary +	77.6 85.0 91.5	65.4 76.3 87.3	58.1 69.0 81.5	1,120 5,152 2,402	71.1 78.8 80.4	64.0 68.8 79.9	51.5 58.5 66.1	90 1,309 774
Wealth quintile Lowest Second Middle Fourth Highest	80.4 83.8 84.3 86.8 91.3	65.9 73.6 78.4 80.1 87.2	59.5 66.2 70.3 72.8 81.5	1,519 1,579 1,608 1,726 2,242	82.0 78.6 77.0 79.5 78.9	67.8 68.8 70.3 75.1 78.2	61.4 56.8 58.8 62.4 64.2	345 423 402 486 517
Total 15-49	85.8	77.9	71.0	8,674	79.1	72.5	60.9	2,173
50-54 Fotal 15-54	na na	na na	na na	na na	72.3 78.7	70.2 72.4	50.8 60.4	122 2,295

na = Not applicable

There are notable differences in knowledge of prevention of MTCT by background characteristics. Respondents age 15-24 are the least likely to know both facts about MTCT (60 percent of women and 55 percent of men), compared with older respondents. Knowledge of both facts about MTCT is the highest among previously married women (77 percent) and currently married men (63 percent) compared with other marital status sub-groups. Urban residents are more likely to report knowledge about mother-to-child transmission than those living in rural areas. Women and men living in the Karamoja region are the least knowledgeable about the two aspects of MTCT, while women residing in Kampala (84 percent) and men residing in the West Nile region (76 percent) are the most knowledgeable. Knowledge levels of MTCT tend to increase with educational attainment and wealth quintile status.

#### 13.3 Accepting Attitudes towards People Living with Aids

Widespread stigma and discrimination towards people infected with HIV or living with AIDS can adversely affect both people's willingness to be tested for HIV and their adherence to antiretroviral therapy. Thus, reduction of stigma and discrimination against people living with AIDS is an important indicator of the success of programmes aimed at preventing and controlling infection. The HIV/AIDS programmes in Uganda strive to fight such attitudes and to encourage positive living and utilization of HIV testing, care, treatment, and support services by fighting secrecy and denial.

To assess the level of stigma, the UDHS survey respondents who had heard of AIDS were asked if they would be willing to care for a relative sick with AIDS in their own households, if they would be willing to buy fresh vegetables from a market vendor who had the AIDS virus, if they thought a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching, and if they would want to keep a family member's HIV status secret. Tables 13.5.1 and 13.5.2 show the results for women and men, respectively.

Table 13.5.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Uganda 2011

-		Percentage of	of women who:			
			Say that a female teacher		•	
	Are willing to care for a family member	Would buy fresh vegetables	who has the AIDS virus but is not sick	secret that a	Percentage	
	with AIDS	from	should be	family member		Number of
Background	in the respondent's	shopkeeper who has the	allowed to continue	got infected with the	acceptance attitudes on all	women who have heard
characteristic	home	AIDS virus	teaching	AIDS virus	four indicators	of AIDS
Age						
15-24	86.7	70.3	72.0	37.2	20.0	3,660
15-19	84.3	67.9	69.0	37.4	19.2	2,032
20-24	89.7	73.4	75.8	36.9	21.0	1,628
25-29	91.2	72.9	75.0	39.2	23.8	1,563
30-39	91.8	73.1	74.2	43.8	24.6	2,108
40-49	92.3	71.5	70.8	41.6	23.3	1,314
Marital status Never married	86.7	71.4	72.3	37.3	21.8	2,104
Ever had sex	91.4	71. <del>4</del> 77.8	72.3 77.2	36.9	22.8	836
Never had sex	83.6	67.2	69.0	37.6	21.1	1,268
Married/Living together	89.9	71.1	72.3	40.4	21.8	5,412
Divorced/Separated/Widowed	93.8	74.7	76.9	41.9	25.9	1,130
Residence						
Urban	94.4	82.9	84.2	36.7	26.2	1,713
Rural	88.5	68.9	70.1	40.6	21.4	6,933
Region						
Kampala	94.9	86.0	86.5	32.1	23.3	837
Central 1	95.8	74.7	74.9	33.6	18.8	953
Central 2	92.0	68.8	68.9	33.8	18.0	902
East Central	89.5	61.5	63.6	32.8	15.9	863
Eastern	85.8	69.3	68.9	39.8	20.2	1,261
Karamoja	52.4	44.6	46.1	60.2 66.4	13.7	289
North West Nile	93.8 83.7	84.7 60.9	86.9 60.3	58.0	51.7 26.1	735 499
Western	93.4	75.8	76.0	37.2	23.0	1,212
Southwest	88.3	69.8	75.9	33.0	15.9	1,096
Education						
No education	81.9	59.7	59.7	43.8	17.0	1,116
Primary	88.5	67.5	69.0	39.9	20.7	5,131
Secondary +	95.6	86.2	87.4	37.7	28.2	2,398
Wealth quintile						
Lowest	81.6	63.1	63.1	50.5	25.3	1,515
Second	87.3	66.2	67.0	40.4	19.6	1,573
Middle	90.1	68.9	71.5	40.1	20.8	1,598
Fourth	90.7	71.7	72.4	35.2	19.5	1,722
Highest	95.5	83.2	85.1	35.6	25.5	2,237
Total 15-49	89.6	71.6	72.9	39.8	22.3	8,645

Table 13.5.2 Accepting attitudes toward those living with HIV/AIDS: Men

Among men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Uganda 2011

		Percentage	of men who:			
Background characteristic	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shop- keeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing acceptance attitudes on all four indicators	Number of men who have heard of AIDS
Arra						
Age 15-24 15-19 20-24 25-29 30-39 40-49	87.9 84.8 93.3 91.0 94.1 94.1	76.9 73.9 82.2 79.1 82.7 80.7	71.3 69.6 74.2 73.3 77.1 74.7	47.5 46.2 49.7 59.5 59.1 57.0	27.4 23.8 33.7 37.5 41.3 35.3	867 549 318 361 592 348
Marital status						
Never married Ever had sex Never had sex Married/Living together Divorced/Separated/Widowed	87.5 91.7 82.7 93.7 90.0	78.0 82.3 73.3 81.8 64.9	71.9 76.2 67.1 75.5 68.7	48.8 50.1 47.3 58.3 49.5	28.3 31.8 24.5 38.7 27.2	828 438 390 1,228 111
Residence						
Urban Rural	93.5 90.5	84.0 78.3	78.8 72.5	55.8 53.8	36.1 33.7	439 1,729
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	94.0 90.6 97.6 93.7 89.3 62.9 99.3 89.6 87.4	83.5 74.4 74.9 79.3 70.3 58.7 93.8 90.5 81.2 80.4	79.9 67.8 67.2 74.2 64.3 44.1 89.7 92.7 74.9 72.5	58.2 52.3 59.5 31.9 49.3 68.5 71.9 33.5 60.0 59.6	36.7 32.0 37.0 22.1 25.1 24.2 60.2 23.3 36.4 37.0	221 209 236 236 289 55 199 132 317 273
Education No education Primary Secondary +	74.3 89.4 95.9	54.8 75.2 89.5	42.6 68.4 86.4	64.0 51.0 58.4	24.0 28.4 45.1	90 1,303 774
Wealth quintile Lowest Second Middle Fourth Highest	88.3 89.3 89.6 91.5 95.2	74.5 74.5 78.4 82.1 85.1	68.6 69.8 70.9 76.5 80.0	53.3 54.0 56.1 50.3 57.0	30.2 31.8 33.8 34.8 38.4	339 423 402 485 517
Total 15-49	91.1	79.5	73.8	54.2	34.2	2,167
50-54 Total 15-54	95.3 91.3	81.6 79.6	77.6 74.0	57.0 54.3	37.2 34.3	122 2,289

The majority of women and men, nine in ten, reported that they are willing to care for a family member with AIDS at home. Lower proportions of women (72 percent) and men (80 percent), however, said that they would buy fresh vegetables from an HIV-positive vendor. Approximately three-quarters of Ugandans (73 percent of women and 74 percent of men) feel that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching in the school. Four in 10 women (40 percent) and more than 5 in 10 men (54 percent) reported that if a member of their family got infected with the AIDS virus, they would not want it to remain a secret. Overall, less than one-quarter of women (22 percent) and one-third of men (34 percent) of men expressed positive attitudes on all four indicator situations (i.e., they would care for a family member with AIDS in their own home, would buy fresh food from a shopkeeper with HIV, would support an HIV-positive female teacher to continue teaching, and would not want to keep the HIV-positive status of a family member a secret).

Variations in stigma levels by background characteristics are evident in Tables 13.5.1 and 13.5.2. Accepting attitudes were generally more common among the older age cohorts compared with those younger than 25 years. Urban residents are somewhat more likely than rural respondents to express accepting attitudes on all four issues examined. There are notable regional variations in accepting attitudes towards people living with HIV/AIDS. For example, the proportion of women who express accepting attitudes on all four indicators of stigma ranges from a low of 14 percent of women residing in the Karamoja region to a high of 52 percent of women living in the North region. Among men, the proportion expressing accepting attitudes ranges from a low of 22 percent in the East Central region to a high of 60 percent in the North region. In general, the proportion with accepting attitudes on all four indicators increases with increasing education level and, among men, with increasing wealth quintile. For example, men with at least a secondary education are almost twice as likely as men with no education to have accepting attitudes in all four situations (45 percent compared with 24 percent).

## 13.4 ATTITUDES TOWARDS REFUSING TO HAVE SEX AND NEGOTIATING SAFER SEX

Knowledge about HIV transmission and ways to prevent it are of little use if people feel powerless to negotiate safer sex practices with their partners. In an effort to assess the ability of women to negotiate safer sex with their husbands, women and men were asked whether they thought that a wife is justified in refusing to have sexual intercourse with her husband if she knows he has sex with women other than his wives or asking that he use a condom if she knows he has a sexually transmitted infection (STI). The results are presented in Table 13.6.

Table 13.6 Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows that he has sexual intercourse with other women, and percentage who believe that a woman is justified in asking that they use a condom if she knows that her husband has a sexually transmitted infection (STI), by background characteristics, Uganda 2011

		Women			Men	
	\\/aman ia			\/\(\alpha\)		
	Refusing to	justified in:		Refusing to	justified in:	
Background characteristic	have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Number of women	have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Number of men
Age						
15-24	73.4	83.3	3,677	74.9	93.5	872
15-19	73.1	82.1	2,048	76.7	92.8	554
20-24	73.8	84.9	1,629	71.8	94.9	318
25-29	76.7	86.7	1,569	71.4	95.3	361
30-39	72.9	85.0	2,112	74.4	93.7	592
40-49	73.1	83.7	1,316	76.4	95.2	348
Marital status						
Never married	75.6	82.5	2,123	75.8	93.5	834
Ever had sex	79.3	88.9	837	74.7	95.1	438
Never had sex	73.1	78.4	1,286	77.0	91.7	397
Married/living together	73.1	84.8	5,418	73.7	94.6	1,228
Divorced/separated/Widowed	74.3	85.7	1,134	72.2	94.2	111
Residence						
Urban	78.0	86.4	1,717	74.4	95.0	439
Rural	72.8	83.9	6,957	74.4	93.9	1,734
Region	70.0	00.4	000	77.4	04.0	004
Kampala	79.6	86.4	839	77.1	94.0	221
Central 1	74.5	81.5	956	83.6	94.4	209
Central 2	78.2	75.4	902	70.4	93.8	236
East Central	75.5	85.7	869	77.6	96.7	236
Eastern	73.8	87.8	1,267	79.9	93.2	289
Karamoja North	46.0 76.6	35.6 93.8	289 735	70.3 61.3	59.2 97.9	55 199
West Nile	76.6 74.9	93.8 79.2	735 500	87.4	97.9 90.6	133
Western	68.0	79.2 88.9	1,221	73.1	96.0	322
Southwest	75.5	91.7	1,097	65.9	96.9	273
Education			,			
No education	65.0	72.6	1,120	73.3	84.9	90
Primary	74.2	85.3	5,152	74.1	93.4	1,309
Secondary +	77.2	87.9	2,402	75.2	96.4	774
Wealth quintile						
Lowest	69.3	77.2	1,519	70.6	86.9	345
Second	72.3	83.8	1,579	77.0	95.8	423
Middle	74.1	86.5	1,608	74.5	94.8	402
Fourth	75.2	86.5	1,726	71.6	96.0	486
Highest	76.7	86.5	2,242	77.5	95.4	517
Total 15-49	73.8	84.4	8,674	74.4	94.1	2,173
50-54	na	na	na	78.8	93.9	122
Total 15-54	na	na	na	74.7	94.1	2,295

Three-quarters of Ugandans (74 percent of women and men each) believe that a woman is justified in refusing to have sex with her husband if she knows he has sex with other women (Table 13.6). Eighty-four percent of women and 94 percent of men reported that a woman is justified in asking to use a condom if she knows that her husband has an STI.

Women age 25-29; those who have never married but have had sex; urban residents; those with at least some secondary education; and women from a higher wealth quintile tend to believe that a woman is justified in negotiating safer sexual intercourse with her husband compared with women in other subgroups. Among the regions, however, a much lower proportion of women living in the Karamoja region support negotiation of safer sexual relations compared with women living in the rest of Uganda.

na = Not applicable

Men living in the North region are the least supportive of a woman refusing to have sex with her husband when she knows he has sex with other women compared with men living in other regions. Men from the Karamoja region are much less likely to agree to a women's negotiation of condom use relative to men living in other places. Like women, men with secondary education or higher tend to believe that a woman in justified in negotiating safer sexual intercourse with her husband. Men in the lowest wealth quintile are the least likely to agree to that a woman is justified in negotiating safer sex.

# 13.5 ADULT SUPPORT OF EDUCATION ABOUT CONDOMS FOR CHILDREN AGE 12-14

Condom use is one of the main strategies for combating the spread of HIV. However, educating young people about condoms is controversial, as some say it promotes early sexual experimentation. To gauge attitudes toward condom education, UDHS respondents were asked whether they thought that children age 12-14 should be taught about using a condom to avoid getting AIDS. Because the focus is on adults' opinions, results are tabulated for respondents age 18-49.

Table 13.7 shows that more than 6 in 10 adults agree that children age 12-14 should be taught about using condoms to avoid AIDS (64 percent of women and 66 percent of men age 18-49). Women age 20-29 are somewhat more supportive than older women of condom education for children, while men age 25-29 are the most likely to agree that children age 12-14 should be taught about condoms as an HIV prevention method. Support for condom education is higher among urban women than rural women (67 percent versus 63 percent) whereas for men it is the reverse (62 percent of urban men versus 67 percent of rural men, respectively). There is considerable regional variability in the level of support for condom education among women, from a low of 24 percent of women in the Karamoja region to a high <u>Table 13.7 Adult support of education about condom use to prevent AIDS</u>

Percentage of women and men age 18-49 who agree that children age 12-14 years should be taught about using a condom to avoid AIDS, by background characteristics, Uganda 2011

	Wor	men	Me	n
Background	Percentage	Number of	Percentage	Number
characteristic	who agree	women	who agree	of men
Age				
18-24	64.0	2,416	64.6	497
18-19	62.7	787	61.7	179
20-24	64.7	1,629	66.3	318
25-29	65.3	1,569	70.8	361
30-39	63.0	2,112	62.5	592
40-49	61.5	1,316	67.2	348
Marital status				
Never married	60.4	978	63.8	461
Married or living together	63.1	5,315	66.7	1,228
Divorced/separated/		-,-		,
widowed .	68.1	1,121	61.7	109
Residence				
Urban	66.6	1,483	62.4	382
Rural	62.8	5,930	66.6	1,417
Region				
Kampala	63.8	732	63.4	183
Central 1	60.8	828	69.7	175
Central 2	65.8	770	65.9	205
East Central	69.6	744	66.3	176
Eastern	70.3	1,086	72.2	243
Karamoja	23.9	249	30.8	51
North	58.6	609	65.2	157
West Nile	56.6	421	76.1	114
Western	71.6	1,021	63.4	267
Southwest	59.4	953	62.4	228
Education				
No education	55.2	1,087	60.0	86
Primary	64.8	4,290	66.7	1,028
Secondary +	65.3	2,036	64.9	685
Wealth quintile				
Lowest	58.9	1,330	62.6	299
Second	61.6	1,367	72.3	347
Middle	67.2	1,368	62.3	334
Fourth	65.6	1,411	67.6	395
Highest	63.9	1,938	63.3	424
Total 18-49	63.5	7,413	65.7	1,798
50-54	na	na	61.9	122
Total 18-54	na	na	65.4	1,920
na = Not applicable				

of 72 percent of women living in the Western region. Among men, support for condom education is highest in West Nile (76 percent) and lowest in Karamoja (31 percent). Both women and men with no education are less likely to support condom education compared with those with at least some education. There is no clear pattern observed by wealth quintile.

## 13.6 HIGH-RISK SEX

Information on sexual behaviour is important in designing and monitoring intervention programmes to control the spread of the epidemic. The 2011 UDHS included questions on respondents' sexual partners during their lifetimes and over the 12 months preceding the survey. Men were also asked whether they paid for sex during the 12 months preceding the interview. In addition, information was

collected on women's and men's use of condoms during their most recent sexual intercourse with each type of partner. These questions are sensitive, and it is recognized that some respondents may have been reluctant to provide information on recent sexual behaviour.

# 13.6.1 Multiple Partners and Condom Use

Tables 13.8.1 and 13.8.2 show the percentages of women and men, respectively, who had two or more partners in the 12 months preceding the survey. The tables also show the percentages of men and women with two or more partners who used a condom during their last sexual intercourse. Finally, the tables provide information on the mean number of lifetime sexual partners among those who have ever had sexual intercourse.

Table 13.8.1 Multiple sexual partners: Women

Among all women age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months; among those having more than one partner in the past 12 months and the mean number of sexual partners during their lifetime for women who ever had sexual intercourse, by background characteristics, Uganda 2011

	All wo	men	Among women who ever had sexual intercourse <sup>1</sup> :		
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of women	Mean number of sexual partners in lifetime	Number of women	
Age 15-24 15-19 20-24 25-29 30-39 40-49	2.1 1.5 2.7 1.7 1.0 1.1	3,677 2,048 1,629 1,569 2,112 1,316	1.8 1.6 1.9 2.1 2.2 2.5	2,415 923 1,492 1,546 2,093 1,306	
Marital status Never married Married or living together Divorced/separated/widowed	1.5 1.3 3.3	2,120 5,421 1,134	1.8 2.0 2.9	834 5,400 1,125	
<b>Residence</b> Urban Rural	2.4 1.4	1,717 6,957	2.5 2.0	1,444 5,915	
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	1.7 3.4 1.9 2.6 1.9 0.2 0.2 0.9 1.3 0.5	839 956 902 869 1,267 289 735 500 1,221 1,097	2.5 2.4 2.4 2.3 2.1 1.4 1.7 1.8 2.2	703 814 772 756 1,094 253 628 417 1,068 853	
Education No education Primary Secondary +	1.0 1.6 1.9	1,120 5,152 2,402	1.9 2.1 2.2	1,087 4,365 1,908	
Wealth quintile Lowest Second Middle Fourth Highest Total 15-49	0.8 0.9 1.6 2.8 1.8	1,519 1,579 1,608 1,726 2,242 8,674	1.9 1.9 2.0 2.2 2.4 2.1	1,359 1,377 1,374 1,397 1,852 7,359	

<sup>&</sup>lt;sup>1</sup> Means are calculated excluding respondents who gave non-numeric responses

Table 13.8.2 Multiple sexual partners: Men

Among all men age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during their lifetime for men who ever had sexual intercourse, by background characteristics, Uganda 2011

	All n	nen	Among men v partners in 12 mor	the past	Among men w	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Mean number of sexual partners in lifetime	Number of men
Age 15-24 15-19 20-24 25-29 30-39 40-49	8.9 5.4 15.0 23.3 24.1 29.0	872 554 318 361 592 348	47.3 (55.7) 42.1 18.2 10.0 10.3	78 30 48 84 142 101	3.5 2.8 4.2 5.6 7.7 9.0	489 222 267 346 573 339
Marital status Never married Married or living together Divorced/separated/widowed	7.5 25.7 23.7	834 1,228 111	70.4 6.3 *	63 316 26	4.1 6.9 10.0	437 1,204 106
Type of union In polygynous union In non-polygynous union Not currently in union	86.4 14.4 9.4	193 1,035 945	6.1 6.5 64.0	167 149 89	9.2 6.4 5.2	189 1,014 543
<b>Residence</b> Urban Rural	20.0 18.3	439 1,734	36.0 14.2	88 317	7.2 6.1	370 1,377
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	16.9 27.0 18.0 25.7 10.7 26.4 19.9 14.5 19.4 15.1	221 209 236 236 289 55 199 133 322 273	(43.9) (18.9) (24.6) 24.5 (8.1) (3.5) (4.3) (15.1) 15.1 (17.6)	37 56 42 61 31 15 40 19 63 41	6.5 8.6 6.6 5.7 6.6 3.8 7.3 4.5 7.4	180 167 196 190 234 48 169 105 263 195
Education No education Primary Secondary +	37.6 18.1 17.3	90 1,309 774	(6.9) 17.2 25.1	34 237 134	5.9 6.6 6.1	78 1,035 635
Wealth quintile Lowest Second Middle Fourth Highest	17.7 18.2 19.3 20.3 17.5	345 423 402 486 517	8.1 7.0 14.3 25.2 33.6	61 77 78 99 91	4.7 6.4 6.8 6.6 6.9	285 345 323 382 413
Total 15-49 50-54 Total 15-54	18.6 32.3 19.4	2,173 122 2,295	19.0 (11.3) 18.3	405 39 444	6.4 14.1 6.8	1,747 118 1,865

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

A much smaller proportion of women report having had two or more partners in the 12 months preceding the survey compared with men (2 percent and 19 percent). Data for women are not discussed by background characteristics due to the small number of women with more than one sexual partner. Among men, the proportion of men reporting more than one sexual partner in the past 12 months increases steadily with age. For example, 5 percent of men age 15-19 report having had more than one partner, yet almost 3 in 10 men age 40-49 (29 percent) report that they had two or more sexual partners within the past year. Those who had ever been married and those with no education were more likely than their counterparts to have had more than one sexual partner in the past 12 months. As would be expected, the proportion of men with multiple sexual partners in the past 12 months was particularly high among those in polygynous

Means are calculated excluding respondents who gave non-numeric responses

unions (86 percent). By residence, urban men are only slightly more likely than rural men to report multiple sexual partners in the last year. More than one-quarter of men living in Central 1 (27 percent), East Central (26 percent), and Karamoja (26 percent) regions had more than one sexual partner within the past 12 months. The likelihood of having more than one sexual partner does not have a uniform pattern with wealth.

Among women who had more than one sexual partner in the past 12 months, nearly one-third (31 percent) report using a condom during their last sexual intercourse (data not presented). Almost one-fifth (19 percent) of men with multiple sexual partners in the last year report that they used a condom during their last sexual intercourse.

Among those with more than one sexual partner in the past 12 months, never-married men were 11 times more likely to report condom use during their most recent sexual intercourse than those who were married (70 percent and 6 percent, respectively). Urban men with two or more sexual partners in the 12 months before the survey were also more likely than rural men to report using a condom during their last sexual intercourse (36 percent and 14 percent, respectively). Condom use among men during last sexual intercourse and generally increased with education level and wealth.

On average, men report having had 6.4 sexual partners over their lifetimes, whereas women report 2.1 partners. Among men, the mean number of lifetime sexual partners increased with age, with men age 40-49 reporting an average of 9 lifetime partners. Men in a polygynous union and those who were divorced, separated, or widowed had the highest average numbers of lifetime sexual partners (9 and 10 partners, respectively). Similarly, older women and those that are divorced, separated, or widowed reported slightly more lifetime sexual partners relative to other women.

Urban residents also reported a slightly higher average of lifetime sexual partners compared with rural residents. Mean reported number of lifetime sex partners among men varied from 4 in the Karamoja region to 9 in the Central 1 region. Among women, mean number of lifetime sex partners varied from 1 in the Karamoja and Southwest regions to 3 in Kampala. There is little variation in the mean number of lifetime partners by educational attainment or wealth in women or men.

Point prevalence and cumulative prevalence of concurrent sexual partners are new concepts that were incorporated for the first time in the 2011 UDHS. The point prevalence of concurrent sexual partners is defined as the percentage of respondents who had two (or more) sexual partners concurrently at the point in time six months before the survey. The cumulative prevalence of concurrent sexual partners is defined as the percentage of respondents who had two (or more) sexual partners concurrently at any time during the 12 months preceding the survey.

Table 13.9 shows the point prevalence and cumulative prevalence of concurrent sexual partners among all respondents during the 12 months before the survey. It also shows the percentage of respondents who had concurrent sexual partners among those who had multiple sexual partners during the 12 months before the survey.

The point prevalence of concurrent sexual partners among women 15-49 is less than 1 percent compared with 10 percent among men in the same age range, and cumulative prevalence of concurrent sexual partners is 1 percent among women compared with 15 percent of men. Among respondents who had multiple partners during the 12 months before the survey, 59 percent of women and 82 percent of men age 15-49 had concurrent partners.

There are no major variations in the point or cumulative prevalence of concurrent sexual partners among women, by background characteristics. Among men, the point and cumulative prevalence of concurrent sexual partners increase with age, are highest among men who are married or cohabiting, men in polygynous unions, and men in rural areas. The variation in the percentage of men with multiple partners in the past 12 months who had concurrent sexual partners during the specified period by background characteristics follows the same pattern as the point and cumulative prevalence.

Table 13.9 Point prevalence and cumulative prevalence of concurrent sexual partners

Percentage of all women and men age 15-49 who had concurrent sexual partners six months before the survey (point prevalence<sup>1</sup>), and percentage of all women and all men 15-49 who had any concurrent sexual partners during the 12 months before the survey (cumulative prevalence2), and among women and men age 15-49 who had multiple sexual partners during the 12 months before the survey, percentage who had concurrent sexual partners, Uganda 2011

	An	nong all responder	ıts:	Among all responsible partners months before	s during the 12
Background characteristic	Point prevalence of concurrent sexual partners <sup>1</sup>	Cumulative prevalence of concurrent	Number of respondents	Percentage who had concurrent sexual partners <sup>2</sup>	Number of respondents
		WOMEN			
Age 15-24 15-19 20-24 25-29 30-39 40-49	0.6 0.1 1.2 0.4 0.1 0.3	1.1 0.5 1.9 1.3 0.4 0.9	3,677 2,048 1,629 1,569 2,112 1,316	54.3 (30.1) (71.1) (78.6) *	75 31 45 27 22 14
Marital status Never married Married or living together Divorced/separated/widowed	0.2 0.4 0.7	0.5 0.9 1.9	2,120 5,421 1,134	(33.3) 72.0 (55.9)	32 69 38
Residence Urban Rural Total 15-49	0.6 0.3 0.4	1.5 0.8 0.9	1,717 6,957 8,674	61.1 57.8 58.8	41 97 139
		MEN			
Age 15-24 15-19 20-24 25-29 30-39 40-49	1.5 0.4 3.5 11.4 13.2 22.6	4.8 1.9 9.9 20.6 20.7 27.2	872 554 318 361 592 348	54.2 (35.1) 66.1 88.4 86.2 93.8	78 30 48 84 142
Marital status Never married Married or living together Divorced/separated/widowed	1.2 15.8 6.1	3.6 23.3 15.0	834 1,228 111	48.5 90.7 (63.5)	63 316 26
Type of union In polygynous union In non-polygynous union Not currently in union	71.6 5.3 1.8	80.8 12.6 5.0	193 1,035 945	93.5 87.6 52.9	167 149 89
<b>Residence</b> Urban Rural	7.5 10.2	14.6 15.6	439 1,734	72.8 85.1	88 317
Total 15-49	9.7	15.4	2,173	82.4	405
50-54 Total 15-54	26.7 10.6	32.3 16.3	122 2,295	(100.0) 84.0	39 444

Note: Two sexual partners are considered to be concurrent if the date of the most recent sexual intercourse with the earlier partner is after the date of the first sexual intercourse with the later partner. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

The percentage of respondents who had two (or more) sexual partners that were concurrent at the point in time six months before the survey

<sup>2</sup> The percentage of respondents who had two (or more) sexual partners that were concurrent anytime during the 12

months preceding the survey

#### 13.6.2 Transactional Sex

Transactional sex involves the exchange of sex for money, favours, or gifts. Transactional sex is associated with a high risk of contracting HIV and other sexually transmitted infections due to compromised power relations and the tendency to have multiple partnerships. The 2011 UDHS asked men if they had ever paid anyone for sexual intercourse and if they had done so in the 12 months preceding the survey. Further, respondents who had engaged in paid sexual intercourse in the past 12 months were asked if they had used a condom the last time they paid for sexual intercourse.

Table 13.10 shows that 6 percent of men age 15-49 report having paid for sexual intercourse at some point in their lives, while 2 percent did so in the past 12 months. Men age 30-39 (9 percent), those who were previously married (19 percent), and urban men (7 percent) were more likely than other men to have ever paid for sexual intercourse. Among regions, this proportion ranges from less than 1 percent of men living in the West Nile region to 10 percent of men living in the East Central region. Similar patterns background by characteristics in the percentage of men who paid for sex in the past 12 months are observed. More than four in ten men (44 percent) age 15-49 who paid for sex in the past 12 months reported condom use at last paid sexual intercourse (data not shown).

<u>Table 13.10 Payment for sexual intercourse and condom use at last paid sexual intercourse</u>

Percentage of men age 15-49 who ever paid for sexual intercourse and percentage reporting payment for sexual intercourse in the past 12 months, and among them, the percentage reporting that a condom was used the last time they paid for sexual intercourse, by background characteristics, Uganda 2011

		Among all men:	
Background characteristic	Percentage who ever paid for sexual intercourse	Percentage who paid for sexual intercourse in the past 12 months	Number of men
Age 15-24 15-19 20-24 25-29 30-39 40-49	4.2	2.0	872
	2.1	1.3	554
	7.9	3.3	318
	8.2	3.5	361
	8.5	3.0	592
	5.7	0.5	348
Marital status Never married Married or living together Divorced/separated/widowed	3.9	2.2	834
	6.7	2.1	1,228
	19.4	5.3	111
<b>Residence</b> Urban Rural	7.4 6.0	3.3 2.1	439 1,734
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	7.5 7.4 5.5 10.1 7.2 1.9 1.6 0.7 7.0	4.6 5.0 1.5 4.2 2.9 1.9 0.1 0.1 0.6 1.6	221 209 236 236 289 55 199 133 322 273
Education No education Primary Secondary +	2.5	0.3	90
	7.4	2.6	1,309
	4.8	2.0	774
Wealth quintile Lowest Second Middle Fourth Highest	2.4	0.9	345
	7.1	2.6	423
	8.7	2.4	402
	5.9	1.6	486
	6.6	3.5	517
Total 15-49	6.3	2.3	2,173
50-54	7.1	2.3	122
Total 15-54	6.3	2.3	2,295

#### 13.7 COVERAGE OF HIV COUNSELING AND TESTING

People's knowledge of their HIV status is considered a key motivating factor for behaviour change and a critical linkage to care, treatment, and support services for infected individuals. Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safer sex practices so that they can remain free of 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. The HIV/AIDS programme has been engaged in increasing coverage of HIV counseling and testing services based on a multiple programme approach. In the 2011 UDHS, respondents were asked if they knew a place where they could go to be tested and further if they had ever undergone an HIV test and received the results of the test.

Tables 13.11.1 and 13.11.2 show that almost all Ugandans know where to get an HIV test (95 percent of women and 93 percent of men). Those living in urban areas (97 percent for both women and men) are slightly more likely than rural residents (94 percent of women and 92 percent of men) to know where to get an HIV test. Those who had ever had sex are more likely than those who had never married and never had sex to know where to get an HIV test. The proportion of both women and men who know where to get an HIV test increases as educational attainment and wealth quintile increase. In general, differences by region are not large.

Table 13.11.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who were tested in the past 12 months and received the results of the last test, according to background characteristics, Uganda 2011

		status and b	ibution of wome y whether they ults of the last t	received the			Percentage who have been tested	
Background characteristic	Percentage who know where to get an HIV test	Ever tested and received results	Ever tested, did not receive results	Never tested <sup>1</sup>	Total	Percentage ever tested	for HIV in the past 12 months and received the results of the last test	Number of women
Age								
15-24 15-19 20-24 25-29 30-39	91.8 88.2 96.5 97.2 97.0	61.5 45.5 81.6 85.5 78.9	3.7 3.4 4.1 4.4 4.8	34.8 51.1 14.3 10.1 16.3	100.0 100.0 100.0 100.0 100.0	65.2 48.9 85.7 89.9 83.7	40.2 30.7 52.0 50.7 41.6	3,677 2,048 1,629 1,569 2,112
40-49	95.6	69.9	2.7	27.4	100.0	72.6	35.3	1,316
Marital status Never married Ever had sex Never had sex Married/living together Divorced/separated/wido wed	88.5 95.1 84.3 96.6	46.0 70.2 30.3 79.8	2.8 3.3 2.5 4.5	51.2 26.5 67.2 15.7	100.0 100.0 100.0 100.0	48.8 73.5 32.8 84.3	30.0 45.9 19.6 45.7	2,123 837 1,286 5,418
Residence								
Urban Rural	97.3 94.0	79.1 69.4	2.5 4.3	18.5 26.2	100.0 100.0	81.5 73.8	46.1 40.6	1,717 6,957
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	96.1 96.1 95.8 93.0 94.0 84.2 97.5 94.8 94.1	78.0 73.1 71.3 62.6 70.5 62.2 81.4 66.6 72.0 69.8	2.3 2.8 4.0 7.5 4.4 5.8 3.5 4.3 4.1 2.4	19.7 24.1 24.8 29.9 25.0 32.0 15.1 29.1 23.9 27.8	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	80.3 75.9 75.2 70.1 75.0 68.0 84.9 70.9 76.1 72.2	43.2 43.3 39.6 40.6 41.4 36.8 49.6 42.3 40.9 38.8	839 956 902 869 1,267 289 735 500 1,221 1,097
Education								
No education Primary Secondary +	88.8 94.0 98.6	65.0 69.6 78.2	5.5 4.1 2.8	29.5 26.3 19.0	100.0 100.0 100.0	70.5 73.7 81.0	32.9 40.3 48.8	1,120 5,152 2,402
Wealth quintile Lowest Second Middle Fourth Highest	91.2 93.7 95.0 94.0 97.8	70.7 68.3 68.8 68.5 78.0	4.4 5.0 4.4 3.5 3.0	24.9 26.7 26.8 28.0 19.0	100.0 100.0 100.0 100.0 100.0	75.1 73.3 73.2 72.0 81.0	41.0 40.7 39.7 41.0 44.8	1,519 1,579 1,608 1,726 2,242
Total 15-49	94.6	71.3	4.0	24.7	100.0	75.3	41.7	8,674

<sup>1</sup> Includes 'don't know/missing'

Table 13.11.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who were tested in the past 12 months and received the results of the last test, according to background characteristics, Uganda 2011

		status and by	tribution of men y whether they rults of the last te	eceived the			Percentage who have been tested for HIV in the	
Background characteristic	Percentage who know where to get an HIV test	Ever tested and received results	Ever tested, did not receive results	Never tested <sup>1</sup>	Total	Percentage ever tested	past 12 months and received the results of the last test	Number of men
Age								
15-24	88.3	35.4	4.0	60.5	100.0	39.5	24.1	872
15-19	84.9	25.1	3.1	71.8	100.0	28.2	17.4	554
20-24	94.4	53.4	5.7	40.9	100.0	59.1	35.8	318
25-29	95.2	65.6	3.5	30.8	100.0	69.2	39.4	361
30-39	96.5	64.0	2.7	33.3	100.0	66.7	34.8	592
40-49	98.1	60.0	3.7	36.4	100.0	63.6	31.0	348
Marital status								
Never married	88.0	35.5	3.3	61.3	100.0	38.7	24.3	834
Ever had sex	94.8	48.5	3.6	47.9	100.0	52.1	33.3	438
Never had sex	80.5	21.0	3.0	76.0	100.0	24.0	14.3	397
Married/Living together	96.8	63.7	3.5	32.8	100.0	67.2	34.9	1,228
Divorced/Separated/Wid	00.0	00.1	0.0	02.0	100.0	01.2	01.0	1,220
owed	93.4	50.1	5.8	44.1	100.0	55.9	32.0	111
Residence								
Urban	96.9	66.1	2.0	31.9	100.0	68.1	38.9	439
Rural	92.3	48.6	4.0	47.4	100.0	52.6	28.6	1,734
								.,
Region Kampala	96.6	68.8	0.7	30.5	100.0	69.5	43.3	221
Central 1	92.2	55.6	2.2	42.2	100.0	57.8	30.9	209
Central 2	89.5	47.4	3.3	49.2	100.0	50.8	20.8	236
East Central	93.2	37.9	4.9	57.1	100.0	42.9	20.7	236
Eastern	92.2	50.3	5.5	44.2	100.0	55.8	32.4	289
Karamoja	73.7	51.2	0.0	48.8	100.0	51.2	33.6	55
North	99.2	67.7	6.4	25.9	100.0	74.1	44.7	199
West Nile	97.0	56.0	1.4	42.6	100.0	57.4	36.5	133
Western	94.6	50.5	4.8	44.7	100.0	55.3	30.9	322
Southwest	91.9	43.3	2.1	54.6	100.0	45.4	21.8	273
Education								
No education	84.1	31.9	7.3	60.8	100.0	39.2	25.0	90
Primary	90.7	45.0	3.8	51.3	100.0	48.7	25.2	1,309
Secondary +	98.7	66.7	2.8	30.5	100.0	69.5	40.6	774
Wealth quintile								
Lowest	90.3	48.6	4.2	47.1	100.0	52.9	32.1	345
Second	91.9	47.0	5.7	47.2	100.0	52.8	25.7	423
Middle	92.3	45.8	4.1	50.1	100.0	49.9	27.6	402
Fourth	94.5	52.0	2.5	45.5	100.0	54.5	30.9	486
Highest	95.9	63.8	1.9	34.3	100.0	65.7	36.0	517
Total 15-49	93.3	52.2	3.6	44.3	100.0	55.7	30.7	2,173
50-54 T-1-1-1-5-54	95.1	51.5	6.0	42.5	100.0	57.5	25.8	122
Total 15-54	93.4	52.1	3.7	44.2	100.0	55.8	30.4	2,295

<sup>&</sup>lt;sup>1</sup> Includes 'don't know/missing'

Tables 13.11.1 and 13.11.2 also show the coverage of HIV testing services. Overall, 7 in 10 women (71 percent) and half of men (52 percent) had ever been tested and had received the result of the last test. A larger proportion of men (44 percent) than women (25 percent) had never been tested, implying that they are less likely to know their HIV status. Among women the likelihood of having ever had an HIV test and receiving the result was highest in the 25-29 age group (86 percent); similarly, the highest rate of ever being tested for HIV and receiving the result among men was among those age 25-29 (66 percent). Among both women and men, urban residents are more likely than rural residents to have ever had an HIV test and received results. Married respondents are more likely to have taken the test and received results (80 percent of women and 64 percent of men) than those never married. Among regions the percentages of men and women who have ever been tested for HIV and received results range from a low of 62 percent of

women living in Karamoja region to a high of 81 percent of women residing in the North. For men, the proportion that has ever been tested and received their results also varies by region, from a low of 38 percent in the East Central region to 69 percent of men living in Kampala. As education and wealth status increase, the likelihood of having been tested for HIV and received the test result also increases.

Four in 10 women (42 percent) and 3 in 10 men (31 percent) were tested for HIV in the year preceding the survey and had been told the result of the last test they took.

HIV testing has increased dramatically in the past five years. The current survey shows that 7 in 10 women (71 percent) and 1 in 2 men (52 percent) age 15-49 have ever been tested for HIV and received their results. This shows a sizeable increase from 25 percent of women and 21 percent of men in the 2006 UDHS who reported being tested for HIV and receiving the result.

# 13.7.1 HIV Testing During Antenatal Care

Table 13.12 presents information on HIV screening of pregnant women age 15-49 who gave birth in the two years preceding the survey. The screening process is a key tool in reducing mother-to-child transmission of HIV. Sixty-eight percent of women who gave birth in the two years before the survey received HIV counseling during antenatal care (ANC). Almost 3 in 5 women (59 percent) were tested for HIV during antenatal care and received the test results and post-test counseling, while 15 percent received results but did not receive post-test counseling. Four percent of women were tested for HIV during an ANC visit but did not receive the test results.

Overall, 60 percent of women received HIV counseling, an HIV test, and the results during ANC for their most recent birth in the two years preceding the survey. By age, a higher proportion of women in the 20-24 age cohort were counseled, tested, and received their HIV result during ANC than women in other age groups. Women were more likely to have been counseled and tested and to have received the result of the test if they lived in urban areas (76 percent) or in Kampala (82 percent). The likelihood of HIV counseling and testing during ANC increases with levels of education and wealth. For example, the proportion of women who were counseled about HIV during ANC, were tested, and received results ranges from 48 percent of women with no education to 71 percent of those with at least some secondary education. Likewise, those in the lowest wealth quintile (54 percent) are the least likely to have been counseled, tested, and received their results while women in the highest quintile (74 percent) were the most likely.

#### Table 13.12 Pregnant women counseled and tested for HIV

Among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV pretest counseling, the percentage who received an HIV test during antenatal care for their most recent birth by whether they received their results and post-test counseling, and percentage who received an HIV test at the time of delivery for their most recent birth by whether they received their test results, according to background characteristics, Uganda 2011

	Percentage		e who were tes ntenatal care a		- Doroontago			
	who received	Received r	results and:		<ul> <li>Percentage who received</li> </ul>	Percentage		
Background characteristic	counseling on HIV during antenatal care <sup>1</sup>	Received post-test counseling	Did not receive post-test counseling	Did not receive results	counseling on HIV and an HIV test during ANC, and the results	HIV test dur labor an Received results		Number of women who gave birth in the past two years <sup>3</sup>
	care	counseling	counseling	Todato	resuits	Toodito	results	years
Age 15-24 15-19 20-24 25-29 30-39	67.4 60.7 69.8 67.9 69.0	60.4 57.7 61.4 62.0 55.2	15.5 14.0 16.1 14.5 15.8	4.5 7.7 3.3 4.3 3.8	61.1 54.2 63.7 61.7 59.3	77.6 73.3 79.2 77.6 72.6	4.9 8.3 3.7 4.5 4.0	1,190 319 871 851 886
40-49	63.6	50.9	16.5	1.8	55.0	70.2	1.8	166
Marital status Never married Ever had sex Never had sex Married/Living together Divorced/Separated/Widowed	66.3 67.9 * 67.3 72.5	62.8 64.4 * 58.1 63.5	13.6 14.0 * 15.8 12.5	3.6 3.7 * 4.3 2.4	61.5 63.0 * 59.7 66.3	79.9 81.8 * 75.2 78.9	3.6 3.7 * 4.6 2.8	142 138 3 2,643 308
<b>Residence</b> Urban Rural	79.4 65.8	73.7 56.3	12.7 15.8	4.4 4.1	75.6 57.9	87.9 73.7	4.4 4.4	450 2,642
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	86.1 62.6 63.9 57.3 57.2 64.8 79.5 73.4 70.6 77.4	76.0 51.6 54.1 42.0 55.7 63.5 76.7 63.4 64.4 57.5	10.5 12.8 19.7 11.6 20.2 7.4 10.3 9.3 12.3 25.3	4.0 3.4 4.6 9.4 2.2 5.1 2.0 4.7 4.9 2.2	81.5 52.3 59.4 44.7 51.2 54.7 76.1 64.4 63.0 70.8	87.0 66.5 76.6 59.0 77.2 72.8 87.5 72.9 77.3 82.9	4.1 3.9 4.6 9.6 2.9 5.2 2.0 4.7 5.2 2.6	187 322 340 345 529 107 276 187 423 375
Education No education Primary Secondary +	56.0 67.3 75.8	48.4 56.5 71.0	14.0 16.6 12.8	3.9 5.1 1.6	48.1 59.3 70.6	63.3 74.9 85.2	4.2 5.3 2.0	399 1,975 718
Wealth quintile Lowest Second Middle Fourth Highest Total 15-49	61.1 63.6 68.2 69.6 78.9 67.8	57.2 54.8 55.1 57.5 71.1 58.8	13.0 16.5 17.4 17.5 12.7	2.7 3.6 5.9 4.7 4.1	53.5 57.5 57.9 61.5 74.3	71.4 72.5 73.9 77.3 85.7 75.8	2.9 4.2 6.0 4.7 4.4	694 679 602 561 556 3,092

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

<sup>1</sup> In this context, "pretest counseling" means that someone talked with the respondent about all three of the following topics: 1) babies getting the AIDS virus from their mother, 2) preventing the virus, and 3) getting tested for the virus.

<sup>2</sup> Women are asked whether they received an HIV test during labor only if they were not tested for HIV during ANC.

<sup>3</sup> Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years.

### 13.8 MALE CIRCUMCISION

Recently, studies have shown that male circumcision, which involves the removal of the foreskin of the penis, is associated with lower susceptibility to transmission of sexually transmitted infections, including HIV (Bailey et al., 2007). The 2011 UDHS asked men if they were circumcised.

Table 13.13 shows that 27 percent of Ugandan men age 15-49 are circumcised. Men living in urban areas are 1.7 times more likely to be circumcised than men in rural areas (40 percent versus 23 percent). Male circumcision varies by region in Uganda. It is most prevalent among men living in the East Central region (42 percent) and in Kampala (41 percent), but it is least practiced among men living in the North region (4 percent). The proportion of circumcised men is highest among Muslims (94 percent) and men from the Basoga ethnicity (49 percent) compared with men from other religions and ethnic backgrounds.

# 13.9 SELF-REPORTING OF SEXUALLY TRANSMITTED INFECTIONS

Information about the prevalence of sexually transmitted infections (STIs) is not only useful as a marker of unprotected sexual intercourse but also because STI infection is a co-factor in HIV transmission. The 2011 UDHS asked respondents who had ever had sex whether they had suffered from a disease that they acquired through sexual contact in the past 12 months. They were also asked whether, in the past 12 months, they had any genital discharge and whether they had a genital sore or ulcer. These symptoms have been shown to be useful in identifying STIs in men. For women, however, discharge is less easily interpreted as a symptom because

Table 13.13 Male circumcision

Percentage of men age 15-49 who report having been circumcised, by background characteristics, Uganda 2011

Background characteristic	Percentage circumcised	Number of men
Age 15-24 15-19 20-24 25-29 30-39 40-49	28.2 27.3 29.8 27.7 25.6 24.4	872 554 318 361 592 348
Residence Urban Rural	40.2 23.4	439 1,734
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	40.7 22.5 26.4 42.4 36.6 18.7 4.2 28.9 29.5 9.2	221 209 236 236 289 55 199 133 322 273
Religion Catholic Protestant Muslim Pentecostal SDA	14.9 19.9 93.5 21.9 (22.2)	952 695 269 185 39
Ethnicity Baganda Banyankole Basoga Bakiga Itesa Other	30.3 17.9 49.4 10.6 7.8 28.5	356 218 195 161 152 1,090
Total 15-49 50-54 Total 15-54	26.8 27.2 26.8	2,173 122 2,295

Note: Figures in parentheses are based on 25-49 unweighted cases.

women experience non-STI conditions of the reproductive tract that also produce discharge. Table 13.14 shows the self-reported prevalence of STIs and STI symptoms among both men and women. Women were somewhat more likely than men to report having had an STI or having experienced STI symptoms. Among women, in the 12 months preceding the survey, 15 percent reported that they had an STI; 15 percent had a bad-smelling, abnormal discharge; and 17 percent had a genital sore or ulcer. Among men, 8 percent reported that they had an STI; 5 percent had a bad-smelling, abnormal discharge; and 8 percent had a genital sore or ulcer. Taken together, over 1 in 4 women (27 percent) and 14 percent of men had either had an STI or symptoms of an STI during the 12 months preceding the survey.

Table 13.14 Self-reported prevalence of sexually-transmitted infections (STIs) and STI symptoms

Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Uganda 2011

	Women					Men					
Background characteristic	Percentage of women who reported having in the past 12 months:					Perce					
	STI	Bad smelling/ abnormal genital discharge	Genital sore/ulcer	STI/ genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	STI	Bad smelling/ abnormal genital discharge	Genital sore/ulcer	STI/ genital discharge/ sore or ulcer	Number of men who ever had sexual intercourse	
Age											
15-24 15-19 20-24 25-29 30-39	13.4 9.5 15.8 17.2 16.7	13.8 11.6 15.2 15.9 17.4	15.8 12.4 17.8 16.8 18.8	24.3 19.7 27.1 27.7 29.4	2,415 923 1,492 1,555 2,099	5.3 2.1 8.0 10.0 10.7	5.6 6.3 5.1 5.0 6.0	8.4 8.6 8.2 6.1 8.7	14.3 14.5 14.1 13.3 15.8	492 220 272 349 587	
40-49	12.9	13.8	15.4	24.4	1,313	7.2	2.9	6.2	11.1	348	
Marital status Never married Married/living together Divorced/separated/ widowed	10.4 15.9 14.4	13.7 15.4 16.0	13.9 17.3 16.6	22.5 27.2 25.9	837 5,413 1,133	2.9 9.9 12.4	4.9 5.0 6.9	5.7 8.1 9.0	10.1 14.8 19.3	438 1,228 111	
Male circumcision Circumcised Not circumcised	na na	na na	na na	na na	na na	7.2 8.8	3.6 5.6	7.3 7.7	12.0 14.7	499 1,276	
Residence Urban Rural	18.4 14.2	17.6 14.7	17.7 16.6	28.9 25.9	1,454 5,929	6.5 8.9	3.2 5.6	4.9 8.3	10.0 15.0	377 1,400	
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	19.9 17.7 18.1 18.8 10.8 1.1 4.0 4.5 22.2 16.4	19.8 20.6 19.4 19.5 10.9 0.5 4.8 5.1 21.4	19.2 19.4 21.1 27.2 12.0 0.2 7.2 7.5 24.4 12.1	31.1 32.7 34.0 37.1 21.2 1.1 10.0 11.1 35.0 23.6	712 821 779 755 1,095 253 628 417 1,070 853	6.4 11.8 10.5 8.4 9.6 2.5 2.2 1.8 12.6 8.2	2.9 8.6 3.4 10.3 8.3 2.1 1.7 0.7 3.9 4.2	4.8 5.5 9.3 16.7 10.4 2.1 4.4 1.8 5.2 8.6	9.2 16.2 15.5 28.0 17.6 2.5 5.4 1.8 14.1 13.3	185 174 199 194 236 48 169 107 264 201	
Education No education Primary Secondary +	12.8 15.4 15.5	13.9 15.7 15.0	15.8 17.7 15.1	23.0 27.6 25.9	1,087 4,374 1,922	8.7 9.3 6.8	7.8 6.1 3.1	7.0 8.5 6.2	16.2 16.0 10.4	85 1,048 644	
Wealth quintile Lowest Second Middle Fourth Highest	8.3 12.1 18.3 18.3 17.4	9.5 13.1 19.0 17.4 16.7	12.7 15.2 19.1 19.6 17.1	18.2 23.9 30.4 30.8 28.2	1,358 1,380 1,374 1,403 1,867	9.5 6.4 9.8 8.6 8.0	4.7 3.8 8.5 6.1 2.7	6.4 8.3 10.4 8.4 5.0	13.3 13.2 17.6 15.6 10.6	289 346 326 393 423	
Total 15-49	15.1	15.3	16.8	26.5	7,383	8.4	5.1	7.6	14.0	1,777	
50-54 Total 15-54	na na	na na	na na	na na	na na	5.9 8.2	2.0 4.9	3.9 7.4	7.1 13.5	121 1,897	

na = Not applicable

Among both women and men, the prevalence of STIs and STI symptoms was higher among the 30-39 age cohort (29 percent of women and 16 percent of men) and also among those living in the East Central region (37 percent of women and 28 percent of men). By wealth, for both men and women, those in the middle and fourth quintiles were slightly more likely than others to have reported STI infections or STI symptoms. There were variations among women in the prevalence of STIs or their symptoms by marital status, residence, and education. Women in urban areas were a little more likely than women in rural areas to have had an STI or STI symptoms. Women with no education (23 percent) and those that have never married (23 percent) had the lowest prevalence of STIs or STI symptoms. The prevalence of STIs by background characteristic differed for men. Among men, those living in rural areas were more likely to have an STI or STI symptoms compared with urban men. Formerly married men were more likely than married or non-married sexually active men to report an STI or STI symptom. Men with at least some secondary education have the lowest prevalence of STIs or STI symptoms.

#### 13.10 TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS

It is important for people experiencing symptoms of STIs to be able to recognise them and seek appropriate treatment. If respondents reported an STI or an STI symptom (i.e., discharge or sore or ulcer) in the past 12 months, they were asked questions about what they did about the illness or symptom. Figure 13.1 presents information on women and men who sought care from any source. Close to seven in ten women and men (69 percent of women and 67 percent of men) sought care for the STIs or symptoms of STIs from a clinic, hospital, or health professional. One percent of women and 4 percent of men sought advice or medicine from a shop, pharmacy, or drug vendor, while 5 percent of women and 4 percent of men sought treatment from another source. Twenty-six percent of women and 27 percent of men who had STIs or STI symptoms in the 12 months preceding the survey did not seek any advice or treatment. Among women, this is a reduction from the 32 percent of women that did not seek treatment as reported in the 2006 UDHS, but for men, it is an increase from 17 percent of men with an STI or STI symptom that did not seek advice treatment.

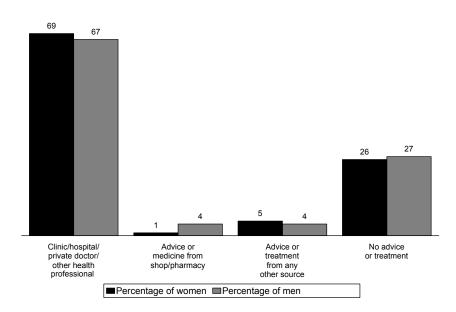


Figure 13.1 Women and men seeking advice or treatment for STIs

#### 13.11 Prevalence of Medical Injections

The overuse of injections in a health care setting can contribute to the transmission of blood borne pathogens because it amplifies the effect of unsafe practices, such as reuse of injection equipment. To measure the potential risk of transmission of HIV associated with medical injections, respondents in the 2011 UDHS were asked if they had received an injection in the past 12 months, and if so, the number of injections. Those who had received injections were further asked if the syringe and needle were taken from a new, previously unopened pack. It should be noted that self-administered medical injections (e.g., insulin injections for diabetes) were not included in the calculations.

Table 13.15 shows that women are more likely than men to report receiving medical injections in the last 12 months (43 percent versus 26 percent). The percentage of women who received a medical injection in the past 12 months is highest among those age 25-29 (51 percent), most likely because of injections given to women during antenatal care or family planning visits. Younger women age 15-19 and older women age 40-49 have a lower proportion of medical injections. Conversely, older men, those age 40-49, are the most likely to have received a medical injection. There is little variation by residence in the proportion receiving injections for both women and men. For both men and women, a higher proportion of

those that are currently married report having received a medical injection in the last 12 months compared with others. Among the regions, women in East Central and Eastern regions are most likely to have received a medical injection (49 percent), while men living in the Central 1 region (34 percent) and the Eastern region (33 percent) are the most likely to have received a medical injection in the past 12 months. Injection prevalence for both women and men increases with education, but there is no strong pattern in reporting of medical injections by wealth status.

## Table 13.15 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the last 12 months, the average number of medical injections per person in the last 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, Uganda 2011

		Women					Men				
Background characteristic	Percentage who received a medical injection in the last 12 months	Average number of medical injections per person in the last 12 months	Number of women	For last injection, syringe and needle taken from a new, unopened package	Number of women receiving medical injections in the last 12 months	Percentage who received a medical injection in the last 12 months	Average number of medical injections per person in the last 12 months	Number of men	For last injection, syringe and needle taken from a new, unopened package	Number of men receiving medical injections in the last 12 months	
Age 15-24 15-19 20-24 25-29 30-39 40-49	41.0 35.5 47.8 50.8 43.4 37.1	1.5 1.4 1.7 1.9 2.1 2.1	3,677 2,048 1,629 1,569 2,112 1,316	96.9 96.2 97.5 97.3 97.1 95.7	1,506 727 779 798 916 488	22.7 21.1 25.5 25.2 28.4 33.1	1.1 1.0 1.3 1.5 1.5 2.3	872 554 318 361 592 348	95.3 96.1 94.2 94.9 95.3 89.3	198 117 81 91 168 115	
Marital status Never married Ever had sex Never had sex Married/Living together Divorced/Separated/ Widowed	32.2 38.6 28.0 47.4 40.4	1.2 1.4 1.1 2.0	2,123 837 1,286 5,418 1,134	97.1 98.3 96.1 96.9	683 323 360 2,567	21.4 20.4 22.5 30.6	1.0 1.1 0.9 1.8	834 438 397 1,228	95.4 97.1 93.8 93.1	178 89 89 376	
<b>Residence</b> Urban Rural	44.1 42.4	1.8 1.8	1,717 6,957	97.6 96.7	757 2,952	25.7 26.5	1.3 1.5	439 1,734	97.5 93.2	113 459	
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	42.2 43.9 47.3 49.1 48.7 47.4 41.6 34.1 40.1 33.1	1.7 1.5 1.7 2.4 2.7 1.5 1.7 1.3 1.7	839 956 902 869 1,267 289 735 500 1,221 1,097	97.8 95.7 95.9 98.5 95.8 98.4 98.6 98.7 97.1	354 419 426 427 616 137 306 170 490 363	24.6 33.5 29.6 29.1 33.3 25.3 30.1 17.8 21.5	1.2 2.2 1.8 1.3 1.7 0.9 1.5 1.1 1.0	221 209 236 236 289 55 199 133 322 273	99.9 95.3 98.1 88.3 95.7 (72.2) 93.3 (96.6) 96.4 (87.0)	54 70 70 68 96 14 60 24 69	
Education No education Primary Secondary +	36.9 42.7 45.5	2.0 1.8 1.8	1,120 5,152 2,402	96.9 97.2 96.3	413 2,202 1,094	25.4 25.2 28.3	3.8 1.4 1.3	90 1,309 774	(85.8) 95.2 93.1	23 330 219	
Wealth quintile Lowest Second Middle Fourth Highest	41.9 40.7 42.3 45.0 43.4	2.0 1.9 1.6 1.7 1.8	1,519 1,579 1,608 1,726 2,242	97.0 97.9 95.9 96.4 97.2	637 643 680 777 972	26.2 25.8 24.3 26.0 28.7	1.3 1.9 1.3 1.3	345 423 402 486 517	89.1 90.4 95.6 95.2 97.6	90 109 98 126 149	
Total 15-49 50-54 Total 15-54	42.8 na na	1.8 na na	8,674 na na	96.9 na na	3,708 na na	26.3 38.9 27.0	1.5 2.8 1.5	2,173 122 2,295	94.0 (96.7) 94.2	572 47 620	

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist, or other health worker. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

na = Not applicable

On average, women reported having 1.8 medical injections per person in the past 12 months. Men reported an average of 1.5 injections per person in the past year. The vast majority of respondents reported that the syringe and needle used for their last injection was taken from a new, unopened package (97 percent of women and 94 percent of men). More than 9 in 10 women and men in almost all subgroups who had had a medical injection reported that the syringe used for the last injection came from an unopened package.

# 13.12 HIV/AIDS KNOWLEDGE AND SEXUAL BEHAVIOUR AMONG YOUNG ADULTS

This section addresses HIV/AIDS-related knowledge and behaviour among young adults age 15-24. The period between the initiation of sexual activity and marriage is often a time of sexual experimentation and may involve risky behaviours. Special attention is paid to this group because it accounts for half of all new HIV infections worldwide (Ross et al., 2006).

# 13.12.1 HIV/AIDS-related Knowledge among Young Adults

Knowledge of how HIV is transmitted is crucial to enable people to avoid HIV infection, especially for young people, who are often at greater risk because they may have shorter relationships and thus more partners or may engage in other risky behaviours. Young respondents were asked the same set of questions on facts and beliefs about HIV transmission as other respondents. Table 13.16 shows the level of comprehensive knowledge of HIV/AIDS among young people and the percentage of young people who know a source for condoms. As discussed earlier in the chapter, comprehensive knowledge of HIV/AIDS is defined as knowing that both condom use and limiting sexual intercourse to one uninfected partner are HIV prevention methods, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission.

<u>Table 13.16 Comprehensive knowledge about AIDS and of a source of condoms among young people</u>

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source of condoms, by background characteristics, Uganda 2011

	Women 15-24		Men 15-24					
Percentage with compre- hensive knowledge of AIDS <sup>1</sup>	Percentage who know a condom source <sup>2</sup>	Number of women	Percentage with compre- hensive knowledge of AIDS <sup>1</sup>	Percentage who know a condom source <sup>2</sup>	Number of men			
35.6 34.1 38.1 41.1 40.3 42.5	69.4 64.7 77.0 82.3 82.1 82.8	2,048 1,261 787 1,629 1,035 594	34.8 35.8 32.8 47.7 44.2 53.3	86.5 84.0 91.7 96.2 94.9 98.2	554 375 179 318 195 123			
38.7 43.0 36.3 37.3	71.0 83.9 63.7 80.0	1,972 713 1,260 1,704	39.1 43.0 35.3 42.1	89.2 97.7 81.1 94.5	738 359 380 134			
48.4 35.2	89.3 71.1	812 2,865	56.7 34.8	94.4 88.8	189 683			
20.8 30.0 53.5	44.1 67.2 91.8	140 2,218 1,318	* 31.8 53.4 39.5	* 86.0 97.5	13 537 322 872			
	Percentage with compre- hensive knowledge of AIDS  35.6 34.1 38.1 41.1 40.3 42.5  38.7 43.0 36.3 37.3  48.4 35.2  20.8 30.0	Percentage with comprehensive knowledge of AIDS¹  35.6 69.4 34.1 64.7 38.1 77.0 41.1 82.3 40.3 82.1 42.5 82.8  38.7 71.0 43.0 83.9 36.3 63.7 37.3 80.0  48.4 89.3 35.2 71.1  20.8 44.1 30.0 67.2 53.5 91.8	with comprehensive knowledge of AIDS¹         Percentage who know a condom source²         Number of women           35.6         69.4         2,048           34.1         64.7         1,261           38.1         77.0         787           41.1         82.3         1,629           40.3         82.1         1,035           42.5         82.8         594           38.7         71.0         1,972           43.0         83.9         713           36.3         63.7         1,260           37.3         80.0         1,704           48.4         89.3         812           35.2         71.1         2,865           20.8         44.1         140           30.0         67.2         2,218           53.5         91.8         1,318	Percentage with comprehensive knowledge of AIDS¹         Percentage who know a condom source²         Number of women         Percentage with comprehensive knowledge of AIDS¹           35.6         69.4         2,048         34.8           34.1         64.7         1,261         35.8           38.1         77.0         787         32.8           41.1         82.3         1,629         47.7           40.3         82.1         1,035         44.2           42.5         82.8         594         53.3           38.7         71.0         1,972         39.1           43.0         83.9         713         43.0           36.3         63.7         1,260         35.3           37.3         80.0         1,704         42.1           48.4         89.3         812         56.7           35.2         71.1         2,865         34.8           20.8         44.1         140         *           30.0         67.2         2,218         31.8           53.5         91.8         1,318         53.4	Percentage with comprehensive knowledge of AIDS¹         Percentage who know a condom source²         Number of women         Percentage with comprehensive knowledge of AIDS¹         Percentage who know a condom source²           35.6         69.4         2,048         34.8         86.5           34.1         64.7         1,261         35.8         84.0           38.1         77.0         787         32.8         91.7           41.1         82.3         1,629         47.7         96.2           40.3         82.1         1,035         44.2         94.9           42.5         82.8         594         53.3         98.2           38.7         71.0         1,972         39.1         89.2           43.0         83.9         713         43.0         97.7           36.3         63.7         1,260         35.3         81.1           37.3         80.0         1,704         42.1         94.5           48.4         89.3         812         56.7         94.4           35.2         71.1         2,865         34.8         88.8           20.8         44.1         140         *         *           48.4         89.3         812			

An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission or prevention of the AIDS virus. The components of comprehensive knowledge are presented in Tables 13.2, 13.3.1, and 13.3.2

and 13.3.2 <sup>2</sup> For this table, the following responses are not considered sources for condoms: friends, family members and home

Overall, approximately 4 in 10 Ugandans age 15-24 (38 percent of women and 40 percent of men) have comprehensive knowledge about AIDS. Comprehensive knowledge increases with age. For example, 34 percent of women age 15-17 have comprehensive knowledge about AIDS compared with 43 percent of those age 23-24. A similar pattern is observed for young men. Never-married young adults who have ever had sex are slightly more likely than their counterparts to have comprehensive knowledge about AIDS (43 percent of women and men). Comprehensive knowledge about AIDS is more prevalent among urban youth (48 percent of women and 57 percent of men) than rural youth (35 percent of women and men). The level of knowledge increases steadily with education. For example, one-fifth of young women (21 percent) with no education have comprehensive knowledge about AIDS, compared with more than half of women (54 percent) with at least some secondary education.

Because of the important role that condoms play in combating the transmission of HIV, respondents were asked if they knew where condoms could be obtained. Only responses about 'formal' sources were counted; friends, family members, and home were not included. As shown in Table 13.16, knowledge of a source for condoms is relatively common. Young men are more likely than young women to know where to obtain condoms (90 percent versus 75 percent). Variation by background characteristics is similar to the differences observed in comprehensive knowledge about AIDS. Older, urban, non-married but sexually active, and more educated youth are more likely than their counterparts to know a source of condoms.

# 13.12.2 Age at First Sexual Intercourse

Because HIV transmission in Uganda occurs predominantly through sexual intercourse between an infected and a non-infected person, age at first intercourse marks the time at which most individuals first risk exposure to the virus. Age at first sex is also an important indicator of both exposure to the risk of pregnancy and exposure to STIs. Young people who initiate sex at an early age face a higher risk of becoming pregnant or contracting an STI than young people who delay initiation of sexual activity. Consistent use of condoms reduces these risks.

Table 13.17 shows the percentages of young women and men who had sexual intercourse before reaching age 15 and age 18, by background characteristics. About 14 percent of young women and 16 percent of young men in the age group 15-24 had their first sex early in life, i.e., before the age of 15. Nearly 6 in 10 young women (58 percent) and half of young men (47 percent) had had sex before age 18.

Table 13.17 Age at first sexual intercourse among young people

Percentage of young women and young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and young men age 18-24 who had sexual intercourse before age 18, by background characteristics, Uganda 2011

	Women a	ige 15-24	Women a	age 18-24	Men age	e 15-24	Men age 18-24		
Background characteristic	Percentage who had sexual intercourse before age 15	Number of women	Percentage who had sexual intercourse before age 18	Number of women	Percentage who had sexual intercourse before age 15	Number of men	Percentage who had sexual intercourse before age 18	Number of men	
Age									
15-19	12.2	2,048	na	na	17.9	554	na	na	
15-17	11.5	1,261	na	na	19.8	375	na	na	
18-19	13.3	787	57.0	787	13.8	179	52.9	179	
20-24	16.1	1,629	57.9	1,629	12.8	318	42.9	318	
20-22	15.3	1,035	58.6	1,035	12.3	195	46.8	195	
23-24	17.5	594	56.8	594	13.7	123	36.7	123	
Marital status									
Never married	8.0	1,971	33.6	829	15.4	738	44.4	365	
Ever married	20.7	1,705	70.2	1,586	19.2	134	52.4	132	
Knows condom source <sup>1</sup>									
Yes	14.9	2,763	59.4	1,948	17.3	785	47.8	470	
No	10.9	914	50.2	468	5.0	87	(23.5)	27	
Residence									
Urban	15.5	812	52.5	577	17.9	189	54.0	132	
Rural	13.5	2,865	59.2	1,839	15.5	683	43.8	365	
Education									
No education	18.3	140	65.8	108	*	13	*	9	
Primary	16.9	2,218	65.0	1,356	16.2	537	48.4	255	
Secondary +	8.5	1,318	46.1	952	16.2	322	44.1	233	
Total	13.9	3,677	57.6	2,416	16.0	872	46.5	497	

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

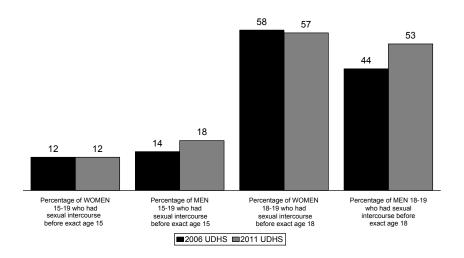
Among young women, the older age cohorts are more likely to have had sex before age 15 than are those who have reached those age milestones more recently. As expected, ever-married young women are much more likely than never-married young women to have had sexual intercourse before age 15 or 18. Twenty-one and 70 percent of ever-married young women had sexual intercourse before age 15 and 18, respectively, compared with 8 percent and 34 percent, respectively, of never-married women. Education has an inverse relationship with sexual debut among female youth. Young women with no schooling are twice as likely as those who go to secondary school to have had sex by age 15 (18 percent compared with 9 percent). Variation in young men's sexual debut across background characteristics are small, except for variation observed with knowledge of condom source and marital status. Young men who know a condom source are almost 3.5 times more likely to have an early sexual debut than those who do not know a source of condoms (17 percent compared with 5 percent). Like women, ever-married young men are much more likely than never-married men to have had sexual intercourse before age 15 or 18.

Figure 13.2 presents trends in age at first sexual intercourse among young people. The percentage of young people age 15-19 who have had sex by age 15 has remained stable for women (12 percent) but has slightly increased among men since 2006 (from 14 percent to 18 percent among young men). Similar trends are presented for those who had sexual intercourse before the age of 18. Fifty-eight percent of women age 18-19 reported that they had sexual intercourse before age 18 in the 2006 UDHS; this figure had remained the same (at 57 percent) in the 2011 UDHS. Among young men age 18-19, however, an increase is observed (from 44 percent in 2006 to 53 percent in 2011).

na = Not applicable

For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Figure 13.2 Trends in age at first sexual intercourse



#### 13.12.3 Abstinence and Premarital Sex

HIV control programmes in Uganda advocate delayed sexual debut as well as consistent condom use to reduce the risk of sexual transmission of HIV. Table 13.18 presents information on premarital sexual intercourse and condom use among never-married Ugandan youth age 15-24.

Table 13.18 Premarital sexual intercourse and condom use during premarital sexual intercourse among young people

Among never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among those who had premarital sexual intercourse in the past 12 months, the percentage who used a condom at the last sexual intercourse, by background characteristics, Uganda 2011

		Never-marri	ed women a	age 15-24		Never-married men age 15-24						
		Percentage		Among wom sexual interc past 12 r	ourse in the		Percentage		Among mer sexual interco past 12 n	ourse in the		
Background characteristic	Percentage who have never had sexual intercourse	who had sexual intercourse in the past 12 months	Number of never married women	Percentage who used a condom at last sexual intercourse	Number of women	Percentage who have never had sexual intercourse	who had sexual intercourse in the past 12 months	Number of never married men	Percentage who used a condom at last sexual intercourse	Number of men		
Age												
15-19 15-17 18-19 20-24 20-22 23-24 <b>Knows condom source</b> <sup>1</sup> Yes No <b>Residence</b> Urban	71.1 77.9 53.3 34.5 37.9 25.5 57.3 79.9	19.4 14.2 33.0 44.7 43.6 47.7 30.3 10.0	1,582 1,142 440 389 283 107 1,400 571	53.6 55.0 52.1 53.5 50.3 61.1 55.8 37.4	308 162 145 174 123 51 425 57	62.1 70.5 43.1 22.9 29.9 5.3 46.8 89.7	21.3 14.4 37.2 51.9 47.3 63.6 33.0 1.9	537 373 163 202 145 57 658 80	54.9 45.5 63.1 71.3 68.2 (77.1) 63.2	114 54 61 105 68 36 218 2		
Rural	68.6	20.8	1,475	52.9	307	56.3	25.4	576	57.6	146		
Education No education Primary Secondary +	70.2 71.2 54.3	14.9 17.3 33.8	44 1,070 858	52.2 55.3	6 185 290	56.2 57.2 42.2	26.7 34.3	8 447 284	* 49.5 78.6	3 119 97		
Total 15-24	63.8	24.4	1,971	53.6	482	51.4	29.7	738	62.7	219		

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

For this table, the following responses are not considered a source for condoms: friends, family members and home.

Sixty-four percent of never-married young women and 51 percent of never-married young men have never had sexual intercourse. The percentage of never-married young people who have never had sex declines rapidly with age; 78 percent of young women and 71 percent of young men age 15-17 report that they have not yet had sexual intercourse compared with 26 percent of women age 23-24 and 5 percent of men age 23-24. Abstinence rates are highest among those that do not know a condom source and rural respondents and respondents with less than secondary education.

Overall, one-quarter of never-married young women (24 percent) and 3 in 10 never-married young men report that they had sexual intercourse in the past 12 months. Among those who had sex in the past year, 54 percent of women and 63 percent of men reported using a condom during their last sexual intercourse. Differentials by background characteristics in the percentages of never-married young people using condoms during their most recent sexual intercourse in the past 12 months are not large, with the exception of knowledge of condom source. Not surprisingly, reported condom use at last sexual encounter is more common among those who know a condom source. Condom use at last sexual intercourse is also more common among never-married young women and young men in urban areas (55 percent and 73 percent, respectively) than among those in rural areas (53 percent and 58 percent, respectively).

The proportion of never-married youth who report having used a condom at their last sexual intercourse has increased since the 2006 UDHS, from 56 percent of men age 15-24 to 63 percent of men age 15-24 as measured in the 2011 UDHS. Similarly, reported condom use among female youth has also increased in the past five years, from 39 percent of women age 15-24 as measured in the 2006 UDHS to 54 percent of women age 15-24.

# 13.12.4 Multiple Partnerships Among Young Adults

Table 13.19 presents information on young people age 15-24, who had two or more sexual partners during the 12 months preceding the survey and, among those with two or more partners, those who used a condom during last sex.

<u>Table 13.19 Multiple sexual partners in the past 12 months among young people</u>

Among all young women and men age 15-24, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months, by background characteristics, Uganda 2011

Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of women	Percentage who had 2+ partners in the past 12 months	Number of men
Age				
15-19	1.5	2,048	5.4	554
15-17	1.1	1,261	3.5	375
18-19	2.1	787	9.2	179
20-24	2.7	1,629	15.0	318
20-22	3.1	1,035	16.5	195
23-24	2.1	594	12.7	123
Marital status				
Never married	1.5	1,971	6.2	738
Ever married	2.7	1,705	23.6	134
Knows condom source <sup>1</sup>				
Yes	2.4	2,763	9.5	785
No	1.1	914	3.9	87
Residence				
Urban	3.2	812	18.0	189
Rural	1.7	2,865	6.4	683
Education				
No education	1.7	140	*	13
Primary	1.9	2,218	8.2	537
Secondary +	2.3	1,318	9.2	322
Total 15-24	2.1	3,677	8.9	872

An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

<sup>&</sup>lt;sup>1</sup> For this table, the following responses are not considered a source for condoms: friends, family members, and home

Data show that 2 percent of women age 15-24 had sexual intercourse with more than one partner in the past 12 months. There is minimal variation in the prevalence of multiple partners by background characteristics. Among women age 15-24 who reported two or more sexual partners in the past 12 months, more than one-quarter (27 percent) reported using a condom at last intercourse (data not shown).

A total of 9 percent of men age 15-24 had sexual intercourse with two or more partners in the past 12 months. Young men in their twenties, those who have ever married, and those in urban areas are more likely to have had more than one partner in the previous 12 months. Among young men who had one or more sex partners in the past year, almost half (47 percent) reported using a condom at last sexual intercourse (data not shown).

# 13.12.5 Age-mixing in Sexual Relationships

In many societies, young women have sexual relationships with men who are considerably older than they are. This practice can contribute to the spread of HIV and other STIs because older men are more likely to have been exposed to these diseases. Also, using preventive strategies, such as negotiating safer sex, is more difficult when a woman's partner is much older. To examine age-mixing, the 2011 UDHS asked respondents who had had sex in the 12 months preceding the survey to give their partner's age. The results are presented in Table 13.20.

Table 13.20	Age-mixing in sexual relationships among wo	men
age 15-19		

Among women age 15-19 who had sexual intercourse in the past 12 months, percentage who had sexual intercourse with a partner who was 10 or more years older than themselves, by background characteristics, Uganda 2011

	Women age 15 sexual intercour 12 mo	se in the past
Background characteristic	Percentage who had sexual intercourse with a man 10+ years older	Number of women
<b>Age</b> 15-17 18-19	8.9 15.7	280 468
Marital status Never married Ever married	4.3 19.4	308 441
Knows condom source <sup>1</sup> Yes No	14.0 10.2	587 161
<b>Residence</b> Urban Rural	13.7 13.0	142 606
Education No education Primary Secondary +	(24.2) 13.4 11.1	31 502 216
Total	13.2	748

Note: Figures in parentheses are based on 25-49 unweighted cases. 

<sup>1</sup> For this table, the following responses are not considered a source for condoms: friends, family members, and home

Overall, 13 percent of women age 15-19 who had had sexual intercourse in the past 12 months had sex with a man 10 or more years older than they were. Young women age 18-19, those who have ever been married, and women who know a source of condoms are more likely than other women to have had sex with a man 10 or more years older than they are.

# 13.12.6 Recent HIV Testing among Youth

Knowledge of one's HIV serostatus can motivate a person to protect himself or herself or to practise safer sexual behaviour to avoid transmitting the virus to others. It is particularly important to measure the coverage of HIV testing among youths, not only because of their vulnerability, but also because they in particular may encounter obstacles to counseling and testing. The 2011 UDHS asked respondents age 15-24 who had had sexual intercourse in the past 12 months whether they had been tested for HIV and received their test results. Table 13.21 shows these data.

Table 13.21 Recent HIV tests among young people

Among young women and young men age 15-24 who have had sexual intercourse in the past 12 months, the percentage who were tested for HIV in the past 12 months and received the results of the last test, by background characteristics, Uganda 2011

	Among wome who have h intercour past 12 i	nad sexual se in the	Among men ag have had sexua in the past 13	I intercourse		
Background characteristic	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women	Percentage who have been tested for HIV in the past 12 months and received the results of the last test  Number			
Age 15-19 15-17 18-19 20-24 20-22 23-24	49.1 41.6 53.6 54.8 56.1 52.7	748 280 468 1,349 834 515	25.9 21.9 28.9 36.2 36.7 35.6	130 55 74 220 118 101		
<b>Marital status</b> Never married Ever married	49.4 53.8	482 1,615	32.5 32.2	219 130		
Knows condom source <sup>1</sup> Yes No	56.1 37.5	1,726 371	32.7	340 9		
<b>Residence</b> Urban Rural	56.2 51.8	473 1,624	36.8 30.7	98 251		
Education No education Primary Secondary +	36.6 48.6 62.0	92 1,269 735	* 25.5 42.9	8 206 135		
Total	52.8	2,097	32.4	349		

An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Nationally, more than 5 in 10 young women (53 percent) and about 3 in 10 young men (32 percent) who had had sexual intercourse in the last year had been tested for HIV in the past 12 months and received the results of the test. Older youth, urban residents, and youth with secondary or higher education are much more likely than other youth to have been tested for HIV and received the results over the past 12 months. Among young women, the percentage who were recently tested for HIV and received the results is higher among those who ever married (54 percent) than those who never married (49 percent) and among young women who know of a condom source (56 percent) than those who don't know of a source (38 percent). Recent HIV testing among youth has dramatically increased in Uganda in recent years. In the 2006 UDHS, 17 percent of young women and 13 percent of young men who had had sexual intercourse in the past 12 months had been tested for HIV and received results. This represents a three-fold increase among women that have been tested and received their test results and more than a doubling of the percentage of young men who have been tested and received results.

<sup>&</sup>lt;sup>1</sup> For this table, the following responses are not considered a source for condoms: friends, family members, and home

# **Key Findings**

- More than half of currently married employed women (53 percent) who earn cash mainly make independent decisions about how to spend their earnings.
- About four in ten women own a house and/or land, mostly jointly with their husband.
- Only 38 percent of currently married women participate in all three decisions pertaining to their own health care, major household purchases, and visits to their family or relatives.
- Close to six in ten women (58 percent) believe that wife beating is justified for at least one of the specified reasons, a decline from seven in ten women in the 2006 UDHS.
- Contraceptive use increases with women's empowerment.

his chapter presents new data on the status of women in Uganda. Topics address gender differences in employment, access to and control over cash earnings, asset ownership, participation in household decision making, and the relative earnings of husbands and wives. The chapter also explores how demographic and health indicators vary by women's empowerment, as measured by the number of decisions in which the woman participates and her ability to negotiate safer sexual relations with her husband. The 2011 UDHS survey analyzes and reports on these relationships and offers comparisons with data from the 2006 UDHS.

Three separate indices of empowerment were developed based on (1) the number of household decisions in which the respondent participates: (2) her opinion of the circumstances under which a woman is justified in refusing to have sexual intercourse with her husband/partner, and (3) her opinion of whether specific actions justify wife beating. The relationship of these indices with selected demographic and health outcomes is analyzed. The ranking of women on the indices is associated with outcomes that include contraceptive use, need for family planning, and access to reproductive health care.

# 14.1 EMPLOYMENT AND FORM OF EARNINGS

Employment, particularly employment for cash, and control over how earnings are used are important indicators of empowerment. Currently married respondents were asked whether they were employed at the time of the survey and, if not, whether they were employed in the 12 months that preceded the survey. Table 14.1 shows the percentage of currently married women and men age 15-49 who were employed at any time in the 12 months before the survey and the percent distribution of employed women and men by type of earnings they received (cash only, cash and in-kind, in-kind only). Overall, 79 percent of currently married women and 99 percent of currently married men age 15-49 were employed at some time in the year prior to the survey.

The percentage of currently employed married women increases with age and peaks at 87 percent among those age 35-39. All married men younger than age 25 are employed, and this percentage decreases only slightly at older ages. The traditional role of men as breadwinners and the differences in employable skills between women and men may explain the gender differential in the rate of employment. There has been a general decline in the level of employment from 2006 to 2011, with women affected more than

men. Employment among currently married women declined by more than 10 percent from the 2006 level (92 percent in 2006 and 79 percent in 2011) compared with men where the decline was less than 1 percent (100 percent in 2006 and 99 percent in 2011).

Employed women and men differ in the type of earnings they receive for their work, with married men being more likely to be paid for their work than women. A quarter of the women were not paid for the work they performed (25 percent) compared with only a tenth of the men (12 percent). Overall participation in the cash only economy has increased over the last five years, more than doubling among women and almost doubling among men. In 2006 less than 20 percent of women were paid in cash only, compared with 49 percent in 2011; the increase for men was from 34 percent in 2006 to 62 percent in 2011. There is an inverse relationship between age and payment in only cash for men, with payment decreasing as age increases. At older ages the gap between the sexes in cash earnings narrows.

Table 14.1 Employment and cash earnings of currently married women and men

Percentage of currently married women and men age 15-49 who were employed at any time in the past 12 months and the percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, Uganda 2011

		currently spondents:			rently married res			
Age	Percentage employed	Number of respondents	Cash only	Cash and in-kind	In-kind only	Not paid	Total	Number of respondents
				WOMEN				
15-19	66.6	409	42.7	16.6	5.8	34.9	100.0	272
20-24	71.5	1,097	47.7	17.3	3.8	31.2	100.0	785
25-29	78.5	1,295	53.1	20.6	3.9	22.3	100.0	1,017
30-34	81.7	880	49.9	21.3	6.3	22.6	100.0	719
35-39	87.1	820	47.1	27.0	3.3	22.7	100.0	715
40-44	86.8	553	50.6	21.7	3.9	23.7	100.0	480
45-49	83.8	364	49.4	20.7	6.1	23.8	100.0	305
Total	79.2	5,418	49.4	21.1	4.5	25.1	100.0	4,293
				MEN				
15-19	*	10	*	*	*	*	100.0	10
20-24	100.0	101	60.2	24.9	1.9	13.0	100.0	101
25-29	98.8	270	66.6	22.8	1.4	9.1	100.0	267
30-34	99.9	282	64.0	21.1	2.5	12.4	100.0	282
35-39	99.0	242	62.4	27.1	1.2	9.3	100.0	240
40-44	98.0	179	53.9	27.9	4.4	13.8	100.0	176
45-49	98.2	143	58.0	22.8	3.7	15.6	100.0	140
Total 15-49	99.0	1,228	61.8	24.1	2.3	11.8	100.0	1,216
50-54	95.0	109	57.1	30.2	1.6	11.1	100.0	104
Total 15-54	98.7	1,338	61.5	24.5	2.3	11.7	100.0	1,320

An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

# 14.2 Women's Control Over Their Own Earnings and Relative Magnitude of Women's and Their Husband's Earnings

Control over cash earnings is another dimension of empowerment. Currently married and employed women were asked about the relative magnitude of their earnings compared with their husband's or partner's earnings. In addition, they were asked who decides how the cash earnings are used. This information provides insight into women's empowerment within the family, their autonomy, and the extent of their control over resources. It is expected that employment and earnings are more likely to empower women if women themselves control their own earnings and if they perceive them as significant relative to those of their husbands or partners.

Table 14.2.1 shows the percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey. The distribution is by the person who decides how the cash earnings are to be used and by the relative magnitude of their earnings compared with those of their husbands, according to background characteristics. Women do not have total control over their earnings. Slightly more than half (53 percent) of the currently married women who earn cash

said that they are the main decision makers for how their cash earnings are used—a 2 percentage point decline compared with 2006 data; three in ten (31 percent) indicated that the decisions are made jointly, and 14 percent said that the decisions are mainly made by their husband.

Older women are more likely to have control over their cash earnings than younger women. Urban women exercise more influence over how their cash earnings are used than rural women (67 percent and 49 percent, respectively). Women with no children are least likely to be the main decision maker with regard to spending their cash earnings. Joint decisions on cash earnings are more frequent among rural married women than among their counterparts in urban areas (33 percent compared with 22 percent).

The percentage of women with primary control over their earnings ranged from 35 percent in the Southwest to 78 percent in Kampala. It is expected that women would gain more control over their cash earnings with more education; the survey results revealed that among women with no education 49 percent control their cash earnings compared with 58 percent of women with more than secondary education. Differences by wealth quintiles are pronounced between the lowest (52 percent) and the highest (62 percent) quintiles. Less than 10 percent of women in the highest wealth quintile say their husband is the main decision maker on use of her cash earnings.

Table 14.2.1 Control over women's cash earnings and relative magnitude of women's cash earnings: Women

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how wife's cash earnings are used and by whether she earned more or less than her husband, according to background characteristics, Uganda 2011

	F	Person who decides how the wife's cash earnings are used:						Wife's cash earnings compared with husband's cash earnings:					
Background characteristic	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	More	Less	About the same	Husband has no earnings	Don't know/ Missing	Total	Number of women
Age													
15-19	44.1	30.5	20.5	0.3	4.6	100.0	7.8	81.0	4.4	1.0	5.8	100.0	161
20-24	52.0	28.7	18.0	0.2	1.1	100.0	4.8	83.8	7.3	0.7	3.4	100.0	510
25-29	50.9	30.5	15.5	0.6	2.5	100.0	10.5	76.0	7.1	0.7	5.7	100.0	750
30-34	55.5	29.9	12.4	0.3	1.8	100.0	7.8	79.2	8.6	0.3	4.1	100.0	512
35-39	51.2	33.1	13.3	0.0	2.4	100.0	10.0	73.0	10.1	1.7	5.2	100.0	529
40-44	56.2	33.1	10.0	0.0	0.7	100.0	13.3	69.8	10.3	3.4	3.2	100.0	347
45-49	58.7	30.9	10.2	0.0	0.2	100.0	14.4	66.1	14.3	1.6	3.7	100.0	214
Number of living children													
0	47.5	32.9	17.0	0.4	2.2	100.0	7.8	78.5	7.4	2.3	4.1	100.0	147
1-2	54.5	29.6	12.5	0.4	3.0	100.0	8.0	78.4	7.5	0.4	5.7	100.0	828
3-4	54.0	27.6	16.1	0.2	2.1	100.0	8.7	76.8	7.6	1.5	5.4	100.0	857
5+	51.2	33.9	13.9	0.1	0.9	100.0	11.2	73.9	10.4	1.4	3.1	100.0	1,192
Residence													
Urban	66.7	21.7	5.4	0.5	5.7	100.0	7.9	75.4	5.0	1.1	10.4	100.0	585
Rural	49.4	33.1	16.4	0.2	1.0	100.0	9.8	76.3	9.5	1.2	3.1	100.0	2,438
Region													
Kampala	77.5	17.8	4.8	0.0	0.0	100.0	4.8	86.1	3.6	1.2	4.3	100.0	252
Central 1	57.5	24.1	18.4	0.0	0.0	100.0	6.6	81.8	7.5	1.4	2.6	100.0	314
Central 2	68.7	18.3	12.5	0.5	0.0	100.0	8.2	81.4	7.6	0.8	2.0	100.0	429
East Central	60.9	19.8	18.9	0.5	0.0	100.0	11.9	78.1	4.9	1.4	3.8	100.0	272
Eastern	44.4	31.9	23.7	0.0	0.0	100.0	12.3	73.0	11.2	0.6	2.9	100.0	269
Karamoja	68.6	22.7	7.4	0.9	0.4	100.0	13.3	44.2	15.9	8.1	18.5	100.0	105
North	36.7	47.0	13.9	0.6	1.8	100.0	15.1	72.6	9.9	0.5	1.9	100.0	267
West Nile	66.8	24.1	7.9	0.0	1.2	100.0	10.2	79.9	5.1	8.0	4.0	100.0	200
Western	37.5	40.2	14.0	0.2	8.1	100.0	7.8	69.8	13.0	8.0	8.7	100.0	607
Southwest	35.0	49.8	15.3	0.0	0.0	100.0	9.9	80.1	6.9	1.3	1.8	100.0	309
Education													
No education	48.7	32.5	18.2	0.1	0.4	100.0	9.4	68.3	15.2	2.7	4.4	100.0	466
Primary	51.4	30.7	16.5	0.2	1.2	100.0	9.9	77.7	8.2	0.9	3.4	100.0	1,773
Secondary +	58.2	30.4	6.8	0.4	4.2	100.0	8.5	77.5	5.9	0.9	7.2	100.0	785
Wealth quintile													
Lowest	51.8	31.7	16.0	0.1	0.4	100.0	10.5	70.2	12.5	1.5	5.3	100.0	462
Second	47.1	34.3	17.0	0.3	1.3	100.0	12.3	70.6	11.6	2.5	2.9	100.0	597
Middle	47.9	32.2	18.5	0.3	1.0	100.0	10.1	78.8	7.4	0.5	3.1	100.0	578
Fourth	51.6	33.1	14.5	0.1	0.6	100.0	8.4	79.8	8.9	0.9	2.0	100.0	611
Highest	62.0	25.1	7.8	0.3	4.8	100.0	6.9	79.1	4.8	8.0	8.3	100.0	776
Total	52.7	30.9	14.3	0.2	1.9	100.0	9.4	76.2	8.7	1.2	4.5	100.0	3,023

Regarding the magnitude of a woman's cash earnings relative to those of her husband or partner, about three in four employed women (76 percent) reported that their cash earnings were less than those of their husbands/partners; only 1 percent reported that their husbands did not have any earnings. The North region had the highest percentage of women (15 percent) who perceived their cash earnings to be more than the earnings of their husbands or partners, followed by Karamoja region, with 13 percent of the women believing their earnings were more than those of their partners. The data also reveal that education does not bring about gender equality in cash earnings. Regardless of education, , only 8-9 percent of women perceived their cash earnings to exceed those of their husbands.

Gender disparities in cash earnings widen as wealth increases and appear biased against women. Only 7 percent of the women in the highest wealth quintile perceived their cash earnings to be more than their husbands or partners and only 5 percent in the same quintile perceived their cash earnings to be the same as that of their husbands or partners. Compared with the results of the 2006 UDHS, a similar proportion of women continue to perceive that they earn less than men.

#### 14.3 WOMEN'S CONTROL OVER HUSBANDS' EARNINGS

Table 14.2.2 shows the percent distribution of currently married men age 15-49 who receive cash earnings and of currently married women age 15-49 whose husbands receive cash earnings by the person who decides how men's earnings are used, according to background characteristics.

Women's and men's reports on who decides how the husband's cash earnings will be used are not the same. Fifty-four percent of women whose husbands have cash earnings report that their husband mainly decides on how his cash earnings are used. This differs from the 39 percent reported by the men themselves. There is no clear pattern by age for women; however, older men are less likely to report that they themselves mainly decide on how their cash earnings are used. The pattern of reporting for women and men differs by residence. A higher percentage of urban men (45 percent) compared with rural men (38 percent) report that they are the main decision makers on how their cash earnings are used.

Men and women from the North region reported the highest prevalence of joint decision making on how the husband's cash earnings were used (83 percent of married men and 55 percent of married women). The percentage of men who reported that they are the main decision maker decreased with the level of education. Conversely, joint decision making increased with education among men. Six in ten married men (59 percent) with at least some secondary education reported that the use of their cash earnings was jointly decided upon compared with 51 percent of men with no education. There is little difference by education for women with respect to joint decision making about their husbands' cash earnings. Men in the lowest wealth quintile are more likely (64 percent) to jointly decide with their wives how their cash earnings will be used compared with men in the highest quintile (52 percent). The difference in reporting on joint decision making by women does not vary much by wealth quintile.

Table 14.2.2 Control over men's cash earnings

Percent distributions of currently married men age 15-49 who receive cash earnings and of currently married women age 15-49 whose husbands receive cash earnings, by person who decides how husband's cash earnings are used, according to background characteristics, Uganda 2011

			Me	n			Women						
Background characteristic	Mainly wife	Husband and wife jointly	Mainly husband	Other	Total	Number of men	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number of women
Age													
15-19	0.0	37.9	45.0	17.1	100.0	8	8.6	39.1	51.5	0.8	0.0	100.0	396
20-24	6.2	48.1	45.7	0.0	100.0	86	6.8	39.6	53.3	0.0	0.3	100.0	1,091
25-29	4.8	52.5	42.8	0.0	100.0	238	7.4	37.1	55.0	0.4	0.1	100.0	1,286
30-34 35-39	8.2 3.4	55.1 56.3	36.6	0.0	100.0 100.0	240	6.6 7.7	35.0 38.0	58.0	0.1	0.3	100.0 100.0	873 809
35-39 40-44	3.4 1.3	64.1	40.3 34.6	0.0 0.0	100.0	215 144	7.7 10.4	36.0 36.9	54.1 52.1	0.1 0.4	0.1 0.2	100.0	536
45-49	4.9	58.5	36.6	0.0	100.0	113	10.4	36.2	53.4	0.4	0.0	100.0	356
Number of living children													
0	10.5	40.9	46.2	2.4	100.0	61	8.8	41.3	49.5	0.5	0.0	100.0	328
1-2	4.5	53.7	41.8	0.0	100.0	267	7.6	39.9	52.0	0.2	0.3	100.0	1,526
3-4	5.5	53.5	41.0	0.0	100.0	278	7.9	36.4	55.4	0.1	0.2	100.0	1,456
5+	4.0	60.3	35.8	0.0	100.0	439	7.8	35.8	56.1	0.2	0.1	100.0	2,037
Residence													
Urban	5.2	49.5	45.3	0.0	100.0	205	6.6	37.6	55.7	0.1	0.1	100.0	883
Rural	4.8	57.2	37.8	0.2	100.0	840	8.0	37.4	54.1	0.2	0.2	100.0	4,464
Region					400.0							400.0	
Kampala	1.8	40.7	57.5 50.8	0.0	100.0	90	6.1	35.2	58.7	0.0	0.0	100.0 100.0	394
Central 1 Central 2	4.4 9.6	44.7 50.3	50.8 40.2	0.0 0.0	100.0 100.0	103 119	8.2 7.6	31.6 29.1	59.6 63.1	0.3 0.0	0.3 0.3	100.0	554 561
East Central	1.1	61.6	37.3	0.0	100.0	110	6.0	27.3	66.3	0.0	0.3	100.0	571
Eastern	8.2	49.3	41.5	1.0	100.0	148	10.5	34.0	54.9	0.7	0.0	100.0	849
Karamoja	2.9	44.2	52.8	0.0	100.0	24	23.9	38.4	37.5	0.2	0.0	100.0	199
North	0.0	82.8	17.2	0.0	100.0	106	4.8	55.4	39.1	0.5	0.2	100.0	485
West Nile	34.9	38.0	26.6	0.0	100.0	27	9.1	30.4	60.1	0.0	0.4	100.0	321
Western	3.0	65.8	31.2	0.0	100.0	183	4.9	41.0	53.8	0.2	0.2	100.0	738
Southwest	3.3	51.5	45.2	0.0	100.0	136	6.8	50.0	43.2	0.0	0.0	100.0	674
Education					400.0							4000	0.50
No education	4.8	51.1	44.1	0.0	100.0	57 616	9.5	38.8	51.6	0.1 0.3	0.0 0.2	100.0	852 3,277
Primary Secondary +	4.5 5.5	54.0 59.1	41.2 35.4	0.2 0.0	100.0 100.0	372	7.8 6.7	36.0 40.4	55.7 52.8	0.3	0.2	100.0 100.0	3,277 1,218
•	0.0	00.1	оот	0.0	100.0	012	0.7	70.7	02.0	0.0	0.2	100.0	1,210
Wealth quintile Lowest	6.4	64.4	28.4	0.8	100.0	170	11.1	37.8	51.0	0.0	0.0	100.0	1,038
Second	3.7	62.5	33.9	0.0	100.0	202	8.3	40.5	50.5	0.0	0.4	100.0	1,038
Middle	3.8	53.0	43.2	0.0	100.0	211	5.9	37.8	55.7	0.5	0.1	100.0	1,036
Fourth	7.8	49.8	42.4	0.0	100.0	225	7.4	34.3	58.0	0.3	0.1	100.0	988
Highest	3.0	51.6	45.4	0.0	100.0	236	6.5	36.8	56.5	0.0	0.2	100.0	1,206
Total 15-49	4.9	55.7	39.3	0.1	100.0	1,045	7.8	37.5	54.4	0.2	0.2	100.0	5,347
50-54	0.0	62.0	38.0	0.0	100.0	91	na	na	na	na	na	na	na
Total 15-54	4.5	56.2	39.2	0.1	100.0	1,136	na	na	na	na	na	na	na

na = Not applicable

Table 14.3 shows, for currently married women who earned cash in the last 12 months, the person who decided how their cash earnings would be used. It also shows, for currently married women whose husbands earned cash in the past 12 months, the person who decided how their husband's cash earnings would be used. Overall slightly more than 50 percent of those who earn the money are the main decision makers, irrespective of the relative magnitude of their cash earnings compared with those of their partners. Joint decisions about the use of the wife's and the husband's earnings are most likely when wives and husbands receive the same amount of cash earnings (69 percent and 72 percent, respectively). Gender equality in control over cash earnings is likely to bring about better resource utilization that will lead to better household welfare.

Table 14.3 Women's control over their own earnings and over those of their husbands

Percent distribution of currently married women age 15-49 with cash earnings in the last 12 months by person who decides how the wife's cash earnings are used and percent distribution of currently married women age 15-49 whose husbands have cash earnings by person who decides how the husband's cash earnings are used, according to the relation between wife's and husband's cash earnings, Uganda 2011

	Person who decides how the wife's cash earnings are used:					_	_	Person who decides how husband's cash earnings are used:						
Women's earnings relative to husband's earnings	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	Number of women	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	Number of women
More than husband Less than husband Same as husband Husband has no cash earnings or did not	63.9 55.1 22.1	25.6 28.6 69.4	9.9 16.2 8.3	0.6 0.1 0.1	0.0 0.0 0.0	100.0 100.0 100.0	285 2,303 262	16.6 7.4 4.2	33.2 34.5 71.8	50.0 58.0 24.0	0.2 0.2 0.0	0.0 0.0 0.0	100.0 100.0 100.0	285 2,303 262
work Woman worked but has	75.9	16.9	3.9	0.0	3.2	100.0	36	na	na	na	na	na	na	na
no cash earnings Woman did not work Don't know/ Missing	na na 41.7	na na 10.8	na na 5.3	na na 1.5	na na 40.6	na na 100.0	na na 137	8.2 5.7 16.0	41.4 32.6 35.0	50.1 60.9 47.2	0.3 0.4 0.0	0.1 0.4 1.8	100.0 100.0 100.0	1,254 1,105 137
Total <sup>1</sup>	52.7	30.9	14.3	0.2	1.9	100.0	3,023	7.8	37.5	54.4	0.2	0.2	100.0	5,347

na = Not applicable

## 14.4 WOMEN'S EMPOWERMENT

Amid persistent gender inequality, the government of Uganda is committed to improvement of gender development as evidenced by the 2007 Uganda Gender Policy (Ministry of Gender, Labour, and Social Development, 2007) and the National Development Plan 2010/11-2014/15 (Republic of Uganda, 2010). The goal of the policy is to achieve gender equality and women's empowerment as an integral part of Uganda's socioeconomic development. The National Development Plan observes that discrimination against women in Uganda results from traditional rules and practices that explicitly exclude women or give preference to men, which serves as a key constraint on women's empowerment and economic progress. The plan has strategies to address gender-related constraints to development and suggests how to mainstream gender-neutral policies, plans, and programmes. In addition to educational attainment, employment status, and control over cash earnings, information was obtained in the survey on some direct measures of women's autonomy and status. Specifically, questions were asked on ownership of assets, participation in household decision making, acceptance of wife beating, and conditions that justified denial of sex to one's husband. The answers provided insight into women's control over their environment and their attitudes toward gender roles, both of which are relevant to understanding women's demographic and health behaviour.

# 14.4.1 Ownership of Assets

Ownership and control of assets by women and men influence their individual participation in development processes at all levels. Lack of assets makes women vulnerable to various forms of violence and lessens their decision-making power in the household. Tradition and low economic status limit women's ownership of productive assets such as land and housing. Ownership of assets confers additional economic value, status, and bargaining power. Table 14.4.1 shows the percent distribution of women age 15-49 by ownership of a house and land, according to background characteristics. Owning a house is more common among women than owning land. Overall, 44 percent of women own a house and 39 percent own land. The majority who do own assets own them jointly; 29 percent of women own a house jointly and 25 percent own land jointly.

There are variations in level of ownership of a house and land by age, residence, region, education, and wealth. Ownership of houses and land increases with age. Ninety percent of young women age 15-19 do not own land or a house. Individual ownership of a house or land is more common in the rural than in the urban areas. Seventy-eight percent of urban women versus 51 percent of rural women do not own a house. More urban women (72 percent) than rural women (59 percent) do not own land.

<sup>1</sup> Includes cases where a woman does not know whether she earned more or less than her husband

Thirty percent of women in Karamoja region own a house alone and 12 percent own land alone; these percentages are among the highest of the regions. The highest percentages of women who own neither a house nor land are in Kampala, at 83 percent and 75 percent, respectively. The chances of owning either a house or land decrease with increasing education. The percentage of women with secondary education without a house (72 percent) is more than double that of those with no education (32 percent). Seventy-six percent of women in the highest quintile have no house compared with 36 percent in the lowest quintile. Furthermore, 70 percent of women in the highest quintile have no land compared with 50 percent of women in the lowest quintile.

The results of the survey reveal that tradition is likely to play a bigger part in asset ownership than the socioeconomic status of the women. These results could be explained with the fact that respondents who live in urban areas are more educated and wealthier than their rural counterparts, and are probably also more likely to rent a place to live and to not own any land in the urbanized areas where they live when compared with those in rural areas.

<u>Table 14.4.1 Ownership of assets: Women</u>

Percent distribution of women age 15-49 by ownership of housing and land, according to background characteristics, Uganda 2011

	Percenta	ge who ow	n a house:	Percentage		Percen	itage who c	wn land:	Percentage		
Background characteristic	Alone	Jointly	Alone and jointly	who do not own a house	Total	Alone	Jointly	Alone and jointly	who do not own land	Total	Number of women
Age											
15-19	1.4	7.6	0.6	90.4	100.0	2.6	7.1	1.0	89.3	100.0	2,048
20-24	4.2	26.8	4.6	64.3	100.0	6.7	21.4	2.8	69.0	100.0	1,629
25-29	6.1	36.2	6.4	51.1	100.0	8.9	31.1	4.1	55.8	100.0	1,569
30-34	11.0	37.8	8.8	42.4	100.0	11.0	31.1	7.1	50.7	100.0	1,086
35-39	15.7	45.1	7.7	31.6	100.0	15.9	38.2	5.3	40.6	100.0	1,026
40-44	19.0	36.8	9.5	34.5	100.0	18.0	30.4	8.1	43.3	100.0	729
45-49	28.0	37.4	8.3	26.2	100.0	24.7	35.1	6.0	34.3	100.0	587
Residence											
Urban	6.7	13.5	2.1	77.6	100.0	9.9	14.8	2.8	72.4	100.0	1,717
Rural	9.5	32.9	6.4	51.1	100.0	9.9	27.1	4.4	58.5	100.0	6,957
Region											
Kampala	6.4	9.7	0.8	83.0	100.0	10.0	12.6	2.7	74.8	100.0	839
Central 1	8.3	15.3	3.8	72.6	100.0	12.2	12.7	3.3	71.6	100.0	956
Central 2	11.1	17.8	3.3	67.7	100.0	11.5	14.9	3.0	70.7	100.0	902
East Central	6.9	35.5	3.0	54.0	100.0	9.4	26.2	1.8	62.0	100.0	869
Eastern	7.9	35.5	6.8	49.7	100.0	7.1	26.6	3.2	63.1	100.0	1,267
Karamoja	29.5	27.2	6.8	36.5	100.0	11.7	21.8	8.2	58.3	100.0	289
North	9.2	51.6	6.2	32.9	100.0	8.0	48.2	4.8	39.0	100.0	735
West Nile	7.3	37.7	2.9	52.0	100.0	7.4	29.9	6.0	56.6	100.0	500
Western	9.8	28.5	5.3	56.2	100.0	11.6	25.1	5.7	57.5	100.0	1,221
Southwest	6.6	34.6	13.6	45.2	100.0	10.5	30.8	5.3	53.4	100.0	1,097
Education											
No education	18.9	42.2	7.4	31.5	100.0	13.6	35.0	5.2	46.1	100.0	1,120
Primary	8.0	31.7	5.9	54.4	100.0	9.2	25.8	4.2	60.8	100.0	5,152
Secondary +	6.3	17.4	4.0	72.2	100.0	9.9	17.3	3.4	69.3	100.0	2,402
Wealth quintile											
Lowest	16.5	41.7	6.0	35.7	100.0	11.5	34.0	4.3	50.2	100.0	1,519
Second	9.5	38.7	7.0	44.7	100.0	9.5	31.4	4.5	54.5	100.0	1,579
Middle	8.3	32.4	6.7	52.5	100.0	9.6	26.6	3.6	60.1	100.0	1,608
Fourth	6.1	25.4	5.4	63.0	100.0	9.1	19.5	4.0	67.3	100.0	1,726
Highest	6.0	14.2	3.5	76.3	100.0	10.1	16.1	4.0	69.7	100.0	2,242
Total	8.9	29.1	5.5	56.4	100.0	9.9	24.6	4.1	61.3	100.0	8,674

na = Not applicable

The pattern of ownership of land by men is the same as for women with the exception that more men than women own a house and land. Overall, 37 percent of men age 15-49 did not own a house compared with 56 percent of women, and 42 percent of men did not own land compared with 61 percent of women. By age 40, 12 percent or less of men do not own a house or land, while comparable ownership for women of the same age is less than 43 percent. It is easier for men in the rural areas to own a house and land than for their counterparts in the urban areas. Owning a house is most difficult in Kampala where 76 percent of the men do not own a house compared with only 17 percent of men in the Eastern region who do not own a house. The pattern of owning land is the same as of a house by region; 69 percent of men in

Kampala do not own land compared with 29 percent in the Eastern region. Education and wealth do not improve land and house ownership status for men any more than they do for women.

Table 14.4.2 Ownership of assets; Men

Percent distribution of men age 15-49 by ownership of housing and land, according to background characteristics, Uganda 2011

	Percenta	ge who ow	n a house:	Percentage		Percen	tage who c	wn land:	Percentage		
Background			Alone	who do not				Alone	who do not		Number
characteristic	Alone	Jointly	and jointly	own a house	Total	Alone	Jointly	and jointly	own land	Total	of men
Age											
15-19	19.3	5.2	0.8	74.7	100.0	10.9	6.5	0.9	81.7	100.0	554
20-24	39.3	9.1	0.9	50.7	100.0	23.6	11.0	1.7	63.3	100.0	318
25-29	53.7	14.7	4.5	27.0	100.0	48.6	15.2	7.6	28.6	100.0	361
30-34	52.8	20.3	4.9	22.0	100.0	52.6	18.5	4.4	24.5	100.0	323
35-39	60.5	20.3	8.0	11.2	100.0	58.3	21.7	7.1	12.8	100.0	268
40-44	59.8	24.7	9.2	6.3	100.0	60.7	17.4	10.4	11.6	100.0	191
45-49	60.5	20.0	10.9	8.6	100.0	71.3	16.5	5.1	7.1	100.0	157
Residence											
Urban	24.0	11.9	0.8	63.3	100.0	27.9	13.4	3.3	55.4	100.0	439
Rural	49.8	14.8	5.3	30.1	100.0	42.8	14.1	4.8	38.1	100.0	1,734
Region											
Kampala	18.3	5.7	0.5	75.5	100.0	22.2	7.2	1.7	68.9	100.0	221
Central 1	40.9	11.9	0.0	47.2	100.0	48.5	6.8	0.0	44.7	100.0	209
Central 2	42.6	12.2	0.0	45.1	100.0	34.2	11.5	2.0	52.3	100.0	236
East Central	38.4	21.4	8.9	31.4	100.0	33.7	13.9	10.2	42.2	100.0	236
Eastern	54.5	21.9	6.5	17.1	100.0	47.5	18.6	5.0	29.0	100.0	289
Karamoja	29.0	30.4	20.2	20.4	100.0	49.9	13.0	6.2	30.9	100.0	55
North	62.4	14.1	1.6	21.9	100.0	35.7	31.6	1.2	31.6	100.0	199
West Nile	41.0	21.1	10.6	27.3	100.0	39.7	17.6	6.1	35.6	100.0	133
Western	53.3	6.2	5.8	34.7	100.0	46.5	8.2	6.3	39.0	100.0	322
Southwest	46.7	13.4	3.0	36.9	100.0	42.6	14.6	6.6	36.3	100.0	273
Education											
No education	55.5	19.4	8.8	16.3	100.0	59.9	11.9	8.0	20.2	100.0	90
Primary	48.6	14.0	4.4	33.0	100.0	41.2	14.3	4.4	40.1	100.0	1,309
Secondary +	36.4	14.0	4.0	45.6	100.0	35.2	13.7	4.4	46.7	100.0	774
Wealth quintile											
Lowest	49.5	23.7	9.4	17.4	100.0	40.2	19.9	6.7	33.2	100.0	345
Second	58.7	17.0	4.5	19.9	100.0	45.3	18.9	3.7	32.1	100.0	423
Middle	54.7	10.8	3.1	31.4	100.0	49.7	9.6	4.6	36.1	100.0	402
Fourth	42.6	9.3	5.4	42.8	100.0	38.3	10.3	5.8	45.2	100.0	486
Highest	23.7	13.0	1.2	62.1	100.0	28.8	12.8	2.5	55.9	100.0	517
Total 15-49	44.6	14.2	4.4	36.8	100.0	39.8	14.0	4.5	41.6	100.0	2,173
50-54	61.9	20.0	7.8	10.3	100.0	61.1	19.2	10.2	8.9	100.0	122
Total 15-54	45.5	14.5	4.6	35.4	100.0	40.9	14.2	4.8	39.9	100.0	2,295

na = Not Applicable

#### 14.4.2 Women's Participation in Household Decision Making

One of the objectives of the current Uganda Gender Policy is to strengthen women's presence and capacities in decision making to enhance their participation in administrative and political processes. Decision making at the household and personal level is equally important for the empowerment of women and serves as an important factor in national development. To assess decision-making autonomy, information was sought on participation in three different types of household decisions: those about personal health care, major household purchases, and visits to her family relatives. Women are considered participants in decision making if they make decisions alone or jointly with their husband or someone else. Table 14.5 shows the percent distribution of currently married women by the person who usually makes decisions, as reported by women and men.

Husbands are the most important decision makers on women's health care, major household purchases, and visits to family or relatives. About two in five (39-42 percent) currently married women report that decisions on their own health care, major household purchases, and visits to their family or relatives are made primarily by their husband. On the other hand, 23 percent of the married women reported that they make solo decisions on their own health care and visits to family or relatives, and 16 percent reported making solo decisions on major household purchases. (Men disagreed, however, reporting

that only 7 percent of women make decisions on major household purchases.) Independence in decision making on women's own health has not changed much since 2006. At that time, only about two in ten married women (22 percent) independently decided on their own health care; the percentage remains almost the same (23 percent) five years later. Men are increasingly accepting their wives' opinions in making decisions on major household purchases. Joint decision making on major household purchases as reported by men has almost doubled since 2006 (47 percent in 2011 compared with 27 percent in 2006).

Table 14.5 Participation in decision making

Percent distribution of currently married women and currently married men age 15-49 by person who usually makes decisions about various issues, Uganda 2011

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Missing	Total	Number
			WOMEN					
Own health care Major household purchases Visits to her family or relatives	23.3 16.2 22.9	36.9 41.2 36.6	39.1 42.0 39.9	0.5 0.3 0.2	0.2 0.3 0.2	0.1 0.1 0.1	100.0 100.0 100.0	5,418 5,418 5,418
			MEN					
Own health care Major household purchases	12.8 6.8	42.7 47.1	43.4 45.4	0.0 0.0	1.1 0.3	0.1 0.3	100.0 100.0	1,228 1,228

Table 14.6.1 shows how women's participation in decisionmaking varies by background characteristics. Thirty-eight percent of married women reported participating in all decisions, while 21 percent reported participating in none. Participation in decisionmaking increases with age, doubling from 23 percent of women age 15-19 to 48 percent of women age 45-49. Women are more likely to participate in decisionmaking if employed, and especially if employed for cash.

Women from the North and Karamoja regions are more likely to participate in all three decisions compared with women from other regions. Only 5 percent of women from the North region and 7 percent of women from the Karamoja region were not able to take part in any of the decisions. Women from the Eastern region are the least empowered, with one in three (34 percent) not participating in any of the three decisions. The relationship between education and empowerment is mixed. Nearly one in two women (47 percent) with no education participated in all three decisions compared with 34 percent of women with primary and 39 percent of women with secondary and higher education. A similar relationship is seen between decision making and wealth quintile, with women in the poorest households more likely than women in wealthier households to make decisions. Women in the poorest households are most likely to participate in all types of decisions; this finding is similar to that of the 2006 UDHS.

Table 14.6.1 Women's participation in decision making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, Uganda 2011

	;	Specific decisions	3	- Percentage	Percentage		
Background characteristic	Woman's own health care	Making major household purchases	Visits to her family or relatives		who participate in none of the three decisions	Number of women	
Age							
15-19	45.3	43.2	42.8	23.4	31.6	409	
20-24	51.1	48.1	48.1	26.3	28.3	1,097	
25-29	57.5	57.1	59.8	36.1	21.1	1,295	
30-34	61.3	56.1	63.1	38.5	20.0	880	
35-39	71.1	67.5	67.3	47.4	12.7	820	
40-44	69.4	67.5	70.4	50.2	14.4	553	
45-49	72.5	66.9	69.4	48.3	12.8	364	
Employment (last 12 months)							
Not employed	48.8	43.7	50.5	27.6	31.6	1,124	
Employed for cash	64.8	62.5	64.2	41.9	16.2	3,023	
Employed not for cash	59.3	57.2	56.5	36.0	21.7	1,269	
Number of living children							
0	50.3	51.5	46.5	28.0	28.8	341	
1-2	55.4	52.0	54.1	31.4	24.5	1,532	
3-4	60.1	56.9	59.2	37.0	20.7	1,475	
5+	65.4	62.7	65.9	44.0	16.5	2,069	
Residence							
Urban	63.6	61.6	66.2	41.7	17.0	892	
Rural	59.5	56.5	58.2	36.7	21.4	4,526	
Region							
Kampala	61.3	62.3	69.1	41.8	17.4	397	
Central 1	48.0	42.7	55.6	26.2	27.9	559	
Central 2	53.2	50.4	63.1	32.2	21.5	565	
East Central	56.9	43.8	49.2	26.7	25.4	580	
Eastern	50.6	45.9	42.7	26.3	33.8	859	
Karamoja	81.6	78.4	80.7	69.2	7.3	215	
North	85.5	79.4	77.0	61.9	4.5	487	
West Nile	71.6	66.8	67.1	44.6	10.8	330	
Western	54.0	59.5	60.3	36.8	22.8	743	
Southwest	66.3	68.9	60.6	42.1	13.6	681	
Education							
No education	63.8	65.6	66.8	47.4	17.6	877	
Primary	57.9	54.0	56.1	34.4	22.7	3,313	
Secondary +	63.6	60.4	63.7	39.0	17.4	1,227	
Wealth quintile							
Lowest	64.8	63.6	64.3	45.5	18.3	1,063	
Second	61.7	57.8	56.4	37.4	20.0	1,101	
Middle	58.7	54.9	56.7	34.7	22.5	1,042	
Fourth	55.5	52.2	57.5	31.7	22.5	997	
Highest	59.8	57.8	62.3	37.8	20.4	1,215	
Total	60.2	57.4	59.5	37.5	20.7	5,418	

Figure 14.1 shows the relative percentages of currently married women, according to the number of decisions in which they participate, either alone or jointly with their husbands/partners. It is important to note that women are most likely to participate in all three decisions (38 percent) and least likely to participate in one decision (19 percent).

Figure 14.1 Number of decisions in which currently married women participate

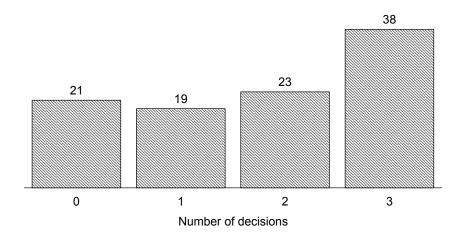


Table 14.6.2 shows decision-making power among men age 15-49, according to decisions about their own health care and about major household purchases, by background characteristics. More than 80 percent of men make decisions about their own health care and major household purchases; only 5 percent do not make any decisions on either of the two issues. Making decisions about one's own health care and major household purchases increases with age. By age 15-49 the vast majority of men make decisions on major household purchases (96 percent) and their own health care (90 percent). Employed men are more than twice as likely as unemployed men to participate in both decisions. There is little difference in decision making by urban or rural residence. Less than half (49 percent) of men from the West Nile region participate in making decisions on both issues, and in contrast, the highest proportion of men who say that they make decisions on both issues are from the Southwest region. Forty-one percent of men from the West Nile region do not participate in either decision.

Education and wealth do not strongly influence men's decision-making behaviour.

Table 14.6.2 Men's participation in decision making by background characteristics

Percentage of currently married men age 15-49 who usually make specific decisions either alone or jointly with their wife, by background characteristics, Uganda 2011

	Specific	decision			
De elemented	Manla avva	Making major	Deth	Naithar of the	Niconala a m
Background characteristic	Man's own health care	household purchases	Both decisions	Neither of the two decisions	Number of men
		P			
<b>Age</b> 15-19	69.0	69.0	69.0	31.0	10
20-24	87.8	91.3	84.3	5.2	101
25-29	86.9	90.6	83.0	5.5	270
30-34	83.5	93.0	82.4	5.9	282
35-39	87.5	93.1	83.5	2.9	242
40-44	84.3	93.9	82.8	4.6	179
45-49	89.9	95.5	88.4	3.0	143
Employment (last 12 months)					
Not employed	68.2	69.8	39.3	1.3	12
Employed for cash	86.7	94.2	84.4	3.4	1,045
Employed not for cash	83.7	83.9	81.4	13.8	172
Number of living children					
0	85.3	82.0	76.6	9.3	70
1-2	85.4	92.7	83.3	5.2	312
3-4	87.6	92.8	85.3	4.9	316
5+	85.8	93.8	83.6	4.1	530
Residence					
Urban	88.3	91.9	84.5	4.3	215
Rural	85.7	92.7	83.4	5.0	1,014
Region					
Kampala	89.8	91.8	84.0	2.3	96
Central 1	95.7	97.8	94.6	1.1	120
Central 2	90.5	92.4	89.8	6.8	127
East Central	93.5	97.2	90.7	0.0	122
Eastern	84.3	95.0	82.6	3.2	199
Karamoja	94.5	87.5	85.1	3.1	40
North	81.1	93.4	76.1	1.6	117
West Nile	52.3	56.6	49.4	40.5	77
Western Southwest	79.7 95.9	94.2 99.2	77.6 95.1	3.7 0.0	183 147
	33.3	33.2	33.1	0.0	147
Education	85.4	91.6	82.3	5.3	73
No education	85.4 85.6	93.3	82.3 83.7	5.3 4.8	75 754
Primary Secondary +	87.3	91.3	83.5	4.0 4.9	402
· ·	57.0	01.0	00.0		70 <u>2</u>
Wealth quintile Lowest	85.1	89.0	81.5	7.4	243
Second	82.0	91.3	79.2	7.4 5.9	243 257
Middle	86.1	95.6	84.6	3.0	233
Fourth	87.2	92.6	85.7	5.9	247
Highest	90.4	94.6	86.9	2.0	248
Total 15-49	86.1	92.6	83.6	4.9	1,228
50-54	88.1	92.9	83.8	2.8	109
Total 15-54	86.3	92.6	83.6	4.7	1,338

# 14.4.3 Attitudes towards Wife Beating

Gender-based violence (GBV) refers to violence that occurs as a result of the normative role expectations associated with each gender, along with the unequal power relationships between the two genders within the context of a specific society (Bloom, 2008). GBV is a result of an unequal balance of power between women and men; it cuts across cultures, ethnic groups, socioeconomic statuses, and religions. It is the most common type of violence that women experience worldwide, and it has serious consequences for women's mental and physical well-being, including their reproductive and sexual health (WHO, 1999). Gender-based violence was declared to be a violation of human rights by the United Nations General Assembly in 1993 in its declaration on the elimination of violence against women (United Nations, 1993). GBV continues to occur despite various efforts to stop it. It remains a complex problem that requires examination from many different perspectives.

The UDHS gathered information on women's attitudes towards wife beating by asking women and men whether a husband is justified in beating his wife in five situations: if she burns the food, if she argues with him, if she goes out without telling him, if she neglects the children, and if she refuses to have sexual intercourse with him. Women who believe that a husband is justified in hitting or beating his wife for any of the specified reasons may believe themselves to be lower in status than men. High proportions of women who justify wife beating indicate that women generally accept the right of a man to control his wife's behaviour through violence. Such a perception could act as a barrier to prevent women from accessing health care for themselves and their children. Table 14.7.1 shows the percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specified reasons, by background characteristics.

Table 14.7.1 Attitude toward wife beating: Women

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Uganda 2011

	Hus	sband is justified	in hitting or be	eating his wife if	she:	Percentage		
Background characteristic	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	who agree with at least one specified reason	Number of women	
Age								
15-19	21.2	31.0	39.6	47.2	22.1	61.8	2,048	
20-24	17.2	28.6	38.9	47.0	21.6	60.4	1,629	
25-29	14.6	26.7	35.1	43.0	19.6	55.5	1,569	
30-34	12.4	24.2	34.6	43.0	19.6	53.4	1,086	
35-39	17.0	30.2	40.3	45.9	24.2	60.2	1,026	
40-44	18.8	29.4	37.3	42.1	22.8	55.8	729	
45-49	15.7	28.4	37.0	43.2	26.8	56.4	587	
Employment (last 12 months)								
Not employed	20.6	31.0	36.6	44.6	23.5	58.8	2,293	
Employed for cash	15.3	26.2	38.9	44.6	20.0	58.2	4,446	
Employed not for cash	17.1	31.0	36.6	46.7	24.4	58.2	1,928	
Number of living children								
0	18.9	27.6	36.8	44.9	20.5	58.1	2,279	
1-2	15.4	27.3	35.8	43.8	21.3	56.6	2,099	
3-4	15.7	26.4	36.4	42.9	19.9	56.9	1,832	
5+	17.8	31.9	41.2	47.7	25.1	60.9	2,464	
Marital status								
Never married	19.2	26.6	35.2	44.1	19.3	57.3	2,118	
Married or living together	16.9	30.2	39.3	45.9	23.0	59.1	5,418	
Divorced/separated/widowed	14.1	24.1	35.1	42.9	21.5	56.3	1,134	
Residence								
Urban	9.4	17.6	28.1	36.2	10.9	46.1	1,717	
Rural	19.0	31.2	40.1	47.2	24.6	61.3	6,957	
Region								
Kampala	6.0	10.4	22.7	31.0	8.6	38.6	839	
Central 1	13.4	28.9	51.3	51.2	21.9	66.8	956	
Central 2	15.1	25.3	49.1	47.2	18.1	64.3	902	
East Central	30.0	40.8	55.2	63.1	28.0	74.1	869	
Eastern	26.3	41.0	43.4	53.9	32.5	70.0	1,267	
Karamoja	4.4	14.0	20.8	38.3	17.1	43.9	289	
North	11.9	32.4	18.8	29.2	18.2	42.1	735	
West Nile	33.7	45.9	40.0	52.9	25.3	66.0	500	
Western	13.4	22.5	29.7	37.4	15.8	53.2	1,221	
Southwest	13.0	20.4	32.8	41.2	26.8	51.7	1,097	
Education								
No education	17.2	30.7	35.0	43.8	25.1	56.3	1,120	
Primary	20.2	32.4	40.7	47.6	25.3	62.2	5,152	
Secondary +	10.5	19.0	32.6	40.0	13.1	50.7	2,402	
Wealth quintile								
Lowest	18.6	34.1	34.2	44.0	24.9	57.6	1,519	
Second	22.0	35.1	38.6	48.4	26.4	61.1	1,579	
Middle	18.6	30.3	42.1	48.4	25.2	63.1	1,608	
Fourth	19.9	30.9	44.4	51.3	24.3	66.8	1,726	
Highest	9.3	17.0	31.3	36.0	12.3	46.7	2,242	
Total	17.1	28.5	37.7	45.0	21.9	58.3	8,674	
		_5.0		. 5.0		- 5.0	-,	

About six in ten women (58 percent) believe that wife beating is justified for at least one of the specified reasons. This percentage shows significant improvement from the 2006 UDHS results where seven of ten women agreed that at least one reason was sufficient justification for wife beating. It is gratifying to observe that the percentages of women who justify wife beating for each of the specified reasons have decreased since the 2006 UDHS.

The most widely accepted reasons for wife beating are neglecting the children (45 percent compared with 56 percent in 2006) and going out without informing the husband (38 percent compared with 52 percent in 2006). About three in ten women in 2011 compared with four in ten in 2006 think that arguing with a spouse justifies wife beating. The percentage of women who think that denying a husband sex justifies wife beating has declined from 31 percent in 2006 to 22 percent in 2011, while that of women who think burning food deserves beating has fallen from 23 percent to 17 percent over the same period.

Acceptance of wife beating varies by women's age and is highest among the youngest age group (62 percent) and lowest among women age 30-34 (53 percent). Rural women are much more accepting of wife beating (61 percent) than urban women (46 percent). Nearly three of four women residing in East Central region are accepting of wife beating for any reason, in contrast with women living in Kampala who are least likely to accept wife beating (39 percent). Acceptance of wife beating is most prevalent among women with a primary education and among women living in households in the second, middle, and fourth wealth quintiles. Differences by other background characteristics are not as marked.

Men were also asked their opinions on the justification of wife beating under certain circumstances. Table 14.7.2 shows that the proportion of men age 15-49 who agree with at least one of the reasons justifying wife beating is lower than that observed among women (44 percent versus 58 percent). The pattern of acceptance by background characteristics has remained the same since 2006, although the levels of acceptance have declined. The results are similar to those among women. Young men; those who are employed, but not for cash; divorced, separated, or widowed men; and men with no children are most likely to agree with at least one reason justifying wife beating. A high percentage of rural men (47 percent) compared with urban men (29 percent) believe that wife beating is justified for at least one of the specified reasons. By region, men in Kampala (23 percent) followed by those of West Nile (25 percent), are least likely to accept wife beating. Men from the North region (59 percent) are most likely to agree with at least one reason for hitting or beating a wife.

The primary driver of GBV is the power imbalance between women and men. GBV violates basic human rights and is deeply entrenched in some cultural practices and intimate relationships. Earlier presentation of data in this chapter has highlighted imbalances between women and men; therefore, the perceptions of wife beating, which is one form of gender-based violence, are not surprising. Since GBV is not a private issue but one that involves society as a whole, prevention calls for a holistic approach.

Table 14.7.2 Attitude toward wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Uganda 2011

	Hu	sband is justifie	she:	- Percentage			
Background characteristic	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	who agree with at least one specified reason	Number of men
Characteristic	tile lood	WIGHTHIII	telling fillin	the children	WIGHTHIII	Teason	or men
<b>Age</b> 15-19 20-24 25-29 30-34 35-39	15.6 8.6 6.6 6.8 3.7	29.1 18.0 19.7 19.1	34.1 21.0 22.9 23.8	39.2 25.9 27.7 29.6	15.9 10.4 8.2 8.6	52.2 38.0 40.6 41.7	554 318 361 323
40-44	8.0	18.4 23.9	22.7 25.1	28.7 26.9	9.8 11.7	38.8 44.1	268 191
45-49	9.7	21.3	27.1	31.0	14.1	43.9	157
Employment (last 12 months) Not employed Employed for cash Employed not for cash	13.4 8.4 11.1	18.9 21.7 24.7	28.9 25.4 28.0	35.3 31.2 28.1	14.3 11.0 12.4	41.1 43.7 44.5	135 1,657 382
Number of living children							
0 1-2 3-4 5+	12.8 8.2 8.2 4.6	23.4 19.7 22.3 21.5	28.8 22.2 25.3 24.9	34.0 25.2 31.2 29.9	13.7 9.0 11.2 9.8	46.0 38.3 43.1 44.0	902 386 339 546
Marital status Never married Married or living together Divorced/separated/widowed	12.7 6.4 14.0	24.0 21.0 19.6	28.7 24.0 29.7	33.4 28.3 41.3	13.7 9.5 16.6	45.4 42.0 49.0	834 1,228 111
Residence							
Urban Rural	3.2 10.8	10.7 25.0	16.0 28.6	22.3 33.1	3.8 13.4	28.9 47.4	439 1,734
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	2.6 19.3 7.9 15.6 14.2 10.0 3.2 7.5 3.5 9.1	7.3 20.6 15.4 25.5 27.9 33.4 46.9 15.9 15.2 22.4	13.0 31.5 23.5 38.1 34.0 8.4 29.7 15.6 21.0 27.9	18.1 40.2 26.2 41.7 38.2 28.0 33.8 19.5 23.7 34.0	2.8 19.7 9.5 16.2 9.8 1.7 20.7 7.3 8.1 12.8	23.2 55.8 37.0 50.8 56.1 42.7 59.3 25.1 33.8 46.6	221 209 236 236 289 55 199 133 322 273
Education No education Primary Secondary +	9.7 11.6 5.1	14.6 26.0 16.3	25.5 31.6 16.9	32.3 34.8 24.2	8.7 14.4 6.8	39.6 49.4 34.5	90 1,309 774
Wealth quintile Lowest Second Middle Fourth Highest	13.5 8.3 11.3 9.0 5.7	31.0 26.8 24.2 17.5 15.0	25.5 29.2 30.0 26.1 20.7	31.8 34.0 35.3 28.7 26.5	16.9 12.8 12.2 10.7 6.9	49.2 49.2 47.0 40.2 36.1	345 423 402 486 517
Total 15-49	9.2	22.1	26.1	30.9	11.5	43.7	2,173
50-54	4.8	12.4	15.4	18.7	7.3	26.6	122
Total 15-54	9.0	21.6	25.5	30.3	11.2	42.8	2,295

# 14.4.4 Women's Empowerment Indicators

Two sets of empowerment indicators, namely women's participation in making household decisions and women's attitude towards wife beating can be summarized in two indices.

The first index shows the number of decisions in which women participate alone or jointly with their husband or partner (see Table 14.6.1 for the detailed list). This index ranges in value from 0 to 3 and relates positively to women's empowerment. It reflects the degree of decision-making control that women are able to exercise in areas that affect their own lives and environments. The second index, which ranges

in value from 0 to 5, presents the total number of reasons for which the respondent feels that the husband is justified in beating his wife (see Table 14.7.1 for list of reasons). A lower score on this indicator is interpreted as reflecting a greater sense of entitlement and self-esteem and a higher status of women.

Table 14.8 shows how these indices relate to each other. There is a clear relationship between the two indices. The percentage of women who disagree with all reasons justifying wife beating increases as the number of household decisions in which the women participate increases, from 35 percent among women who participate in none of the household decisions to 52 percent among women who participate in all three household decisions. The percentage of women who participate in all three household decisions decreases as the number of reasons for which wife beating

Table 14.8 Indicators of women's empowerment

Percentage of currently married women age 15-49 who participate in all decision making and percentage who disagree with all of the reasons justifying wife-beating, by value on each of the indicators of women's empowerment, Uganda 2011

Empowerment indicator	Percentage who participate in all decision making	Percentage who disagree with all the reasons justifying wifebeating	Number of women
Number of decisions in which women participate <sup>1</sup> 0 1-2	na	34.8	1,120
3	na na	34.0 51.9	2,265 2,033
Number of reasons for which wife-beating is justified <sup>2</sup>			
0	47.6	na	2,214
1-2	31.8	na	1,640
3-4	29.5	na	1,171
5	28.4	na	393

na = Not applicable

is justified increases, from 48 percent among women who agree with none of the reasons justifying wife beating to 28 percent among women who agree with all five reasons justifying wife beating. The data reflect improvements in women's empowerment since 2006. The percentage of women who disagree with all reasons justifying wife beating has increased from 33 to 52 percent for women who took part in all decisions. The percentage of women who participate in all decisions has declined from 30 percent to 28 percent for women who agree with all five reasons for wife beating.

# 14.5 CURRENT USE OF CONTRACEPTION BY WOMEN'S EMPOWERMENT STATUS

A woman's ability to control her fertility and the method of contraception she uses are likely to be affected by her self-image and sense of empowerment. A woman who feels that she is unable to control other aspects of her life may be less likely to feel she can make decisions regarding fertility. She may also feel the need to choose methods that are easier to conceal from her husband or partner. The 2011 UDHS supports this assertion whereby the most common method used by married women is injectables which are easy to conceal from partners.

Table 14.9 shows the relationship of each of the empowerment indicators with current use of contraceptive methods by currently married women. As expected, contraceptive use is positively associated with participation in household decisions. Use of any contraceptive method is lower among women who do not participate in any household decision (25 percent) than among women who participate in at least one household decision. Thirty-one percent of women who participate in at least one household decision are currently using a method of family planning.

Contraceptive use is negatively associated with the acceptance of wife beating. Use of any contraceptive method and use of any modern method is lower among women who agree with all the five reasons justifying wife beating (25 percent and 21 percent, respectively) than among women who agree with none of the reasons (31 percent and 27 percent, respectively).

<sup>&</sup>lt;sup>1</sup> See Table 14.6.1 for the list of decisions.

<sup>&</sup>lt;sup>2</sup> See Table 14.7.1 for the list of reasons.

Table 14.9 Current use of contraception by women's empowerment

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's status, Uganda 2011

			Мо	odern meth	nods					
Empowerment indicator	Any method	Any modern method	Female sterili- zation	Male sterili- zation	Temporary modern female methods <sup>1</sup>	Male condom	Any traditional method	Not currently using	Total	Number of women
Number of decisions in which women participate <sup>2</sup> 0 1-2 3	25.2 31.4 31.2	22.0 27.0 27.1	1.4 2.7 3.9	0.2 0.0 0.1	17.0 21.6 20.8	3.4 2.7 2.3	3.2 4.3 4.0	74.8 68.6 68.8	100.0 100.0 100.0	1,120 2,265 2,033
Number of reasons for which wife-beating is justified <sup>3</sup> 0 1-2 3-4 5	31.4 32.3 25.9 25.1	26.8 28.7 22.4 21.4	2.5 3.6 2.0 4.6	0.1 0.1 0.1 0.0	21.4 21.8 18.0 15.0	2.8 3.2 2.2 1.7	4.6 3.6 3.5 3.8	68.6 67.7 74.1 74.9	100.0 100.0 100.0 100.0	2,214 1,640 1,171 393
Total	30.0	26.0	2.9	0.1	20.3	2.7	4.0	70.0	100.0	5,418

Note: If more than one method is used, only the most effective method is considered in this tabulation.

# 14.6 IDEAL FAMILY SIZE AND UNMET NEED BY WOMEN'S STATUS

As a woman becomes more empowered, she is more likely to have a say in the number (ideal family size) and spacing of children desires. She has more control over her ability to access and use contraceptives to space and limit her family size. Women who have a desire to limit their births but who are not using family planning are defined as having an unmet need for family planning. Table 14.10 shows the mean ideal number of children for women age 15-49 and the of percentage currently married women age 15-49 with an unmet need of family planning by the two indicators of women's empowerment.

Table 14.10 Women's empowerment and ideal number of children and unmet need for family planning

Mean ideal number of children for women 15-49 and the percentage of currently married women age 15-49 with an unmet need for family planning, by indicators of women's empowerment, Uganda 2011

	Mean ideal		Percentag women w fa	Number of currently		
Empowerment indicator		Number of women	For spacing	For limiting	Total	married women
Number of decisions in which women participate <sup>1</sup> 0 1-2 3	5.2 5.0 5.3	1,094 2,221 1,948	24.2 21.7 17.9	12.6 11.3 16.5	36.8 32.9 34.4	1,120 2,265 2,033
Number of reasons for which wife- beating is justified <sup>2</sup> 0 1-2 3-4 5	4.7 4.8 5.1 5.3	3,516 2,613 1,762 553	17.9 23.1 22.2 23.1	14.6 11.3 14.3 13.9	32.5 34.4 36.5 37.0	2,214 1,640 1,171 393
Total	4.8	8,444	20.8	13.5	34.3	5,418

Mean excludes respondents who gave non-numeric responses.

Pill, IUD, injectables, implants, female condom, diaphragm, foam/jelly, and lactational amenorrhea method

See Table 14.6.1 for the list of decisions.
 See Table 14.7.1 for the list of reasons.

<sup>&</sup>lt;sup>2</sup> See Table 7.12.1 for the definition of unmet need for family planning.

<sup>&</sup>lt;sup>3</sup> Restricted to currently married women. See Table 14.6.1 for the list of decisions.

<sup>&</sup>lt;sup>4</sup> See Table 14.7.1 for the list of reasons.

The relationship between fertility and empowerment indicators continue to be mixed, similar to the 2006 UDHS. It is surprising that women who participate in all decisions desire the most children, but consistently women who participated in one to two decisions had the lowest desire for children and the lowest unmet need for family planning. There is a clear negative relationship between the index derived from the attitudes towards wife beating and ideal family size and unmet need. Women who accept all the reasons for wife beating have the highest mean ideal number of children at 5.3 compared with 4.7 children for women who do not justify wife beating for any reason.

Table 14.10 shows that unmet need for family planning increases with the number of reasons for which women believe wife beating is justified, from 33 percent among women who don't believe wife beating is justified for any reason at all to 37 percent among women who believe that wife beating is justified for three to five reasons.

# 14.7 WOMEN'S STATUS AND REPRODUCTIVE HEALTH CARE

Table 14.11 presents the percentage of women age 15-49 with live births in the five years preceding the survey who received antenatal care, delivery assistance, and postnatal care from health personnel for the most recent birth, by indicators of women's empowerment.

The data show that there is not much variation in use of reproductive health care among women who participate in all decisions versus those who do not take part in any decisions.

Women who agree with all of the reasons justifying wife beating were less likely to seek reproductive care services than women who do not justify wife beating at all. This difference was especially marked with regard to postnatal care from health personnel within the first two days following delivery. Generally, postnatal care is much lower (23 percent) among women who justified wife beating for any reason at all when compared with women who did not justify wife beating for any reason (39 percent).

Table 14.11 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the five years preceding the survey who received antenatal care, delivery assistance and postnatal care from health personnel for the most recent birth, by indicators of women's empowerment, Uganda 2011

Empowerment indicator	Percentage receiving antenatal care from a skilled provider <sup>1</sup>	Percentage receiving delivery care from a skilled provider <sup>1</sup>	Percentage of women with a postnatal checkup in the first two days after birth <sup>2</sup>	Number of women with a child born in the last five years
Number of decisions in which women participate <sup>1</sup>				
0	94.4	58.9	32.9	889
1-2	94.8	63.1	34.1	1,775
3	96.2	59.8	33.2	1,524
Number of reasons for which wife-beating is justified <sup>2</sup>				
0	96.0	64.3	38.9	2,013
1-2	95.4	61.9	33.4	1,539
3-4	92.8	59.7	29.2	1,090
5	91.8	54.6	23.4	326
Total	94.9	61.9	34.1	4,968

<sup>&</sup>lt;sup>1</sup> 'Skilled provider' includes doctor, nurse/midwife, medical assistant/clinical officer, nurse aide, or Village Health Team (VHT)

<sup>&</sup>lt;sup>2</sup> Includes women who received a postnatal checkup from a doctor, nurse/midwife, medical assistant/clinical officer, nurse aide, or Village Health Team (VHT) or traditional birth attendant (TBA) in the first two days after the birth. Includes women who gave birth in a health facility and those who did not give birth in a health facility.

<sup>&</sup>lt;sup>3</sup> Restricted to currently married women. See Table 14.6.1 for the list of decisions.

<sup>&</sup>lt;sup>4</sup> See Table 14.7.1 for the list of reasons.

# **Key Findings**

- Adult mortality is slightly higher among men than among women (6.5 deaths and 5.3 deaths per 1,000 population, respectively).
- Twenty percent of women and 25 percent of men are likely to die between ages 15 and 50. These probabilities have decreased for both women and men since 2000-01, with most of the decreases occurring between 2006 and 2011.
- Maternal deaths account for 18 percent of all deaths to women age 15-49. The maternal mortality rate for the seven-year period preceding the survey was 0.93 maternal deaths per 1,000 woman-years of exposure.
- The maternal mortality ratio was 438 maternal deaths per 100,000 live births for the seven-year period preceding the survey. This ratio is not significantly different from that reported in the 2006 UDHS, but it is lower than the ratio reported in the 2000-01 UDHS.

dult and maternal mortality rates are key indicators of the health status of a population. Estimation of these mortality rates requires comprehensive and accurate reporting of adult deaths and maternal deaths. The UDHS gathers valuable information that fills this gap. This chapter includes results based on sibling history data collected in the Sibling Survival Module (commonly referred to as the 'Maternal Mortality Module') of the 2011 UDHS Woman's Questionnaire and the 2011 UDHS Maternal Mortality Questionnaire.

In addition to adult mortality rates for five-year age groups, this chapter includes a summary measure ( $_{35}q_{15}$ ) that represents the probability of dying between exact ages 15 and 50. For the measurement of trends in adult mortality probabilities, summary measures for the 2000-01 and 2006 UDHS have also been calculated and are presented in Table 15.2.

The term 'maternal mortality' used in this chapter (and in previous UDHS surveys), corresponds to the term 'pregnancy-related mortality' as defined in the latest International Classification of Diseases (ICD-10). The ICD-10 definition of a pregnancy-related death is 'the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death.' In keeping with this definition, the Sibling Survival Module used in the DHS surveys measures only the timing of deaths and not the cause of deaths. The data collected in the UDHS questionnaire are based on information about deaths during the two months following a birth, however, rather than the 42 days following a birth.

# 15.1 ASSESSMENT OF DATA QUALITY

To obtain a sibling history, the 2011 UDHS interviewer first asked each female respondent to list all children born to her biological mother, starting with the firstborn. The interviewer then asked the respondent whether each of these siblings was still alive. For living siblings, the current age of each sibling was recorded. For deceased siblings, the age at death and the number of years since death were recorded. When a respondent could not provide precise information on age at death or years since death, approximate but quantitative answers were accepted. For sisters who died at age 12 or older, the UDHS

asked three questions to determine whether the death was maternal: 'Was [NAME OF SISTER] pregnant when she died?' and, if the response was negative, 'Did she die during childbirth?' and, if negative again, 'Did she die within two months after the end of a pregnancy or childbirth?'

Table C.8 in Appendix C shows that in the 2011 UDHS a total of 136,846 siblings were recorded in the sibling histories. The survival status was not reported for 200 siblings (0.1 percent). Among surviving siblings, the current age was not reported for 362 siblings (0.3 percent). For 98 percent of deceased siblings, both age at death and years since death were reported. In 1.1 percent of cases, both the age at death and years since death were missing. The sex ratio of the enumerated siblings (the ratio of brothers to sisters times 100) is 101.1 (Table C.9), which is a reasonable value and indicates that there has not been any underreporting of sisters.

#### 15.2 ESTIMATES OF ADULT MORTALITY

One way to assess the quality of data used to estimate maternal mortality is to evaluate the plausibility and stability of overall adult mortality estimates. If the estimated rates of overall adult mortality are implausible, rates based on a subset of deaths—maternal mortality in particular—are likely to have serious problems. Moreover, levels and trends in overall adult mortality have important implications for health and social programmes in Uganda in their own right, especially with regard to the potential impact of the AIDS epidemic, other infectious diseases, and noncommunicable diseases.

The direct estimation of adult mortality uses the reported ages at death and years since death of the respondents' brothers and sisters. Mortality rates are calculated by dividing the number of deaths in each age group of women and men by the total person-years of exposure to the risk of dying in that age group during a specified period prior to the survey. To have a sufficiently large number of adult deaths to generate a robust estimate, the rates are calculated for the seven-year period preceding the survey (roughly mid-2004 to mid-2011). Nevertheless, the age-specific mortality rates obtained in this manner are subject to considerable sampling variation.

Table 15.1 shows age-specific mortality rates for women and men age 15-49 for the seven-year period preceding the survey. Overall, the level of adult mortality is slightly higher among men (6.5 deaths per 1,000 population) than among women (5.3 deaths per 1,000 population). Age-specific mortality rates appear to be higher for men than for women in most age groups,

<u>Table 15.1 Adult mortality rates</u>

Direct estimates of female and male mortality rates for the seven years preceding the survey by five-year age groups, Uganda 2011

Age	Deaths	Exposure years	Mortality rates <sup>1</sup>					
WOMEN								
15-19 20-24 25-29 30-34 35-39 40-44 45-49	133 199 225 259 232 159 122	54,586 57,177 48,985 38,962 28,172 18,269 11,308	2.43 3.49 4.59 6.64 8.24 8.70 10.78					
15-49	1,329	257,460	5.33 <sup>a</sup>					
	MEN							
15-19 20-24 25-29 30-34 35-39 40-44 45-49	119 174 247 294 315 259 146	52,562 55,086 48,814 38,476 29,069 17,796 10,086 251,888	2.27 3.16 5.07 7.63 10.84 14.53 14.46 6.49 <sup>a</sup>					

<sup>&</sup>lt;sup>1</sup> Expressed per 1,000 population

but none of the differences are statistically significant. The age-specific mortality rates for women and men generally show the expected increases with increasing age. Confidence intervals for these rates can be found in Appendix Table B.16. The confidence intervals for many of the five-year mortality rates overlap.

<sup>&</sup>lt;sup>a</sup> Age-adjusted rate

Table 15.2 shows a summary measure of the risk of dying between exact ages 15 and 50 (35q15). Based on the 2011 UDHS, 20 percent of women and 25 percent of men are likely to die between age 15 and age 50. Estimates of 35q15 based on the 2000-01 and 2006 UDHS also show that men had a higher probability of dying between exact ages 15 and 50 (37 and 35 percent, respectively) than women (30 percent in both years). In the decade from the 2000-01 to the 2011 UDHS surveys, the probability of dying between exact ages 15

#### Table 15.2 Adult mortality probabilities

The probability of dying between the ages of 15 and 50 for women and men for the seven years preceding the survey, Uganda 2000-01, 2006, and 2011

	Female	Male
Survey	35 <b>Q</b> 15	35 <b>Q</b> 15
2011 UDHS 2006 UDHS 2000-01 UDHS	201 295 303	252 352 366

<sup>&</sup>lt;sup>1</sup> The probability of dying between exact ages 15 and 50, expressed per 1,000 person-years of exposure

and 50 decreased for both women and men. It decreased, from 30 percent to 20 percent for women and from 37 percent to 25 percent for men, showing a 34 percent decrease for women and a 31 percent decrease for men. For both women and men, much of this decrease is seen in the most recent five years, between 2006 and 2011. Confidence intervals for the 35q15 estimates can be found in Appendix Table B.16.

# 15.3 ESTIMATES OF MATERNAL MORTALITY

Maternal mortality in Uganda and other developing countries can be estimated using two procedures: the sisterhood method (Graham et al., 1989) and a direct estimation variant of the sisterhood method (Rutenberg and Sullivan, 1991). In this report the direct estimation procedure is applied.

Table 15.3 presents direct estimates of maternal mortality for the seven-year period preceding the survey. The maternal mortality rate among women age 15-49 is 0.93 maternal deaths per 1,000 woman-years of exposure. By five-year age groups, maternal mortality rate highest among women 35-39 (1.38), followed by those age 30-34 Confidence (1.30).intervals for the maternal

Table 15.3 Maternal mortality

Direct estimates of maternal mortality rates for the seven years preceding the survey, by five-year age groups, Uganda 2011

Age	Percentage of female deaths that are maternal	Maternal deaths	Exposure years	Maternal mortality rate <sup>1</sup>
15-19 20-24 25-29 30-34 35-39 40-44	17.6 22.6 22.7 19.6 16.7 12.2	23 45 51 51 39 19	54,586 57,177 48,985 38,962 28,172 18,269	0.43 0.79 1.04 1.30 1.38 1.06
45-49 15-49	10.3 18.1	13 241	11,308 257,460	1.11 0.93 <sup>a</sup>
General fertility rate (GFR) <sup>2</sup> Maternal mortality ratio (MMR) <sup>3</sup>	212 <sup>a</sup> 438	CI: (368, 507)		
Lifetime risk of maternal death <sup>4</sup>	0.029			
	2006 U	DHS		
Maternal mortality ratio (MMR) <sup>3</sup>	418	CI: (314, 521)		
	2000-01	UDHS		_
Maternal mortality ratio (MMR) <sup>3</sup>	524	CI: (412, 636)		

CI: Confidence interval

mortality rates can be found in Appendix Table B.16. In the 2011 UDHS maternal deaths represent 18 percent of all deaths to women age 15-49. The percentage of female deaths that are maternal varies by age and ranges from 10 percent among women 45 to 49 to 23 percent of all deaths among women 20-29.

Expressed per 1,000 woman-years of exposure

<sup>&</sup>lt;sup>2</sup> Expressed per 1,000 women age 15-49

<sup>&</sup>lt;sup>3</sup> Expressed per 100,000 live births; calculated as the maternal mortality rate divided by the general fertility rate

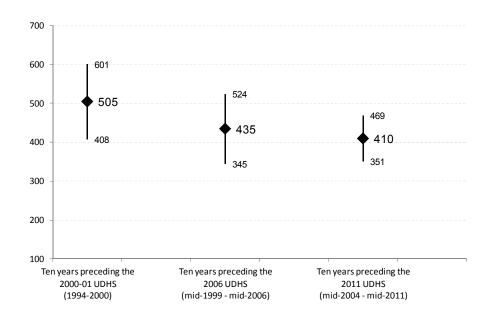
<sup>&</sup>lt;sup>4</sup> Calculated as 1-(1-MMR)<sup>TFR</sup> where TFR represents the total fertility rate for the seven years preceding the survey
<sup>a</sup> Age-adjusted rate

The maternal mortality rate can be converted to a maternal mortality ratio (expressed as deaths per 100,000 live births) by dividing the maternal mortality rate by the general fertility rate (GFR) of 212 that prevailed during the same time period, and multiplying the result by 100,000. This procedure produces a maternal mortality ratio (MMR) of 438 deaths per 100,000 live births during the seven-year period preceding the survey. In other words, for every 1,000 live births in Uganda during the seven years preceding the 2011 UDHS, about four women (4.38) died during pregnancy, during childbirth, or within two months of childbirth. The lifetime risk of maternal death (0.029) indicates that about 3 percent of women died during pregnancy, during childbirth, or within two months of childbirth.

In the reports for the 2000-01 and 2006 UDHS surveys, the maternal mortality ratios were shown for the 10-year period preceding the survey. To look at trends over time, these ratios were recalculated for the seven-year period preceding the surveys (Table 15.3). The estimated maternal mortality ratio for the seven-year period decreased from 524 deaths per 1000,000 live births in 2000-01 to 418 deaths in 2006, and it increased to 438 deaths per 1000,000 live births in 2011. As shown in Table 15.3 and Figure 15.1, the confidence interval surrounding the maternal mortality ratio of 438 deaths per 100,000 live births in 2011 is 368-507, while the confidence interval for the 2006 ratio of 418 deaths per 100,000 live births is 314-521 deaths. Because the confidence intervals between the two estimates overlap widely, there is no evidence to suggest that the maternal mortality ratio has changed substantially in the five years between the two surveys. On the other hand, the confidence interval for the 2000-01 maternal mortality ratio of 524 deaths per 100,000 live births is 412-636, and it does not overlap widely with the 2011 estimate, implying that there has been some decrease in maternal mortality ratio over the last decade.

It should be kept in mind that maternal mortality is difficult to measure because large sample sizes are required to calculate accurate estimates. The maternal mortality estimates presented here are subject to large sampling errors because cost and time considerations make it impossible to draw a sample large enough to keep sampling errors reasonably small.

Figure 15.1 Maternal mortality ratio (MMR) for the seven years preceding the 2000-01, 2006, and 2011 Uganda DHS with confidence intervals



# **Key Findings**

- More than half of the population of Uganda is age 15 or younger.
- Seventy percent of households use an improved source of drinking water.
- Fifty-eight percent of the population take more than 30 minutes roundtrip to fetch water.
- Only 16 percent of households have an improved sanitation facility.
- About one in every seven households (15 percent) has electricity.
- Three out of every ten children under age 5 have their birth registered.
- Twelve percent of children under age 18 are orphans.
- About three in ten households are headed by a woman.

his chapter summarizes demographic and socioeconomic characteristics of the households selected in the 2011 UDHS. Information was collected from both usual residents of a selected household (the de jure population) and persons who had stayed in the selected household the night before the interview (the de facto population). This chapter provides information on the conditions of the households in which the survey population lives, including the source of drinking water, availability of electricity, sanitation facilities, building materials, and possession of household durable goods. Also addressed are specific findings on birth registration of children under age 5, household living arrangements, orphanhood status, school attendance, educational attainment, and disability status.

The background information presented in this chapter is intended to facilitate the interpretation of the demographic, socioeconomic, and health indices presented in later chapters.

## 2.1 HOUSEHOLD ENVIRONMENT

The characteristics of a household determine the socioeconomic and health status of its members. The household is where all decisions about health, education, and general welfare are made and acted upon. The 2011 UDHS asked respondents about their household environment, including the source of drinking water, type of sanitation facility, access to electricity, type of material used for roofing, flooring, and walls, and number of rooms used for sleeping in the dwelling.

# 2.1.1 Drinking Water

Increasing access to improved drinking water is one of the targets of the National Development Plan. Access to improved drinking water is also one of the Millennium Development Goals that Uganda has adopted. Unimproved water sources increase the prevalence of waterborne disease and the burden of service delivery through increased demand for health care.

Table 2.1 presents indicators useful in monitoring household access to improved drinking water. Improved water sources include piped water into the dwelling, yard, or plot; a public tap/stand pipe or borehole; a protected well or protected spring water, and rainwater. Lack of easy access to an improved water source may limit the quantity of suitable drinking water that is available to a household as well as increase the risk of illness. Access to improved sources of drinking water has increased from 67 percent in

2006 to 70 percent of households in 2011. Nine in ten households in urban areas use improved water sources compared with only two in three households in rural areas. Access to improved water sources in rural areas increased from 63 percent to 67 percent during the same period. The most common source of improved drinking water in urban areas is piped water, used by 67 percent of households. In contrast, only 10 percent of rural households have access to piped water. A large proportion of rural households (44 percent) get their drinking water from a borehole. Ten percent of rural households get their drinking water from a protected spring or well.

If water needs to be fetched from a source that is not immediately accessible to the household, it may get contaminated during transportation or storage even if the water is obtained from an improved source. Another factor that influences access to a water source is the burden of fetching water, which often falls disproportionately on female members of the household.

Table 2.1 shows that, on average, 6 percent of the households have water on their premises. Urban households are more likely than rural households to have a water source in their house or yard (28 percent and 2 percent, respectively). Households that did not have water on their premises were asked how long it took to fetch water round trip. Thirty-three percent of all households (43 percent in urban areas and 31 percent in rural areas) take less than 30 minutes to fetch drinking water. More than half of all households (54 percent) travel 30 minutes or more to fetch their drinking water: 17 percent in urban areas and 62 percent in rural areas travel this length of time.

The 2011 UDHS asked all households whether they treat their water to ensure that it is safe for drinking. Forty-four percent of households boil their drinking water. Urban households (71 percent) are more likely than rural households (38 percent) to boil the water. Six in ten households (59 percent) in rural areas do not treat their drinking water.

Table 2.1 Household drinking water
Percent distribution of households and de jure population by source of drinking water, time to obtain drinking water, and treatment of drinking water, according to residence, Uganda 2011

		Households			Population	
Characteristic	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water Improved source Piped into dwelling/yard/plot Public tap/standpipe Borehole Protected well/spring Rain water Bottled water	90.6 27.9 38.9 11.8 6.9 0.5 4.6	65.6 1.5 8.2 43.9 10.2 1.4 0.4	70.3 6.4 13.9 37.9 9.6 1.3	89.6 28.4 34.9 16.1 7.6 0.4 2.1	66.6 1.3 7.8 45.9 10.2 1.3 0.1	70.0 5.3 11.7 41.6 9.8 1.2 0.4
Non-improved source Unprotected well/spring Tanker truck/vendor Surface water Other source	8.9 5.6 2.2 1.0 0.6	33.6 18.2 0.9 14.6 0.8	29.0 15.8 1.1 12.0 0.7	10.1 7.0 1.6 1.4 0.3	32.8 17.6 0.6 14.5 0.6	29.5 16.1 0.8 12.6 0.5
Total Percentage using any improved source of drinking water	100.0 90.6	100.0 65.6	100.0 70.3	100.0 89.6	100.0 66.6	100.0 70.0
Time to obtain drinking water (round trip) Water on premises Less than 30 minutes 30 minutes or longer Don't know/missing	40.1 42.8 16.6 0.5	6.2 31.1 62.0 0.7	12.5 33.3 53.5 0.7	37.4 41.5 20.7 0.4	5.4 29.7 64.3 0.6	10.0 31.4 57.9 0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking¹ Boiled Added water guard Bleach/chlorine added Strained through cloth Ceramic, sand, or other filter Solar disinfection Let it stand and settle Other No treatment	70.6 3.3 0.1 0.8 0.5 0.0 0.3 0.5 26.7	37.7 2.7 0.2 1.4 0.5 0.2 0.6 0.4 58.9	43.9 2.8 0.2 1.3 0.5 0.2 0.5 0.4 52.8	68.8 3.6 0.1 1.0 0.5 0.1 0.4 0.5 27.8	34.8 2.6 0.2 1.6 0.5 0.2 0.5 0.4 61.6	39.8 2.8 0.2 1.5 0.5 0.1 0.5 0.4 56.6
Percentage using an appropriate treatment method <sup>2</sup> Number	72.8 1,691	40.8 7,342	46.8 9,033	71.6 6,468	38.0 37,782	43.0 44,250

<sup>&</sup>lt;sup>1</sup> Respondents may report multiple treatment methods, so the sum of treatment may exceed 100 percent. <sup>2</sup> Appropriate water treatment methods include boiling, adding waterguard, bleaching, straining, filtering, and solar disinfecting.

# 2.1.2 Household Sanitation Facilities

Ensuring adequate sanitation facilities is good public health practice. At the household level, the availability of hygienic sanitation facilities reduces the risk of exposure to illnesses and further lightens the burden on the public health delivery system. Appropriate sanitation facilities include an improved toilet and method of waste disposal that separates waste from human contact. A household is classified as having an improved toilet if the toilet is used only by household members (that is, the toilet is not shared) and if the toilet separates the waste from human contact (WHO and UNICEF, 2010). Flush/pour toilets that flush to a piped sewer system, and ventilated improved pit (VIP) latrines, pit latrines with a slab, and composting toilets (which separate solid waste from water) are also classified as improved toilets.

Table 2.2 shows that 16 percent of households in Uganda use improved toilet facilities that are not shared with other households (21 percent in urban areas and 15 percent in rural areas). Overall, 19 percent of households have improved facilities but shared toilet facilities—52 percent in urban areas and 11 percent in rural areas. Two in three households use non-improved toilet facilities (73 percent in rural areas and 28 percent in urban areas). The most common type of toilet in urban areas is a pit latrine with a slab (34 percent), while in rural areas the most common type of toilet is a pit latrine without a slab (62 percent). Ten percent of the households, mainly in rural areas, have no toilet facilities. This proportion has declined over time, from 17 percent in 2000-01 to 12 percent in 2006 and to 10 percent in 2011 (UBOS and ORC Macro, 2001; UBOS and Macro International, Inc., 2007).

Table 2.2 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Uganda 2011

		Households		Population			
Type of toilet/latrine facility	Urban	Rural	Total	Urban	Rural	Total	
Improved, not shared facility	20.9	15.3	16.4	26.3	17.4	18.7	
Flush/pour flush to piped sewer system	8.6	0.2	1.8	9.4	0.1	1.5	
Ventilated improved pit (VIP) latrine	3.7	2.0	2.3	4.8	2.1	2.5	
Pit latrine with slab	8.4	12.8	12.0	12.1	14.8	14.4	
Composting toilet/Ecosan	0.1	0.3	0.3	0.1	0.4	0.3	
Shared facility <sup>1</sup>	51.6	11.3	18.8	43.6	8.0	13.2	
Flush/pour flush to piped sewer system	2.7	0.1	0.6	2.0	0.1	0.3	
Ventilated improved pit (VIP) latrine	14.9	2.2	4.6	12.3	1.5	3.1	
Pit latrine with slab	33.8	8.9	13.5	29.1	6.4	9.7	
Composting toilet/Ecosan	0.2	0.1	0.1	0.2	0.1	0.1	
Non-improved facility	27.5	73.4	64.8	30.1	74.7	68.1	
Pit latrine without slab/open pit	25.2	61.7	54.9	28.0	63.6	58.4	
No facility/bush/field	1.8	11.5	9.7	1.8	10.9	9.6	
Other	0.5	0.2	0.3	0.2	0.1	0.2	
Total	100.0	100.0	100.0	100.0	100.0	100.0	
Number	1,691	7,342	9,033	6,468	37,782	44,250	

<sup>&</sup>lt;sup>1</sup> Facilities that would be considered improved if they were not shared by two or more households

# 2.1.3 Housing Characteristics

Housing characteristics reflect the household's socioeconomic status in society. The availability or lack of adequate housing facilities determines the magnitude of exposure to risks associated with air pollution and ill health.

Table 2.3 shows that only 15 percent of the households in Uganda have electricity, and there is a very large disparity between urban and rural households (55 percent versus 5 percent). The proportion of households with access to electricity has increased since 2006. In urban areas, the proportion of households with electricity rose from 42 percent in 2006 to 55 percent in 2011. In rural areas, the percentage increased from less than 3 percent in 2006 to 5 percent in 2011.

The quality of housing for most Ugandans is still inadequate. More than two thirds (69 percent) of households have either earth, sand, or dung floors. Rural houses (81 percent) are more likely than urban

houses (19 percent) to have this type of floor. Urban houses are more likely to have floors made of cement than rural houses (76 percent versus 18 percent, respectively).

The number of rooms used for sleeping in relation to the number of household members is an indicator of the extent of crowding, which turn increases the risk of contracting communicable diseases. Overall, 46 percent of the households use one room for sleeping, 29 percent use two rooms, and 25 percent use three or more rooms for sleeping. Urban households are more likely to use one room for sleeping than rural households, implying that overcrowding is more rampant in urban than rural households.

More than half of the households in Uganda (58 percent) cook in a building separate from the house, while about one-third (28 percent) cook outdoors. In urban areas, one in five households (22 percent) cooks indoors. Cooking and heating with solid fuels can lead to high levels of indoor smoke, which consists of a complex mix of pollutants that can increase the risk of contracting respiratory infections. Uganda is predominantly agriculture based, and the use of solid fuels is widespread. Solid fuels include charcoal, wood, straw, shrubs, grass, agricultural crops, and animal dung. The use of solid fuel in Uganda is almost universal, with 96 percent of households using solid fuel for cooking. The practice is nearly universal in rural households at 98 percent and very common in urban households (85 percent). Wood is the main type of fuel used for cooking in rural areas (85 percent), while charcoal is the most used cooking fuel in urban areas (68 percent).

The 2011 UDHS collected information on the frequency of smoking tobacco in the home. Smoking increases the risk of noncommunicable diseases, not only for smokers but also for passive smokers. Table 2.3 shows that 16 percent of households are exposed to daily smoking, and 3 percent are exposed weekly. Rural households (17 percent) are almost twice as likely to be exposed to daily smoking as urban households (10 percent).

#### Table 2.3 Household characteristics

Percent distribution of households by housing characteristics, percentage using solid fuel for cooking, and percent distribution by frequency of smoking in the home, according to residence, Uganda

	Resid		
Housing characteristic	Urban	Rural	Total
Electricity			
Yes	55.4	5.3	14.6
No	44.6	94.7	85.4
Total	100.0	100.0	100.0
Flooring material Earth/sand Earth and dung Parquet or polished wood Mosaic or tiles Bricks Cement Stones	13.0 5.5 0.1 3.2 0.4 76.1 1.2	47.5 33.1 0.1 0.1 0.3 17.9 0.6	41.0 27.9 0.1 0.7 0.3 28.8 0.7
Other	0.4	0.4	0.4
Total	100.0	100.0	100.0
Rooms used for sleeping One Two Three or more Missing	62.3 21.9 15.1 0.7	42.0 30.2 27.2 0.6	45.8 28.7 24.9 0.6
Total	100.0	100.0	100.0
Place for cooking In the house In a separate building Outdoors No food cooked in household Other	22.3 22.3 48.8 6.4 0.2	8.8 66.6 23.0 1.5 0.1	11.3 58.3 27.8 2.4 0.1
Total	100.0	100.0	100.0
Percentage using a separate room as a kitchen within the house	9.5	2.5	3.8
Cooking fuel Electricity LPG/natural gas/biogas Kerosene Charcoal Wood Straw/shrubs/grass No food cooked in household	1.3 3.3 4.3 67.8 16.9 0.0 6.4	0.1 0.0 0.3 12.4 85.3 0.2 1.5	0.3 0.6 1.1 22.8 72.5 0.2 2.4
Total	100.0	100.0	100.0
Percentage using solid fuel for cooking <sup>1</sup>	84.7	98.0	95.5
Frequency of smoking in the home Daily Weekly Monthly Less than monthly Never Total Number	9.7 2.4 0.9 2.0 85.0 100.0 1,691	17.1 3.6 1.4 3.5 74.4 100.0 7,342	15.7 3.4 1.3 3.2 76.4 100.0 9,033

LPG = Liquid petroleum gas

<sup>†</sup> Includes coal/lignite, charcoal, wood/straw/shrubs/grass, agricultural crops, and animal dung

# 2.1.4 Household Possessions

The availability of durable consumer goods is an indicator of a household's welfare status. Moreover, particular goods have specific benefits. For instance, a radio, a mobile phone, or a television can be a source of information and new ideas for household members; a refrigerator prolongs the wholesomeness of foods; and a means of transport can increase access to many services that are beyond walking distance. Table 2.4 shows that two-thirds of Ugandan households have radios, 59 percent have mobile telephones, 12 percent have televisions, and 5 percent have refrigerators. There is a significant increase in the level of penetration of the mobile phone industry into rural areas. Between 2006 and 2011, the percentage of rural households owning mobile phones increased more than fivefold, from 10 percent to 53 percent. In urban areas, the percentage of households with mobile phones increased from 53 percent to 87 percent, representing a growth of 64 percent over the same period. Televisions and refrigerators continue to be available mainly in urban households.

Table 2.4 Household possessions

Percentage of households possessing various household effects, means of transportation, agricultural land and livestock/farm animals by residence, Uganda 2011

	Resid		
Possession	Urban	Rural	Total
Household effects			
Radio	71.8	64.6	66.0
Television	45.0	4.9	12.4
Mobile telephone	86.8	53.1	59.4
Non-mobile telephone	4.8	0.7	1.5
Refrigerator	19.7	1.7	5.1
Means of transport			
Bicycle	19.5	41.1	37.1
Animal drawn cart	0.3	0.8	0.7
Motorcycle/scooter	11.4	7.1	7.9
Car/truck	10.1	1.6	3.2
Boat with a motor	0.1	0.4	0.4
Boat without a motor	0.2	1.0	0.9
Ownership of agricultural land	44.2	78.8	72.3
Ownership of farm animals <sup>1</sup>	35.7	67.7	61.7
Local cattle	14.5	23.2	21.6
Exotic/cross cattle	3.9	3.7	3.7
Horses/donkeys/mules	0.1	0.4	0.4
Goats	17.6	39.8	35.7
Sheep	2.2	8.6	7.4
Pigs	7.1	20.1	17.7
Chickens	23.7	51.2	46.0
Number	1,691	7,342	9,033

<sup>&</sup>lt;sup>1</sup> Cattle, cows, bulls, horses, donkeys, mules, goats, sheep, pigs, or chicken

More than one-third of the households possess a bicycle as a means of transport, with rural households being more likely to possess bicycles (41 percent) than urban households (20 percent). Ownership of motorcycles and cars increased between 2006 and 2011. Eight percent of the households own a motorcycle in 2011 compared with 3 percent in 2006. The proportion of households owning cars/trucks has increased slightly, from 2 percent to 3 percent, during the same period.

In 2011, 72 percent of households owned farming land and 62 percent owned farm animals. Urban households are less likely than rural households to own land and farm animals. For example, 36 percent of urban households own farm animals compared with 68 percent of rural households.

# 2.1.5 Hand Washing

Observance and promotion of basic hygiene is fundamental good public health. Hand washing with a detergent ensures that the transmission of germs is restricted, especially among children who are more prone than adults to diarrhoea and other childhood illnesses.

Respondents were asked if they had a place for washing hands after using the toilet. Table 2.6 shows that three in ten households (29 percent) had such a place where washing of hands was observed. More than one in four households (27 percent) have both water and soap. Another 27 percent have only water available. Hand washing with water and soap is practiced most in households in Kampala, Central 1, and Western regions. On the other hand, Karamoja and West Nile regions are on the other extreme end with more than 80 percent of households not having any of the hand washing facilities (water/soap/detergents).

Table 2.5 Hand washing

Percentage of households in which the place most often used for washing hands was observed, and among households in which the place for hand washing was observed, percent distribution by availability of water, soap, and other cleansing agents, Uganda 2011

	Percentage			Among households where place for hand washing was observed						
of households where place for washing Background hands was Number of characteristic observed households	Soap and water <sup>1</sup>	Water and cleansing agent <sup>2</sup> other than soap only	Water only	Soap but no water <sup>3</sup>	Cleansing agent other than soap only <sup>2</sup>	No water, no soap, no other cleansing agent	Total	Number of households with place for hand washing observed		
Residence										
Urban Rural	34.9 27.6	1,691 7,342	37.7 23.9	0.0 0.5	30.0 25.9	2.1 3.0	0.0 0.7	30.2 45.8	100.0 100.0	589 2,026
Region										
Kampala	39.0	797	41.7	0.0	30.2	1.2	0.0	26.9	100.0	311
Central 1	50.1	1,140	45.2	0.0	17.6	3.9	1.2	32.0	100.0	571
Central 2	45.1	1,038	26.5	0.7	18.1	3.9	1.5	49.4	100.0	468
East Central	30.6	904	11.9	0.0	42.9	1.8	0.0	43.3	100.0	277
Eastern	25.2	1,226	9.3	0.9	29.9	3.2	0.0	56.8	100.0	309
Karamoja	12.5	306	1.6	0.0	10.1	0.2	0.0	88.2	100.0	38
North	7.2	757	10.3	7.7	19.0	2.3	0.0	60.7	100.0	55
West Nile	16.4	508	4.5	1.0	9.9	0.7	0.0	84.0	100.0	84
Western	22.1	1,228	31.8	0.0	51.1	3.4	0.0	13.7	100.0	272
Southwest	20.5	1,128	15.6	0.0	22.2	1.8	0.0	60.4	100.0	232
Wealth quintile										
Lowest	17.0	1,719	11.9	0.8	17.2	0.4	8.0	68.9	100.0	292
Second	23.7	1,767	12.4	0.8	26.3	3.9	1.0	55.6	100.0	418
Middle	28.5	1,672	15.0	0.3	31.5	2.5	0.4	50.3	100.0	476
Fourth	32.4	1,723	26.8	0.4	28.0	2.7	1.0	40.8	100.0	559
Highest	40.4	2,152	45.7	0.2	27.1	3.4	0.0	23.5	100.0	870
Total	29.0	9,033	27.0	0.4	26.9	2.8	0.5	42.3	100.0	2,615

<sup>&</sup>lt;sup>1</sup> Soap includes soap or detergent in bar, liquid, powder, or paste form. This column includes households with soap and water only as well as those that had soap and water and another cleansing agent.

# 2.2 WEALTH INDEX

Household income or expenditure is usually regarded as the gold standard for measuring welfare and overall standard of living. However, studies have shown that the wealth index is a good proxy for measuring wealth of households. It serves as an indicator of level of wealth that is consistent with expenditure and income measures (Rutstein, 1999). The wealth index was constructed using household asset data via principal components analysis.

In its current form, which takes better account of urban-rural differences in scores and indicators of wealth, the wealth index is created in three steps. In the first step, a subset of indicators common to urban and rural areas is used to create wealth scores for households in both areas. Categorical variables to be used are transformed into separate dichotomous (0-1) indicators. These indicators and those that are continuous are then examined using a principal components analysis to produce a common factor score for each household. In the second step, separate factor scores are produced for households in urban and rural areas using area-specific indicators. The third step combines the separate area-specific factor scores to produce a nationally applicable combined wealth index by adjusting area-specific scores through a regression on the common factor scores. This three-step procedure permits greater adaptability of the wealth index in both urban and rural areas. The resulting combined wealth index has a mean of zero and a standard deviation of one. Once the index is computed, national-level wealth quintiles (from lowest to highest) are obtained by assigning the household score to each de jure household member, ranking each person in the population by his or her score, and then dividing the ranking into five equal categories, each comprising 20 percent of the population.

Table 2.6 shows that in urban areas three-quarters of the population is in the highest wealth quintile, in sharp contrast to the rural areas, where only one in nine persons are in the highest wealth quintile. The wealth quintile distribution varies greatly across regions. Over 90 percent of the population in Kampala is in the highest wealth quintile, while in other regions the proportion is 35 percent or lower. In

<sup>&</sup>lt;sup>2</sup> Cleansing agents other than soap include locally available materials such as ash, mud, or sand.

<sup>&</sup>lt;sup>3</sup> Includes households with soap only as well as those with soap and another cleansing agent

Karamoja, eight in ten households are in the lowest quintile. In North, West Nile, and Eastern regions, 33 percent or more of the households are in the lowest quintile. This finding is consistent with the results of Uganda National Household survey, which showed that poverty is more concentrated in the northern region (UBOS, 2010).

Table 2.6 further shows the Gini Coefficient of wealth in Uganda, with 0 representing equal distribution (everyone having the same amount of wealth) and 1 representing a totally unequal distribution (one person having all the wealth). The overall Gini Coefficient for Uganda is 0.4. The coefficient is higher in rural areas (0.3) than in urban areas (0.2), indicating a more unequal distribution of wealth in the rural than in the urban population. The lowest Gini Coefficient is in Kampala (0.1), where over 90 percent of the population is in the highest wealth quintile.

Table 2.6 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, and the Gini Coefficient, according to residence and region, Uganda 2011

			Wealth quintile		Number of	Gini		
Residence/region	Lowest	Second	Middle	Fourth	Highest	Total	persons	Coefficient
Residence								
Urban	1.9	3.1	4.5	15.5	74.9	100.0	6,468	0.19
Rural	23.1	22.9	22.7	20.8	10.6	100.0	37,782	0.32
Region								
Kampala	0.0	0.1	1.2	7.6	91.0	100.0	2,770	0.12
Central 1	6.0	9.8	18.6	30.9	34.8	100.0	4,823	0.30
Central 2	8.4	12.8	19.7	29.4	29.7	100.0	4,656	0.34
East Central	12.1	21.0	21.2	29.8	15.9	100.0	4,697	0.31
Eastern	32.8	25.2	20.7	15.0	6.3	100.0	6,790	0.35
Karamoja	79.2	6.2	6.7	5.2	2.7	100.0	1,628	0.56
North	40.7	34.6	12.4	7.0	5.3	100.0	4,117	0.34
West Nile	41.2	31.2	14.3	8.0	5.2	100.0	2,810	0.31
Western	14.1	21.4	28.1	21.8	14.7	100.0	6,402	0.35
Southwest	6.3	23.3	32.5	24.5	13.4	100.0	5,555	0.28
Total	20.0	20.0	20.0	20.0	20.0	100.0	44,250	0.39

# 2.3 POPULATION BY AGE AND SEX

Age and sex are important variables that are the primary basis for demographic classification in vital statistics, censuses, and surveys. They are also important variables for the study of mortality, fertility, and marriage.

Table 2.7 shows the distribution of the household population in the 2011 UDHS by five-year age groups, urban-rural residence, and sex. The total population in the survey is 43,508, with females slightly outnumbering males (22,285 compared with 21,223). There is no variation in sex composition across rural-urban residence. The overall sex ratio is 95 (or 95 males per 100 females). The sex ratio is higher in rural than in urban areas (96 compared with 92 males per 100 females).

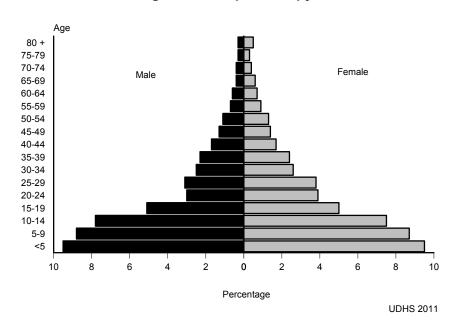
The broad base of the population pyramid in Figure 2.1 shows the large number of children under age 15, which characterizes a population with high fertility. Children under age 15 account for more than half (52 percent) of the total population.

Table 2.7 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Uganda 2011

		Urban			Rural			Total	
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	17.1	16.1	16.6	19.9	19.0	19.4	19.5	18.5	19.0
5-9	14.6	12.4	13.4	18.7	17.7	18.2	18.1	16.9	17.5
10-14	10.7	11.2	11.0	16.8	15.1	15.9	15.9	14.6	15.2
15-19	9.8	12.0	11.0	10.5	9.4	10.0	10.4	9.8	10.1
20-24	11.2	13.1	12.2	5.3	6.7	6.1	6.2	7.7	7.0
25-29	11.1	11.5	11.3	5.7	6.8	6.2	6.5	7.5	7.0
30-34	6.8	7.1	7.0	4.7	4.8	4.8	5.0	5.1	5.1
35-39	7.1	5.3	6.2	4.3	4.6	4.5	4.7	4.7	4.7
40-44	3.4	3.1	3.3	3.4	3.4	3.4	3.4	3.4	3.4
45-49	2.7	2.1	2.4	2.7	2.9	2.8	2.7	2.8	2.7
50-54	2.1	2.2	2.2	2.2	2.5	2.4	2.2	2.5	2.3
55-59	1.3	1.3	1.3	1.5	1.8	1.6	1.5	1.7	1.6
60-64	0.9	0.9	0.9	1.2	1.5	1.4	1.2	1.4	1.3
65-69	0.4	0.5	0.5	1.0	1.2	1.1	0.9	1.1	1.0
70-74	0.4	0.4	0.4	0.8	0.9	0.9	0.7	0.8	0.8
75-79	0.2	0.2	0.2	0.6	0.6	0.6	0.5	0.6	0.5
80 +	0.3	0.5	0.4	0.7	1.0	0.8	0.6	0.9	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3,058	3,325	6,383	18,166	18,960	37,125	21,223	22,285	43,508

Figure 2.1 Population pyramid



### 2.4 HOUSEHOLD COMPOSITION

Table 2.8 shows that three in ten households are headed by women, the same proportion as in the 2006 UDHS. This is consistent between rural and urban residence.

The average household size is 4.9 persons, which is slightly less than the average of 5.0 persons per household reported in 2006. The average household size is smaller in urban areas than in rural areas (3.8 compared with 5.1 persons). The average household size in urban areas declined from 4.1 in 2006 to 3.8 in 2011, while it remained the same in rural areas over the same time period. Single-person households are more common in urban areas (19 percent) than in rural areas (10 percent). In fact, more than half of the urban households have three or fewer household members. On the other hand, 56 percent of rural households have five or more members.

All persons below age 18 are defined as children. The 2011 UDHS collected information on the presence of foster children and orphans in households. Foster children are children under age 18 living in households with neither their mother nor their father present. Orphans are children with one or both parents dead. Foster children and orphans are of concern because they may be

Table 2.8 Household composition

Percent distribution of households by sex of head of household and by household size; mean size of household; and percentage of households with orphans and foster children under age 18, according to residence, Uganda 2011

	Resid	lence	
Characteristic	Urban	Rural	Total
Household headship Male Female	69.0 31.0	70.8 29.2	70.5 29.5
Total	100.0	100.0	100.0
Number of usual members 0 1 2 3 4 5 6 7 8 9+	0.1 19.0 16.1 17.7 13.6 11.7 7.9 5.1 3.5 5.2	0.1 9.7 8.4 12.3 13.7 13.5 13.1 9.9 7.6 11.7	0.1 11.5 9.8 13.3 13.7 13.2 12.1 9.0 6.8 10.5
Total Mean size of households	100.0 3.8	100.0 5.1	100.0 4.9
Percentage of households with orphans and foster children under 18 years of age Foster children <sup>1</sup> Double orphans Single orphans <sup>2</sup> Foster and/or orphan children	23.8 2.9 10.3 26.2	29.7 3.8 14.8 34.4	28.6 3.6 14.0 32.9
Number of households	1,691	7,342	9,033

Note: Table is based on de jure household members, i.e., usual residents.

neglected or exploited if no parent is present. Close to one third of households have foster children; rural households are more likely to have foster children than urban households (30 percent and 24 percent, respectively). Eighteen percent of households have orphans. There are more households with a single orphan (14 percent) than double orphans (4 percent). There is little difference between rural and urban areas in the distribution of orphans.

## 2.5 BIRTH REGISTRATION

Registration of births ought to be universally practised. It is a human right for a child to know who its parents are and to acquire a nationality through registration. The registration system in Uganda aims to ensure that all children are registered. A collaborative effort involving UNICEF, the Ministry of Justice and Constitutional Affairs, Plan International, and UBOS, among others, is spearheading the exercise in over 54 districts in Uganda. Apart from being the first legal acknowledgment of a child's existence, the registration of births is fundamental to the realisation of a number of rights and practical needs, including but not limited to provision of access to health care and immunisation, education, and other social services.

Table 2.9 shows that three in ten children are registered in Uganda. This represents an increase of 9 percentage points from the 2006 UDHS (21 percent). Children age 2-4 are more likely to be registered than children below age 2 (32 percent and 26 percent, respectively). Similarly, children in urban areas are more likely to be registered than children in rural areas (38 percent compared with 29 percent). Registration coverage is highest in Kampala (45 percent), Central 1 (42 percent), and Western (36 percent) regions. On the other hand, Karamoja and Southwest regions have the lowest coverage. The highest

<sup>&</sup>lt;sup>1</sup> Foster children are those under age 18 living in households with neither their mother nor their father present.

their mother nor their father present.

Includes children with one dead parent and an unknown survival status of the other parent.

proportion of registered births is found in the highest wealth quintile (44 percent) whereas the lowest percentage is found in the second lowest quintile (26 percent).

Table 2.9 Birth registration of children under age 5

Percentage of de jure children under age 5 whose births are registered with the civil authorities, according to background characteristics, Uganda 2011

	Children w	hose births are	registered	
Background characteristic	Percentage who had a birth certificate	Percentage who did not have birth certificate	Percentage registered	Number of children
Age <2 2-4	15.3 19.2	11.0 13.0	26.3 32.2	3,301 5,060
<b>Sex</b> Male Female	17.3 18.0	12.6 11.9	29.9 29.9	4,182 4,179
<b>Residence</b> Urban Rural	25.5 16.5	12.5 12.2	38.0 28.7	1,068 7,293
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	27.5 22.6 25.5 21.9 16.2 7.9 18.7 9.3 16.1 9.3	17.0 19.8 7.7 4.6 16.6 3.2 13.1 8.6 19.3 4.1	44.5 42.3 33.3 26.4 32.8 11.1 31.8 17.8 35.5 13.5	440 866 873 924 1,390 314 749 530 1,230 1,047
Wealth quintile Lowest Second Middle Fourth Highest	14.1 14.9 15.8 19.6 25.7	13.1 10.8 11.1 8.2 18.3	27.2 25.7 26.9 27.8 44.0 29.9	1,864 1,790 1,726 1,513 1,467 8,361

## 2.6 CHILDREN'S LIVING ARRANGEMENTS AND PARENTAL SURVIVAL

Table 2.10 presents data on children's living arrangements and orphanhood in Uganda. Fifty- five percent of children under age 18 live with both parents; 20 percent live with their mothers but not their father (whether alive or dead); 5 percent live with their fathers but not with mother (whether alive or dead); and 19 percent live with neither of their natural parents.

The proportion of children living with both parents decreases with age. Although 72 percent of children under age 2 live with both parents, by age 10-14 only 46 percent of children live with their father and mother. The proportion of children living with both parents varies little by the child's sex. Rural children are more likely to live with both parents than urban children (56 percent versus 49 percent). Regions with the highest proportion of children living with both parents are Eastern (63 percent), North (62 percent) and Southwest (61 percent), while the region with the lowest is Karamoja (49 percent). In general, the percentage of children living with both parents tends to decrease with an increase in household wealth.

Table 2.10 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 by living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, according to background characteristics, Uganda 2011

			th mother	but no	ith father ot with ther		Not livir	ng with eith	er parent			Percent-	Percent-	
Background characteristic	Living with both parents	Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead	Missing information on father/mother	Total	age not living with a biolo- gical parent	age with one or both parents dead <sup>1</sup>	Number of children
Age 0-4 <2 2-4 5-9 10-14 15-17	68.0 72.2 65.2 55.7 45.5 39.7	18.4 21.7 16.3 15.2 13.9 13.2	2.2 1.9 2.4 4.1 6.4 8.6	1.7 0.7 2.4 4.8 6.6 6.0	0.1 0.0 0.2 0.7 1.6 1.9	7.8 2.8 11.0 13.3 15.6 17.9	0.4 0.1 0.7 1.6 2.3 2.5	0.6 0.1 1.0 2.6 4.2 4.8	0.3 0.2 0.4 1.4 3.2 4.4	0.4 0.3 0.4 0.7 0.7	100.0 100.0 100.0 100.0 100.0 100.0	9.1 3.2 13.0 18.9 25.3 29.7	3.7 2.4 4.6 10.4 17.9 22.4	8,361 3,301 5,060 7,688 6,659 2,875
Sex Male Female	56.2 54.2	15.4 16.1	4.4 4.9	5.1 3.6	0.9	11.6 13.7	1.5 1.6	2.4 2.9	1.9 1.7	0.6 0.6	100.0	17.4 19.8	11.2 11.9	12,947 12,636
Residence Urban Rural	48.9 56.1	18.9 15.3	3.3 4.8	5.1 4.3	0.6 0.9	15.1 12.3	1.8 1.5	3.7 2.5	1.9 1.8	0.5 0.6	100.0 100.0	22.5 18.1	11.5 11.5	3,058 22,525
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	50.5 49.5 52.6 52.6 62.5 48.9 61.5 55.3 49.5 61.3	19.0 15.9 14.2 17.9 12.4 23.6 9.0 13.6 21.4 14.8	3.5 3.7 3.3 3.2 3.8 6.8 6.9 4.0 6.0 5.3	5.2 6.8 5.6 4.7 4.4 1.2 3.1 6.2 4.8 1.3	0.9 1.5 0.4 0.7 1.1 1.6 1.1 0.6 0.5	13.7 16.5 17.0 15.3 10.5 7.5 8.8 14.0 11.0	1.7 1.6 1.6 1.5 1.1 2.6 1.2 0.9 2.4 1.2	3.5 2.6 3.0 2.1 2.4 2.7 3.8 4.0 2.1 1.6	1.3 1.9 1.5 1.2 4.9 4.0 0.8 1.6 1.8	0.7 0.6 0.4 0.6 0.6 0.1 0.6 0.4 0.8	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	20.2 21.9 23.5 20.4 15.2 17.7 17.8 19.8 17.0 15.8	11.0 10.8 10.3 9.1 9.8 18.7 17.1 10.5 12.5	1,106 2,722 2,696 2,890 4,086 999 2,476 1,607 3,822 3,179
Wealth quintile Lowest Second Middle Fourth Highest Total <15 Total <18	56.3 58.4 56.5 53.4 50.8 57.2 55.2	16.0 14.3 15.3 15.6 17.6 16.0 15.7	7.8 4.9 4.5 3.0 2.3 4.1 4.6	3.1 3.9 4.4 5.5 5.3 4.2 4.4	1.0 0.5 0.8 1.4 0.7	8.9 11.3 12.0 15.4 16.3 11.9 12.6	1.2 2.1 1.5 1.3 1.4 1.4	2.4 2.3 2.7 2.6 3.3 2.3 2.6	2.6 1.7 1.6 1.5 1.8	0.9 0.5 0.7 0.4 0.5	100.0 100.0 100.0 100.0 100.0 100.0	15.0 17.4 17.8 20.8 22.8 17.2 18.6	15.0 11.6 11.1 9.8 9.6 10.1 11.5	5,449 5,291 5,287 5,197 4,359 22,707 25,583

Note: Table is based on de jure members, i.e., usual residents.

Includes children with father dead, mother dead, both dead and one parent dead but missing information on survival status of the other parent.

## 2.7 EDUCATION LEVEL OF THE HOUSEHOLD POPULATION

Education is a key determinant of an individual's stock of human capital. Studies have consistently shown that educational attainment strongly affects reproductive behaviour, fertility, infant and child morbidity and mortality, and attitudes and awareness related to family health, use of family planning, and sanitation. The 2011 UDHS collected information on educational attainment of all persons age 3 and older in the selected households.

## 2.7.1 School Attendance by Survivorship of Parents

The survival status of parents has an impact on their children's school attendance. Table 2.11 shows the percentage of children age 10-14 attending school, by parental survival status (deceased or alive), and the ratio of the percentage attending with both parents deceased to the percentage attending with both parents alive, according to background characteristics. Data show that double orphaned children are less likely to attend school (84 percent) than children who have both parents alive and live with at least one parent (96 percent), resulting in a school attendance ratio of 0.87 between the percentage of children with both parents deceased and the percentage of children with both parents alive and living with a parent.

Male children with both parents deceased are much less likely than female children in the same situation to attend school (80 percent versus 88 percent).

Table 2.11 School attendance by survivorship of parents

For de jure children 10-14 years of age, the percentage attending school, by parental survival and the ratio of the percentage attending, by parental survival, according to background characteristics, Uganda 2011

	Percentage a	attending scho	ol by survivorsh	ip of parents					
Background characteristic	Both parents deceased								
Sex Male Female	80.0 87.7	117 97	96.0 95.1	2,290 2,101	0.83 0.92				
<b>Residence</b> Urban Rural	(83.8) 83.4	22 192	97.9 95.4	419 3,972	(0.86) 0.87				
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	(91.0)  *  49.4 (93.4)  * (100.0)	5 18 28 18 21 25 33 9 29	97.6 98.2 97.5 97.5 97.3 60.3 96.9 92.1 96.7 97.3	123 456 447 511 742 166 417 279 693 558	0.68 0.86 0.93 0.96 0.86 0.82 0.96 0.78 1.03 0.79				
Wealth quintile Lowest Second Middle Fourth Highest	73.1 (81.6) (91.0) (90.9) (90.2)	61 52 31 32 38	87.4 95.6 97.6 98.9 98.8	889 915 930 1,016 643	0.84 0.85 0.93 0.92 0.91				
Total	83.5	214	95.6	4,392	0.87				

Note: Table is based only on children who usually live in the household. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

¹ Ratio of the percentage attending with both parents deceased to the percentage attending with both

## 2.7.2 Educational Attainment

Tables 2.12.1 and 2.12.2 show the percent distribution of the de facto female and male household population age 6 and older by the highest level of education attended or completed, according to background characteristics. The majority of Ugandans have either no formal education or only some primary education. One in five females (20 percent) and 13 percent of males age 6 and older have never had any formal education. Fifty-eight percent of females and 59 percent of males have attained some primary education only, and 7 percent each of females and males have completed primary education, but not continued. A slightly higher percentage of both females (12 percent) and males (14 percent) have attended but did not complete secondary education. Only 4 percent of females and 6 percent of males have completed secondary or higher education.

The trends in educational attainment by successive age groups indicate that, despite free universal primary education, 33 percent of girls and 34 percent of boys age 6-9 have never attended school. Studies have attributed the poor school attendance to long distances to and from schools, costs of education beyond tuition, and the fact that children below age 8 are still considered too young to start school by some sections of society in Uganda (UBOS, 2010).

The proportion of females and males with no education increases with increasing age. For example, 12 percent of women age 25-29 have never attended school compared with 59 percent of women age 60-64.

Ratio of the percentage attending with both parents deceased to the percentage attending with both parents alive and living with at least one parent

As expected, educational attainment is much higher among the urban population than among the rural population. For example, in urban areas only 8 percent of females and 7 percent of males have no education, compared with 22 percent of females and 14 percent of males in rural areas. At the regional level, Karamoja has the highest proportion of females and males with no education in Uganda. The highest percentage of females and males who have completed secondary or higher education live in Kampala, Central 1 and Central 2 regions and, among men, North region. The most substantial variation in educational attainment occurs across the wealth quintiles. Only 7 to 8 percent of females and males in the wealthiest households have no education, compared with 34 percent of females and 20 percent of males in the poorest households.

Table 2.12.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age six and over by highest level of schooling attended or completed and median years completed according to background characteristics, Uganda 2011

Background characteristic	No education	Some primary	Completed primary <sup>1</sup>	Some secondary	Completed secondary <sup>2</sup>	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	32.6	67.4	0.0	0.0	0.0	0.0	0.0	100.0	3,069	0.0
10-14	4.3	92.8	0.9	2.0	0.0	0.0	0.0	100.0	3,243	2.5
15-19	3.3	56.8	9.0	29.0	0.5	1.4	0.1	100.0	2,191	5.4
20-24	5.6	40.8	13.5	28.7	3.7	7.6	0.1	100.0	1,711	6.2
25-29	11.6	43.9	12.2	21.5	1.2	9.5	0.1	100.0	1,663	5.5
30-34	17.6	48.9	10.6	14.1	1.0	7.7	0.0	100.0	1,145	4.1
35-39	21.8	50.8	9.6	11.1	0.9	5.7	0.0	100.0	1,056	3.4
40-44	27.3	45.7	11.3	12.2	0.7	2.7	0.1	100.0	753	3.2
45-49	30.7	46.1	13.0	5.5	0.4	4.2	0.1	100.0	620	2.6
50-54	42.1	36.8	8.9	7.4	1.9	2.6	0.4	100.0	553	1.4
55-59	47.9	36.6	6.9	5.4	0.4	2.1	8.0	100.0	381	0.0
60-64	59.4	29.2	2.0	5.5	0.0	3.1	8.0	100.0	319	0.0
65+	72.0	23.3	8.0	1.8	0.1	0.9	1.1	100.0	749	0.0
Residence										
Urban	8.2	40.9	8.3	27.0	3.2	12.2	0.1	100.0	2,719	6.1
Rural	22.0	60.9	6.2	8.9	0.3	1.5	0.1	100.0	14,739	2.3
Region										
Kampala	5.3	33.0	9.3	30.0	4.4	17.9	0.1	100.0	1,202	7.1
Central 1	16.0	53.6	9.1	15.4	1.7	4.0	0.1	100.0	1,908	3.8
Central 2	16.8	54.8	8.8	16.4	0.7	2.1	0.3	100.0	1,829	3.5
East Central	17.6	60.0	6.4	13.4	0.5	2.1	0.1	100.0	1,843	3.0
Eastern	14.8	68.4	6.0	8.8	0.4	1.5	0.1	100.0	2,620	2.6
Karamoja	58.1	36.3	1.4	3.1	0.3	0.8	0.0	100.0	677	0.0
North	22.7	66.3	4.6	4.9	0.3	1.1	0.2	100.0	1,583	2.2
West Nile	24.8	64.1	4.6	4.8	0.1	1.2	0.4	100.0	1,047	1.6
Western	21.4	59.8	5.1	11.1	0.2	2.4	0.0	100.0	2,476	2.6
Southwest	23.8	58.2	7.0	8.7	0.3	2.1	0.0	100.0	2,273	2.1
Wealth quintile										
Lowest	34.0	60.4	3.2	2.2	0.1	0.1	0.2	100.0	3,462	0.7
Second	24.4	64.1	5.4	5.6	0.1	0.3	0.0	100.0	3,309	1.9
Middle	18.8	65.0	7.1	8.0	0.3	0.7	0.0	100.0	3,440	2.5
Fourth	15.7	59.5	7.9	14.9	0.3	1.4	0.3	100.0	3,511	3.4
Highest	7.7	41.5	8.8	26.5	2.9	12.5	0.1	100.0	3,736	6.1
Total	19.9	57.8	6.5	11.7	8.0	3.2	0.1	100.0	17,458	2.7

Completed 7<sup>th</sup> grade at the primary level Completed 6<sup>th</sup> grade at the secondary level

Table 2.12.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age six and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Uganda 2011

Background characteristic	No education	Some primary	Completed primary <sup>1</sup>	Some secondary	Completed secondary <sup>2</sup>	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	33.6	66.4	0.0	0.0	0.0	0.0	0.0	100.0	3,049	0.0
10-14	3.6	94.4	0.6	1.4	0.0	0.0	0.1	100.0	3,373	2.2
15-19	2.8	65.1	5.8	24.7	0.6	1.0	0.1	100.0	2,203	5.0
20-24	4.7	36.1	11.6	32.7	4.9	9.2	0.7	100.0	1,315	6.7
25-29	4.3	33.9	15.8	28.2	4.8	12.4	0.5	100.0	1,370	6.7
30-34	7.7	36.9	15.0	24.8	2.9	11.4	1.2	100.0	1,069	6.3
35-39	9.0	42.6	12.6	21.6	3.7	9.0	1.3	100.0	994	5.8
40-44	11.4	40.1	15.7	20.4	2.2	8.9	1.4	100.0	724	5.8
45-49	13.2	40.0	14.5	17.0	2.5	12.2	0.6	100.0	576	5.6
50-54	14.7	42.7	16.5	15.1	1.1	9.0	1.0	100.0	459	5.2
55-59	12.3	42.4	17.5	15.6	1.0	10.7	0.4	100.0	309	5.5
60-64	17.9	42.2	16.0	12.3	1.9	8.1	1.6	100.0	252	4.9
65+	37.2	46.1	3.9	6.4	0.6	4.7	0.9	100.0	594	1.8
Residence										
Urban	6.6	37.3	6.8	26.6	6.1	15.8	0.7	100.0	2,442	6.7
Rural	13.5	63.0	7.4	12.1	8.0	2.9	0.4	100.0	13,851	3.1
Region										
Kampala	4.1	28.1	6.2	30.5	8.4	21.7	1.0	100.0	1,045	9.0
Central 1	15.5	53.9	7.3	16.6	1.5	4.3	1.0	100.0	1,852	3.5
Central 2	12.8	56.1	8.2	16.0	2.2	3.3	1.4	100.0	1,725	3.7
East Central	12.3	61.3	5.9	16.0	1.1	2.9	0.6	100.0	1,708	3.3
Eastern	8.7	68.0	6.7	12.8	0.5	3.2	0.1	100.0	2,451	3.4
Karamoja	45.3	37.2	5.8	8.2	1.2	2.4	0.0	100.0	522	0.0
North	9.3	64.9	9.8	9.9	0.7	5.3	0.2	100.0	1,535	3.7
West Nile	9.9	65.1	8.5	11.3	1.1	3.9	0.3	100.0	1,022	3.3
Western	11.7	63.3	7.0	13.7	0.7	3.3	0.3	100.0	2,419	3.3
Southwest	14.5	63.1	7.5	9.6	1.4	4.0	0.0	100.0	2,013	2.6
Wealth quintile										
Lowest	20.3	67.3	5.4	5.8	0.0	1.0	0.2	100.0	3,032	2.0
Second	13.1	66.8	8.3	9.3	0.6	1.7	0.2	100.0	3,246	2.9
Middle	12.3	64.5	8.3	12.2	0.5	1.9	0.3	100.0	3,245	3.2
Fourth	10.8	59.5	7.4	17.1	1.2	3.4	0.6	100.0	3,449	3.8
Highest	6.6	38.4	7.1	25.9	5.4	15.7	1.0	100.0	3,321	6.5
Total	12.5	59.1	7.3	14.2	1.6	4.8	0.5	100.0	16,293	3.4

<sup>&</sup>lt;sup>1</sup> Completed 7<sup>th</sup> grade at the primary level <sup>2</sup> Completed 6<sup>th</sup> grade at the secondary level

## 2.7.3 School Attendance Ratios

Uganda's educational system is a three-tier system that consists of seven years of primary education, followed by six years of secondary education (four years of ordinary secondary and two years of advanced secondary), and at least three years of university/tertiary education. The official age ranges for these levels are 6-12 years for primary education, 13-18 years for secondary education, and age 19-24 for university/tertiary education. The official age range for pre-primary education is 3-5 years.

Table 2.13 shows data on net attendance ratios (NARs) and gross attendance ratios (GARs) for the de facto household population by school level and sex, according to residence, region, and wealth index. The NAR for pre-primary school is the percentage of the pre-primary-school-age population (3-5 years) that attends pre-primary school; the NAR for primary school is the percentage of the primary-school-age population (6-12 years) that attends primary school; and the NAR for secondary school is the percentage of the population of secondary school age (13-18 years) that attends secondary school.

The GAR for pre-primary school is the total number of pre-primary school students of any age, expressed as a percentage of the official pre-primary-school-age population (3-5 years); the GAR for primary school is the total number of primary school students of any age, expressed as a percentage of the official primary-school-age population (6-12 years); and the GAR for secondary school is the total number of secondary school students of any age, expressed as a percentage of the official secondary-school-age population (13-18 years). If there are significant numbers of overage and underage students at a given level

of schooling, the GAR can exceed 100 percent. Persons are considered to be currently attending school if they attended formal academic school at any point during the school year.

Table 2.13 shows that 23 and 24 percent, each, of male and female children of pre-primary school age in Uganda attend pre-primary school. Further, 81 percent each of male and female children of primary school age in Uganda attend primary school. At the same time, only 17 percent of secondary-school age population attend secondary school (16 percent of males and 18 percent of females).

At the pre-primary school level, the NAR is substantially lower in rural areas (20 percent) than in urban areas (53 percent). West Nile region has the lowest NAR at the pre-primary school level (5 percent) and Kampala has the highest NAR for pre-primary school (62 percent). The NAR at the pre-primary education level increases from just 7 percent in the lowest wealth quintile to 53 percent in the highest wealth quintile.

The pre-primary education GAR is almost the same among males and females (41 and 42 percent, respectively). Similar to the NAR, the GAR for pre-primary education level is higher in urban than rural areas (75 percent versus 37 percent). It is lowest in West Nile (7 percent) and highest in Kampala (82 percent), and it increases from 15 percent in the lowest wealth quintile to 75 percent in the highest wealth quintile.

The Gender Parity Index (GPI) measures sex-related differences in school attendance ratios regardless of age. It is the ratio of female-to-male attendance. A GPI of 1 indicates parity, or equality, between the school participation ratios for males and females. A GPI of less than 1 indicates a gender disparity in favour of males. That is, a higher proportion of males than females attend that level of schooling. A GPI that is higher than 1 indicates a gender disparity in favour of females. The GPI for preprimary school level is 1.02, indicating that there is no gender gap.

At the primary level, the GAR is higher among males (124 percent) than among females (119 percent). The same pattern is observed at the secondary level (25 and 22 percent, respectively). The overall GAR of 121 percent shows that there are many overage students attending primary schools, and this applies to pupils in both rural and urban areas. There is a strong relationship between household economic status and schooling at both the primary and secondary levels and among males and females. For example, at the primary education level, the NAR increases from 73 percent in the lowest wealth quintile to 87 percent in the highest wealth quintile. Similarly, at the secondary level the NAR rises from 4 percent in the lowest wealth quintile to 33 percent in the highest wealth quintile.

The GPI for primary school level is 0.96, indicating that there is almost no gender gap. At the secondary level, the gender difference is slightly larger (0.89). The disparity in attendance between females and males at primary education is minimal in all regions except in West Nile (0.85) and Karamoja (0.88). However, at secondary school level, the variation widens in the North (0.57), West Nile (0.59), and Kampala (0.57) regions.

Table 2.13 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population, by sex and level of schooling; and the Gender Parity Index (GPI), according to background characteristics, Uganda 2011

-		Net attend	ance ratio1			Gross atten	dance ratio <sup>2</sup>	
Background characteristic	Male	Female	Total	Gender Parity Index <sup>3</sup>	Male	Female	Total	Gender Parity Index <sup>3</sup>
			RE-PRIMAR				10101	
Residence								
Urban Rural	50.0 18.9	55.7 20.2	52.8 19.5	1.11 1.07	72.2 37.1	77.0 37.0	74.6 37.1	1.07 1.00
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West-Nile Western	61.1 31.9 34.3 14.7 11.1 4.4 11.8 5.4 24.7	62.3 39.6 35.2 21.2 14.8 7.4 10.4 4.2 27.8	61.7 35.8 34.8 17.9 13.0 6.0 11.2 4.8 26.1	1.02 1.24 1.03 1.44 1.33 1.66 0.88 0.79 1.13	79.5 50.4 66.1 31.2 23.1 10.8 18.6 6.6 46.4	83.4 53.7 69.6 34.7 22.3 15.9 17.9 6.8 54.9	81.5 52.1 67.8 33.0 22.7 13.5 18.3 6.7 50.2	1.05 1.07 1.05 1.11 0.97 1.47 0.96 1.03 1.18
Southwest	33.0	27.0	30.0	0.82	70.6	56.5	63.4	0.80
Wealth quintile Lowest Second Middle Fourth Highest	5.9 15.2 23.1 26.0 50.1 22.5	7.6 15.3 20.1 30.4 56.3 24.4	6.7 15.3 21.6 28.2 53.2 23.4	1.28 1.01 0.87 1.17 1.12 1.08	12.5 32.2 44.4 55.2 72.0 41.1	17.1 32.6 37.4 52.9 78.6 41.7	14.8 32.4 40.9 54.1 75.3 41.4	1.37 1.01 0.84 0.96 1.09
			PRIMARY S	CHOOL				
Residence Urban Rural	85.3 80.6	84.6 80.6	85.0 80.6	0.99 1.00	114.4 125.2	118.1 118.7	116.2 122.0	1.03 0.95
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	86.6 85.5 79.0 84.0 86.3 53.9 80.1 81.2 80.5 78.1	83.3 89.2 80.2 85.0 89.3 49.3 77.9 76.7 78.9 79.2	84.9 87.3 79.6 84.5 87.7 51.4 79.0 78.9 79.7 78.6	0.96 1.04 1.01 1.01 1.03 0.91 0.97 0.95 0.98 1.01	107.1 121.7 118.9 127.8 136.3 76.9 131.8 132.8 124.7 119.8	103.3 121.5 116.7 123.8 128.6 67.8 125.5 112.9 122.4 118.1	105.1 121.6 117.8 125.9 132.5 71.9 128.8 122.9 123.6 118.9	0.96 1.00 0.98 0.97 0.94 0.88 0.95 0.85 0.98
Wealth quintile Lowest Second Middle Fourth Highest Total	75.0 79.6 82.6 82.8 87.1 81.1	71.4 79.3 84.9 85.5 85.9 81.0	73.2 79.5 83.7 84.1 86.5 81.0	0.95 1.00 1.03 1.03 0.99 1.00	114.6 128.0 129.7 129.3 117.6 124.1	101.0 118.3 125.1 129.1 122.4 118.6	107.8 123.3 127.4 129.2 120.0 121.4	0.88 0.92 0.96 1.00 1.04 0.96
		S	ECONDARY	SCHOOL				
<b>Residence</b> Urban Rural	39.7 12.6	31.0 15.5	34.7 14.0	0.78 1.23	54.9 20.5	36.0 19.2	44.0 19.9	0.66 0.93
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	48.6 16.6 19.6 19.4 13.4 7.2 5.8 11.5 15.7	34.4 30.5 25.2 20.7 14.2 7.5 3.7 7.6 15.2 16.8	39.8 23.7 22.4 20.0 13.8 7.4 4.8 9.7 15.5 14.9	0.71 1.84 1.29 1.07 1.06 1.05 0.64 0.66 0.96 1.28	64.5 26.4 28.1 30.6 24.7 8.1 10.9 20.9 23.2 19.2	36.7 34.6 28.3 26.6 17.8 7.7 6.2 12.3 18.3 23.6	47.4 30.6 28.2 28.7 21.4 7.9 8.6 16.9 20.8 21.3	0.57 1.31 1.01 0.87 0.72 0.95 0.57 0.59 0.79 1.23
Wealth quintile Lowest Second Middle Fourth Highest	4.7 8.7 11.8 20.0 35.1	3.9 10.6 11.5 25.9 31.5	4.3 9.6 11.6 23.0 33.1	0.81 1.23 0.97 1.30 0.90	7.8 15.8 20.2 31.6 48.2	4.5 13.4 15.6 31.3 37.0	6.2 14.7 18.0 31.5 41.8	0.58 0.85 0.78 0.99 0.77
Total	15.8	18.0	16.9	1.14	24.6	21.9	23.3	0.89

The NAR for pre-primary school is the percentage of the pre-primary-school-age (3-5 years) population that is attending primary school. The NAR for primary school is the percentage of the primary-school-age (6-12 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school-age (13-18 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.

The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.

The Gender Parity Index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The Gender Parity Index for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

Figure 2.2 shows the age-specific attendance rates (ASARs) for the population age 5-24 at primary, secondary, or tertiary/university level in the 2011 school year. In Uganda, the minimum age for schooling is age 6. However, some children start school at age 5. Over 80 percent of boys and girls age 8-15 attend school. There are some differences in the proportion of males and females attending school. The difference is obvious at age 16 and older, when the proportion of adolescent males attending school is higher than that of adolescent females.

Percentage 100 90 80 70 60 50 40 30 20 10 12 13 14 15 16 17 18 19 20 21 Age ■Male ■Female

Figure 2.2 Age-specific attendance rates of the de facto population age 5-24

UDHS 2011

## 2.8 DISABILITY

Persons with disabilities are considered vulnerable in Uganda. They are disadvantaged in work places and in other public places. The government of Uganda has developed a National Disability Policy to promote effective service delivery to persons with disabilities. Recently, the Expanding Social Protection Programme (ESP) was developed primarily to incorporate a national social protection system, including direct income support for the poorest and most vulnerable people, a population that includes those with disabilities. In the 2011 UDHS, information was collected on each household member age 5 and older about whether he or she had difficulties with seeing, hearing, communicating, walking or climbing stairs, remembering or concentrating, or performing self-care.

Table 2.14 shows that 19 percent of persons age 5 and over have some form of disability. The prevalence of disability increases with age, from 12 percent among children age 5-9 to 67 percent among those age 60 and above. The prevalence of disability is about 12 to 13 percent among persons age 5-29, and starts to rise after age 30. The prevalence increases significantly, from 19 percent among persons age 30-39, to 31 percent at age 40-49, and to 49 percent at age 50-59. Difficulties in seeing and walking or climbing stairs are the most common types of disabilities reported during the survey.

Table 2.14 Disability by functional area and age

Percent distribution of de facto household population age five and over by the degree of difficulty according to the functional area, and percent distribution by the highest degree of difficulty in at least one functional area by age, Uganda 2011

			Degree o	f difficulty			Some	
Functional area and age	Can't do at all	A lot of difficulty	Some difficulty	No difficulty	Don't know/ missing	Total	difficulty, a lot of difficulty, or can't do at all	Number of individuals
Functional area								
Difficulty seeing	0.1	1.6	7.7	90.5	0.1	100.0	9.4	35,226
Difficulty hearing	0.1	0.8	4.5	94.5	0.1	100.0	5.4	35,226
Difficulty walking or climbing stairs Difficulty remembering or	0.1	1.7	5.4	92.6	0.1	100.0	7.2	35,226
concentrating	0.1	1.3	4.8	93.6	0.1	100.0	6.2	35,226
Difficulty with self-care	0.3	0.4	1.6	97.6	0.1	100.0	2.3	35,226
Difficulty communicating	0.1	0.3	1.0	98.4	0.1	100.0	1.5	35,226
Difficulty in at least one functional area								
5-9	1.0	1.8	8.7	88.3	0.2	100.0	11.5	7,602
10-14	0.4	2.4	9.5	87.6	0.1	100.0	12.3	6,616
15-19	0.4	2.2	9.7	87.6	0.1	100.0	12.3	4,394
20-29	0.3	2.1	10.4	87.1	0.1	100.0	12.8	6,059
30-39	0.1	3.2	15.2	81.4	0.0	100.0	18.5	4,265
40-49	0.5	6.0	24.9	68.6	0.0	100.0	31.4	2,672
50-59	0.6	11.6	36.6	51.2	0.0	100.0	48.8	1,703
60+	3.4	24.8	38.6	33.0	0.2	100.0	66.8	1,914
Total age 10 and over	0.6	4.9	15.8	78.7	0.1	100.0	21.3	27,624
Total age 15 and over	0.6	5.7	17.8	75.9	0.1	100.0	24.1	21,007
Total	0.7	4.2	14.3	80.8	0.1	100.0	19.2	35,226

# **Key Findings**

- Thirteen percent of women and 4 percent of men age 15-49 have no education. However, the percentage of women and men with at least some secondary education has increased by 30 percent and 18 percent, respectively, in the past five years.
- Twenty-one percent of women and 11 percent of men age 15-49 are not exposed to any source of mass media.
- Less than 1 percent of women and 2 percent of men are covered by health insurance.
- Sixty-nine percent of women were employed in the 12 months preceding the survey, with the majority (57 percent) employed in the agricultural sector.
- Twenty-six percent of working women are not paid for their work, and 79 percent of women in nonagricultural work are paid by cash only.

he purpose of this chapter is to create a demographic and socioeconomic profile of individual female and male respondents. This information helps to interpret findings presented later in the report and indicates the representativeness of the survey. The chapter begins by describing basic background characteristics, including age, marital status, religion, ethnicity, and wealth. It then provides more detailed information on education, media exposure, employment, health insurance, and tobacco use.

## 3.1 CHARACTERISTICS OF SURVEY RESPONDENTS

The basic characteristics of the 8,674 women and 2,191 men age 15-49 interviewed in the 2011 UDHS are presented in Table 3.1.

Relatively high proportions of both female and male respondents are in the younger age groups, with more than half of the respondents (61 percent of women and 57 percent of men) under age 30. In general, the proportion of women and men in each group declines as age increases, reflecting the comparatively young age structure of the population in Uganda, which results from previous high fertility levels.

The majority of women and men are Catholic (41 percent and 44 percent), 30 percent of women and 32 percent of men are Protestant, and 13 percent of women and 12 percent of men are Muslim. In addition, 13 percent of women and 9 percent of men are Pentecostal, and 2 percent of each sex are Seventh-day Adventists (SDA). In general the percentages for various religions are consistent across males and females.

More than one-fifth of women (24 percent) and more than one-third of men (38 percent) have never married. The majority of women (36 percent) and men (41 percent) are currently married, and 27 percent of women and 15 percent of men live together. Nine percent of women and 5 percent of men are divorced or separated. Four percent of women and very few men are widowed. Eight in ten respondents reside in rural areas. Across the ten regions, the Eastern and Western regions have the largest populations, while Karamoja has the smallest population for both men and women.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Uganda 2011

		Women		Men		
Background characteristic	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age 15-19 20-24 25-29 30-34 35-39 40-44 45-49	23.6	2,048	2,026	25.5	554	562
	18.8	1,629	1,666	14.6	318	340
	18.1	1,569	1,618	16.6	361	365
	12.5	1,086	1,101	14.9	323	310
	11.8	1,026	992	12.3	268	284
	8.4	729	709	8.8	191	179
	6.8	587	562	7.2	157	151
Religion Catholic Protestant Muslim Pentecostal SDA	40.6	3,524	3,731	43.8	952	994
	30.0	2,601	2,463	32.0	695	678
	13.0	1,124	1,173	12.4	269	287
	13.3	1,154	1,079	8.5	185	169
	1.9	168	149	1.8	39	34
Marital status Never married Married Living together Divorced/separated Widowed	24.4	2,118	2,208	38.4	834	872
	35.6	3,087	3,071	41.4	899	878
	26.9	2,331	2,281	15.1	329	326
	9.3	805	790	4.7	103	107
	3.8	328	319	0.3	8	8
<b>Residence</b> Urban Rural	19.8 80.2	1,717 6,957	2,562 6,112	20.2 79.8	439 1,734	614 1,577
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	9.7 11.0 10.4 10.0 14.6 3.3 8.5 5.8 14.1 12.7	839 956 902 869 1,267 289 735 500 1,221 1,097	1,039 767 830 875 943 659 823 910 919	10.2 9.6 10.8 10.8 13.3 2.5 9.2 6.1 14.8 12.6	221 209 236 236 289 55 199 133 322 273	238 178 221 244 234 116 222 236 280 222
Education No education Primary Secondary+	12.9	1,120	1,332	4.1	90	112
	59.4	5,152	4,820	60.2	1,309	1,250
	27.7	2,402	2,522	35.6	774	829
Wealth quintile Lowest Second Middle Fourth Highest	17.5	1,519	1,755	15.9	345	382
	18.2	1,579	1,433	19.5	423	400
	18.5	1,608	1,404	18.5	402	361
	19.9	1,726	1,542	22.3	486	459
	25.8	2,242	2,540	23.8	517	589
Total 15-49	100.0	8,674	8,674	100.0	2,173	2,191
50-54	na	na	na	na	122	104
Total 15-54	na	na	na	na	2,295	2,295

Note: Education categories refer to the highest level of education attended, whether or not that level was

na = Not applicable

SDA = Seventh-day Adventist

#### 3.2 **EDUCATIONAL ATTAINMENT BY BACKGROUND CHARACTERISTICS**

Education affects many aspects of life, including individual demographics and health behaviours. Studies have shown that educational level is strongly associated with contraceptive use, fertility, general health status, morbidity, and mortality of children.

Tables 3.2.1 and 3.2.2 show the distribution of respondents by educational attainment, according to background characteristics. Table 3.2.1 shows that 13 percent of women age 15-49 have never been to school, 48 percent have only some primary education, 11 percent have completed only primary school, and 21 percent have some secondary education. One percent of women stopped after completing secondary school, and 5 percent have higher than secondary education. Older women and those who reside in rural areas are most likely to have no education. The advantage of urban residents over rural residents in education is pronounced for those who have completed secondary school. For example, women in urban areas are much more likely than those in rural areas to have completed secondary or more than secondary education (20 percent and 3 percent, respectively).

Table 3.2.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median grade completed, according to background characteristics, Uganda 2011

			Highest leve	l of schooling	)			Median	
Background characteristic	No education	Some primary	Completed primary <sup>1</sup>	11.7   29.7   1.7   4.4   100.0   5.9   3.6	Number of women				
Age									
15-24	3.8	48.7	11.7	29.7	1.7	4.4	100.0	5.9	3,677
15-19	2.9	54.1	10.7		0.6		100.0		2,048
20-24	4.9	41.8	12.9	29.2			100.0		1,629
25-29	11.2	45.4					100.0		1,569
30-34	16.9	49.6	10.5				100.0		1,086
35-39	22.6	51.4		11.6			100.0		1,026
40-44	27.3	46.6					100.0		729
45-49	32.3	45.2					100.0		587
Residence									
Urban	3.5	26.5	11.1	38.7	4.1	16.1	100.0	8.0	1,717
Rural	15.2	53.4	11.3	16.9	0.6	2.5	100.0	4.6	6,957
Region									
Kampala	1.4	22.5	12.0	39.0	4.6	20.6	100.0	8.7	839
Central 1	9.2	39.3	15.0	28.2	2.4	5.9	100.0	6.1	956
Central 2	8.9	41.7	15.5	28.7	1.3	3.9	100.0	6.0	902
East Central	9.0	50.3	10.7		0.9		100.0	5.4	869
Eastern	9.1	60.6			0.6				1,267
Karamoja	57.9	29.8			0.7	1.7	100.0	0.0	289
North	15.7	64.4							735
West Nile	19.3	61.7			0.3	2.1	100.0	3.6	500
Western	16.0	48.8	9.7				100.0	5.0	1,221
Southwest	15.7	51.3	13.0	15.4	0.6	3.9	100.0	4.4	1,097
Wealth quintile									
Lowest	29.5	59.9	6.0	4.4	0.1	0.1	100.0	2.5	1,519
Second	17.3	61.8	9.6	10.5	0.2	0.5	100.0	4.0	1,579
Middle	11.4	57.7	13.5	15.6	0.9	0.9	100.0	4.8	1,608
Fourth	9.1	46.5	13.8	27.7	0.6	2.4	100.0		1,726
Highest	2.7	24.7	12.6	39.1	3.7	17.2	100.0	8.1	2,242
Total	12.9	48.1	11.3	21.2	1.3	5.2	100.0	5.2	8,674

Completed grade 7 at the primary level

Women in the Kampala, Central 1, Central 2, East Central, Western, and Southwest regions are more likely than those in the other regions to have more than a secondary level education (4 percent or higher), while more than half of the women in the Karamoja region have no education at all.

The respondent's educational attainment relates directly to her or his economic status. An examination of education by wealth quintile indicates that 30 percent of women from the poorest households have never attended school, compared with 3 percent of those from the wealthiest households. Women in the highest wealth quintile are most likely to have a secondary education or higher. For example, 21 percent of women in the highest wealth quintile have completed secondary school or have more than a secondary education compared with less than 1 percent of women in the lowest wealth quintile.

At the national level, women have completed a median of 5.2 years of school. The median for urban women is 8.0 years, which compares with 4.6 years for rural women. The median number of years of schooling completed is highest among women in Kampala (8.7) and lowest among women in the Karamoja region (0.0). There is a large difference in median number of years completed by wealth quintile (8.1 in the highest quintile versus 2.5 in the lowest quintile).

<sup>&</sup>lt;sup>2</sup> Completed grade 6 at the secondary level

Table 3.2.2 Educational attainment: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median grade completed, according to background characteristics, Uganda 2011

			Highest leve	l of schooling	)			Median	
Background characteristic	No education	Some primary	Completed primary <sup>1</sup>	Some secondary	Completed secondary <sup>2</sup>	More than secondary	Total	years completed	Number of men
Age									
15-24	1.5	53.8	7.7	29.5	2.5	4.9	100.0	5.7	872
15-19	1.0	62.4	5.8	27.8	1.1	1.8	100.0	5.2	554
20-24	2.4	39.0	11.0	32.4	5.0	10.3	100.0	6.8	318
25-29	3.0	41.9	13.9	25.0	3.5	12.7	100.0	6.3	361
30-34	4.5	46.9	11.2	23.4	2.3	11.7	100.0	5.9	323
35-39	8.3	50.6	9.2	19.5	1.9	10.5	100.0	5.4	268
40-44	8.5	47.0	13.4	21.5	1.2	8.3	100.0	5.5	191
45-49	7.9	47.4	20.8	14.7	1.9	7.3	100.0	5.3	157
Residence									
Urban	1.0	23.8	9.1	35.2	7.9	23.1	100.0	9.1	439
Rural	4.9	55.8	11.3	22.2	1.0	4.6	100.0	5.3	1,734
Region									
Kampala	0.4	21.9	10.2	37.1	6.5	24.0	100.0	9.3	221
Central 1	6.0	50.8	12.5	23.2	1.5	6.1	100.0	5.5	209
Central 2	4.4	44.9	11.1	29.6	5.2	4.8	100.0	6.1	236
East Central	3.7	51.8	5.9	31.7	2.2	4.7	100.0	5.7	236
Eastern	4.6	58.6	9.7	20.4	0.7	5.9	100.0	5.2	289
Karamoja	29.5	20.7	20.1	26.6	1.2	1.8	100.0	6.0	55
North	0.0	55.8	14.6	19.2	0.5	10.0	100.0	5.8	199
West Nile	3.7	45.7	11.5	30.6	1.9	6.6	100.0	6.0	133
Western	4.2	54.7	11.0	20.8	0.5	8.8	100.0	5.1	322
Southwest	3.4	59.1	10.6	16.5	3.5	6.9	100.0	5.2	273
Wealth quintile									
Lowest	11.2	58.8	11.9	16.1	0.0	1.9	100.0	4.6	345
Second	4.8	63.5	12.8	15.8	0.7	2.4	100.0	5.0	423
Middle	4.2	58.5	12.2	19.7	1.6	3.8	100.0	5.1	402
Fourth	1.7	49.0	8.6	32.9	1.7	6.1	100.0	6.0	486
Highest	1.1	24.6	9.8	34.4	6.7	23.3	100.0	8.8	517
Total 15-49	4.1	49.3	10.9	24.8	2.4	8.4	100.0	5.8	2,173
50-54	11.7	43.7	16.2	18.7	1.0	8.7	100.0	5.3	122
Total 15-54	4.5	49.0	11.2	24.5	2.3	8.4	100.0	5.7	2,295

<sup>&</sup>lt;sup>1</sup> Completed 7 grade at the primary level

A similar educational attainment pattern is found among men (Table 3.2.2). Men are more educated than women in all categories. At the national level, 4 percent of men age 15-49 have no education, but almost half (49 percent) have some primary education only. Twenty-five percent of men have only some secondary schooling, and 11 percent have a secondary education or higher. Men age 40-44 are more likely to have no education (9 percent) than men age 15-24 (2 percent). Men in urban areas have higher levels of educational attainment than their rural counterparts. One percent of urban men have no formal education compared with 5 percent of rural men. Three in ten men (31 percent) in urban areas have completed secondary or have more than a secondary education, compared with only (6 percent) in rural areas. Overall, men age 15-49 have completed a median of 5.8 years of schooling. It is also worth noting that the percentage of women and men attending or who have completed primary education is higher in rural than urban areas, while for secondary higher and education, the reverse is true.

The likelihood of attending school and reaching higher levels of education increases dramatically as wealth increases. Differences by wealth are large among men; 11 percent of men from the poorest households have no schooling compared with 1 percent from the wealthiest households. At the other end of the spectrum, 64 percent of men from the wealthiest households have attended secondary school or higher compared with 18 to 41 percent for men in the lower quintiles.

Looking at trends over time, the percentage of women who attended secondary education or higher education has increased by 30 percent, from 21 percent in 2006 to 28 percent in 2011. A smaller increase (18 percent) was seen among men, from 30 percent in 2006 to 36 percent in 2011.

<sup>&</sup>lt;sup>2</sup> Completed 6 grade at the secondary level

## 3.3 LITERACY

The ability to read and write empowers women and men. Literacy statistics are important for policymakers and program managers to assess the ability of the population to absorb information on health and nutrition from printed materials. In the 2011 UDHS, literacy was determined by the respondent's ability to read all or part of a simple sentence. During data collection, interviewers carried a set of cards on which simple sentences were printed in all the major languages spoken in Uganda. Only women and men who had never been to school and women and men who had only a primary education were asked to read the cards in the language they were most familiar with. Those with a secondary education or higher were assumed to be literate.

Table 3.3.1 indicates that two-thirds of women age 15-49 in Uganda (64 percent) are literate, which represents an increase from the 2006 figure of 56 percent. The level of literacy is much higher among women age 15-19 than among women in other age groups. This suggests that younger women have had more opportunity to learn than older women. Literacy varies by place of residence; 86 percent of urban women are literate compared with 59 percent of rural women.

Table 3.3.1 Literacy: Women

Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Uganda 2011

		No schooling or primary school							
Background characteristic	Secondary school or higher	Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Total	Percent- age literate <sup>1</sup>	Number of women
Age 15-24 15-19 20-24 25-29 30-34 35-39 40-44 45-49	35.9 32.3 40.4 31.3 22.9 17.0 15.8 9.4	24.2 28.7 18.5 20.5 18.2 20.2 27.3 28.5	15.2 17.4 12.3 11.5 14.7 13.4 11.0	23.7 20.8 27.3 35.1 41.8 47.0 43.4 47.4	1.1 0.8 1.5 1.6 2.4 1.9 2.3 2.2	0.0 0.0 0.0 0.0 0.0 0.4 0.1	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	75.2 78.4 71.2 63.2 55.8 50.6 54.1 49.7	3,677 2,048 1,629 1,569 1,086 1,026 729 587
Residence Urban Rural	58.9 20.0	17.7 24.1	9.4 14.7	12.9 39.3	1.2 1.8	0.0 0.1	100.0 100.0	86.0 58.8	1,717 6,957
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	64.2 36.5 34.0 29.9 19.7 9.8 11.6 10.9 25.5 20.0	16.0 27.0 25.1 16.0 17.2 5.5 18.8 17.0 28.9 37.7	10.5 16.2 15.5 11.8 12.1 7.4 18.4 17.3 8.9 17.7	7.8 20.0 23.5 41.3 48.3 72.9 50.9 54.0 33.0 23.3	1.5 0.1 1.9 1.0 2.5 4.3 0.0 0.7 3.4 1.2	0.0 0.2 0.0 0.1 0.1 0.0 0.2 0.2	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	90.6 79.6 74.5 57.7 49.0 22.8 48.8 45.1 63.3 75.5	839 956 902 869 1,267 289 735 500 1,221 1,097
Wealth quintile Lowest Second Middle Fourth Highest	4.7 11.2 17.4 30.6 60.0 27.7	14.9 22.4 30.6 27.3 19.6 22.8	12.5 16.0 17.3 13.9 10.0	64.5 48.0 33.2 26.8 9.7 34.0	3.4 2.1 1.2 1.3 0.7	0.0 0.3 0.3 0.0 0.0	100.0 100.0 100.0 100.0 100.0	32.0 49.6 65.3 71.8 89.6 64.2	1,519 1,579 1,608 1,726 2,242 8,674

<sup>&</sup>lt;sup>1</sup> Refers to women who attended secondary school or higher and women who can read a whole sentence or part of a sentence

Regional differences in literacy are marked, with literacy levels highest among women in predominantly urban Kampala (91 percent) and lowest in the Karamoja region (23 percent). There is a significant difference in literacy by household wealth, with the literacy rate ranging from 32 percent among women in the lowest wealth quintile to 90 percent among women in the highest quintile. This reinforces the positive association between economic status and literacy.

Men are more likely to be literate than women (Table 3.3.2). Seventy-eight percent of Ugandan men age 15-49 are literate, a decline from 83 percent in 2006. The pattern of male literacy is similar to the pattern among women. However, there are marked differences between men and women across age groups. Seventy-nine percent of men age 45-49 are literate compared with 50 percent of women in the same age group. The gap in urban-rural literacy among men is smaller than that among women, suggesting that men in rural areas have better access to learning than women. Men in Kampala, North, Central 2, and West Nile regions are more likely to be literate than those in other regions. Men in the highest wealth quintile have the highest literacy level (90 percent).

<u>Table 3.3.2 Literacy: Men</u>

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Uganda 2011

		No schooling or primary school								
Background Secondary school or characteristic higher	Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Missing	Total	Percent- age literate <sup>1</sup>	Number of men	
Age										
15-24	36.9	22.1	18.1	21.2	1.7	0.0	0.1	100.0	77.1	872
15-19	30.8	26.9	20.6	20.1	1.6	0.0	0.0	100.0	78.3	554
20-24	47.6	13.7	13.6	23.0	1.8	0.0	0.2	100.0	74.9	318
25-29	41.1	19.5	19.0	18.8	1.5	0.0	0.2	100.0	79.6	361
30-34	37.4	23.2	15.2	23.5	0.7	0.0	0.0	100.0	75.8	323
35-39	31.9	32.2	13.7	20.7	1.5	0.0	0.0	100.0	77.8	268
40-44	31.1	30.8	14.9	20.5	2.7	0.0	0.0	100.0	76.8	191
45-49	23.8	37.7	17.9	17.6	3.0	0.0	0.0	100.0	79.4	157
Residence										
Urban	66.2	12.9	12.0	7.7	1.1	0.0	0.1	100.0	91.1	439
Rural	27.9	28.0	18.2	24.0	1.8	0.0	0.0	100.0	74.1	1,734
Region										
Kampala	67.6	10.6	13.5	6.5	1.9	0.0	0.0	100.0	91.6	221
Central 1	30.7	23.7	19.3	25.3	1.0	0.0	0.0	100.0	73.8	209
Central 2	39.7	13.5	30.8	14.4	1.6	0.0	0.0	100.0	84.0	236
East Central	38.6	16.6	16.9	27.5	0.4	0.0	0.0	100.0	72.1	236
Eastern	27.0	25.1	15.1	30.1	2.7	0.0	0.0	100.0	67.2	289
Karamoja	29.7	18.5	14.7	35.4	1.8	0.0	0.0	100.0	62.8	55
North	29.6	50.0	5.2	14.7	0.5	0.0	0.0	100.0	84.8	199
West Nile	39.1	13.9	29.5	15.7	1.3	0.0	0.5	100.0	82.5	133
Western	30.1	28.7	15.8	21.6	3.6	0.0	0.2	100.0	74.6	322
Southwest	26.9	38.4	12.4	21.5	0.8	0.0	0.0	100.0	77.7	273
Wealth quintile										
Lowest	18.1	25.0	21.5	32.8	2.5	0.0	0.0	100.0	64.6	345
Second	18.9	33.0	19.5	26.9	1.6	0.0	0.2	100.0	71.4	423
Middle	25.1	29.8	17.5	26.6	1.1	0.0	0.0	100.0	72.3	402
Fourth	40.7	24.3	17.8	15.3	1.9	0.0	0.0	100.0	82.8	486
Highest	64.4	15.2	10.6	8.2	1.4	0.0	0.1	100.0	90.2	517
Total 15-49	35.6	25.0	17.0	20.7	1.7	0.0	0.1	100.0	77.5	2,173
50-54	28.5	29.2	19.3	20.5	0.0	2.5	0.0	100.0	77.0	122
Total 15-54	35.2	25.2	17.1	20.7	1.6	0.1	0.1	100.0	77.5	2,295

<sup>&</sup>lt;sup>1</sup> Refers to men who attended secondary school or higher and men who can read a whole sentence or part of a sentence

### 3.4 Access to Mass Media

Exposure to information on television and radio and in print can increase an individual's knowledge and awareness of new ideas, social changes, and opportunities, which in turn can affect the individual's perceptions and behaviour, including those related to health. In the 2011 UDHS, exposure to media was assessed by asking respondents how often they listened to a radio, watched television, or read newspapers or magazines.

Media exposure in Uganda is higher among men than women; 14 percent of men and 6 percent of women are exposed to all three media at least once a week (Table 3.4.1 and Table 3.4.2). Seventy-four percent of women and 86 percent of men listen to the radio at least once a week, and 20 percent of women and 30 percent of men watch television at least once a week.

<u>Table 3.4.1 Exposure to mass media: Women</u>

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Uganda 2011

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of women
Age						
15-19	23.3	24.0	75.2	7.6	18.3	2,048
20-24	16.8	23.6	77.1	9.2	18.6	1,629
25-29	12.3	21.2	74.1	6.0	20.3	1,569
30-34	13.1	16.8	72.1	5.2	22.4	1,086
35-39	10.1	14.6	69.4	3.8	27.0	1,026
40-44	10.9	12.9	74.6	4.1	22.4	729
45-49	10.4	12.9	73.9	5.8	24.9	587
Residence						
Urban	36.9	59.7	78.0	23.0	8.4	1,717
Rural	10.0	9.8	73.2	2.3	24.2	6,957
Region						
Kampala	41.1	77.4	73.5	29.6	6.2	839
Central 1	21.6	27.6	79.0	9.0	14.8	956
Central 2	26.8	20.0	79.7	8.3	15.3	902
East Central	11.0	14.4	77.2	4.1	20.1	869
Eastern	8.7	6.6	58.0	1.6	38.5	1,267
Karamoja	4.8	3.7	28.3	0.6	69.3	289
North	6.2	5.4	82.2	1.8	16.3	735
West Nile	9.5	8.2	77.9	1.6	20.4	500
Western	9.5	16.9	80.4	3.2	17.4	1,221
Southwest	10.0	10.0	80.0	2.7	18.0	1,097
Education						
No education	0.1	6.6	60.0	0.1	39.0	1,120
Primary	8.5	12.5	73.5	2.0	23.0	5,152
Secondary+	37.1	41.2	82.1	18.9	8.6	2,402
Wealth quintile						
Lowest	2.8	3.2	49.4	0.1	48.8	1,519
Second	5.6	4.6	72.5	0.5	25.7	1,579
Middle	8.6	5.6	79.6	0.8	18.3	1,608
Fourth	15.0	12.8	83.8	2.8	13.7	1,726
Highest	35.8	57.0	80.7	21.7	6.6	2,242
Total	15.3	19.7	74.1	6.4	21.0	8,674

Women and men under age 30 are more likely to be exposed to the mass media than older women and men, presumably in part because of their higher level of education. There is a wide gap in exposure to mass media by place of residence. For example, the proportion of newspaper readers is notably higher among urban women (37 percent) and men (60 percent) than among their rural counterparts (10 percent and 16 percent, respectively). Not surprisingly, media exposure is closely related to the respondent's educational level as well as economic status. Although 19 percent of women and 30 percent of men with secondary and higher levels of education access all three media at least once a week, less than 1 percent of women and men with no education access all three media sources. Likewise, 22 percent of women and 44

percent of men from the highest wealth quintile access all three media at least once a week compared with less than 1 percent of women and men from the lowest quintile.

Women and men in Kampala are more likely to be exposed to all three media on a weekly basis than those in other regions. Forty-one percent of women and 58 percent of men in Kampala read a newspaper on a weekly basis. The patterns of exposure to mass media are similar among men and women.

<u>Table 3.4.2 Exposure to mass media: Men</u>

Percentage of men age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Uganda 2011

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of men
<b>Age</b> 15-19 20-24 25-29	21.3	32.3	83.7	10.5	12.3	554
	29.3	37.4	85.6	19.0	11.3	318
	29.5	36.4	90.7	19.5	6.9	361
30-34	28.3	28.5	85.4	16.4	10.4	323
35-39	21.9	25.4	82.4	13.7	14.4	268
40-44	20.3	16.9	86.7	7.5	12.5	191
45-49	22.5	16.1	84.0	10.6	15.0	157
Residence Urban Rural	60.3 16.0	77.3 17.7	87.7 85.0	49.2 5.4	4.3 13.2	439 1,734
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	57.7	88.7	86.1	49.2	3.3	221
	23.1	31.0	92.3	12.9	5.5	209
	29.6	34.3	88.5	18.1	8.6	236
	19.7	34.4	88.1	11.8	9.4	236
	19.6	13.9	74.4	4.7	22.7	289
	14.7	16.1	73.7	5.1	23.6	55
	7.7	7.5	81.6	2.2	17.1	199
	25.6	8.0	76.9	5.2	18.9	133
	25.9	29.2	88.1	14.4	10.2	322
	19.3	20.4	93.5	10.8	6.1	273
Education  No education  Primary  Secondary +	2.2	10.5	69.9	0.0	27.9	90
	12.1	22.5	83.7	5.7	14.0	1,309
	49.3	44.3	90.4	30.4	5.2	774
Wealth quintile Lowest Second Middle Fourth Highest	8.7 12.7 13.8 22.5 56.8	10.9 12.7 13.4 27.9 70.8	62.9 87.6 87.9 92.6 90.5	0.6 2.1 4.6 10.4 44.4	30.7 11.2 11.5 6.1 3.7	345 423 402 486 517
Total 15-49	25.0	29.8	85.5	14.3	11.4	2,173
50-54	17.3	21.2	87.6	8.6	11.8	122
Total 15-54	24.6	29.3	85.6	14.0	11.5	2,295

# 3.5 EMPLOYMENT

# 3.5.1 Employment Status

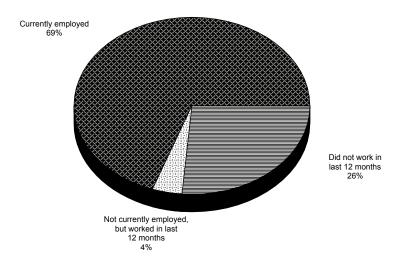
The 2011 UDHS asked respondents a number of questions regarding their employment status, including whether they worked in the seven days preceding the survey and, if not, whether they had worked in the 12 months before the survey. The results for women and men are presented in Tables 3.5.1 and 3.5.2. At the time of the survey, 69 percent of the women were currently employed, 4 percent were not employed but had worked sometime during the preceding 12 months, and 26 percent were not employed (Table 3.5.1 and Figure 3.1).

Table 3.5.1 Employment status: Women Percent distribution of women age 15-49 by employment status, according to background characteristics, Uganda 2011

		the 12 months the survey	Not employed in the			
Background characteristic	Currently employed <sup>1</sup>	Not currently employed	12 months preceding the survey	Missing/ don't know	Total	Number of women
Age						
15-19	47.3	4.1	48.5	0.0	100.0	2,048
20-24	64.6	5.3	30.0	0.1	100.0	1,629
25-29	75.1	4.9	19.9	0.1	100.0	1,569
30-34	78.8	4.0	17.1	0.1	100.0	1,086
35-39	84.1	3.2	12.7	0.0	100.0	1,026
40-44	82.7	4.0	13. <u>1</u>	0.2	100.0	729
45-49	82.6	2.6	14.7	0.0	100.0	587
Marital status						
Never married	47.5	4.2	48.2	0.0	100.0	2,118
Married or living together	75.0	4.3	20.7	0.0	100.0	5,418
Divorced/separated/widowed	82.8	4.1	13.0	0.0	100.0	1,134
Number of living children						
0	49.1	4.0	46.8	0.0	100.0	2,279
1-2	70.9	5.0	24.0	0.2	100.0	2,099
3-4 5+	76.1 81.4	5.0 3.3	18.9 15.2	0.0 0.1	100.0 100.0	1,832
	81.4	3.3	15.2	0.1	100.0	2,464
Residence	24.0	0.0	04.7	0.4	100.0	4 747
Urban	64.3	3.9	31.7	0.1	100.0	1,717
Rural	70.5	4.3	25.2	0.1	100.0	6,957
Region						
Kampala	63.2	3.1	33.7	0.0	100.0	839
Central 1	56.2	5.1	38.7	0.0	100.0	956
Central 2	71.4 72.3	3.4 4.8	25.2 22.5	0.0	100.0 100.0	902 869
East Central Eastern	72.3 63.5	4.8 3.1	22.5 33.5	0.5 0.0	100.0	1,267
Karamoja	85.3	6.8	8.0	0.0	100.0	289
North	53.0	10.3	36.6	0.0	100.0	735
West Nile	71.1	4.2	24.7	0.0	100.0	500
Western	79.5	1.4	19.0	0.1	100.0	1,221
Southwest	82.2	4.4	13.4	0.0	100.0	1,097
Education						
No education	77.8	4.0	18.2	0.0	100.0	1,120
Primary	70.8	4.4	24.7	0.1	100.0	5,152
Secondary +	62.0	4.0	33.9	0.0	100.0	2,402
Wealth quintile						
Lowest	73.9	4.1	22.0	0.0	100.0	1,519
Second	71.3	5.7	23.0	0.0	100.0	1,579
Middle	71.3	4.2	24.4	0.1	100.0	1,608
Fourth	68.0	4.4	27.4	0.1	100.0	1,726
Highest	64.2	3.2	32.6	0.0	100.0	2,242
Total	69.3	4.2	26.4	0.1	100.0	8,674

<sup>&</sup>lt;sup>1</sup> Currently employed is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Figure 3.1 Women's employment status in the past 12 months



Uganda 2011 DHS

The proportion of women currently employed increases with age. Current employment is lowest among women age 15-19 (47 percent) and highest among those age 35-49 (83 percent, or higher). Women who are divorced, separated, or widowed are more likely to be currently employed than other women (83 percent versus 75 percent or lower). Women who have five or more children are more likely to be employed (81 percent) than those with no children (49 percent).

The proportion of women currently employed varies by place of residence and region. Rural women are more likely to be currently employed than urban women (71 percent versus 64 percent). Women in Karamoja, Southwest, and Western regions are more likely to be employed (85 percent, 82 percent, and 80 percent, respectively) than women in other regions.

The proportion of women currently employed decreases with level of education. For example, 78 percent of women with no education are employed, compared with 62 percent of women with a secondary or higher level of education. Women living in the poorest households are much more likely to be employed (74 percent) than women in the wealthiest households (64 percent).

The proportion of currently employed men (91 percent) is higher than that of women (Table 3.5.2). The percentage of currently employed men increases with age, from 75 percent among men age 15-19 to 99 percent among men age 30-34, and then declines to 97 percent among men age 45-49. Men who have never married (79 percent), men with no living children (81 percent), and urban men (87 percent) are less likely to be employed than other men.

<u>Table 3.5.2 Employment status: Men</u>
Percent distribution of men age 15-49 by employment status, according to background characteristics, Uganda 2011

		the 12 months the survey	Not employed in the 12 months		
Background characteristic	Currently employed <sup>1</sup>	Not currently employed	preceding the survey	Total	Number of men
Age					
15-19	75.1	7.4	17.5	100.0	554
20-24 25-29	89.1 97.4	4.4 0.9	6.5 1.7	100.0 100.0	318 361
30-34	99.0	0.9	0.4	100.0	323
35-39	97.9	0.8	1.4	100.0	268
40-44	96.1	2.0	1.9	100.0	191
45-49	96.7	1.7	1.6	100.0	157
Marital status					
Never married	79.2	6.3	14.5	100.0	834
Married or living together	97.7	1.3	1.0	100.0	1,228
Divorced/separated/widowed	98.1	0.0	1.9	100.0	111
Number of living children	00.0	F 0	10.4	100.0	002
0 1-2	80.8 96.6	5.8 1.9	13.4 1.5	100.0 100.0	902 386
3-4	98.9	0.9	0.2	100.0	339
5+	97.5	1.1	1.4	100.0	546
Residence					
Urban	86.8	3.5	9.7	100.0	439
Rural	91.6	3.1	5.3	100.0	1,734
Region					
Kampala	82.7	4.4	12.9	100.0	221
Central 1	96.7	0.2	3.0	100.0	209
Central 2	96.0	1.6	2.3	100.0	236
East Central	84.4	8.3	7.3	100.0	236
Eastern	91.1	1.1	7.8	100.0	289
Karamoja North	88.7 90.0	4.1 8.0	7.2 2.0	100.0 100.0	55 199
West Nile	90.0	5.6	4.4	100.0	133
Western	89.8	0.0	10.2	100.0	322
Southwest	94.7	2.4	3.0	100.0	273
Education					
No education	93.9	2.1	4.0	100.0	90
Primary	91.3	3.4	5.3	100.0	1,309
Secondary +	89.1	2.9	8.1	100.0	774
Wealth quintile					
Lowest	95.1	2.3	2.5	100.0	345
Second	91.2	4.3	4.5	100.0	423
Middle	93.1	1.6	5.3	100.0	402
Fourth	90.3 85.6	2.7 4.5	7.0 10.0	100.0	486 517
Highest				100.0	517
Total 15-49	90.6	3.2	6.2	100.0	2,173
50-54	94.2	0.8	4.9	100.0	122
Total 15-54	90.8	3.0	6.1	100.0	2,295

<sup>&</sup>lt;sup>1</sup> Currently employed is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

There is no clear pattern in the variation of men's employment by level of education. By wealth status, current employment among men decreases from 95 percent in the poorest households to 86 percent in the wealthiest households.

Current employment among women age 15-49 has decreased from 81 percent in 2006 to 69 percent in 2011, and employment among men has decreased from 94 percent in 2006 to 91 percent in 2011.

# 3.5.2 Occupation

Respondents who were currently employed or who had worked in the 12 months preceding the survey were asked to specify their occupation. The results are presented in Table 3.6.1 and Table 3.6.2.

Table 3.6.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Uganda 2011

Background characteristic	Professional/ managerial/ technical/ assistant professional	Clerical	Sales and services	Skilled agriculture, forestry, and fishery workers	Craft and related trade workers	Plant and machine operators and assemblers	Elementary occupations	Total	Number of women
Age									
15-19	0.8	0.2	13.2	60.2	5.7	0.0	19.9	100.0	1,054
20-24	6.1	0.5	18.8	52.2	7.3	0.0	15.2	100.0	1,138
25-29	9.1	0.4	19.9	52.1	6.0	0.2	12.4	100.0	1,255
30-34	6.3	0.4	16.5	56.3	7.9	0.0	12.5	100.0	899
35-39	4.7	0.4	15.9	61.1	4.7	0.0	13.2	100.0	896
40-44	4.7	0.0	15.3	63.5	6.7	0.0	9.7	100.0	632
45-49	3.2	0.0	13.9	63.4	7.6	0.0	11.9	100.0	500
Marital status									
Never married	7.4	0.7	16.1	49.4	6.1	0.0	20.3	100.0	1,096
Married or living together	5.4	0.3	15.0	61.3	6.5	0.0	11.4	100.0	4,293
Divorced/separated/widowed	2.4	0.3	24.2	48.8	6.6	0.0	17.8	100.0	986
	2.4	0.2	27.2	40.0	0.0	0.0	17.0	100.0	300
Number of living children 0	6.4	0.7	16.2	50.4	7.2	0.0	19.1	100.0	1,211
1-2	8.6	0.4	21.2	48.6	6.7	0.0	14.5	100.0	1,592
3-4	5.7	0.2	18.7	56.1	6.3	0.1	12.9	100.0	1,485
5+	1.8	0.1	11.9	68.9	6.0	0.0	11.3	100.0	2,087
Residence									
Urban	13.8	1.4	40.7	13.6	7.8	0.0	22.7	100.0	1,173
Rural	3.4	0.1	11.2	67.2	6.1	0.0	12.0	100.0	5,202
Region									
Kampala	14.2	2.0	45.5	2.4	7.6	0.0	28.4	100.0	557
Central 1	8.0	0.0	28.2	39.0	5.6	0.0	19.1	100.0	586
Central 2	6.1	0.2	21.8	54.0	5.9	0.0	12.0	100.0	674
East Central	5.0	0.4	15.1	64.1	4.0	0.0	11.4	100.0	669
Eastern	3.8	0.1	8.3	71.3	3.3	0.2	13.0	100.0	843
Karamoja	1.8	0.0	2.6	50.6	13.6	0.2	31.2	100.0	266
North	1.4	0.0	11.5	52.5	15.9	0.0	18.7	100.0	466
West Nile	1.9	0.1	24.4	41.1	17.9	0.0	14.6	100.0	376
Western	4.8	0.3	10.9	71.7	4.5	0.0	7.8	100.0	988
Southwest	3.9	0.0	6.8	81.8	2.1	0.0	5.3	100.0	951
Education									
No education	0.0	0.0	5.7	74.6	7.0	0.0	12.6	100.0	916
Primary	0.1	0.0	14.3	64.2	6.5	0.1	14.9	100.0	3,873
Secondary +	21.1	1.3	28.7	30.7	6.0	0.0	12.3	100.0	1,586
Wealth quintile									
Lowest	0.1	0.0	6.2	70.5	7.0	0.0	16.2	100.0	1,185
Second	1.2	0.0	8.0	71.8	8.9	0.0	10.1	100.0	1,216
Middle	1.8	0.0	9.6	72.5	5.5	0.1	10.3	100.0	1,213
Fourth	4.3	0.0	17.5	60.3	5.7	0.0	12.2	100.0	1,250
Highest	16.2	1.3	36.7	20.7	5.4	0.0	19.6	100.0	1,511
Total	5.3	0.3	16.6	57.3	6.4	0.0	13.9	100.0	6,375

In Uganda, the agricultural sector remains the main employer, with 57 percent of women and 55 percent of men age 15-49 engaged in work in agriculture, forestry and fishery. These figures are lower than those in the 2006 UDHS, when 75 percent of women and 68 percent of men were employed in agricultural occupations. The survey indicates that 17 percent of women work in sales and services, an increase from 13 percent in 2006. Five percent of women work in professional, technical, and managerial fields. Among men, 11 percent work in sales and services, and 5 percent have professional, technical, and managerial positions, similar to the 2006 UDHS findings. Fourteen percent of women and 15 percent of men work in elementary occupations (i.e., cleaners and helpers).

<u>Table 3.6.2 Occupation: Men</u>

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Uganda 2011

Background	Professional/ managerial/ technical/ assistant		Sales and	Skilled agriculture forestry and fishery	Craft and related trade	Plant and machine operators, and	Elementary	<b>-</b>	Number
characteristic	professional	Clerical	services	workers	workers	assemblers	occupations	Total	of men
Age									
15-19	1.2	0.2	6.4	66.9	7.1	0.7	17.6	100.0	457
20-24	3.1	0.5	15.9	45.3	12.8	4.9	17.5	100.0	298
25-29	6.0	0.2	13.1	43.6	7.7	10.5	18.9	100.0	355
30-34	9.1	0.7	10.1	52.8	9.1	7.2	11.1	100.0	322
35-39	7.3	0.9	8.3	57.1	7.2	5.8	13.3	100.0	265
40-44	5.7	0.0	12.5	62.9	5.8	1.1	12.0	100.0	187
45-49	6.2	0.0	11.3	60.9	5.6	1.6	14.3	100.0	154
Marital status									
Never married	3.5	0.4	9.5	55.9	9.6	2.4	18.7	100.0	713
Married or living together	6.2	0.4	11.6	55.8	7.1	5.8	13.2	100.0	1,216
Divorced/separated/widowed	4.4	0.0	9.0	46.9	10.9	9.6	19.2	100.0	109
Number of living children									
0	4.1	0.4	10.0	55.7	9.2	2.1	18.6	100.0	782
1-2	9.0	0.5	12.3	44.9	9.0	9.4	15.0	100.0	380
3-4	7.0	0.2	11.4	49.1	9.6	8.8	13.9	100.0	338
5+	2.9	0.4	10.2	66.2	5.2	3.0	12.1	100.0	539
Residence									
Urban	14.8	1.9	22.7	10.1	17.3	12.0	21.2	100.0	396
Rural	2.8	0.0	7.8	66.3	6.0	3.1	14.1	100.0	1,642
Region									
Kampala	16.0	1.2	26.7	2.3	18.0	11.6	24.2	100.0	193
Central 1	5.9	0.0	10.8	53.1	6.9	7.4	16.0	100.0	203
Central 2	3.5	1.0	11.8	54.3	9.3	4.6	15.4	100.0	230
East Central	3.1	0.0	9.7	54.3	10.5	3.7	18.7	100.0	218
Eastern	2.7	0.0	8.7	72.7	5.1	3.7	7.2	100.0	266
Karamoja	2.9	1.5	19.3	34.3	11.3	0.0	30.7	100.0	51
North	5.0	0.0	6.0	73.2	3.4	0.7	11.6	100.0	195
West Nile	5.1	0.0	7.4	74.6	7.5	1.2	4.1	100.0	127
Western	5.9	0.8	4.7	66.8	4.3	6.1	11.4	100.0	289
Southwest	2.0	0.0	11.1	49.2	9.6	4.3	24.0	100.0	265
Education									
No education	2.3	0.0	9.8	66.5	3.8	0.4	17.3	100.0	86
Primary	1.0	0.0	8.7	63.2	6.8	3.8	16.6	100.0	1,240
Secondary +	12.8	1.1	14.4	40.3	11.1	7.2	13.2	100.0	712
Wealth quintile									
Lowest	0.8	0.0	5.7	77.6	4.4	0.6	10.9	100.0	336
Second	1.7	0.0	6.0	71.7	6.4	1.2	13.0	100.0	404
Middle	1.6	0.0	8.4	65.3	6.1	3.1	15.5	100.0	381
Fourth	2.7	0.3	13.0	53.6	5.3	6.5	18.6	100.0	452
Highest	16.5	1.3	18.2	18.6	16.9	10.8	17.7	100.0	466
Total 15-49	5.2	0.4	10.7	55.4	8.2	4.8	15.4	100.0	2,038
50-54	5.1	0.0	4.9	64.0	12.5	1.8	11.6	100.0	116
Total 15-54	5.1	0.4	10.4	55.8	8.4	4.6	15.2	100.0	2,154

As expected, place of residence has a significant effect on type of occupation. In rural areas, two of three employed men and women (66 percent and 67 percent, respectively) are engaged in agricultural work. Employment outside the agricultural sector is highest among women and men with more than secondary education and those in the highest wealth quintile.

Women in the Southwest, Western, and Eastern regions are more likely than other women to be involved in agriculture, forestry, or fisheries (71 percent or higher). Seventy-two percent or more of men in Eastern, North, and West Nile regions work in agricultural fields. However, since 2006, employment in agriculture has declined and shifted to other occupations, especially sales and services. The lowest proportion of women and men engaged in the agricultural sector live in Kampala region.

There is a positive relationship between women's education and their involvement in sales and services. For example, 29 percent of women with secondary or higher education are involved in this sector, compared with 6 to 14 percent of women with less education. A similar pattern is found among men. Seventy-one percent of employed women in the lowest wealth quintile work in agriculture compared with

21 percent of women in the highest wealth quintile. Agricultural work is also less common among men with some secondary or higher education and men in the highest wealth quintile.

The proportion of respondents in elementary occupations, such as cleaners and helpers, decreases with age and is highest among the never-married, respondents with no living children, urban respondents, and those with no education or primary education..

## 3.5.3 Type of Women's Employment

Table 3.7 presents the percent distribution of employed women age 15-49 by type of earnings, employer characteristics, and continuity of employment, according to type of employment (agricultural or nonagricultural). About half (49 percent) of women who were employed in the 12 months preceding the survey received cash payment only; with 35 percent in the agricultural sector versus 79 percent in the nonagricultural sector. Women working in agriculture are more likely not to be paid than those working in nonagricultural work (36 percent compared with 4 percent). Five percent of women employed in the agricultural sector are paid in-kind only.

Two in three women, in both agriculture and nonagricultural sectors, are self-employed. Women who work in agriculture are more likely to be employed by a family member (22 percent), whereas those who work in a nonagricultural sector are more likely to be employed by a nonfamily member (28 percent).

Table 3.7 Type of employment: Women
Percent distribution of women age 15-49 employed in the 12 months preceding the survey b
type of earnings, type of employer, and continuity of employment, according to type of
employment (agricultural or nonagricultural), Uganda 2011

Employment characteristic	Agricultural work	Nonagricultural work	Total
Characteristic	WOLK	WOIK	Total
Type of earnings			
Cash only	35.1	78.9	49.1
Cash and in-kind	23.6	14.5	20.7
In-kind only	5.4	2.2	4.4
Not paid	35.8	4.4	25.8
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	22.0	7.7	17.4
Employed by nonfamily member	11.4	27.5	16.5
Self-employed	66.6	64.7	66.0
Total	100.0	100.0	100.0
Continuity of employment			
All year	54.1	72.2	59.9
Seasonal	36.5	13.1	29.1
Occasional	9.4	14.6	11.1
Total	100.0	100.0	100.0
Number of women employed during the last 12 months	4,339	2,034	6,375

Note: Total includes women with missing information on type of employment who are not shown separately.

Six in ten employed women work all year, 54 percent of those who work in the agricultural sector and 72 percent of those in the non-agricultural sector. Three in ten women are employed seasonally. Women in the agricultural sector are three times more likely to work seasonally than those who work in the nonagricultural sector (37 percent and 13 percent, respectively).

## 3.6 HEALTH INSURANCE

Over the last two decades, interest has grown in the potential of social health insurance (SHI) as a health financing mechanism for low- and middle-income countries. Like many other African countries, Uganda is currently trying to find an efficient, equitable, and sustainable health financing mechanism that

will raise a substantial amount of funds for the health sector. A National Health Insurance scheme (NHIS) has been introduced in a phased manner, with the objective of obtaining additional funding for the health sector and promoting financial risk protection. The scheme is expected to bring additional resources for the health sector and improve equity in access to health services.

In the 2011 UDHS, respondents were asked whether they have any type of health insurance. The health insurance may be obtained through a mutual health organization or community-based program, or privately purchased from a commercial provider.

Tables 3.8.1 and 3.8.2 show that only 1 percent of women and less than 2 percent of men are covered by health insurance. Urban women, women who live in Kampala, those with secondary or higher education, and those from the wealthiest households are the most likely to be covered by some type of health insurance. Men show the same pattern as women.

Table 3.8.1 Health insurance coverage: Women

Percentage of women age 15-49 with specific types of health insurance coverage, according to background characteristics, Uganda 2011

Mutual health

Background characteristic	Mutual health organization/ community- based insurance	Privately purchased commercial insurance	Other	None	Number of women
Age					
15-19 20-24	0.3 0.4	0.5 0.9	0.0 0.0	99.2 98.7	2,048
20-24 25-29	0.4	0.9 1.3	0.0	98.7 98.4	1,629 1,569
30-34	0.2	1.3	0.2	98.6	1,086
35-39	0.1	0.7	0.1	99.1	1,026
40-44	0.4	1.0	0.1	98.4	729
45-49	0.3	0.5	0.0	99.2	587
Residence					
Urban	0.3	3.4	0.2	96.0	1,717
Rural	0.2	0.3	0.0	99.5	6,957
Region					
Kampala	0.1	4.6	0.2	95.1	839
Central 1	0.2 0.0	0.7 0.6	0.2 0.0	98.9 99.4	956 902
Central 2 East Central	0.0	0.6	0.0	99.4 99.1	902 869
Eastern	0.2	0.0	0.0	99.6	1,267
Karamoja	0.0	0.3	0.0	99.7	289
North	0.2	0.1	0.0	99.8	735
West Nile	0.0	0.1	0.0	99.9	500
Western	0.1	0.7	0.0	99.2	1,221
Southwest	1.3	8.0	0.0	98.0	1,097
Education					
No education	0.3	0.1	0.1	99.5	1,120
Primary	0.2	0.2	0.0	99.6	5,152
Secondary +	0.4	2.8	0.1	96.6	2,402
Wealth quintile	0.4	0.0	0.4	00.0	4.540
Lowest Second	0.1 0.2	0.0 0.2	0.1 0.0	99.8 99.7	1,519 1,579
Middle	0.2	0.2	0.0	99.6	1,608
Fourth	0.2	0.3	0.0	99.5	1,726
Highest	0.5	3.0	0.1	96.4	2,242
Total	0.3	0.9	0.1	98.8	8,674

Table 3.8.2 Health insurance coverage: Men

Percentage of men age 15-49 with specific types of health insurance coverage, according to background characteristics, Uganda 2011

	Mutual health				
	organization/	Privately			
	community	purchased			
Background	based	commercial	041	Maria	Number
characteristic	insurance	insurance	Other	None	of men
Age					
15-19	0.0	0.4	0.0	99.6	554
20-24	0.3	2.0	0.0	97.7	318
25-29	0.8	1.9	0.0	97.3	361
30-34	0.9	3.1	0.0	96.0	323
35-39	0.1	0.7	0.0	99.3	268
40-44 45-49	0.0 0.6	0.1 1.5	0.0 0.3	99.9 97.6	191 157
	0.0	1.5	0.3	97.6	157
Residence					
Urban	0.3	5.2	0.1	94.4	439
Rural	0.4	0.4	0.0	99.2	1,734
Region					
Kampala	0.2	7.3	0.0	92.4	221
Central 1	0.0	0.6	0.2	99.2	209
Central 2	0.4	0.4	0.0	99.2	236
East Central	0.0	0.6	0.0	99.4	236
Eastern	0.9	0.5 0.8	0.0	98.6 99.2	289 55
Karamoja North	0.0 0.0	1.0	0.0 0.0	99.2 99.0	199
West Nile	0.0	0.0	0.0	99.0 99.8	133
Western	0.0	1.3	0.0	98.7	322
Southwest	1.3	0.9	0.0	97.8	273
Education No education	0.0	1.6	0.0	98.4	90
Primary	0.5	0.2	0.0	99.3	1,309
Secondary +	0.2	3.4	0.0	96.4	774
•	0.2	0.1	0.1	00.1	
Wealth quintile Lowest	0.8	0.3	0.0	98.9	345
Second	0.0	0.3	0.0	99.8	423
Middle	0.0	0.2	0.0	99.1	402
Fourth	0.7	0.9	0.0	98.9	486
Highest	0.3	4.4	0.1	95.2	517
Total 15-49	0.4	1.4	0.0	98.2	2,173
50-54	0.0	1.2	0.0	98.8	122
50-54 Total 15-54	0.0	1.2	0.0	98.8 98.3	2,295
10(8) 10-04	0.4	1.4	0.0	30.5	2,295

#### 3.7 **USE OF TOBACCO**

Smoking and using other forms of tobacco can cause a wide variety of diseases and lead to death. Smoking is a risk factor for cardiovascular disease, lung cancer, and other forms of cancer, and contributes to the severity of pneumonia, emphysema, and chronic bronchitis. Further, secondhand smoke may adversely affect health and aggravate illnesses.

In the 2011 UDHS, women and men age 15-49 were asked whether they currently smoke cigarettes and, if so, how many cigarettes they had smoked in the past 24 hours. Those who were not currently smoking cigarettes were asked whether they used any other forms of tobacco, such as a pipe, chewing tobacco, or snuff. Results are shown in Tables 3.9.1 and 3.9.2 for women and men, respectively.

Table 3.9.1 Use of tobacco: Women

Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products, according to background characteristics and maternity status, Uganda 2011

	L	Jses tobacc	Does not		
Background characteristic	Cigarettes	Pipe	Other tobacco	use tobacco	Number of women
Age 15-19 20-24 25-29 30-34 35-39 40-44 45-49  Maternity status	0.0 0.4 0.7 0.5 1.1 1.0 2.4	0.0 0.1 0.2 0.3 1.1 1.2	0.5 1.1 2.1 2.2 2.4 2.8 5.1	99.5 98.5 96.8 97.0 95.5 95.4 92.8	2,048 1,629 1,569 1,086 1,026 729 587
Pregnant Breastfeeding (not pregnant) Neither	0.2 0.6 0.7	0.0 0.2 0.5	1.9 2.3 1.6	97.7 96.9 97.3	1,011 2,500 5,163
<b>Residence</b> Urban Rural	0.3 0.7	0.6 0.3	0.2 2.2	98.8 96.8	1,717 6,957
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	0.2 0.5 0.2 0.3 0.0 0.3 0.0 1.6 1.8 1.2	0.9 1.3 0.5 0.0 0.0 0.0 0.0 0.3 0.2 0.4	0.2 0.8 0.2 0.0 0.0 35.4 0.0 2.6 0.9	98.8 97.5 99.2 99.1 100.0 64.4 100.0 95.7 97.4 96.7	839 956 902 869 1,267 289 735 500 1,221 1,097
Education No education Primary Secondary +	2.1 0.5 0.1	0.5 0.5 0.1	9.0 1.1 0.1	89.1 97.9 99.5	1,120 5,152 2,402
Wealth quintile Lowest Second Middle Fourth Highest	1.4 0.9 0.6 0.5 0.1	0.0 0.4 0.6 0.3 0.5	7.7 0.7 0.8 0.8 0.2	91.4 98.1 98.0 98.4 99.0	1,519 1,579 1,608 1,726 2,242 8,674

Table 3.9.2 Use of tobacco: Men

Percentage of men age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics, Uganda 2011

		Jses tobacc	0	Does not	
Background characteristic	Cigarettes	Pipe	Other tobacco	use tobacco	Number of men
Age 15-19 20-24 25-29 30-34 35-39 40-44 45-49	1.2 6.5 12.0 19.2 20.9 18.2 28.3	0.4 0.0 0.9 1.3 1.1 1.4 0.0	0.2 3.0 4.7 5.0 8.6 6.1 11.7	98.3 92.4 84.7 77.6 75.7 78.1 67.2	554 318 361 323 268 191 157
Residence Urban Rural	7.9 13.4	0.0 0.9	0.7 5.4	91.8 83.6	439 1,734
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	8.2 12.6 9.4 6.1 11.2 5.1 18.9 31.1 14.3 9.8	0.0 2.0 1.6 1.3 0.1 1.6 0.0 0.0	0.0 3.8 2.0 0.4 1.4 42.2 12.1 16.3 1.7	91.7 84.9 87.4 92.7 88.4 53.8 80.0 66.3 85.0 88.6	221 209 236 236 289 55 199 133 322 273
Education No education Primary Secondary +	12.4 15.6 6.7	2.0 0.8 0.3	12.5 5.5 1.8	75.8 81.6 92.6	90 1,309 774
Wealth quintile Lowest Second Middle Fourth Highest	24.6 17.1 11.1 8.0 5.2	0.3 0.9 1.2 0.8 0.3	15.4 5.7 2.5 1.7 0.1	68.4 80.6 87.3 90.0 94.4	345 423 402 486 517
Total 15-49 50-54 Total 15-54	12.3 25.1 13.0	0.7 4.0 0.9	4.4 9.1 4.7	85.3 66.1 84.3	2,173 122 2,295

Tables 3.9.1 and 3.9.2 show that tobacco use is more common among Ugandan men than women (15 percent compared with 3 percent). Twelve percent of men age 15-49 smoke cigarettes, while 1 percent smoke pipes, and 4 percent consume other forms of tobacco. Use of tobacco is most common among older men, men living in rural areas, and those with no education. The highest tobacco use is found among men in the lowest wealth quintile (32 percent). Cigarette smoking among men is most prevalent in West Nile region (31 percent), while Karamoja has the highest proportion of men who use other types of tobacco (42 percent). Karamoja also accounts for a large proportion of the women who use tobacco.

Among women age 15-49 who smoke cigarettes, 18 percent smoked 3 to 5 cigarettes, and 18 percent smoked 10 or more cigarettes in the previous 24 hours (data not shown). Among men who smoked cigarettes, 28 percent smoked 1 to 2 cigarettes, 32 percent smoked 3 to 5 cigarettes, and 20 percent smoked 10 or more cigarettes in the 24 hours prior to the survey (data not shown).

## **Key Findings**

- The median age at marriage for men age 25-49 is 22.3 years, four years older than the median age for women in the same age range, at 17.9 years.
- The percentage of women who were first married by age 15 has declined from 19 percent among women currently age 45-49 to 3 percent among women age 15-19.
- For Ugandan women, the median age at first sex is about one year less than the median age at first marriage. In contrast, men typically initiate sexual intercourse four years before their first marriage.
- Overall, 25 percent of married women in Uganda are in a polygynous union. The percentage of women who are in a polygynous union has declined steadily over the past decade from 32 percent in the 2000-01 to 25 percent in 2011.

his chapter addresses the principal factors, other than contraception, that affect a woman's risk of becoming pregnant. These factors are marriage, polygyny, and sexual activity.

## 4.1 CURRENT MARITAL STATUS

For most women in Uganda, marriage marks the onset of regular exposure to the risk of pregnancy. Therefore, information on age at first marriage is important for understanding fertility. Populations in which age at first marriage is low tend to have early childbearing and high fertility.

Table 4.1.1 presents the percent distribution of women and men by current marital status, according to age group. The term 'married' refers to legal or formal marriage, while the term 'living together' designates an informal union in which a man and a woman live together but a formal civil or religious ceremony has not taken place. In later tables that do not list 'living together' as a separate category, these respondents are included in the 'currently married' group. Respondents who are currently married, widowed, divorced, or separated are referred to as 'ever married'.

Table 4.1.1 shows that the proportion of women currently in union (married or cohabiting) is 63 percent, the same as in the 2006 UDHS, and a reduction from 67 percent in the 2000-2001 UDHS. Notable, however, is the decrease in the proportion of married women, from 49 percent in 2006 to 36 percent in 2011, and the increase in the proportion of those living together, from 14 percent to 27 percent during the same period. One in four women (24 percent) has never been married, while about 13 percent are divorced, widowed, or separated. The proportion of women who have never married declines sharply with age, and by age 30, almost all women have married. The proportion of women in a formal union increases with age and peaks at age 35-39. The decline after age 40 is the result of widowhood, divorce, and separation. As expected, older women are more likely to be widowed or divorced than younger women.

Men age 15-49 are more likely to have never been married (38 percent) than women (24 percent). The proportion of men age 15-49 who are married has declined since the previous survey, from 50 percent in 2006 to 41 percent in 2011. This decline is noticeable among men under 25. Among the ever-married, men are less likely than women to be widowed or separated. This is partly due to remarriage and polygyny.

Table 4.1.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Uganda 2011

		Marital status								
Age	Never married	Married	Living together	Divorced	Separated	Widowed	Total	respondents currently in union	Number of respondents	
				WON	ИEN					
15-19 20-24 25-29 30-34 35-39 40-44 45-49 Total	77.3 23.9 5.6 2.3 1.5 0.8 2.2	8.6 31.8 44.6 48.2 51.3 50.8 46.2 35.6	11.4 35.5 37.9 32.9 28.6 25.0 15.8 26.9	0.1 0.5 0.6 0.9 0.4 1.7 1.8	2.6 7.2 9.9 12.1 11.9 10.6 15.5 8.6	0.1 1.0 1.3 3.6 6.3 10.9 18.5 3.8	100.0 100.0 100.0 100.0 100.0 100.0 100.0	20.0 67.3 82.5 81.1 79.9 75.8 62.0	2,048 1,629 1,569 1,086 1,026 729 587 8,674	
				ME	N					
15-19 20-24 25-29 30-34 35-39 40-44 45-49	96.9 63.4 19.9 6.0 0.9 0.6 0.6	0.6 16.1 50.6 61.3 72.5 76.2 78.4	1.2 15.7 24.1 25.9 17.9 17.7 12.7	0.0 0.4 1.1 1.7 1.0 1.7 4.6	1.2 4.4 4.0 4.8 5.9 3.9 3.7	0.0 0.0 0.3 0.4 1.9 0.0	100.0 100.0 100.0 100.0 100.0 100.0 100.0	1.9 31.9 74.6 87.2 90.4 93.8 91.1	554 318 361 323 268 191 157	
Total 15-49	38.4	41.4	15.1	1.1	3.7	0.3	100.0	56.5	2,173	
50-54 Total 15-54	0.0 36.3	75.5 43.2	14.4 15.1	1.9 1.1	7.5 3.9	0.7 0.4	100.0 100.0	89.9 58.3	122 2,295	

Table 4.1.2 shows the current marital status and type of marriage among women and men age 15-49. One in four women (25 percent) and about one in three men (32 percent) have had a customary marriage, 27 percent of women and 15 percent of men are cohabiting, and 9 percent of women and 8 percent of men 15-49 have had a religious marriage. Just 1 percent, each, of women and men have had a civil marriage.

Table 4.1.2 Current marital status and type of marriage

Percent distribution of women and men age 15-49 by current marital status and type of marriage, according to age, Uganda 2011

	Marital status an type of marriage						_			
		Marriage			Never			Percentage of		
Age	Civil marriage	Customary marriage	Religious marriage	Living together	married/ previously married	Total	respondents currently in union	Number of respondents		
				WOMEN						
15-19 20-24 25-29 30-34 35-39 40-44 45-49	0.2 0.9 1.3 1.7 1.4 1.4 1.6	7.7 27.0 33.3 32.4 34.9 30.3 26.6	0.7 4.0 10.0 14.1 15.0 19.2 18.1 9.1	11.4 35.5 37.9 32.9 28.6 25.0 15.8 26.9	80.0 32.6 17.3 18.9 20.0 24.0 38.0	100.0 100.0 100.0 100.0 100.0 100.0 100.0	20.0 67.3 82.5 81.1 79.9 75.8 62.0	2,048 1,629 1,569 1,086 1,026 729 587 8,674		
Total	1.1	25.4	9.1		37.3	100.0	02.5	0,074		
				MEN						
15-19 20-24 25-29 30-34 35-39 40-44 45-49	0.0 1.0 2.1 0.4 1.7 1.3 1.8	0.4 12.9 42.3 52.1 57.4 53.5 50.4	0.2 2.2 6.2 8.8 13.5 21.4 26.2	1.2 15.7 24.1 25.9 17.9 17.7	98.1 68.1 25.4 12.8 9.6 6.2 8.9	100.0 100.0 100.0 100.0 100.0 100.0 100.0	1.9 31.9 74.6 87.2 90.4 93.8 91.1	554 318 361 323 268 191 157		
Total 15-49	1.0	32.2	8.2	15.1	43.5	100.0	56.5	2,173		
50-54	0.9	54.2	20.4	14.4	10.1	100.0	89.9	122		
Total 15-54	1.0	33.4	8.8	15.1	41.7	100.0	58.3	2,295		

# 4.2 POLYGYNY

Marital unions are predominantly of two types: monogamous and polygynous. The distinction has social significance and probable fertility implications, although the association between union type and fertility is complex and not well understood. Polygyny, the practice of having more than one wife, has

implications for the frequency of sexual intercourse and thus an effect on fertility. The extent of polygyny is ascertained by asking currently married women whether their husband or partner has other wives and, if so, how many. Similarly, interviewers ask currently married men how many wives or partners they have.

**Tables** 4.2.1 and 4.2.2 show the proportion of currently married women men, respectively, who polygynous are in unions, by background characteristics. Overall, 25 percent of married women in Uganda are in a polygynous union. In the 2011 UDHS, 5 percent of women are in a polygynous union with two or more co-wives, compared with 7 percent in 2006. The extent of polygyny reported by women has declined steadily over the last decade from 32 percent in the 2000-01 UDHS to 28 percent in the 2006 UDHS and to 25 percent in 2011.

<u>Table 4.2.1 Number of women's co-wives</u>

Percent distribution of currently married women age 15-49 by number of co-wives, according to background characteristics, Uganda 2011

		Nu	mber of co-v	vives			
Background characteristic	0	1	2+	Don't know	Missing	Total	Number of women
Age 15-19 20-24 25-29 30-34 35-39 40-44 45-49  Residence Urban	82.4 80.2 72.6 67.4 64.7 65.1 68.7	11.1 14.3 19.7 22.5 23.9 21.1 20.0	2.6 1.5 3.7 6.9 8.6 10.1 9.1	3.9 4.0 4.0 3.0 2.8 3.7 2.2	0.0 0.0 0.0 0.2 0.1 0.0 0.0	100.0 100.0 100.0 100.0 100.0 100.0 100.0	409 1,097 1,295 880 820 553 364
Orban Rural	73.5 71.5	15.5	4.7 5.6	3.0	0.0	100.0	4,526
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	73.3 75.9 64.4 58.3 80.0 48.4 74.7 67.7 74.2 79.5	14.9 14.6 20.3 27.6 14.4 33.5 22.4 24.3 17.4 16.2	2.7 2.7 6.4 11.1 3.8 17.8 2.7 7.0 6.3 2.3	9.1 6.8 9.0 3.0 1.8 0.3 0.2 0.4 2.0 2.1	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.5 0.2	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	397 559 565 580 859 215 487 330 743 681
Education No education Primary Secondary +	65.4 71.8 76.4	23.3 19.3 15.9	9.3 5.1 3.6	1.9 3.7 4.1	0.1 0.1 0.0	100.0 100.0 100.0	877 3,313 1,227
Wealth quintile Lowest Second Middle Fourth Highest	71.1 75.5 73.3 67.5 71.4 71.8	20.9 17.9 18.9 20.8 17.8	5.9 4.3 5.0 7.7 4.7	2.2 2.3 2.8 4.0 6.0	0.0 0.1 0.1 0.0 0.1	100.0 100.0 100.0 100.0 100.0	1,063 1,101 1,042 997 1,215

The prevalence of polygynous unions

generally increases with age; young women are more likely to be in a monogamous marriage than older women. Eighty-two percent of married women age 15-19 are in a monogamous union as compared with 69 percent of women age 45-49. Rural women are more likely to be in polygynous unions (26 percent) than urban women (20 percent). The regional distribution also shows substantial variation. The prevalence of polygyny is lowest in Central 1 (17 percent) and highest in Karamoja (51 percent). Polygyny also is relatively common in East Central (39 percent), West Nile (31 percent), and Central 2 (27 percent) regions.

There is an inverse relationship between education and polygyny. The proportion of currently married women in a polygynous union decreases from 33 percent among women with no education to 20 percent among women with more than secondary education. The relationship between wealth quintile of the household and polygyny is not clear.

Data on polygynous unions among currently married men are shown in Table 4.2.2. Seventeen percent of men age 15-54 report having two or more wives. Like women, older men, men living in rural areas, and those with little or no education are more likely to be in polygynous unions than other men. Polygyny is higher among men in Karamoja (27 percent), North (26 percent) and East Central (23 percent) regions. The level of polygyny reported by men age 15-54 has remained constant over the past five years at 17 percent.

Table 4.2.2 Number of men's wives

Percent distribution of currently married men age 15-49 by number of wives, according to background characteristics, Uganda 2011

Background	Numbe	r of wives		Number
characteristic	1	2+	Total	of men
Age 15-19 20-24 25-29 30-34 35-39 40-44 45-49	94.7 90.7 83.0 85.4 76.8 73.5	5.3 9.3 17.0 14.6 23.2 26.5	100.0 100.0 100.0 100.0 100.0 100.0 100.0	10 101 270 282 242 179 143
<b>Residence</b> Urban Rural	90.5 82.9	9.5 17.1	100.0 100.0	215 1,014
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	94.9 84.9 85.3 77.3 85.9 73.1 73.9 83.6 86.0 88.9	5.1 15.1 14.7 22.7 14.1 26.9 26.1 16.4 14.0 11.1	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	96 120 127 122 199 40 117 77 183 147
Education No education Primary Secondary +	67.0 83.6 88.7	33.0 16.4 11.3	100.0 100.0 100.0	73 754 402
Wealth quintile Lowest Second Middle Fourth Highest	80.5 86.1 80.6 83.5 90.3	19.5 13.9 19.4 16.5 9.7	100.0 100.0 100.0 100.0 100.0	243 257 233 247 248
Total 15-49	84.3	15.7	100.0	1,228
50-54	71.0	29.0	100.0	109
Total 15-54	83.2	16.8	100.0	1,338

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

# 4.3 AGE AT FIRST MARRIAGE

Marriage is the leading social and demographic indicator of exposure of women to the risk of pregnancy, especially in the case of low levels of contraceptive use. Early marriages in the Ugandan context, where use of family planning is limited, lead to early childbearing and a longer period of exposure of women to reproductive risks, which lead to high cumulative fertility levels.

Table 4.3 shows the percentage of women and men who have married by specific exact ages, according to current age. Although the minimum legal age for a woman to get married is 18 years in Uganda, marriage among young girls is a common practice. Among women age 20-49, 15 percent were married by age 15, and 49 percent were married by age 18. The median age at first marriage among women age 25-49 is 17.9 years and has been fairly stable for the past 30 years. However, the trend has shifted toward fewer women marrying at very young ages. The proportion of women married by age 15 has declined over time, from 19 percent among women currently age 45-49 to 3 percent among women currently age 15-19.

Men tend to marry at much older ages than women. Among men age 25-49, only 9 percent were married by age 18, and 25 percent by age 20. The median age at marriage for men age 25-49 is 22.3 years, four years older than the median age for women in the same age range, at 17.9 years.

The median age at marriage for men age 25-49 has remained the same in the last five years.

Table 4.3 Age at first marriage

Percentage of women and men age 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Uganda 2011

	F	Percentage first married by exact age:					Percentage		
Current age	15	18	20	22	25	never married	Number of respondents	age at first marriage	
				WOMEN					
15-19	3.2	na	na	na	na	77.3	2,048	а	
20-24	9.9	39.7	61.2	na	na	23.9	1,629	18.9	
25-29	14.0	48.0	66.8	79.7	90.7	5.6	1,569	18.2	
30-34	18.1	52.4	71.8	83.0	91.6	2.3	1,086	17.8	
35-39	16.5	52.9	73.4	84.0	91.4	1.5	1,026	17.7	
40-44	21.9	55.6	73.1	84.2	93.2	0.8	729	17.6	
45-49	19.3	51.3	70.4	79.5	87.9	2.2	587	17.9	
20-49	15.4	48.6	68.3	na	na	8.1	6,626	18.1	
25-49	17.2	51.5	70.6	82.0	91.1	2.9	4,997	17.9	
				MEN					
15-19	0.0	na	na	na	na	96.9	554	а	
20-24	8.0	5.5	16.6	na	na	63.4	318	а	
25-29	0.6	8.0	24.0	47.6	67.6	19.9	361	22.4	
30-34	0.3	12.7	27.3	48.7	68.2	6.0	323	22.2	
35-39	0.4	6.9	25.4	46.7	67.3	0.9	268	22.4	
40-44	0.0	5.2	23.5	48.5	74.7	0.6	191	22.1	
45-49	1.0	7.6	26.7	44.0	61.7	0.6	157	23.0	
20-49	0.5	7.9	23.6	na	na	18.4	1,619	а	
25-49	0.4	8.5	25.4	47.4	68.0	7.4	1,301	22.3	

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner.

Table 4.4 shows the median age at first marriage for women age 20-49 and age 25-49, and for men age 25-54 by background characteristics. Data for women age 15-19 and for men age 15-24 have been omitted because of the small number of married respondents in these age groups.

Women age 25-49 living in urban areas marry about two years later than rural women (20 years compared with 17.6 years). The median age at first marriage is highest in Kampala (20.7 years) and lowest in North region at 16.7 years. The median age at first marriage for women age 25-49 is higher among the better educated and the wealthier. Variations by background characteristics among men age 25-54 display a pattern like that among women but are not as pronounced.

na = Not applicable due to censoring

a = Onit applicable due to certaining a = Onit applicable due to certain a = Onit appl

<u>Table 4.4 Median age at first marriage by background</u> characteristics

Median age at first marriage among women age 20-49 and age 25-49, and median age at first marriage among men age 25-54, according to background characteristics, Uganda 2011

Background	Wome	Men age		
characteristic	20-49	25-49	25-54	
Residence				
Urban	а	20.0	а	
Rural	17.8	17.6	21.9	
Region				
Kampala	а	20.7	а	
Central 1	18.2	17.7	23.0	
Central 2	17.8	17.6	22.9	
East Central	17.3	17.0	22.5	
Eastern	17.6	17.5	21.7	
Karamoja	18.4	18.6	20.8	
North	16.9	16.7	21.4	
West Nile	18.1	17.9	22.3	
Western	18.1	17.9	21.9	
Southwest	18.9	18.6	22.8	
Education				
No education	16.9	16.9	22.3	
Primary	17.4	17.4	21.6	
Secondary +	а	20.8	24.5	
Wealth quintile				
Lowest	17.5	17.5	21.6	
Second	17.5	17.4	21.3	
Middle	17.8	17.5	22.2	
Fourth	17.8	17.5	21.9	
Highest	а	19.7	а	
Total	18.1	17.9	22.5	

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner a = Omitted because less than 50 percent of the respondents began living with their spouse/partners for the first time before reaching the beginning of the age group

# 4.4 Age at First Sexual Intercourse

Although age at first marriage is often used as a proxy for first exposure to sexual intercourse, the two events do not necessarily coincide. In the 2011 UDHS interviewers asked women and men how old they were when they first had sexual intercourse.

Table 4.5 shows the percentages of women and men who first had sexual intercourse by specific exact ages. Among women age 25-49, 23 percent first had sexual intercourse before age 15, 64 percent before age 18, and by age 25 the majority of Ugandan women (90 percent) had had sexual intercourse. The median age at first sexual intercourse for women age 25-49 is 16.8 years compared with the median age at first marriage of 17.9 years. This suggests that Ugandan women generally begin sexual intercourse about a year earlier than their first marriage. The median age at first sexual intercourse has increased over the past two decades, from 16.8 years for women currently age 45-49 to 17.5 years for women currently age 20-24.

As is the case with age at first marriage, men tend to initiate sexual activity later in life than women. The median age at first sex for men age 25-49 years is 18.6 years, about two years later than for women. The median ages at first intercourse among the different age cohorts suggest no significant change in age at first sexual intercourse for men over the past 30 years. The median age at first sexual intercourse for men age 25-49 years, at 18.6 years, is about four years lower than the median age at first marriage, at 22.3 years.

Table 4.5 Age at first sexual intercourse

Percentage of women and men age 15-49 who had first sexual intercourse by specific exact ages, percentage who never had sexual intercourse, and median age at first sexual intercourse, according to current age, Uganda 2011

	Percei	ntage who had	first sexual inte	Percentage who never had	Number of	Median age at first		
Current age	15	18	20	22	25	intercourse	respondents	intercourse
				WOMEN				
15-19	12.2	na	na	na	na	54.9	2,048	а
20-24	16.1	57.9	77.1	na	na	8.2	1,629	17.5
25-29	19.6	61.7	77.9	86.6	91.1	8.0	1,569	17.0
30-34	23.7	64.2	81.0	88.4	90.8	8.0	1,086	16.8
35-39	22.7	65.4	80.8	86.9	89.5	0.2	1,026	16.7
40-44	27.2	63.2	79.5	84.7	88.2	0.0	729	16.7
45-49	27.5	64.1	81.7	86.1	89.9	0.0	587	16.8
20-49	21.4	62.1	79.2	na	na	2.4	6,626	17.0
25-49	23.1	63.5	79.8	86.7	90.1	0.4	4,997	16.8
15-24	13.9	na	na	na	na	34.2	3,677	а
				MEN				
15-19	17.9	na	na	na	na	59.9	554	а
20-24	12.8	42.9	69.5	na	na	14.5	318	18.4
25-29	8.8	37.6	65.2	79.5	89.7	3.3	361	18.8
30-34	7.7	39.4	70.6	84.4	91.4	1.1	323	18.5
35-39	8.8	40.2	67.7	81.3	89.8	0.3	268	18.5
40-44	6.2	35.3	66.6	84.1	89.7	0.0	191	18.6
45-49	6.6	39.5	69.8	83.9	90.4	0.0	157	18.5
20-49	8.8	39.3	68.2	na	na	3.9	1,619	18.5
25-49	7.9	38.5	67.8	82.3	90.2	1.3	1,301	18.6
15-24	16.0	na	na	na	na	43.3	872	а
20-54	8.7	39.6	67.9	na	na	3.6	1,741	18.5
25-54	7.8	38.8	67.5	82.4	90.2	1.2	1,423	18.6

na = Not applicable due to censoring

a = Omitted because less than 50 percent of the respondents had sexual intercourse for the first time before reaching the beginning of the age group

Table 4.6 shows the median age at first sexual intercourse for women and men by current age and background characteristics. Urban women have their first sexual experience at somewhat older ages than rural women. Examination by region reveals that women of the Eastern and East Central regions engage in sexual relations earliest (16.3 and 16.2 years respectively), while their counterparts in the Southwest region initiate sex about two years later, at age 18.7 years. Women with at least some secondary education start sexual relations almost two years later than less educated women. The relationship between the level of household wealth and the initiation of sexual intercourse is not strong.

For men age 25-54, the differences in the median age at first sexual intercourse by background characteristics are minimal. The largest differences are observed by region. Men in the West Nile region and the Southwest region start sexual intercourse later than men in other regions (19.3 and 20.0 years, respectively).

Table 4.6 Median age at first sexual intercourse by background characteristics

Median age at first sexual intercourse among women age 20-49 and age 25-49, and median age at first sexual intercourse among men age 20-54 and 25-54, according to background characteristics, Uganda 2011

Background	Wome	en age	Men	age
characteristic	20-49	25-49	20-54	25-54
Residence	47.0		10.1	40.0
Urban Rural	17.6 16.8	17.4 16.7	18.4 18.6	18.6 18.5
Region				
Kampala	17.8	17.6	18.4	18.4
Central 1	16.5	16.3	18.2	18.4
Central 2	16.6	16.5	18.4	18.4
East Central	16.2	15.9	18.4	18.5
Eastern	16.3	16.2	18.4	18.4
Karamoja	17.8	17.9	18.9	19.0
North	16.7	16.6	18.0	18.1
West Nile	17.8	17.6	19.3	19.3
Western	16.9	16.8	18.4	18.3
Southwest	18.7	18.4	а	20.0
Education				
No education	16.4	16.3	17.9	18.0
Primary	16.6	16.5	18.5	18.5
Secondary +	18.2	18.2	18.8	18.9
Wealth quintile				
Lowest	16.6	16.6	18.4	18.4
Second	16.9	16.8	18.4	18.4
Middle	16.9	16.6	18.6	18.6
Fourth	16.7	16.5	18.6	18.6
Highest	17.6	17.4	18.6	18.7
Total	17.0	16.8	18.5	18.6

a = Omitted because less than 50 percent of the respondents had sexual intercourse for the first time before reaching the beginning of the age group

# 4.5 RECENT SEXUAL ACTIVITY

In societies with low use of contraception, the probability of a woman becoming pregnant is closely related to the exposure to and frequency of sexual intercourse. Therefore, information on sexual activity can be used to refine measures of exposure to pregnancy. Interviewers asked women and men how long ago their last sexual activity occurred, recording whether they had had a sexual encounter in the preceding four weeks.

Tables 4.7.1 and 4.7.2 show the percent distributions of women and men by recent sexual activity. Fifty-one percent of all women age 15-49 were sexually active in the four weeks before the survey, 22 percent had been sexually active in the year before the survey but not in the four weeks prior to the interview, and 13 percent had been sexually active at some time in their lives but not for the past one or more years. Fifteen percent of the women had never had sexual intercourse.

The highest level of recent sexual activity is observed among women age 25-34 (65 to 67 percent). The proportion of women who are sexually active gradually declines after age 34. The proportion sexually active in the four weeks preceding the survey among women in marital union declines slightly with the number of years in union, from 78 percent among women married for less than five years to 72 percent for women married 25 years or more. Women who were married in the past or who have never been married are less likely to have had sex in the recent past. As expected, women who are currently in union are much more likely to have been sexually active in the four weeks preceding the survey (76 percent) than women who were formerly married (14 percent) or who have never been married (8 percent).

Rural women were more likely to be recently sexually active (52 percent) than urban women (48 percent). Women residing in the North region (56 percent), Western (55 percent), and Central 1 (53 percent) were more likely than women in other regions to have been sexually active in the past four weeks, while women in West Nile (42 percent) were least likely. Women with no education (59 percent) were substantially more sexually active in the recent past than women with some education (46 to 52 percent). Among wealth quintiles the richest women were the least likely to report being sexually active in the past four weeks (49 percent).

Table 4.7.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, Uganda 2011

	Т	iming of last se	exual intercours	se .			
Background characteristic	Within the past 4 weeks	Within 1 year <sup>1</sup>	One or more years	Missing	Never had sexual intercourse	Total	Number of women
Age 15-19 20-24 25-29 30-34 35-39 40-44 45-49	18.7 57.6 67.2 65.2 61.7 61.6 44.6	17.8 25.2 23.6 21.9 22.8 18.8 18.5	8.5 8.9 8.1 11.8 15.1 19.4 36.2	0.0 0.1 0.2 0.2 0.2 0.2	54.9 8.2 0.8 0.8 0.2 0.0	100.0 100.0 100.0 100.0 100.0	2,048 1,629 1,569 1,086 1,026 729 587
Marital status Never married Married or living together Divorced/separated/widowed	7.9 75.8 13.6	18.3 20.5 32.2	13.4 3.5 53.7	0.0 0.1 0.5	60.5 0.0 0.0	100.0 100.0 100.0 100.0	2,118 5,418 1,134
Marital duration <sup>2</sup> Married only once 0-4 years 5-9 years 10-14 years 15-19 years 20-24 years 25+ years Married more than once	75.5 77.6 76.2 75.0 74.5 74.2 72.4 76.8	20.7 20.8 21.2 22.2 19.8 18.5 20.2 19.7	3.6 1.5 2.6 2.7 5.7 6.9 6.9 3.3	0.1 0.1 0.0 0.1 0.0 0.5 0.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	4,402 1,171 916 818 634 426 437 1,018
Residence Urban Rural	47.6 51.9	22.7 21.2	14.2 12.1	0.5 0.1	15.1 14.7	100.0 100.0	1,717 6,957
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	45.4 53.4 51.8 51.0 49.6 46.6 56.4 41.6 55.4 51.5	22.6 20.4 24.3 25.9 24.6 20.1 17.6 26.1 19.5 15.4	16.8 12.0 9.8 10.1 12.3 20.8 11.3 15.8 12.7	0.1 0.1 0.7 0.5 0.0 0.1 0.1 0.2	15.1 14.1 13.5 12.5 13.5 12.4 14.5 16.3 12.2 22.2	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	839 956 902 869 1,267 289 735 500 1,221 1,097
Education No education Primary Secondary+	58.5 51.6 46.3	20.0 21.2 22.9	18.6 12.0 10.7	0.1 0.2 0.2	2.9 14.9 19.9	100.0 100.0 100.0	1,120 5,152 2,402
Wealth quintile Lowest Second Middle Fourth Highest	47.5 54.8 54.9 49.6 49.1 51.0	25.3 19.9 21.5 20.5 20.9 21.5	16.6 12.6 9.1 11.0 13.2 12.5	0.1 0.1 0.1 0.3 0.3	10.5 12.5 14.5 18.6 16.5	100.0 100.0 100.0 100.0 100.0	1,519 1,579 1,608 1,726 2,242 8,674

Overall, men are as likely as women to have had recent sexual intercourse (Table 4.7.2). Fifty-two percent of men age 15-49 had sexual intercourse in the four weeks before the survey, 21 percent had sexual intercourse in the past year but not in the previous four weeks, 10 percent had sex one or more years ago, and 18 percent have never had sexual intercourse. As with women, men's recent sexual activity at first increases with age, peaks in the late thirties at 81 percent, and then declines.

Total includes 5 women whose marital status is missing.

Lexcludes women who had sexual intercourse within the last 4 weeks

<sup>&</sup>lt;sup>2</sup> Excludes women who are not currently married

As in the case with women, men who are currently married or living with a woman are most likely to have had recent sexual intercourse: 82 percent compared with 11 percent of never-married men. Important variations in sexual activity are observed at the regional level. The proportion of men who had sex in the past four weeks ranges from 41 percent in the West Nile region and 43 percent in Kampala to 58 percent in Karamoja region. Men's recent sexual activity, like women's, is inversely related to their level of education. It decreases from 78 percent among men with no education to 52 percent among men with some primary education and to 47 percent among those with secondary education or higher education. Recent sexual activity is least common among the wealthiest men (45 percent).

Table 4.7.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Uganda 2011

	Tii	ming of last s	sexual intercourse		Never had		
Background characteristic	Within the past 4 weeks	Within 1 year <sup>1</sup>	One or more years	Missing	sexual intercourse	Total	Number of men
Age							
15-19	7.5	15.9	16.7	0.0	59.9	100.0	554
20-24	34.4	34.6	16.5	0.0	14.5	100.0	318
25-29	68.2	22.9	5.5	0.0	3.3	100.0	361
30-34	74.4	20.2	4.4	0.0	1.1	100.0	323
35-39	81.0	14.4	4.2	0.0	0.3	100.0	268
40-44	80.1	16.5	3.4	0.0	0.0	100.0	191
45-49	72.4	20.5	6.5	0.6	0.0	100.0	157
Marital status							
Never married	10.9	22.2	19.5	0.0	47.3	100.0	834
Married or living together	81.6	17.6	0.8	0.0	0.0	100.0	1,228
Divorced/separated/widowed	26.0	42.8	30.3	0.9	0.0	100.0	111
Marital duration <sup>2</sup>							
Married only once	81.3	18.0	0.7	0.0	0.0	100.0	938
0-4 years	75.3	24.3	0.4	0.0	0.0	100.0	254
5-9 years	78.0	21.1	0.9	0.0	0.0	100.0	207
10-14 years	86.3	13.5	0.2	0.0	0.0	100.0	194
15-19 years	88.1	10.9	1.0	0.0	0.0	100.0	135
20-24 years	85.2	13.2	1.6	0.0	0.0	100.0	98
25+ years	80.2	19.0	0.8	0.0	0.0	100.0	50
Married more than once	82.6	16.1	1.3	0.0	0.0	100.0	291
Residence							
Urban	47.0	26.9	11.9	0.0	14.1	100.0	439
Rural	52.8	19.1	8.9	0.1	19.2	100.0	1,734
Region							
Kampala	42.7	27.2	13.7	0.0	16.4	100.0	221
Central 1	53.6	20.5	9.3	0.0	16.5	100.0	209
Central 2	54.3	21.6	8.8	0.0	15.4	100.0	236
East Central	47.9	26.0	8.4	0.0	17.7	100.0	236
Eastern	52.2	23.3	6.3	0.0	18.2	100.0	289
Karamoja	57.8	25.2	4.4	0.0	12.6	100.0	55
North	55.3	17.6	12.1	0.0	15.0	100.0	199
West Nile	41.0	28.3	11.1	0.0	19.6	100.0	133
Western	55.6	15.9	10.2	0.3	18.0	100.0	322
Southwest	54.2	10.4	8.9	0.0	26.4	100.0	273
Education							
No education	77.9	11.1	5.6	0.0	5.4	100.0	90
Primary	52.4	19.4	8.3	0.1	19.8	100.0	1,309
Secondary +	47.4	23.8	12.0	0.0	16.8	100.0	774
Wealth quintile							
Lowest	55.7	22.8	5.1	0.3	16.1	100.0	345
Second	55.9	17.0	8.8	0.0	18.3	100.0	423
Middle	56.2	16.0	9.2	0.0	18.6	100.0	402
Fourth	48.0	21.3	11.6	0.0	19.1	100.0	486
Highest	45.3	25.2	11.3	0.0	18.2	100.0	517
Total 15-49	51.6	20.6	9.5	0.0	18.2	100.0	2,173
50-54	67.8	22.1	9.2	0.9	0.0	100.0	122
Total 15-54	52.5	20.7	9.5	0.1	17.2	100.0	2,295

<sup>1</sup> Excludes men who had sexual intercourse within the last 4 weeks

<sup>&</sup>lt;sup>2</sup> Excludes men who are not currently married

# **Key Findings**

- The total fertility rate in Uganda for the three years preceding the survey is 6.2 children per woman. Rural women have almost twice as many children as urban women.
- Fertility declined only slightly between 2000-01 and 2006, from 6.9 children per woman to 6.7 children, and decreased further to 6.2 children in 2011.
- Childbearing begins early in Uganda. More than one-third (39 percent) of women age 20-49 gave birth by age 18, and more than half (63 percent) by age 20.
- About two thirds (66 percent) of births occur within three years of a previous birth;
   25 percent occur within 24 months.
- Twenty four percent of women age 15-19 are already mothers or pregnant with their first child.

# 5.1 Introduction

he chapter discusses current, cumulative, and past fertility in terms of levels, patterns, and trends observed in the 2011 UDHS and past DHS surveys. To generate data on fertility, all women who were interviewed were asked to report the total number of sons and daughters to whom they had ever given birth in their lifetime. To ensure all information was reported, women were asked separately about children still living at home, those living elsewhere, and those who had died. A complete birth history was obtained, including information on sex, date of birth, and survival status of each child. For living children, the mother was asked whether the child was living with her or away. For dead children, the age of the child at death was recorded.

## 5.2 CURRENT FERTILITY

The current level of fertility is one of the most important statistics in the report because it represents the prevailing situation and is relevant to population policies and programmes. Table 5.1 presents age-specific fertility rates (ASFRs), the total fertility rate (TFR), the general fertility rate (GFR), and the crude birth rate (CBR) for the three-year period preceding the survey. The ASFRs provide the age pattern of fertility, while the TFR (the most commonly used measure) refers to the number of live births that a woman would have had if she were subject to the current ASFRs throughout the reproductive ages (15-49 years). More generalized indicators of fertility include the general fertility rate (GFR), expressed as the annual number of live births per 1,000 women age 15-44, and the crude birth rate (CBR), expressed as the annual number of live births per 1,000 population.

Table 5.1 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Uganda 2011

	Resid	Residence			
Age group	Urban	Rural	Total		
15-19	91	146	134		
20-24	205	350	313		
25-29	194	318	291		
30-34	171	248	232		
35-39	87	187	172		
40-44	16	82	74		
45-49	(2)	26	23		
TFR (15-49)	3.8	6.8	6.2		
GFR	148	234	217		
CBR	40.3	42.4	42.1		

Notes: Figures in parentheses are based on 125-249 unweighted person-years of exposure. Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months prior to interview.

TFR: Total fertility rate expressed per woman

GFR: General fertility rate expressed per 1,000 women age

CBR: Crude birth rate expressed per 1,000 population

Table 5.1 shows that a Ugandan woman would bear an average of 6.2 children in her lifetime if her fertility were to remain constant at current levels. This represents a decrease of 0.5 children in the 5 years since the 2006 UDHS, when the TFR was 6.7 births per woman. Fertility is significantly higher among rural than urban women (6.8 and 3.8, respectively). However, because of the small proportion of the population living in urban areas (less than 20 percent), the low urban fertility has only minimal impact on fertility for the country as a whole. The table also shows a GFR of 217 live births per 1,000 women and a crude birth rate of 42 live births per 1,000 population. This is a decrease from 230 and 45, respectively, since the 2006 UDHS.

Figure 5.1 shows that Uganda and Zambia have the highest TFRs in eastern and southern Africa with 6.2 live births per woman.

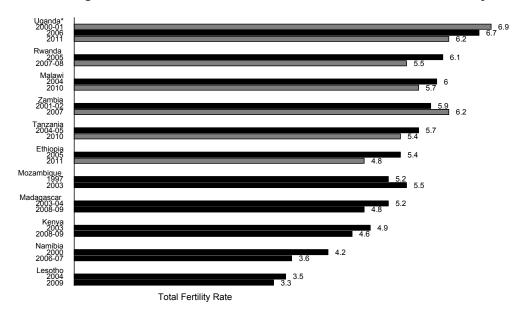


Figure 5.1: TFR in eastern and southern Africa, DHS surveys

# 5.3 FERTILITY DIFFERENTIALS BY BACKGROUND CHARACTERISTICS

As observed in earlier surveys, fertility varies by the respondent's characteristics, such as residence and education. In this report, fertility differentials are measured using the TFR, the percentage of women age 15-49 who are currently pregnant, and the mean number of children ever born to women age 40-49. The mean number of births to women age 40-49 is an indicator of cumulative fertility; reflecting the fertility performance of older women approaching the end of their reproductive span. If fertility remains stable over time, the TFR and the number of children ever born tend to be very similar. The percentage of women pregnant provides a useful additional measure of current fertility, though it may not capture pregnancies in early stages because early pregnancies are often undetected.

<sup>\*</sup> In the 2000-2001 UDHS, areas making up the districts of Amuru, Nwoya, Bundibugyo, Ntoroko, Gulu, Kasese, Kitgum, Lamwo, Agago, and Pader were excluded from the sample. These areas contained about 5 percent of the national population of Uganda. Thus, the trends need to be viewed in that light.

Table 5.2 shows substantial variations across background characteristics. By region, the TFR in Kampala, which is mostly urban, is almost half the national level (3.3 and 6.2, respectively). Since the 2006 UDHS, the TFRs in the Eastern, East Central, and West Nile regions have remained above the national level (7.5, 6.9, and 6.8, respectively). The difference between the TFR and completed fertility is an indicator of the magnitude and direction of fertility. Table 5.2 shows that the difference between the mean number of children ever born to women age 40-49 and TFR is one child, 0.4 higher than that in the 2006 UDHS (0.6), reflecting a larger decline in fertility in the last five years than in the previous five years.

Women's education and their household wealth status show a strong negative relationship with their fertility level. Women with no education have on average 6.9 children compared with 4.8 children for women with more than secondary education. Similarly, the TFR decreases from 7.9 children among women in the lowest wealth quintile to 4.0 children among women in the highest wealth quintile.

Table 5.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Uganda 2011

Background characteristic	Total fertility rate	Percentage women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence Urban Rural	3.8 6.8	8.2 12.5	5.5 7.5
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	3.3 5.6 6.3 6.9 7.5 6.4 6.3 6.8 6.4 6.2	8.3 9.9 9.6 13.7 12.5 18.7 12.4 10.4 13.2 11.3	5.0 7.2 7.1 7.9 7.5 7.5 7.3 7.4 7.4 7.2
Education No education Primary Secondary+	6.9 6.8 4.8	11.9 12.3 10.1	7.7 7.4 5.5
Wealth quintile Lowest Second Middle Fourth Highest	7.9 7.1 6.9 6.1 4.0	15.2 14.6 12.4 9.2 8.5	7.8 7.6 7.8 7.3 5.7
Total	6.2	11.7	7.2

Note: Total fertility rates are for the period 1 to 36 months prior to interview.

### 5.4 FERTILITY TRENDS

One way to examine trends in fertility is to use retrospective data from the birth histories collected in the 2011 UDHS. Table 5.3.1 shows age-specific fertility rates for successive five-year periods preceding the 2011 UDHS. Because women age 50 and older were not interviewed in the survey, the rates are successively truncated as the number of years before the survey increases. Fertility rates are lower in every age group during the period zero to four years before the survey than they are in the period five to nine years before the survey, suggesting a recent decline in fertility. In the 2011 UDHS, as in the 2006 UDHS, the largest decline is in age group 15-19.

Table 5.3.1 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Uganda 2011

Mother's age at	Num	nber of years	preceding su	ırvey
birth	0-4	5-9	10-14	15-19
15-19 20-24 25-29 30-34 35-39 40-44 45-49	146 304 298 243 182 82 [26]	173 319 318 284 212 [130]	207 334 329 283 [236]	211 349 342 [295]

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates exclude the month of interview.

Another way to examine fertility trends is to compare current estimates with earlier surveys. Table 5.3.2 and Figure 5.2 show the ASFRs for the 2000-01, 2006, and 2011 surveys. In the 2000-2001 UDHS, areas making up the districts of Amuru, Nwoya, Bundibugyo, Ntoroko, Gulu, Kasese, Kitgum, Lamwo, Agago, and Pader were excluded from the sample. These areas contained about 5 percent of the national population of Uganda. Thus, the trends need to be viewed in that light. The largest differences are observed in the age group 15-19. The ASFR for this age group has declined steadily from 178 in the 2000-01 UDHS to 134 in the 2011 UDHS, indicating a trend towards later age at marriage, first intercourse, and first birth. ASFRs in other age groups have changed more gradually.

<u>Table 5.3.2 Trends in age-specific and total fertility rates, Uganda 2000-01, 2006, 2011</u>

Age-specific and total fertility rates (TFR) for the three-year period preceding several surveys

Mother's age at birth	2000-2001 UDHS <sup>1</sup>	2006 UDHS	2011 UDHS
15-19	178	152	134
20-24	332	309	313
25-29	298	305	291
30-34	259	258	232
35-39	187	190	172
40-44	76	94	74
45-49	40	26	23
TFR	6.9	6.7	6.2

Note: Age-specific fertility rates are per 1,000 women. 

<sup>1</sup> In the 2000-2001 UDHS, areas making up the

<sup>1</sup> In the 2000-2001 UDHS, areas making up the districts of Amuru, Nwoya, Bundibugyo, Ntoroko, Gulu, Kasese, Kitgum, Lamwo, Agago, and Pader were excluded from the sample. These areas contained about 5 percent of the national population of Uganda. Thus, the trends need to be viewed in that light.

350 300 Rate (per 1,000 women) 250 200 150 100 50 0 15-19 20-24 25-29 30-34 35-39 40-44 45-49 Mother's age at birth

**★**2000-01 **◆**2006 **+**2011

Figure 5.2 Trends in fertility

Note: In the 2000-2001 UDHS, areas making up the districts of Amuru, Nwoya, Bundibugyo, Ntoroko, Gulu, Kasese, Kitgum, Lamwo, Agago, and Pader were excluded from the sample. These areas contained about 5 percent of the national population of Uganda. Thus, the trends need to be viewed in that light.

# 5.5 CHILDREN EVER BORN AND LIVING

Table 5.4 gives the percent distribution of women by the number of children ever born for all women and women currently married, by five-year age groups. The table also presents the mean number of children ever born.

In Uganda childbearing starts early and is nearly universal. Eight in ten women age 15-19 have never given birth compared with only one in four women age 20-24. In the subsequent age groups the percentage of women who have never given birth drops to 5 percent or lower.

The mean number of children ever born among women age 15-19 has remained at 0.2 live births per woman since the 2006 UDHS. By her late twenties, a woman in Uganda has given birth to more than three children and by her late thirties to more than six children. These findings are similar to those of the 2006 UDHS.

Currently married women have had more births than all women in all age groups. The largest difference is still in the youngest age groups (15-19) because a large number of unmarried young women are not exposed to the risk of pregnancy. Currently married women age 15-19 have an average of almost one child compared with 0.2 children for all women. Differences at older ages reflect the impact of marital dissolution through divorce and widowhood.

The last column in Table 5.4 shows the mean number of children who survive. The difference between the mean number of children ever born and living children is an indicator of the level of mortality in the population.

Because voluntary childlessness is rare in Uganda, it is assumed that most married women with no births are unable to physiologically bear children. The percentage of women who are childless at the end of the reproductive period is an indirect measure of primary infertility (the proportion of women who are unable to bear children at all). Table 5.4 shows that primary infertility is low and has remained the same at about 3 percent since the 2006 UDHS.

Table 5.4 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born and mean number of living children, according to age group, Uganda 2011

				١	lumber o	f children	ever bor	n						Mean	Mean
Age	0	1	2	3	4	5	6 ALL	7 WOMEN	8	9	10+	Total	Number of women	children ever born	number of living children
15-19	81.9	13.3	4.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,048	0.24	0.22
20-24 25-29 30-34	23.9 4.8 2.9	24.9 9.4 3.3	27.6 18.3 7.0	16.1 20.1 9.8	6.3 22.9 16.0	1.1 14.6 18.2	0.0 7.4 17.2	0.2 2.0 16.1	0.0 0.5 6.6	0.0 0.1 2.2	0.0 0.0 0.6	100.0 100.0 100.0	1,629 1,569 1,086	1.60 3.34 4.97	1.47 3.04 4.37
35-39 40-44	1.6 1.2	1.7 1.8	4.2 2.8	5.8 4.8	9.8 6.1	12.0 7.6	16.0 13.7	17.6 14.1	14.2 16.1	8.8 13.9	8.4 18.0	100.0 100.0	1,026 729	6.27 7.13	5.37 6.00
45-49 Total	3.4 25.6	2.0 10.4	3.4 11.3	4.4 9.4	4.9 9.3	8.7 7.8	10.9 7.3	9.6 6.3	13.3 4.9	12.5 3.4	26.9 4.4	100.0 100.0	587 8,674	7.36 3.42	5.96 2.97
						CURR	ENTLY N	//ARRIED	WOME	N					
15-19 20-24 25-29 30-34 35-39 40-44 45-49	38.0 8.7 1.5 1.0 1.1 0.7 2.8	40.2 26.0 7.4 2.7 1.2 1.2 1.3	18.9 33.0 17.5 5.8 3.3 1.7 2.8	2.9 21.8 20.6 8.7 5.3 4.5 2.6	0.0 8.6 24.7 14.9 8.6 5.3 4.0	0.0 1.5 16.6 18.6 10.9 7.9 7.6	0.0 0.0 8.6 18.8 16.3 11.5 7.6	0.0 0.2 2.3 18.6 19.5 14.6 9.3	0.0 0.0 0.6 7.7 14.6 15.9 13.0	0.0 0.0 0.2 2.4 10.0 15.1 14.4	0.0 0.0 0.0 0.8 9.1 21.4 34.6	100.0 100.0 100.0 100.0 100.0 100.0	409 1,097 1,295 880 820 553 364	0.87 2.01 3.60 5.27 6.50 7.47 7.98	0.80 1.84 3.27 4.64 5.59 6.33 6.53
Total	5.6	10.9	14.1	12.4	12.2	10.3	9.3	8.7	6.1	4.5	6.0	100.0	5,418	4.47	3.90

# 5.6 BIRTH INTERVALS

Birth interval is the length of time between two live births. The recommended interval before the any two births is at least two years, to reduce morbidity and mortality risks for the mother and baby. Research has shown that short birth intervals are closely associated with poor health of children, especially during infancy. Longer birth intervals, on the other hand, contribute to improved health status of both mother and child. They allow the mother to recover physically and emotionally before she becomes pregnant again and must face the demands of another pregnancy and birth, with the added stressors of breastfeeding and child care.

The study of birth intervals uses two measures, namely median birth interval and proportion of non-first births that occur both before and after an interval of 24 months after the previous birth. Table 5.5 presents the distribution of second and higher order births in the five years preceding the survey by the number of months since the previous birth, according to background characteristics. The table also presents the median number of months since the last birth.

The findings in Table 5.5 indicate that a quarter of non-first births (25 percent) occur within 24 months of the previous birth, 41 percent occur between 24 and 35 months, 18 percent between 36 and 47 months, and 16 percent after 48 months (four or more years). The overall median birth interval is 30.2 months.

These findings show a very slight change in the birth intervals over time. The proportion of births with an interval of 48 months or longer from a preceding birth has increased from 13 percent in 2000-01 to 16 percent in 2011, while the proportion of births within an interval of less than 24 months has decreased from 28 percent in 2000-01 to 25 percent in both 2006 and 2011.

Similar to the findings of the 2006 UDHS, younger women are more likely than older women to have shorter birth intervals (less than 24 months). The median birth interval increases with age from 25.9 months among women age 15-19 to 34 months among women age 40 and over.

The median birth interval does not vary by the sex of the preceding birth or the birth order. However, median birth intervals do vary by the survival of the preceding birth. The median interval for births following a child that died is 24.5 months compared with 30.6 months for births following a surviving birth. Births in rural areas have a median birth interval of 29.8 months compared with 35.1 months for births in urban areas.

There are variations in birth intervals across regions. Kampala has the longest median birth interval (37.5 months) compared with other regions. East Central, Eastern, and Karamoja regions have the shortest median interval (28 months or less). There is no clear pattern in the variation by education and wealth.

Table 5.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Uganda 2011

		Mo	nths since	preceding b	irth				Median
Background characteristic	7-17	18-23	24-35	36-47	48-59	60+	Total	Number of non- first births	number of months since preceding birth
Age									
15-19	15.5 10.0	23.5 17.8	38.3 43.8	15.3 17.6	5.7 5.8	1.8 5.1	100.0 100.0	107	25.9 28.8
20-29 30-39	8.1	14.5	43.6 37.9	18.1	9.2	12.2	100.0	3,348 2,547	20.0 32.0
40-49	5.8	14.8	34.1	19.9	7.8	17.6	100.0	635	34.0
Sex of preceding birth									
Male	9.2	16.7	40.6	17.8	6.9	8.7	100.0	3,294	30.1
Female	8.7	16.0	40.4	18.0	7.6	9.3	100.0	3,343	30.4
Survival of preceding birth Living	6.8	16.0	42.2	18.4	7.5	9.1	100.0	5,990	30.6
Dead	28.3	19.7	24.4	14.2	5.2	8.1	100.0	648	24.5
Birth order									
2-3	9.3	17.0	39.1	18.5	6.9	9.2	100.0	2,508	30.1
4-6 7+	8.5 9.0	15.4 16.9	42.6 39.3	17.5 17.9	6.9 8.4	9.2 8.4	100.0 100.0	2,533 1,596	30.3 30.1
•	9.0	10.9	39.3	17.9	0.4	0.4	100.0	1,590	30.1
Residence Urban	8.2	14.1	29.6	17.7	12.2	18.1	100.0	804	35.1
Rural	9.0	16.7	42.0	18.0	6.6	7.7	100.0	5,833	29.8
Region									
Kampala	6.1	16.8	24.5	18.8	10.3	23.6	100.0	318	37.5
Central 1 Central 2	7.9 11.2	14.0 16.8	41.1 35.5	17.4 17.8	6.6 7.4	13.0 11.4	100.0 100.0	653 690	30.6 31.3
East Central	12.7	17.5	42.0	17.8	4.8	7.1	100.0	792	28.1
Eastern	9.4	18.9	41.9	16.8	6.8	6.1	100.0	1,110	28.4
Karamoja	14.8	20.9	40.8	14.9	5.8	2.8	100.0	273	27.5
North West-Nile	5.7 6.5	11.7 11.8	46.7 45.7	21.3 20.8	8.1 7.2	6.6 8.0	100.0 100.0	611 393	32.4 31.8
Western	8.1	16.9	37.1	20.6 17.9	10.5	9.6	100.0	992	30.8
Southwest	7.2	16.6	44.1	19.0	5.6	7.5	100.0	807	30.3
Education									
No education	10.3	12.9	41.0	20.6	6.9	8.3	100.0	1,095	31.2
Primary Secondary+	8.4 9.5	18.0 13.4	42.0 34.7	16.8 19.7	7.0 8.6	7.7 14.0	100.0 100.0	4,326 1,217	29.5 32.5
,	9.5	10.4	J <del>4</del> .1	19.1	0.0	14.0	100.0	1,417	32.3
Wealth quintile Lowest	9.9	17.2	42.9	18.2	6.4	5.4	100.0	1,564	29.7
Second	8.4	16.4	44.7	17.1	6.6	6.9	100.0	1,440	29.8
Middle	9.5	18.4	41.7	17.0	6.8	6.6	100.0	1,335	29.1
Fourth Highest	8.7 7.9	14.4 14.8	40.2 30.4	18.4 19.2	7.7 9.7	10.6 18.0	100.0 100.0	1,198 1,099	30.8 34.4
•									
Total	8.9	16.4	40.5	17.9	7.3	9.0	100.0	6,637	30.2

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

# 5.7 POSTPARTUM AMENORRHOEA, ABSTINENCE, AND INSUSCEPTIBILITY

Postpartum amenorrhoea refers to the interval between childbirth and the return of menstruation. The length and intensity of breastfeeding influence the duration of amenorrhoea, which offers protection from conception. Postpartum abstinence refers to the period between childbirth and the time when a woman resumes sexual activity. Delaying the resumption of sexual relations can also prolong protection from conception. Women are considered to be insusceptible to pregnancy if they are not exposed to the risk of conception, either because their menstrual period has not resumed since giving birth or because they are abstaining from intercourse after childbirth.

Table 5.6 shows that the median duration of amenorrhoea among women who gave birth in the three years preceding the survey is 9.4 months and the median duration of postpartum abstinence is 2.4 months. The two factors, postpartum amenorrhoea and abstinence, taken together indicate that the median duration of postpartum insusceptibility to pregnancy is 11 months.

Table 5.6 further shows that during the first two months after childbirth, almost all women (99 percent) are insusceptible to pregnancy. The percentage of births in which the mother is amenorrheic, abstaining, and insusceptible is negatively associated with the number of months after a woman gives birth. During the second and third months after giving birth; there is a substantial drop—from 80 percent to 42 percent—in the percentage of women who are protected by postpartum abstinence. Within 12 to 13 months of childbirth, 44 percent of women are

Table 5.6 Postpartum amenorrhoea, abstinence and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Uganda 2011

Months	Percentage of	births for which	the mother is:	Number
since birth	Amenorrhoeic	Abstaining	Insusceptible <sup>1</sup>	of births
< 2	98.3	79.6	98.9	241
2-3	82.8	42.1	85.8	293
4-5	67.7	27.7	72.1	282
6-7	65.5	17.2	69.9	298
8-9	48.5	19.7	56.0	263
10-11	49.4	15.0	54.8	295
12-13	35.0	13.4	44.2	252
14-15	27.9	14.0	33.4	264
16-17	16.5	6.9	20.5	250
18-19	14.1	8.1	20.0	232
20-21	9.6	5.1	13.2	261
22-23	6.1	4.8	9.3	295
24-25	4.2	1.8	5.2	275
26-27	3.0	3.8	5.5	275
28-29	1.5	3.1	4.7	252
30-31	0.9	3.0	3.8	250
32-33	2.5	1.1	3.5	282
34-35	0.0	1.3	1.3	262
Total	30.1	14.8	33.9	4,821
Median	9.4	2.4	11.0	na
Mean	10.9	5.7	12.3	na

Note: Estimates are based on status at the time of the survey.

na = Not applicable

abstaining (or both) following birth

insusceptible to pregnancy, 35 percent are amenorrhoeic, and only 13 percent are abstaining from sexual relations.

Table 5.7 shows that the median duration of postpartum amenorrhoea is longer among women age 30-49 (10.6 months) than among women 15-29 (8.9 months). The duration of postpartum insusceptibility is also longer among women age 30-49 (12.9 months) than among younger women (10.5 months). However, the median length of postpartum abstinence is the same for younger and older women (2.4).

Rural women have a much longer period of postpartum amenorrhoea than urban women (10 and 6.1 months, respectively) and longer median period of postpartum insusceptibility (11.7 and 7 months, respectively). The median length of postpartum abstinence for both rural and urban women is the same (2.4 months).

There are considerable regional variations in postpartum amenorrhoea and insusceptibility. The median duration of postpartum amenorrhoea ranges from 4.4 months in Kampala to 14.8 months in West Nile, while postpartum abstinence ranges from 1.3 months in Southwest to 5.5 months in Karamoja. Postpartum insusceptibility ranges from 4.6 months in Kampala to 16.2 months in West Nile.

The median duration of amenorrhoea and insusceptibility generally declines as the woman's education and household wealth increase. For example, postpartum amenorrhoea lasts 12.7 months among women from the lowest quintile compared with 5.6 months among women from the highest wealth quintile.

Table 5.7 Median duration of amenorrhoea, postpartum abstinence, and postpartum insusceptibility

Median number of months of postpartum amenorrhoea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Uganda 2011

Background characteristic	Postpartum amenorrhoea	Postpartum abstinence	Postpartum insusceptibility <sup>1</sup>
Mother's current age 15-29 30-49	8.9 10.6	2.4 2.4	10.5 12.9
<b>Residence</b> Urban Rural	6.1 10.0	2.4 2.4	7.0 11.7
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest Education	4.4 6.4 9.2 9.4 9.8 12.6 14.8 8.7 11.3	2.4 2.0 2.4 2.4 3.4 5.5 2.5 4.0 1.7	4.6 7.2 9.5 10.8 11.2 14.7 13.2 16.2 9.9 12.5
No education Primary Secondary+	13.3 10.0 6.5	2.9 2.3 2.7	14.3 11.4 8.5
Wealth quintile Lowest Second Middle Fourth Highest Total	12.7 9.8 8.8 9.2 5.6 9.4	4.1 2.3 2.0 2.3 2.3	14.1 10.4 9.7 11.4 7.0
	<b>U.</b> 1	•	0

Note: Medians are based on the status at the time of the survey (current status) 

<sup>1</sup> Includes births for which mothers are either still amenorrhoeic or still abstaining (or both) following birth

# 5.8 MENOPAUSE

Another factor influencing the risk of pregnancy is menopause. Women are considered menopausal if they are neither pregnant nor postpartum amenorrhoeic, and if they have not had a menstrual period in the six months preceding the survey.

Table 5.8 indicates that overall, 9 percent of women age 30-49 in Uganda are menopausal. The proportion of women who are menopausal increases with age, ranging from 3 percent of women age 30-34 to 40 percent of women age 48-49.

5.9 AGE AT FIRST BIRTH

Table 5.8 Menopause

Percentage of women age 30-49 who are menopausal, by age, Uganda 2011

Age	Percentage menopausal <sup>1</sup>	Number of women
30-34 35-39 40-41 42-43 44-45 46-47 48-49	2.6 4.0 9.3 10.2 15.1 19.5 39.7	1,086 1,026 356 265 245 187 263
Total	9.0	3,428

<sup>&</sup>lt;sup>1</sup> Percentage of all women who are not pregnant and not postpartum amenorrhoeic whose last menstrual period occurred six or more months preceding the survey

The age at which childbearing starts has important consequences for the overall level of fertility as well as the health and welfare of the mother and the child. Today, teenage pregnancy and motherhood are a major health and social concern. In some societies, the postponement of age at marriage and age at first birth has contributed to overall fertility decline. However, in many societies, it is common for women to have children before getting married.

Table 5.9 shows that the median age at first birth among women age 20-49 is 18.9 years, similar to the median age reported in the 2006 UDHS. Women age 15-19 are left out in the presentation because less than 50 percent had given birth before age 15. The last column in Table 5.9 shows that the initiation of child bearing in Uganda has not changed much over time. The median age at first birth for women age 20-24 is 19.3 years compared with 18.9 years or younger for older women.

Table 5.9 Age at first birth Percentage of women age 15-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to current age, Uganda 2011

Current age		Percentage	who gave birth	Percentage who have				
	15	18	18 20 22		25	never given birth	Number of women	Median age at first birth
15-19	1.7	na	na	na	na	81.9	2,048	а
20-24	6.6	33.0	57.3	na	na	23.9	1,629	19.3
25-29	8.3	39.3	63.1	78.4	91.8	4.8	1,569	18.9
30-34	10.0	43.7	68.9	81.3	91.7	2.9	1,086	18.5
35-39	9.8	42.1	65.3	82.3	91.8	1.6	1,026	18.7
40-44	13.0	42.8	65.2	82.9	93.4	1.2	729	18.6
45-49	11.0	38.2	59.9	76.1	87.0	3.4	587	18.9
20-49	9.2	39.2	62.9	na	na	8.2	6,626	18.9
25-49	10.0	41.2	64.8	80.2	91.4	3.0	4,997	18.7

Table 5.10 Median age at first birth

As shown in Table 5.10, urban women, women in Kampala and Southwest, women with secondary or higher education, and women in the highest wealth quintile have their first child at age 20, a later age than other women. There is a clear positive relationship between a woman's education and the initiation of child bearing. Women with at least secondary education on average start giving birth at age 20.8 years, 2.7 years later than women with no education.

Median age at first birth am (25-49) years, according to ba Uganda 2011		
Background	Women age	Women age
characteristic	20-49	25-49
Residence Urban Rural	a 18.7	19.6 18.6
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West-Nile Western	a 18.5 18.3 18.1 18.6 19.2 17.9 19.5 18.8	20.2 18.1 18.2 17.9 18.7 19.4 17.8 19.4 18.8
Southwest  Education  No education  Primary	a 18.1 18.3	20.0 18.1 18.3
Secondary+ Wealth quintile Lowest	18.4	20.8
Second Middle Fourth Highest Total	18.5 18.8 18.5 a 18.9	18.5 18.6 18.3 19.6 18.7

a = Omitted because less than 50 percent of the women had a birth before reaching the beginning of the age aroup

na = Not applicable due to censoring a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

### 5.10 TEENAGE PREGNANCY AND MOTHERHOOD

Teenage pregnancy and motherhood has remained a major health and social concern in Uganda because of its association with higher morbidity and mortality for both the mother and child. In addition to the physiological risks, there is a negative effect on the socioeconomic status of the mother, and hence the child, because current school policy is to have pregnant girls terminate their education.

Table 5.11 shows that 24 percent of teenagers have begun childbearing: 18 percent of them have had a live birth and 6 percent are carrying their first child. The findings show that the proportion of teenagers who have started childbearing has declined over time, from 43 percent in the 1995 UDHS, to 31 percent in the UDHS 2000-01, to 25 percent in the 2006 UDHS, and finally, to 24 percent in 2011. As expected, the percentage of women who have started their reproductive life increases with age because of longer exposure, from 2 percent of women age 15 to 58 percent of women age 19.

Rural teenagers start parenthood earlier than their urban counterparts (24 percent versus 21 percent, respectively). Teenage pregnancy also varies greatly with a woman's education. Sixteen percent of girls with secondary education have begun their reproductive life compared with 45 percent of those with no education.

The percentage of teenagers who have begun childbearing varies by region and wealth index of the household. Region wise,

Table 5.11 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, Uganda 2011

Have had a		who have	
live birth	Are pregnant with first child	begun childbearing	Number of women
0.7 5.0 13.1 28.3	0.9 3.5 7.7 9.1	1.6 8.5 20.8 37.4	480 414 367 417 370
16.6 18.4	4.8 6.0	21.4 24.4	395 1,652
15.3 17.1 17.5 23.6 24.5 11.5 17.5 19.7 17.3 11.1	6.3 2.0 5.1 7.0 5.8 18.2 8.2 6.6 5.3 3.4	21.6 19.1 22.6 30.6 30.3 29.7 25.6 26.4 22.6 14.6	190 230 199 202 318 65 181 127 288 249
29.9 20.9 11.4	14.6 6.0 4.4	44.5 26.9 15.8	60 1,327 661
24.0 24.9 20.0 14.1 12.5	10.4 7.9 4.3 5.0 3.3	34.4 32.8 24.3 19.1 15.8	316 346 368 481 537 2,048
	0.7 5.0 13.1 28.3 48.7 16.6 18.4 15.3 17.1 17.5 23.6 24.5 11.5 17.5 19.7 17.3 11.1 29.9 20.9 11.4	0.7 0.9 5.0 3.5 13.1 7.7 28.3 9.1 48.7 8.8 16.6 4.8 18.4 6.0 15.3 6.3 17.1 2.0 17.5 5.1 23.6 7.0 24.5 5.8 219.7 6.6 17.3 5.3 11.1 3.4 29.9 14.6 20.9 6.0 11.4 4.4 24.0 10.4 24.9 7.9 20.0 4.3 14.1 5.0 3.3	0.7         0.9         1.6           5.0         3.5         8.5           13.1         7.7         20.8           28.3         9.1         37.4           48.7         8.8         57.6           16.6         4.8         21.4           18.4         6.0         24.4           15.3         6.3         21.6           17.1         2.0         19.1           17.5         5.1         22.6           23.6         7.0         30.6           24.5         5.8         30.3           11.5         18.2         29.7           17.5         8.2         25.6           19.7         6.6         26.4           17.3         5.3         22.6           11.1         3.4         14.6           29.9         14.6         44.5           20.9         6.0         26.9           11.4         4.4         15.8           24.0         10.4         34.4           24.9         7.9         32.8           20.0         4.3         24.3           14.1         5.0         19.1           12.5

East Central, Eastern, and Karamoja regions have the highest percentages compared with other regions (around 30 percent), while Southwest region has the lowest (15 percent). The percentage of teenagers who have begun childbearing in the poorest households is 34 percent compared with only 16 percent in the wealthiest households.

# **Key Findings**

- About two-fifths (43 percent) of currently married women age 15-49 and one-third (30 percent) of currently married men age 15-49 either want no more children or have been sterilized.
- The desire to limit the number of children in a family has increased somewhat among married men and women over the past decade. The 'ideal' number of children—5 for women and 6 for men— has not changed over the past 10 years among women and men age 15-49.
- The percentage of planned births has decreased from 60 percent in the 2000-01 UDHS to 56 percent in the 2011 UDHS.

he 2011 Uganda DHS included questions to ascertain fertility preferences. Women and men were asked about their desire to have another child, the length of time they would like to wait before having another child, and how many they would consider to be the ideal number of children. These fertility preferences were then used to assess future fertility patterns and potential demand for contraception. The information also was used to construct measures of unwanted or mistimed births.

# 6.1 DESIRE FOR MORE CHILDREN

Information about the desire for more children helps predict future reproductive behaviour in Uganda. The provision of adequate and accessible family planning services depends on the availability of such information. In the 2011 UDHS, currently married women and men were asked about their desire to have another child and, if they had such preferences, they were asked how soon they wanted the child. The same question was phrased differently in the case of pregnant women or men whose spouses or partners were pregnant at the time of the interview; the question then focused on desire for subsequent children after completion of the current pregnancy. Sterilized women and men were considered to want no more children, so they were not asked questions about their desire for more children.

Table 6.1 shows that 14 percent of women and 19 percent of men age 15-49 want to have another child soon (within two years), while 38 percent of women and 46 percent of men want another child in two or more years. Forty percent of women and 29 percent of men do not want any more children, and 3 percent of women and less than 1 percent of men have already been sterilized. Overall, 3 percent of currently married women and 2 percent of currently married men are undecided about having more children.

Fertility preferences have not changed substantially since the 2006 UDHS survey.

Fertility preferences relate closely to the number of living children among both women and men. The desire to limit childbearing increases with the number of living children, from 3 percent among married women and men with no children to 72 percent among women and 52 percent among men with six or more children. On the other hand, almost four-fifths of respondents (79 percent of women and 78 percent of men) with no living children want to have a child soon; in comparison, only 3 percent of women and 10 percent of men with six or more children want to have another soon.

Table 6.1 Fertility preferences by number of living children

Percent distribution of currently married women and currently married men age 15-49 by desire for children, according to number of living children, Uganda 2011

			Numbe	r of living	children			Total	Total	
Desire for children	0	1	1 2		4	5	6+	15-49	15-54	
			WOMEN <sup>1</sup>							
Have another soon <sup>2</sup> Have another later <sup>3</sup> Have another, undecided when Undecided Want no more	78.9 9.4 1.3 0.8 3.1	25.7 67.7 0.9 1.5 3.0	17.2 63.7 1.0 1.7 14.3	16.7 49.3 0.7 3.9 25.9	8.6 37.6 1.0 3.3 46.5	8.9 27.6 0.7 3.3 53.3	3.4 11.9 0.5 2.8 72.4	14.3 37.8 0.8 2.7 39.5	na na na na na	
Sterilized <sup>4</sup> Declared infecund	0.0 6.4	0.0 0.9	0.7 1.3	2.2 1.1	1.6 1.4	4.1 2.1	6.6 2.3	3.0 1.8	na na	
Total Number of women	100.0 192	100.0 660	100.0 871	100.0 790	100.0 738	100.0 665	100.0 1,502	100.0 5,418	na na	
			MEN⁵							
Have another soon <sup>2</sup> Have another later <sup>3</sup> Have another, undecided when Undecided Want no more Sterilized <sup>4</sup> Declared infecund	(77.5) (14.3) (0.0) (0.0) (2.6) (0.0) (4.4)	31.0 67.7 0.9 0.4 0.0 0.0	26.8 63.3 0.5 1.3 6.6 0.0 1.4	21.3 54.7 0.1 4.0 17.3 0.0 0.3	15.8 50.9 3.2 4.2 24.9 0.0 1.0	13.9 37.7 1.2 2.3 45.0 0.0	9.6 32.4 1.9 2.4 52.0 1.1 0.2	19.3 46.1 1.4 2.4 29.4 0.4 0.6	18.1 43.1 1.3 2.7 32.8 0.6 0.9	
Total Number of men	100.0 39	100.0 118	100.0 194	100.0 155	100.0 172	100.0 133	100.0 418	100.0 1,228	100.0 1,338	

na =Not applicable

Figures in parentheses are based on 25-49 unweighted cases.

<sup>4</sup> Includes both female and male sterilization

#### 6.2 DESIRE TO LIMIT CHILDBEARING BY BACKGROUND CHARACTERISTICS

Table 6.2 shows the percentage of currently married women who want no more children (or who are sterilized), by number of living children and background characteristics. Currently married rural women are more likely to want to limit childbearing than their counterparts in urban areas (44 percent versus 37 percent). However, among women with one or more living children, urban women are more likely than rural women to want to limit childbearing. Among regions, married women in Southwest (50 percent) are the most likely to want to limit childbearing, and women in Karamoja are the least likely (27 percent).

Overall, the desire to limit childbearing decreases with increasing education. About half of women (53 percent) with no education want to limit the size of their families compared with about one-third (32 percent) of those with secondary or higher education. However, among women with 4, 5, and 6 living children, there is a clear pattern of those with more education being more likely to want no more children. There is no clear pattern in the variation of this indicator by women's wealth.

For all background characteristics, the desire to limit childbearing among currently married women increases with an increase in the number of living children.

<sup>The number of living children includes the current pregnancy.
Wants next birth within two years</sup> 

<sup>&</sup>lt;sup>3</sup> Wants to delay next birth for two or more years

The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Table 6.2 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, Uganda 2011

Background			Numbe	r of living c	:hildren1			
characteristic	0	1	2	3	4	5	6+	Total
Residence								
Urban	1.0	3.9	19.9	39.6	58.6	70.1	83.0	36.6
Rural	3.7	2.7	13.4	25.6	46.3	55.5	78.6	43.6
Region								
Kampala	(0.0)	4.6	24.9	43.6	62.5	(74.1)	(81.2)	34.6
Central 1	` *′	0.5	9.4	42.2	49.8	`41.4	`73.8	40.6
Central 2	*	8.7	14.7	22.1	41.4	64.1	74.2	41.6
East Central	*	3.6	6.6	27.2	40.2	55.8	80.5	45.7
Eastern	*	3.4	16.6	26.2	47.2	56.4	85.5	46.2
Karamoja	*	1.7	12.5	21.2	33.9	35.8	43.1	27.3
North	*	2.9	6.8	20.4	56.8	57.3	82.2	45.0
West Nile	*	1.8	12.9	24.4	36.8	62.7	74.8	37.9
Western	*	(2.1)	12.3	20.7	46.1	51.6	79.1	39.8
Southwest	*	0.0	23.1	27.3	58.9	73.1	84.1	50.0
Education								
No education	(0.0)	7.6	14.8	27.2	39.6	51.7	77.7	53.2
Primary	0.9	2.9	13.6	28.2	44.5	57.4	79.1	43.4
Secondary +	8.4	2.5	17.4	28.3	63.7	65.1	82.3	32.4
Wealth quintile								
Lowest	0.0	2.9	14.3	19.1	47.0	51.6	75.9	40.8
Second	0.0	4.0	15.8	23.5	52.9	57.5	78.1	43.5
Middle	2.9	2.3	9.9	25.4	31.9	57.1	83.2	43.8
Fourth	0.0	2.6	17.2	34.7	44.1	51.5	78.2	46.7
Highest	7.7	3.0	16.6	36.4	60.7	69.5	79.1	38.3
Total	3.1	3.0	15.0	28.1	48.1	57.3	79.0	42.5

Note: Women who have been sterilized are considered to want no more children. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

The number of living children includes any current pregnancy.

# 6.3 IDEAL FAMILY SIZE

In the preceding section of this chapter, the discussion concentrated on the respondents' current childbearing preferences. These preferences are influenced by the number of children a respondent already has. The 2011 UDHS asked women and men about the total number of children they would like to have in their lifetime. For respondents who already had living children, the question was posed hypothetically: 'If you could go back to the time when you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?' Even though this question is based on a hypothetical situation, it provides two measures. First, for women and men who have not yet started a family, the findings point to the respondent's ideal future fertility. Second, for older and high-parity women, the excess of past fertility reflects the difference between the desired and unwanted fertility. This information helps family planners understand the potential demand for fertility control in Uganda.

Table 6.3 shows that almost all women (97 percent) and men (99 percent) were able to provide a numeric response to the question when asked to assess the ideal family size. Both women and men age 15-49 in Uganda prefer a relatively big family (4.8 children for women and 5.7 children for men). The ideal family size is even higher among currently married respondents age 15-49 when compared with all respondents: 5.1 children for currently married women and 6.6 children for currently married men.

The majority of women and men (81 percent of women and 83 percent of men) want four or more children. By contrast, only 2 percent of women and men do not want children or want just one child.

Table 6.3 shows that the mean ideal number of children increases with the number of living children among both women and men, from 3.9 children for all women and 4.5 children for all men with no children to 6.1 and 8.5 children among respondents with six or more children.

Despite the overall high ideal family size in Uganda, the survey results also reflect evidence of unwanted fertility. For example, 41 percent of women with 6 or more living children say their ideal family size is 5 or fewer. Similarly, one-third of women with 5 children say they ideally would prefer fewer.

The mean ideal number of children among women and men has remained almost unchanged since the 2000-01 UDHS that reported an ideal family size of 4.8 for women and 5.6 for men. This finding could also explain why the total fertility rate in Uganda has remained high over the past decade.

Table 6.3 Ideal number of children by number of living children

Percent distribution of women and men 15-49 by ideal number of children, and mean ideal number of children for all respondents and for currently married respondents, according to the number of living children, Uganda 2011

			Numbe	er of living	children								
Ideal number of children	0	1	2	3	4	5	6+	Total					
		WOI	MEN <sup>1</sup>										
0 1 2 3 4 5 6+ Non-numeric responses	2.4 1.1 14.2 12.7 44.8 10.2 12.9 1.6	0.1 1.0 11.9 15.0 46.4 10.4 14.8 0.4	0.4 0.2 6.3 7.3 55.0 11.1 18.0 1.8	0.7 0.5 4.7 6.6 42.3 15.3 28.5	0.4 0.6 4.8 3.1 33.5 11.6 43.2 2.6	0.1 0.3 3.3 3.8 26.9 11.3 50.2 4.1	1.0 0.4 2.8 2.4 22.5 11.6 53.7 5.7	1.0 0.7 7.5 7.6 38.6 11.4 30.5 2.7					
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0					
Number of women	2,083	1,015	1,121	972	914	792	1,777	8,674					
Mean ideal number children for: <sup>2</sup> All women Number of women Currently married women Number of currently married women	3.9	4.1	4.4	4.8	5.2	5.7	6.1	4.8					
	2,050	1,011	1,100	958	890	760	1,676	8,444					
	4.3	4.2	4.4	4.8	5.1	5.7	6.0	5.1					
	188	658	854	781	721	642	1,419	5,263					
MEN <sup>3</sup>													
0	2.1	1.3	0.0	0.0	0.1	1.0	1.3	1.3					
1	0.7	0.6	0.4	0.0	0.0	0.6	0.0	0.4					
2	7.9	3.7	3.4	3.4	0.9	2.2	1.3	4.5					
3	14.1	17.3	10.4	9.7	2.3	3.8	2.6	9.7					
4	37.0	45.5	38.5	39.3	19.9	14.4	15.2	30.8					
5	16.0	17.6	17.2	17.0	16.2	17.0	8.3	14.9					
6+	21.5	14.1	29.1	29.7	59.8	59.2	67.5	37.1					
Non-numeric responses	0.5	0.0	1.0	0.8	0.8	1.7	3.7	1.3					
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0					
Number of men	871	155	231	172	178	143	424	2,173					
Mean ideal number children for: <sup>2</sup> All men Number of men	4.5	4.5	5.2	5.1	6.2	6.2	8.7	5.7					
	866	155	228	171	177	140	408	2,145					
Currently married men	(4.1)	4.6	5.2	5.2	6.2	6.1	8.7	6.5					
Number of currently married men	39	118	192	154	171	130	402	1,205					
Mean ideal number children for men 15-54: <sup>2</sup> All men Number of men	4.5 867	4.5 158	5.2 231	5.1 177	6.3 188	6.2 151	8.5 489	5.7 2,261					
Currently married men	(4.1)	4.6	5.2	5.2	6.3	6.1	8.6	6.6					
Number of currently married men	39	119	193	160	181	140	476	1,309					

Note: Figures in parentheses are based on 25-49 unweighted cases.

Table 6.4 shows the mean ideal number of children for all women age 15-49, by background characteristics. This increases with the age of the woman, ranging from 4.1 children among women age 15-19 to 6.2 among those age 45-49. The ideal number of children for women is slightly lower among urban women than among rural women (4.1 children versus 5.0 children).

The number of living children includes current pregnancy for women.

Means are calculated excluding respondents who gave non-numeric responses.
 The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

There are differences in the mean ideal number of children by region, with the highest number being in Karamoja (7.2 children) and the lowest number in Kampala (4.0 children). The mean ideal number of children is inversely related to education and wealth. It ranges from 6.2 children among women with no education to 4.0 children among women with secondary or higher education. Similarly, women in the lowest wealth quintile want 5.5 children compared with 4.2 children in the highest wealth quintile.

Table 6.4 Mean ideal number of children	
Mean ideal number of children for all women age 19, by background characteristics, Uganda 2011	5-

Background characteristic	Mean	Number of women <sup>1</sup>
Age 15-19 20-24 25-29 30-34 35-39 40-44 45-49	4.1 4.3 4.7 5.1 5.6 6.0 6.2	2,023 1,610 1,545 1,057 985 688 536
Residence Urban Rural	4.1 5.0	1,689 6,755
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	4.0 4.8 5.0 4.9 5.0 7.2 4.6 5.1 4.9	828 906 871 851 1,252 280 728 480 1,195 1,054
Education No education Primary Secondary +	6.2 4.9 4.0	1,055 5,013 2,376
Wealth quintile Lowest Second Middle Fourth Highest	5.5 4.9 4.9 4.9	1,473 1,530 1,568 1,667 2,205
Total	4.8	8,444

<sup>&</sup>lt;sup>1</sup> Number of women who gave a numeric response

# 6.4 FERTILITY PLANNING

The analysis of the level of fertility planning in a society provides some insight into the degree to which couples are able to control their fertility. To measure the level of unwanted fertility, women in the UDHS were asked, for all children born in the preceding five years, whether the pregnancy was wanted at the time, wanted at a later time, or not wanted at all. For women who were pregnant at the time of the interview, this question was also asked with reference to the current pregnancy. The procedure required the respondents to recall accurately their wishes at one or more points in the last five years. Care has to be exercised in interpreting these results because an unwanted conception may have become a cherished child, leading to the rationalization of responses to these questions. The rationalization of the responses may result in an underestimate of the true extent of unwanted births.

Table 6.5 shows that in the five years preceding the survey, 56 percent of births were planned (wanted then), 32 percent were mistimed (wanted later), and 12 percent were unwanted. Generally, the proportion of planned births decreases and the proportion of unwanted births increases with an increase in the birth order. Sixty-four percent of first-order births were wanted when they occurred compared with 48 percent of fourth and higher-order births. On the other hand, only 2 percent of first-order births were unwanted compared with 21 percent of fourth and higher-order births. The proportion of mistimed births does not vary much by birth order. The proportion of planned births and mistimed births tends to decrease with a woman's age, while the proportion of unwanted births increases with an increase in women's age. For example, the percentage of unwanted births increases from 2 percent among mothers below age 20 to 50 percent among mothers age 40-44.

Table 6.5 Fertility planning status

Percent distribution of births to women age 15-49 in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Uganda 2011

		Planning st	atus of birth			
Birth order and mother's age at birth	Wanted then	Wanted later	Wanted no more	Missing	Total	Number of births
Birth order						
1	64.1	34.1	1.5	0.2	100.0	1,609
2	66.3	31.8	1.7	0.1	100.0	1,524
3	62.4	35.0	2.6	0.0	100.0	1,303
4+	48.4	30.0	21.4	0.1	100.0	4,650
Mother's age at birth						
<20	58.1	40.0	1.7	0.2	100.0	1,512
20-24	63.7	33.9	2.3	0.1	100.0	2,678
25-29	58.8	33.6	7.5	0.1	100.0	2,208
30-34	48.9	29.4	21.4	0.3	100.0	1,440
35-39	44.3	18.5	37.2	0.0	100.0	918
40-44	36.8	12.5	50.3	0.4	100.0	285
45-49	(20.5)	(5.0)	(74.5)	(0.0)	100.0	45
Total	56.2	31.8	11.9	0.1	100.0	9,086

Note: Figures in parentheses are based on 25-49 unweighted cases.

The percentage of planned births has decreased from 60 percent in the 2000-01 UDHS to 56 percent in the 2011 UDHS. On the other hand, the percentage of mistimed births has increased from 25 percent to 32 percent over the same period.

# 6.5 WANTED FERTILITY RATES

The wanted fertility rate measures the potential demographic impact of avoiding unwanted births. It is calculated in the same manner as the total fertility rate but excludes unwanted births from the numerator. A birth is considered wanted if the number of living children at the time of conception is less than the ideal number of children reported by the respondent. The gap between wanted and actual fertility shows how successful women are in achieving their reproductive intentions. This measure also may be an underestimate because women may not want to report an ideal family size that is lower than their actual family size.

The total wanted fertility rates in Table 6.6 represent the levels of fertility that would have prevailed in the three years preceding the survey if all unwanted births had been avoided. Overall, women have 1.7 children more than their ideal number (6.2 children compared with 4.5 children). This implies that the total fertility rate (TFR) is higher by almost two children than it would be if unwanted births were avoided.

The gap between wanted and observed fertility rates is wider among women who live in rural areas (2.0 children) than among women who live in urban areas (0.6 children). The gap is widest among women residing in East Central region (2.5 children) and narrowest among women living in Kampala (0.4 children).

The difference between wanted and observed total fertility rates varies from 1.0 child among women with secondary or higher education to 1.9 children among women with no education or only primary school. There is an inverse relationship between the wanted fertility rate and wealth quintile. The gap between wanted and actual fertility rates ranges from 0.7 children among women in the highest wealth quintile to 2.3 children among women in the lowest wealth quintile.

The comparison between the findings of the 2000-01 and 2011 UDHS surveys reveals that the gap between wanted and actual fertility rates has increased slightly, from 1.6 to 1.7 children.

### Table 6.6 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Uganda 2011

	Total	
Background	wanted	Total
characteristic	fertility rates	fertility rate
Residence		
Urban	3.2	3.8
Rural	4.8	6.8
Danier		
Region	2.9	3.3
Kampala Central 1	2.9 4.2	ა.ა 5.6
Central 2	4.2 4.6	5.6 6.3
East Central	4.0 4.4	6.9
Eastern	5.3	7.5
Karamoja	5.8	7.5 6.4
North	4.3	6.3
West Nile	5.1	6.8
Western	4.7	6.4
Southwest	4.4	6.2
	7.7	0.2
Education		
No education	5.0	6.9
Primary	4.9	6.8
Secondary +	3.8	4.8
Wealth quintile		
Lowest	5.6	7.9
Second	4.9	7.1
Middle	5.0	6.9
Fourth	4.4	6.1
Highest	3.3	4.0
Total	4.5	6.2
-		

Note: Rates are calculated based on births to women age 15-49 in the period 1 to 36 months preceding the survey. The total fertility rates are the same as those presented in Table 5.2.

# **Key Findings**

- Awareness of at least one method of contraception in Uganda is nearly universal.
- Three in ten currently married women are using a method of contraception, with most women using a modern method (26 percent).
- Injectables remain the most commonly used method of contraception among currently married women (14 percent).
- The use of modern methods of family planning has consistently increased over the past decade, growing from 14 percent of currently married women in 2000-01 (excluding LAM) to 26 percent in 2011.
- The government sector remains the major provider of contraceptive methods for nearly half of the users of modern contraceptive methods (47 percent).
- Forty-three percent of family planning users in Uganda discontinue use of a method within 12 months of starting its use. Fear of side effects is the main reason for discontinuation (16 percent). The pill has the highest discontinuation rate (54 percent).
- Only one-third of the users of the rhythm/moon beads method know when the fertile period occurs.
- About one-third (34 percent) of currently married women have an unmet need for family planning services, with 21 percent in need of spacing and 14 percent in need of limiting.

he government of Uganda is committed to improving family planning use and access in the country as highlighted in various government plans and policies. The five-year National Development Plan (2010/11-2014/15) acknowledges that limited access to family planning services hinders overall development of the society and of women in particular. One of the goals outlined in the plan is to reduce unmet need for family planning by ensuring access to family planning services, especially in rural areas (NPA, 2010). Furthermore, the 2008 National Population Policy urges special emphasis on family planning and reproductive commodity security, including use of contraceptives (MoFPED, 2008). In addition, some of the strategies in the Health Sector Strategic and Investment Plan (2010/11-2014/15) are geared toward improvement of overall sexual and reproductive health and rights of the population. Goals include provision of integrated family planning services in all health facilities at all levels, procurement and distribution of contraceptives to men and women of reproductive age, and design of programmes to engage men in family planning services and use. Budget constraints, however, serve as a major impediment to these interventions (MOH, 2010b).

This chapter presents information on knowledge of various contraceptive methods and discusses past and current prevalence. For users of periodic abstinence (the rhythm method), knowledge of the ovulatory cycle is examined; for those relying on sterilization, the timing of the procedure is assessed. Also discussed are the source of modern contraceptive methods, informed choice, discontinuation rates and reasons for discontinuation, unmet need for family planning, nonuse of contraception, and intent to use contraceptive methods in the future. In addition, information is provided on exposure to family planning

messages through the media and contact with family planning providers. These topics are of practical use in formulating efficient and effective family planning strategies and policies. Although the focus is on women, some results from the male survey are presented, because men play an important role in the realization of reproduction goals. Comparisons, where possible, are made with findings from the previous surveys to show trends over the last decade.

# 7.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Knowledge of contraceptive methods is an important precursor to their use. The ability to recognize a family planning method when it is described is a simple test of a respondent's knowledge but does not necessarily indicate the extent of her or his knowledge. The 2011 UDHS collected information on knowledge of contraception by asking respondents whether or not they had heard about 10 modern methods (female and male sterilization, the pill, intrauterine devices [IUDs], injectables, implants, male and female condoms, lactational amenorrhoea [LAM], and emergency contraception) and two traditional methods (rhythm/moon beads and withdrawal). Respondents were also asked whether they knew about other methods in addition to those listed.

Table 7.1 shows that knowledge of at least one contraceptive method is nearly universal in Uganda among both women and men. Modern methods are more widely known than traditional methods; almost all women and men know of a modern method (98 and 100 percent, respectively) compared with 74 percent of all women and 83 percent of all men who know of a traditional method. Among both women and men, the male condom (97 and 99 percent, respectively), injectables (94 and 91 percent), and the pill (93 and 92 percent) are the most well-known modern methods, while LAM (13 and 11 percent) is the least known modern method.

<u>Table 7.1 Knowledge of contraceptive methods</u>

Percentage of all respondents, currently married respondents, and sexually-active unmarried respondents age 15-49 who have heard of any contraceptive method, by specific method, Uganda 2011

		Women			Men	
Method	All women	Currently married women	Sexually active unmarried women <sup>1</sup>	All men	Currently married men	Sexually active unmarried men <sup>1</sup>
Any method	98.2	98.7	99.5	99.7	99.9	99.9
Any modern method Female sterilization Male sterilization Pill IUD Injectables Implants Male condom Female condom Lactational amenorrhoea (LAM) Emergency contraception	98.1	98.6	99.5	99.7	99.8	99.9
	79.2	83.7	85.2	80.2	86.2	81.1
	53.0	57.5	51.0	62.2	68.2	59.2
	92.6	95.2	93.8	92.0	95.1	95.9
	70.2	75.4	75.6	65.5	73.0	74.0
	94.1	96.9	96.4	91.3	95.3	96.0
	77.4	84.5	78.3	62.2	73.5	63.8
	96.6	97.1	98.9	99.2	99.3	99.9
	70.5	72.8	75.3	81.4	85.0	89.5
	13.0	14.6	10.5	11.4	13.5	13.9
	30.7	32.1	39.3	37.1	40.4	51.7
Any traditional method	73.7	80.4	85.8	82.6	90.5	90.9
Rhythm/moon beads	53.3	58.0	58.3	68.7	76.8	75.5
Withdrawal	62.8	70.3	75.2	72.7	81.6	84.1
Folk method	9.5	11.6	8.6	3.5	4.1	5.2
Mean number of methods known by respondents 15-49	8.0	8.5	8.5	8.3	8.9	8.9
Number of respondents	8,674	5,418	320	2,173	1,228	120
Mean number of methods known by respondents 15-54	na	na	na	8.3	8.9	9.0
Number of respondents	0	0	0	2,295	1,338	125

na = Not applicable

Because knowledge of at least one method of contraception is nearly universal, there are few differences in knowledge by background characteristics. The knowledge of any contraceptive method is slightly lower among respondents in Karamoja where 79 percent of all women and 96 percent of all men

<sup>&</sup>lt;sup>1</sup> Had sexual intercourse within 30 days preceding the survey

have heard of a contraceptive method (data not shown). The high level of knowledge could be attributed to the successful dissemination of family planning messages through the mass media.

# 7.2 CURRENT USE OF CONTRACEPTION

This section presents information on the prevalence of current contraceptive use among women age 15-49 at the time of the survey. Level of current use is the most widely employed and valuable measure of the success of family planning programs. The contraceptive prevalence rate (CPR) is usually defined as the percentage of currently married women who are currently using a method of contraception.

Table 7.2 shows the percent distribution by age of all women, currently married women, and sexually active unmarried women who use specific family planning methods. Twenty-four percent of all women, 30 percent of currently married women, and 52 percent of sexually active unmarried women are using some method of contraception.

Users of the modern methods of contraception make up the large majority of all users. Among currently married women, 26 percent are using a modern method and only 4 percent are using a traditional method. The same pattern is observed among all women and unmarried sexually active women. The most commonly used modern method among all women and currently married women is injectables (used by 11 percent of all women and 14 percent of currently married women), while the most commonly used methods among unmarried sexually active women are the male condom (19 percent) and injectables (18 percent).

Current contraceptive use varies by age. Use is lowest among young women below age 25 (because they are in the early stages of family building) and among older women age 45 and above (some of whom are no longer fecund) than among those at the intermediate age groups. For example, 14 percent of currently married women age 15-19 report current use of any contraceptive method. This proportion increases until it peaks at 38 percent among those age 35-44, after which it decreases to 21 percent among women age 45-49. A similar pattern is observed among all women.

Table 7.2 Current use of contraception by age

Percent distribution of all women, currently married women, and sexually active unmarried women age 15-49 by contraceptive method currently used, according to age, Uganda 2011

	Number of women		2,048	1,569	1,086	1,026 729	587	8,674		409	1,097	1,295	880	820	553	364	5,418		80	81	201	320	
	Total		100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	0.00	100.0	
Not currently Folk using	93.2	68.4	66.5	65.5 0 0	82.5	76.4		86.1	77.1	68.0	64.6	62.2	62.5	79.5	70.0		54.9	45.7		48.2			
	0.0	0.3	8.0	ი. ი. ი	0.7	0.4		0.0	0.0	4.0	1.0	0.7	0.7	6.0	0.5		0.0	4.0	7:7	1.2			
Traditional method	With- drawal		0.6	0. 0.	4.	ا. 9 د	2.0	1.5		0.8	1.9	2.1	1.8	2.1	3.1	3.2	2.1		6.6	4 -	<u>†</u>	4.2	
Tra	Rhythm/ moon beads		0.2	1.0	<u>د</u> . د	ر دن بر	0.8	1.		0.0	9.0	1.7	4.	1.6	3.1	1.2	1.4		0.0	2.0		2.2	
	Any tradi- tional method		9.0	3.9 9.0	3.5	4.7 1.4	4.	2.9		0.8	2.5	4.2	4.2	4.0.0 4.0.0	4.0			0.5		7.5			
	LAM		0.0	0.5	0.2	S C	0.0	0.1	N	0.1	0.1	0.3	0.3	0.3	0.0	0.0	0.2	′OMEN¹	0.0	0.0	9	0.0	
	Male	IEN	2.9	ι κ 5 4.	3.1	3.2 5.2 6.2	1.7	3.2	RIED WOME	3.8	2.5	2.8	2.5	3.3	5.6	1.2	2.7	1ARRIED W	24.3	23.3	14.7	19.0	
	Implants	ALL WOMEN	0.2	3.5	3.3	ω. <del>-</del> ω. κ	0.6	1.9	CURRENTLY MARRIED WOMEN	2.0	1.	3.6	3.6	4.7	1.7	6.0	2.7	CTIVE UNN	0.0	- c 5:5	9.	2.4	
method	Inject- ables		2.6	16.9	16.8	13.5	3.7	10.7	CURRE	8.0	13.4	17.1	17.7	14.3	12.6	4.8	14.1	SEXUALLY ACTIVE UNMARRIED WOMEN	9.6	15.9	7.07	18.2	
Modern method	anı		0.0	0.7		8. C		0.4		0.0	0.5	0.8	0.5	6.0	0.3	0.0	0.5	S	0.0	0.0	7.0	0.1	
	⊪Ā		0.3					2.1		0.5	2.9	2.6	4.7	2.9	4 L.	0.5	2.9		1.3	7.1	00	4.0	
	Male sterili- zation		0.0	0.5	0.0	0.0	0.5	0.1		0.0	0.0	0.2	0.0	0.0	0.0	4.0	0.1		0.0	0.0	9	0.0	
	Female sterili- zation		0.0	0.0	2.0	0.0	5.4	2.2		0.0	0.0	0.3	2.0	6.9	9.4	7.3	2.9		0.0	0.0	7:1	9.0	
	Any modern method		6.0	27.6	30.0	30.3 26.5	14.1	20.7		13.1	20.4	27.8	31.2	33.4	30.6	15.2	26.0		35.3	47.9	<b>t</b> 5	44.3	
	Any method		6.8	31.6	33.5	34.5 3.0	17.5	23.6		13.9	22.9	32.0	35.4	37.8	37.5	20.5	30.0		45.1	54.3	9.50	51.8	
	Age		15-19	25-24	30-34	35-39 40-44	45-49	Total		15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total		15-19	20-24	+07	Total	

Note: If more than one method is used, only the most effective method is considered in this tabulation.

LAM = Lactational amenorrhoea method <sup>†</sup> Women who have had sexual intercourse within 30 days preceding the survey

# 7.3 CURRENT USE OF CONTRACEPTIVE BY BACKGROUND CHARACTERISTICS

Analysing current use of contraception by background characteristics helps to identify subgroups of the population that may need to be targeted for family planning services. Table 7.3.1 presents the percent distribution of currently married women by their use of family planning methods, according to background characteristics. The table allows a comparison of levels of current contraceptive use across major population groups.

There are variations in current use of contraception among subgroups. There is a direct association between use of family planning methods and the number of children that women have. The majority of women do not begin to use contraception until they have had at least one child. Only five percent of married women with no living children use contraception; the percentage increases to 27 percent among women with one or two children and to 34 percent among women with three or more children.

There is a wide gap in the use of any methods between urban and rural areas (46 percent versus 27 percent). Distribution by region shows that the percentage of currently married women using a contraceptive method is highest in Kampala (48 percent) and lowest in Karamoja (8 percent).

The use of contraception increases with education. Forty-four percent of currently married women with secondary or more education are using a contraceptive method compared with 18 percent of those with no education. Contraceptive use also increases as household wealth increases, from 15 percent of women in the lowest wealth quintile to 46 percent among those in the highest wealth quintile.

As mentioned above, by far the most commonly used method among currently married women is injectables, used by 14 percent of women. Use of injectables follows the same pattern as use of any contraceptive method: it increases with number of living children, education, and wealth. Injectable use is higher in urban than in rural areas (20 percent versus 13 percent) and is highest in Kampala (19 percent) and lowest in Karamoja (3 percent). The rhythm, or moon beads, method is used by 1 of currently married women. Female sterilization, the pill, implants, and male condoms are used by 3 percent each.

Table 7.3 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Uganda 2011

						Modern method	method					Trad	Traditional method	pot			
Background characteristic	Any method	Any modem method	Female sterili- zation	Male sterili- zation	Pill	IUD	Inject- ables	Implants	Male	LAM	Any tradi- tional method	Rhythm/ moon beads	With- drawal	Folk	Not currently using	Total	Number of women
Number of living children 0 1-2 3-4 5-4	5.1 27.1 33.5 33.8	4.2 23.7 29.1	0.0	0.000	1.8 3.1 0.0	0.0 6.1.1 0.0	13.8 16.4 16.4	0.0 3.6 3.6	1.2 2.8 2.8 7	0.0 0.2 0.1	0.8 8.4.4.6	0 2.5 4 4	0.0 9.1 9.2 0.5	0.000	94.9 72.9 66.5	100.0 100.0 100.0	341 1,532 1,475
Residence Urban Rural	26.9 26.9 26.9	39.2 23.4	3.5 3.0 3.0	0.02	2 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1.6 0.3	12.9	2 T S S S S S S S S S S S S S S S S S S	2.3 7.2	0.6	. 6.8 . 6.8		3.3 1.9	0.6 0.5 0.5	54.2 73.1	100.0	4,526
Region Kampala Central 1 Central 2 East Central	48.2 37.3 33.7 32.0	40.2 30.7 30.7 27.7	0.2.4.8. 0.2.9.9.	0 0 0 0 0 0 0	0.3 9.0 5.5 5.5	6.0 0.8 0.5 0.2	19.3 14.3 16.3	1.6 3.2 3.4 0.6	4.8.8.4 7.4.8.5.4	0.0 1.2 0.0		8.8.0 9.6.0 1.4.4	2.3.3 5.5.6 5.5.6	0.6 0.0 7.1	51.8 62.7 66.3 68.0	100.0 100.0 100.0	397 559 565 580
Eastem Karamoja North West Nile Western Southwest	26.1 7.8 23.9 14.6 32.7 29.6	23.2 7.4 23.4 13.6 26.8 25.1	4.0.21.2.2 1.2.2.2.2 1.2.2.2.2.2.2.2.2.2.2.	000000	0 4 & @ G G & G G	0.0 0.0 0.0 0.5 7:0 8:0	15.3 7.21 7.34 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	2 4 3 5 5 6 8 4 4 8 5 5 6 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2.0 0.0 2.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6	0.0000 0.0000 0.0000	0.000.04 0.4.0.004	2.000.00 2.004.00 2.004.00	2.20 0.34 2.22 7.23	0.00 0.00 0.00 0.00 0.00 0.00	73.9 92.2 76.1 85.4 67.3	100.0 100.0 100.0 100.0 100.0	859 215 487 330 743 681
Education No education Primary Secondary +	17.9 28.0 44.2	15.5 24.5 37.7	3.2 1.9	0.00	7.1 9.1 6.5	0.1 0.4 0.1	6.3 19.9	2.2 2.9 3	1.7 2.0 5.3	0.0 0.1 4.0	2.5 6.5 5.5	1.3 0.8 3.1	0.9 3.0	0.3 0.3 0.3	82.1 72.0 55.8	100.0 100.0 100.0	877 3,313 1,227
Wealth quintile Lowest Second Middle Fourth Highest	7.45 23.25 29.32 46.2 30.0	12.7 24.7 24.7 31.0 39.1	0.0.0.4.6. 0 0.0.8.0.4. 0	0.0000 0	01-02-02-04-04-04-04-04-04-04-04-04-04-04-04-04-	000001 00447 00447	8.2 1.3.5 1.3.5 1.8.1 1.4.1	2 2 3 2 5 2 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	2.5 2.5 5.5 7.7 7.7	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.02447 4 0.0600 0.000 0.000	0.0 8.0 6.0 7.1 8.0 8.0 7.0 8.0 7.0 8.0	2.1.2 3.1.2 3.6 1.2 1.2	0.00 0.00 0.00 0.00 0.00	85.3 76.8 70.7 65.0 53.8	100.0 100.0 100.0 100.0 100.0	1,063 1,101 1,042 997 1,215 5,418

Note: If more than one method is used, only the most effective method is considered in this tabulation. LAM = Lactational amenorrhea method

# 7.4 TRENDS IN CURRENT USE OF FAMILY PLANNING

Not currently using

Number of women

Total

Table 7.4 and Figure 7.1 show trends in contraceptive use since the 2000-01 Uganda DHS. Use of contraceptive methods by currently married women has increased over the last decade, from 19 percent in 2000-01 to 30 percent in 2011. One of the targets of the Ministry of Health in the Health Sector Strategic and Investment Plan is an increase in the contraceptive prevalence rate from 24 percent in 2006 to 35 percent in 2015. The results in the 2011 UDHS show that the government is on track to achieve this indicator (MoH, 2010b).

Table 7.4 Trends in the current use of contraception

Percent distribution of cur contraceptive method currently			15-49 by
Method	2000-01	2006	2011
	UDHS	UDHS	UDHS
Any method <sup>1</sup>	18.6	23.7	29.9
Any modern method <sup>1</sup> Female sterilization Male sterilization Pill IUD Injectables Implants Male condom	14.0	17.9	25.9
	2.0	2.4	2.9
	0.0	0.1	0.1
	3.2	2.9	2.9
	0.2	0.2	0.5
	6.4	10.2	14.1
	0.3	0.3	2.7
	1.9	1.7	2.7
Any traditional method	4.6	5.8	4.0
Rhythm/moon beads	2.5	2.8	1.4
Withdrawal	1.1	2.1	2.1
Folk/other method	1.0	0.9	0.5

<sup>&</sup>lt;sup>1</sup>Excludes LAM in order to increase comparability across surveys. Note: In the 2000-01 UDHS, areas making up the districts of Amuru, Nwoya, Bundibugyo, Ntoroko, Gulu, Kasese, Kitgum, Lamwo, Agago, and Pader were excluded from the sample. These areas contained about 5 percent of the national population of Uganda. Thus, the trends need to be viewed in that light.

81.4

100.0

4,881

76.3

100.0

5,337

70.0

100.0

5,418

The increase is especially pronounced for the use of modern methods, which has increased from 14 percent to 26 percent during the same period. The use of traditional methods has remained constant at 4 to 6 percent over the last decade

Any method

Any modern

Female sterilization

Pill

Injectables

Male condom

Any traditional

Rhythm/moon beads

Withdrawal

Figure 7.1 Trends in contraceptive use among currently married women

Note: In the 2000-2001 UDHS, areas making up the districts of Amuru, Nwoya, Bundibugyo, Ntoroko, Gulu, Kasese, Kitgum, Lamwo, Agago, and Pader were excluded from the sample. These areas contained about 5 percent of the national population of Uganda. Thus, the trends need to be viewed in that light.

# 7.5 TIMING OF FEMALE STERILIZATION

Folk/other method

Given the effectiveness of female sterilization as a means of preventing pregnancies among women in high-risk groups, the family planning programmes should emphasize dissemination of information about this method. Trends in the use of sterilization as a family planning method are of interest, especially trends in women's age at the time of the operation.

Percentage of currently married women

■2000-01 UDHS ■2006 UDHS 2011 UDHS

Results show that the vast majority (86 percent) of women were age 39 or younger at the time of sterilization (data not shown). Six percent were under 25, 19 percent were age 25-29, 30 percent were 30-34, and 31 percent were 35-39 at the time of the sterilization. Only 14 percent were 40 or older. The median age at sterilization is 33.4 years.

### 7.6 SOURCE OF CONTRACEPTION

Table 7.5 documents the main sources of contraception for users of modern methods. This information is important to those who plan, manage, and implement programmes. In the 2011 UDHS, all current users of modern contraceptive methods were asked the most recent source of their methods.

The public sector is a major source of modern contraceptive methods in Uganda, providing contraception to 47 percent of current users. Within the public sector, 14 percent of users obtain their contraception from government hospitals and 29 percent from government health centers. Forty-five percent of users obtain their methods from the private medical sector, mainly from private hospitals or clinics (40 percent).

Female sterilizations are performed mostly in government hospitals and health centers (53 and 24 percent, respectively). Pill users are almost evenly split between those who rely on public sector sources and those who use private medical sources. Most of the women using implants also obtain them from public sector sources (85 percent). Injectables are mostly obtained from private facilities (60 percent), mainly private hospitals or clinics (57 percent). Four in ten male condom users obtain their condoms from various sources outside of the public and private sectors, primarily shops (33 percent).

Table 7.5 Source of modern contraception methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Uganda 2011

	Female						
	sterili-			Inject-		Male	
Source	zation	Pill	IUD	ables	Implants	condom	Total
Public sector	79.1	45.7	(38.9)	39.0	85.1	28.6	46.6
Government hospital	52.5	12.1	(7.0)	7.4	22.7	7.5	14.2
Government health center	24.2	27.7	(21.9)	29.1	57.0	14.1	28.6
Family planning clinic	1.8	4.4	(5.4)	2.3	2.8	0.6	2.3
Outreach	0.0	0.0	(4.6)	0.1	2.6	3.2	0.9
Fieldworker/VHT	0.0	1.5	(0.0)	0.0	0.0	1.9	0.5
Other public sector	0.6	0.0	(0.0)	0.0	0.0	1.2	0.3
Private medical sector	19.0	51.5	(50.4)	60.1	14.4	28.6	45.4
Private hospital/clinic	17.7	42.5	(46.3)	57.1	8.6	16.2	40.2
Pharmacy	0.0	9.0	(0.0)	1.1	0.0	10.0	3.1
Private doctor	0.0	0.0	(0.0)	0.7	0.0	0.6	0.5
Outreach	0.5	0.0	(4.1))	0.0	2.4	0.2	0.4
Fieldworker/VHT	0.0	0.0	(0.0)	0.1	0.0	0.6	0.2
Other private medical	0.7	0.0	(0.0)	1.0	3.4	1.0	1.1
Other source	0.0	2.7	(7.2)	8.0	0.0	39.7	7.0
Shop	0.0	1.2	(0.0)	0.4	0.0	32.8	5.5
Church	0.0	0.0	(0.0)	0.2	0.0	0.0	0.1
Friends relatives	0.0	1.5	(7.2)	0.2	0.0	7.0	1.5
Other	0.8	0.1	(0.0)	0.1	0.1	3.1	0.6
Don't know	1.1	0.0	(0.0)	0.0	0.0	0.0	0.2
Missing	0.0	0.0	(3.4)	0.1	0.5	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	188	186	31	929	164	280	1,783

Note: Total includes other modern methods but excludes lactational amenorrhoea method (LAM). Figures in parentheses are based on 25-49 unweighted cases.

VHT = Village Health Team

# 7.7 Use of Social Marketing Brands of Pills and Condoms

Women who said they were currently using pills or condoms as a method of contraception were asked which brands of pills and condoms they used. Interviewers presented a brochure with photographs of different brands of pills and condoms to assist the respondents in identification of the brand. At the time of the 2011 UDHS, Pilplan and Microgynon were the socially marketed brands of contraceptive pills, and Engabu, Lifeguard, Trust, and Protector were the socially marketed brands of condoms.

Table 7.6 shows that one in four pill users (25 percent) use Pilplan, and about four in ten (38 percent) use Microgynon. More than half of condom users (54 percent) use Engabu, Lifeguard, or Trust, and about three in ten (29 percent) use Protector. There is no clear pattern in the use of socially marketed brands of pills and condoms by residence.

Table 7.6 Use of social marketing brand pills and condoms

Percentage of pill and condom users age 15-49 using a social marketing brand, by residence, Uganda 2011

		Among pill users	S	Am	ong condom us	sers
Residence	Percentage using Pilplan	Percentage using Microgynon	Number of women using the pill	Percentage using Engabu/ Lifeguard/ Trust	Percentage using Protector	Number of women using condoms
Urban Rural	27.4 23.1	37.1 38.9	82 101	56.8 51.9	22.7 33.1	96 138
Total	25.0	38.1	182	54.0	28.8	234

Note: Table excludes pill and condom users who do not know the brand name. Condom use is based on women's reports

# 7.8 INFORMED CHOICE

Informed choice is an important aspect in determining the quality of family planning services. Current users of modern methods of contraception were asked whether they were informed of side effects or problems they might have with a method, what to do if they experienced side effects, and alternative methods they could use. This information assists users in coping with side effects and decreases unnecessary discontinuation of a method. Moreover, such data serve as a measure of the quality of family planning service provision. Table 7.7 presents results by method type and source.

Fifty-six percent of current users of modern contraceptives were informed about potential side effects or problems with the method they use, 53 percent were told what to do if they experienced side effects, and 59 percent were given information about other methods by a health worker or family planning worker.

Users of implants. IUS, and those who obtained their methods from public sector sources were most likely to be informed about potential side effects or problems associated with the method, what to do if side effects were experienced, and what other methods could be used.

### Table 7.7 Informed choice

Among current users of modern methods age 15-49 who started the last episode of use within the five years preceding the survey, the percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed about other methods they could use, by method and initial source, Uganda 2011

			episode of modern s preceding the sur	
Method/source	Percentage who were informed about side effects or problems of method used	Percentage who were informed what to do if side effects were experienced	Percentage who were informed by a health or family planning worker of other methods that could be used	Number of women
Method				_
Female sterilization	46.5	38.8	49.3	100
Pill	55.1	49.4	68.8	173
IUD	(71.5)	(73.8)	(93.9)	30
Injectables	51.9	49.5	53.7	860
Implants	80.5	81.9	79.1	163
Initial source of method <sup>1</sup>				
Public sector	66.1	63.3	66.9	702
Government hospital	71.0	65.4	68.3	206
Government health center	64.7	63.1	66.7	452
Family planning clinic	(58.0)	(53.5)	(63.6)	38
Other public sector	*	*	*	6
Private medical sector	44.3	42.2	50.7	607
Private hospital/clinic	43.4	40.4	50.1	560
Pharmacy	(48.5)	(56.7)	(51.6)	21
Other private medical sector	*	*	*	26
Total	55.9	53.2	59.4	1,325

Note: Table includes users of only the methods listed individually. Total includes two cases with missing information on the initial source. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

1 Source at start of current episode of use

#### 7.9 CONTRACEPTIVE DISCONTINUATION RATES

Couples can only realize their reproductive goals when they use contraceptive methods consistently and correctly. Discontinuation of a method is a major concern for managers of family planning programmes. In the 2011 UDHS 'Calendar' section of the Woman's Questionnaire, all segments of contraceptive use since 2006 were recorded. During analysis, the month of interview and the two months prior to the survey are excluded to avoid any bias that may be introduced by unrecognized pregnancies. One-year contraceptive discontinuation rates based on the calendar data are presented in Table 7.8.

Forty-three percent of family planning users in Uganda discontinued using the method within 12 months of starting its use. Discontinuation rates are highest for pill users (54 percent) and lowest for users of implants (12 percent). About one in six (16 percent) episodes of discontinuation occurred because of fear of side effects or health concerns, 8 percent because a woman wanted to become pregnant, and 6 percent because a method failed.

Table 7.8 12-month contraceptive discontinuation rates

Among women age 15-49 who started an episode of contraceptive use within the five years preceding the survey, the percentage of episodes discontinued within 12 months, by reason for discontinuation and specific method, Uganda, 2011

			R	Reason for d	iscontinuation	on			_	
Method	Method failure	Desire to become pregnant	Other fertility- related reasons <sup>1</sup>	Side effects/ health concerns	Wanted more effective method	Other method- related reasons <sup>2</sup>	Other reasons	Any reason <sup>3</sup>	Switched to another method <sup>4</sup>	Number of episodes of use <sup>5</sup>
Pill	9.4	6.2	4.4	21.7	2.1	5.9	4.4	54.0	12.5	325
Injectables	3.5	8.9	2.5	23.3	1.1	2.1	5.0	46.5	4.3	840
Implants	0.8	2.0	0.0	8.0	0.0	1.3	0.0	12.0	1.9	19
Male condom	3.9	4.8	17.4	0.7	0.9	4.7	8.4	40.9	4.2	176
Rhythm/moon beads	9.8	7.1	2.2	0.4	1.9	0.3	2.3	23.9	1.9	32
Withdrawal	22.0	10.8	1.5	0.0	4.1	0.9	4.5	43.7	6.0	101
All methods	6.3	7.5	4.3	15.8	1.4	2.6	4.7	42.6	5.2	1,544

Note: Figures are based on life table calculations using information on episodes of use that began 3 to 62 months preceding the survey. Male and female sterilization, IUD, female condom, and LAM are included under 'All methods' and are not shown separately.

#### 7.10 REASONS FOR DISCONTINUATION OF CONTRACEPTIVE USE

Another perspective on discontinuation of modern contraceptive use is provided in Table 7.9, which shows the percent distribution of discontinuations of contraceptive methods in the five years preceding the survey by reasons for discontinuation, according to method. The most common reason for discontinuing a method is health concerns or side effects (32 percent), followed by desire to become pregnant (25 percent) and pregnancy (14 percent). This pattern of reasons is largely the same as those observed for the one-year discontinuation rates. The patterns are also similar for individual methods except for the male condom, for which the main reason for discontinuation was the husband's absence (34 percent), and the rhythm/moon beads and withdrawal, for which the main reason was that the respondent wanted to become pregnant (42 and 30 percent, respectively).

Includes infrequent sex/husband away, difficult to get pregnant/menopausal, and marital dissolution/separation

<sup>&</sup>lt;sup>2</sup> Includes lack of access/too far, costs too much, and inconvenient to use

<sup>&</sup>lt;sup>3</sup> Reasons for discontinuation are mutually exclusive and add to the total given in this column

<sup>&</sup>lt;sup>4</sup> The episodes of use included in this column are a subset of the discontinued episodes included in the discontinuation rate. A woman is considered to have switched to another method if she used a different method in the month following discontinuation or if she gave 'wanted a more effective method as the reason for discontinuation and started another method within two months of discontinuation.

<sup>5</sup> Number of episodes of use includes both episodes of use that were discontinued during the period of observation and episodes of use

that were not discontinued during the period of observation.

Table 7.9 Reasons for discontinuation

Percent distribution of discontinuations of contraceptive methods in the five years preceding the survey by main reason stated for discontinuation, according to specific method, Uganda 2011

					Rhythm/			
_				Male	moon	With-		All
Reason	Pill	Injection	Implants	condom	beads	drawal	Other	methods
Became pregnant while using	14.5	7.3	6.4	13.6	32.5	41.0	56.0	13.9
Wanted to become pregnant	20.5	25.5	34.5	17.4	42.1	30.3	25.7	24.9
Husband disapproved	3.2	3.3	0.4	10.2	4.3	7.5	1.7	4.2
Wanted a more effective method	3.5	1.8	0.0	3.8	9.0	12.3	3.6	3.4
Health concerns/side effects	33.8	45.1	50.1	1.7	0.5	0.0	1.3	32.4
Lack of access/too far	2.6	1.3	2.2	4.3	0.0	0.0	0.0	1.7
Cost too much	0.9	1.5	0.0	0.7	0.0	0.0	0.0	1.1
Inconvenient to use	9.1	1.5	0.0	7.8	2.9	2.4	1.2	3.6
Up to God/fatalistic	0.4	0.1	0.0	0.7	0.0	0.0	0.0	0.4
Difficult to get pregnant/menopausal	0.1	0.4	0.8	0.0	1.0	0.0	1.3	0.3
Infrequent sex/husband away	6.7	4.8	0.6	33.7	2.8	3.1	2.1	7.9
Marital dissolution/separation	1.4	2.4	1.4	1.0	2.7	1.4	1.9	2.0
Other	3.4	4.6	3.2	3.6	2.3	2.0	5.3	4.0
Don't know	0.0	0.3	0.4	1.5	0.0	0.0	0.0	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of discontinuations	461	1,538	57	299	93	197	74	2,760

All methods column include other methods that are too small to be listed in separate columns.

### 7.11 KNOWLEDGE OF THE FERTILE PERIOD

Basic understanding of the physiology of human reproduction is especially useful for the successful practice of coitus-related methods of contraception such as the rhythm method. The successful use of such methods depends in large part on understanding when during the ovulatory cycle a woman is most likely to conceive. All women in the survey were asked about their knowledge of a woman's fertile period. Specifically, they were asked whether there are certain days between two menstrual periods when a woman is most likely to become pregnant if she has sexual intercourse. Those who answered in the affirmative were further asked if this time is just before the period begins, during the period, right after the period ends, or half way between the two periods.

Results in Table 7.10 show that overall, only 14 percent of all women interviewed reported the correct timing of the fertile period, that is, halfway between the two menstrual periods. This percentage has declined slightly from 16 percent in the 2006 UDHS.

Almost half of women (45 percent) believe that the fertile period is right after the woman's period ends. An additional 17

Table 7.10 Knowledge of fertile period

Percent distribution of women age 15-49 by knowledge of the fertile period during the ovulatory cycle, according to current use of the rhythm/moon beads method, Uganda 2011

Perceived fertile period	Users of rhythm/ moon beads method	Nonusers of rhythm/ moon beads method	All women
Just before her menstrual period begins During her menstrual period Right after her menstrual period has ended Halfway between two menstrual periods Other No specific time Don't know	14.6 0.0 47.8 32.9 1.9 1.0	6.8 1.2 45.0 13.2 0.3 16.7 16.7	6.9 1.2 45.0 13.5 0.4 16.6 16.5
Total Number of women	100.0 92	100.0 8,582	100.0 8,674

percent report no specific time, and an equal proportion report that they don't know.

To use the rhythm method effectively, correct knowledge of the fertile period is very crucial. Of those who use the rhythm/moon beads method, only one-third (33 percent) reported the correct timing of the fertile period, similar to the percentage reported in the 2006 UDHS (31 percent). Most of the rhythm/moon beads method users (48 percent) believe the fertile period is right after the woman's period ends.

These data show that there is a continued need to educate Ugandan women about the physiology of reproduction, the fertile period, and effective use of contraception.

### 7.12 NEED AND DEMAND FOR FAMILY PLANNING SERVICES

This section provides information on the extent of need and potential demand for family planning services in Uganda. Unmet need for family planning refers to fecund women who are not using contraception, but who wish to postpone the next birth (spacing) or who wish to stop childbearing altogether (limiting). Specifically, women are considered to have unmet need for spacing if they are:

- At risk of becoming pregnant, not using contraception, and either do not want to become pregnant within the next two years, or are unsure if or when they want to become pregnant
- Pregnant with a mistimed pregnancy
- Postpartum amenorrhoeic for up to two years following a mistimed birth and not using contraception

Women are considered to have unmet need for limiting if they are:

- At risk of becoming pregnant, not using contraception, and do not want (more) children
- Pregnant with an unwanted pregnancy
- Postpartum amenorrhoeic for up to two years following an unwanted birth and not using contraception

Women who are classified as infecund have no unmet need because they are not at risk of becoming pregnant.

Women using contraception are considered to have a met need. Women using contraception who say they want no (more) children are considered to have a met need for limiting, and women who are using contraception and say they want to delay having a child, or are unsure if or when they want another child, are considered to have a met need for spacing.

Total unmet need, demand, and demand satisfied are defined as follows:

- Total unmet need is the sum of unmet need for spacing plus unmet need for limiting
- Demand for family planning is the sum of total unmet need plus total contraceptive use
- *Proportion of demand satisfied* is total contraceptive use divided by the sum of total unmet need plus total contraceptive use

The definition of unmet need for family planning has been revised to make levels of unmet need comparable over time and across surveys. Therefore, all of the unmet need trend estimates in Figure 7.2 have been recalculated using the revised definition of unmet need and may differ slightly from numbers published in the final reports for each survey.

Table 7.11 shows need and demand for family planning among currently married women, by background characteristics. Thirty-four percent of currently married women have an unmet need for family planning, with 21 percent having an unmet need for spacing and 14 percent having an unmet need for limiting.

Thirty percent of women have a met need for family planning. If all currently married women who say they want to space or limit their children were to use a family planning method, the contraceptive prevalence rate would increase to 64 percent. Currently, only 47 percent of the family planning needs of married women are being met.

Unmet need for family planning does not vary much with age, although it is somewhat lower among the youngest women age 15-19 (31 percent) and those in the oldest age group 45-49 (24 percent). Unmet need is higher in rural than in urban areas (37 and 23 percent, respectively). Regional variations show that unmet need is highest in West Nile and North regions (43 percent, each), followed by East Central region (42 percent), and is lowest in Kampala and Karamoja regions (17 and 21 percent, respectively). Unmet need is lowest among women with secondary or higher education (24 percent) and those in the wealthiest quintile (23 percent).

Total demand for family planning increases with age, from 45 percent of women age 15-19 to a peak of 73 percent among those age 35-39, after which it decreases to 45 percent among the oldest women age 45-49. Demand is somewhat higher in urban areas (69 percent) than in rural areas (64 percent). There are only slight variations among regions, with the exception of Karamoja which has the lowest demand for family planning (28 percent). Demand increases with women's education, from 52 percent among women with no education to 69 percent among those with secondary or higher education. Similarly, demand increases with wealth, from 57 percent of women in the lowest wealth quintile to 69 percent of women in the highest two quintiles.

Table 7.11 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Uganda 2011

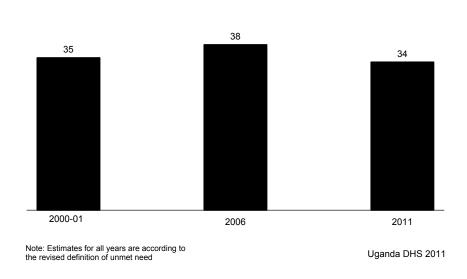
	7	Unmet need for family planning¹		Met nee (c	Met need for family planning (currently using) <sup>2</sup>	anning )²	  -  -	Total demand for family planning			Percentage of demand	
Background characteristic	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	Percentage of demand satisfied	satisfied by modern methods	Number of women
Age	7	o c	0.40	0,000	o o	0	0 07	П	0 17	0 00	o o o	000
81-c1	30.7	0.0	5.1.5	13.0	1 .G	0.0 0.0	24.0 0.0	ဂ ၊	 გ. ი. ი.	30.8	20.9	408
20-24	32.5	N 1	4.05	20.2	7.7	22.9	27.7	ე. ე.ე	28.3	39.2	54.9 0.4.5	7,00,1
25-29	28.2	9.7	35.7	23.3	8.8	32.0	51.5	16.3	87.9	47.3	41.0	1,295
30-34	17.7	18.9	36.6	15.2	20.2	35.4	32.8	39.1	72.0	49.2	43.4	880
35-39	12.1	23.4	35.5	0.0	29.7	37.8	20.2	53.1	73.3	51.6	45.5	820
40-44 45-49	0.4 0.2	27.9 23.8	31.9 24.0	3.4 0.6	34.1 19.9	37.5 20.5	, 0 4. 8.	62.0 43.7	69.4 44.5	54.0 46.0	44.1 34.0	553 364
Residence	ب م	ď	7 00	25.3	200	27.8	7	N 7.0	α α	9	57.2	000
Rural	21.7	4.8 8.4	36.5	12.6	14.3	26.9	34.4	29.1	63.5	42.4	36.9	4,526
200												
Kampala	12.0	4.7	16.6	27.4	20.7	48.2	39.4	25.4	64.8	74.3	62.0	397
Central 1	15.4	11.0	26.5	18.8	18.6	37.3	34.2	29.6	63.8	58.5	48.1	559
Central 2	22.3	13.1	35.4	17.1	16.6	33.7	39.4	29.7	69.1	48.8	44.5	265
East Central	24.6	17.2	41.9	13.9	18.1	32.0	38.5	35.3	73.8	43.3	37.5	280
Eastern	22.4	15.9	38.3	10.1	16.0	26.1	32.5	31.9	64.5	40.5	35.9	829
Karamoja	11.3	9.5	20.5	6.3	7.5	7.8	17.6	10.7	28.3	27.6	26.1	215
North	27.5	15.0	42.5	12.2	11.8	23.9	39.7	26.7	66.4	36.0	35.2	487
West Nile	28.0	15.0	42.9	8.7	9.0	14.6	36.7	20.8	57.5	25.3	23.7	330
Western Southwest	18.3 21.0	12.1 15.8	30.4 36.9	20.5 9.8	12.5 19.7	32./ 29.6	38.5 30.9 30.9	24.6 35.6	63.1 66.4	51.8 44.5	42.5 37.8	/43 681
Education												
No education	12.9	21.3	34.1	6.0 6.0	<del>-</del>	17.9	19.7	32.3	52.1	34.5	29.7	877
Primary Secondary +	73.8 18.3	6.1 5.4	38.0 24.4	12.4 26.7	15.6	28.0 44.2	30.1 45.0	23.6 23.6	6.00 9.80 9.80	4 64.4 4. 4.	37.2 55.0	3,313 1,227
Wealth quintile												
Lowest	26.0	16.3	42.3	7.9	8.9	14.7	33.9	23.0	67.0	25.8	22.3	1,063
Second	22.8	16.4	39.2	11.9	11.3	23.2	34.7	27.7	62.4	37.2	34.0	1,101
Middle	20.7	13.5	34.2	13.9	15.4	29.3	34.6	28.9	63.5	46.1	38.9	1,042
Fourth Highest	20.3 14.8	13.9 8.1	34.3 22.9	13./ 24.7	21.3 21.4	35.0 46.2	34.0 39.5	35.3 29.5	69.3 69.0	90.9 9.99	44.8 56.7	99 / 1,215
Total	20.8	13.5	34.3	14.7	15.3	30.0	35.5	28.8	64.3	46.7	40.5	5,418

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012. <sup>1</sup> Total demand is the sum of unmet need and met need. <sup>2</sup> Percentage of demand satisfied is met need divided by total demand.

The government's target in the Health Sector Strategic and Investment Plan is to reduce the unmet need for family planning in Uganda to 20 percent by 2015. Figure 7.2 shows that unmet need first increased from the 2000-01 to the 2006 UDHS surveys; then it decreased to 34 percent in the 2011 survey.

Figure 7.2 Trends in unmet need for family planning, Uganda 2000-2011





#### 7.13 FUTURE USE OF CONTRACEPTION

Future demand for specific methods of family planning can be assessed. Nonusers who intend to use contraception in the future are asked which methods they prefer to use. This is an important indicator of how demand for family planning may change in the future. In the survey, women who were not currently using a method of contraception were asked about their intention to use family planning in the future. Results are presented in Table 7.12.

Almost two-thirds (64 percent) of currently married nonusers intend to use family planning in the future, while 31 percent do not. The proportion of women intending to use contraception increases from 54 percent for those with no child to a peak at 69 percent for those with three children, after which it declines to 63 percent among those with four or more children. The data reflect no significant change from the 2006 UDHS.

<u>Table</u>	7.12	Future	use	of	contraception

Percent distribution of currently married women age 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, Uganda 2011

	Number of living children <sup>1</sup>						
Intention	0	1	2	3	4+	Total	
Intends to use	54.1	64.7	65.3	68.8	62.9	63.9	
Unsure Does not intend to use	7.9 37.3	3.7 31.5	4.6 29.7	4.4 26.4	4.8 32.3	4.7 31.2	
Missing	0.8	0.1	0.4	0.4	0.1	0.2	
Total Number of women	100.0 175	100.0 489	100.0 627	100.0 541	100.0 1,959	100.0 3,791	

<sup>&</sup>lt;sup>1</sup> Includes current pregnancy

#### 7.14 EXPOSURE TO FAMILY PLANNING MESSAGES

The mass media play an important role in communicating messages about family planning. Data on the level of exposure to radio, television, and printed materials are important for programme managers and planners to effectively target population subgroups for information, education, and communication campaigns. To assess the effectiveness of the dissemination of family planning information through various media, interviewers asked respondents in the 2011 UDHS if they had been exposed to family planning messages on the radio or television, in video or films, and in print (newspapers and magazines) in the few months preceding the survey. The results are shown in Table 7.13.

Radio is the most popular source for family planning messages in Uganda, with 70 percent of women and 74 percent of men age 15-49 having heard a family planning message on a radio in the past few months. Among women, fifteen percent each report having seen a family planning message on television or in a newspaper or magazine, while among men these proportions are 17 percent and 25 percent, respectively. The second most popular source of messages is the print media (newspapers and magazines), with 15 percent of women and 25 percent of men having seen a family planning message in one or the other. Four percent of women and 9 percent of men had seen a family planning message in a video or film.

Table 7.13 Exposure to family planning messages

Percentage of women and men age 15-49 who heard or saw a family planning message on radio, on television, in a newspaper or magazine, or in a video or film in the past few months, according to background characteristics, Uganda 2011

Women			Men									
Background characteristic	Radio	Tele- vision	News- paper/ magazine	Video/ film	None of these four media sources	Number of women	Radio	Tele- vision	News- paper/ magazine	Video/ film	None of these four media sources	Number of men
Age												
15-19	61.1	14.9	18.4	5.1	34.2	2,048	66.5	12.8	21.0	9.2	29.3	554
20-24	74.7	19.1	18.1	5.6	22.1	1,629	74.3	19.5	28.5	12.0	21.2	318
25-29	72.0	16.4	13.8	4.2	24.5	1,569	76.5	21.2	29.5	11.1	19.6	361
30-34	72.1	16.9	13.8	3.5	24.2	1,086	80.3	20.3	27.7	9.8	16.4	323
35-39	70.4	10.7	12.2	3.3	27.1	1,026	73.9	15.5	23.6	8.1	21.9	268
40-44	71.1	10.9	12.2	2.2	27.0	729	77.3	11.9	16.5	4.4	20.8	191
45-49	68.6	11.9	12.2	3.1	30.4	587	79.6	14.1	29.4	4.5	17.6	157
Residence												
Urban	73.4	47.7	33.6	9.8	17.1	1,717	74.0	43.1	48.6	12.9	18.0	439
Rural	68.5	7.1	10.7	2.9	29.7	6,957	74.2	9.9	19.1	8.2	23.1	1,734
Region												
Kampala	69.7	66.6	37.9	9.6	15.1	839	70.5	51.6	45.1	8.3	19.4	221
Central 1	75.1	23.4	20.2	5.0	20.9	956	70.3	20.4	28.2	10.7	24.5	209
Central 2	75.6	18.3	22.3	4.2	22.2	902	87.9	26.5	42.0	22.3	9.7	236
East Central	67.5	11.5	13.8	6.7	31.2	869	68.6	15.9	24.1	10.9	25.9	236
Eastern	66.0	4.9	7.9	2.2	32.6	1,267	66.2	6.4	15.9	4.8	29.8	289
Karamoja	30.3	1.1	5.3	1.6	69.0	289	38.7	1.0	8.7	7.7	60.3	55
North	69.4	1.9	3.6	2.5	30.1	735	71.6	2.7	12.3	3.5	26.9	199
West Nile	53.6	1.6	17.9	1.9	39.7	500	71.5	14.5	6.9	2.7	27.2	133
Western	74.2	8.8	13.0	5.0	23.8	1,221	78.7	13.2	28.0	9.5	18.6	322
Southwest	77.1	6.7	9.3	2.1	22.0	1,097	86.4	6.9	20.0	7.3	12.0	273
Education												
No education	54.2	2.8	2.2	0.9	45.0	1.120	45.0	8.9	4.8	5.5	50.6	90
Primary	68.6	8.6	7.9	2.2	29.1	5,152	72.0	10.8	14.1	7.1	25.6	1,309
Secondary +	78.4	35.0	37.1	10.2	14.8	2,402	81.1	27.5	45.9	13.0	12.8	774
Wealth quintile												
Lowest	52.8	1.2	4.3	1.1	45.2	1,519	59.1	5.6	9.9	5.1	37.7	345
Second	65.8	2.6	6.3	1.3	33.1	1,579	74.6	6.3	13.2	4.6	23.1	423
Middle	72.7	3.6	7.3	2.2	26.2	1,608	74.3	7.9	17.8	8.3	23.7	402
Fourth	75.8	8.6	14.1	3.9	22.4	1,726	82.2	14.3	25.9	11.4	15.4	486
Highest	76.1	46.8	35.7	10.2	15.3	2,242	76.2	41.4	49.6	14.1	15.9	517
Total 15-49	69.5	15.2	15.3	4.2	27.2	8,674	74.2	16.6	25.0	9.1	22.1	2,173
50-54	na	na	na	na	na	na	86.9	16.5	26.1	9.3	12.8	122
Total 15-54	na	na	na	na	na	na	74.8	16.6	25.1	9.1	21.6	2,295

na = Not applicable

Overall, 27 percent of women and 22 percent of men have not been exposed to any family planning messages in any of the four specified media sources.

As expected, women and men in urban areas are more likely to be exposed to family planning messages in the media than are their rural counterparts. Regional variations show that respondents in Karamoja are the least likely to be exposed to family planning messages from any sources, with 69 percent of women and 60 percent of men reporting having not seen or heard any family planning messages. By contrast, women in Kampala and men in Central 2 have the lowest proportions of respondents (15 percent and 10 percent) who have not been exposed to any of the four media sources.

The likelihood of exposure to media messages on family planning from any of the four media sources rises as the respondent's level of education and wealth increase.

### 7.15 CONTACT OF NONUSERS WITH FAMILY PLANNING PROVIDERS

To gain insight into the contact level between nonusers and family planning providers, interviewers in the 2011 UDHS asked women who were not using contraception whether a fieldworker or health worker had visited them during the 12 months preceding the survey and discussed family planning. In addition, women were asked whether they had visited a health facility in the 12 months preceding the survey for any reason and whether anyone at the facility had discussed family planning with during the This visit. information is important to determine whether family planning initiatives in Uganda are reaching nonusers of family planning.

Table 7.14 shows that only 9 percent of female nonusers had been visited by fieldworkers to discuss family planning during the 12 months preceding the survey. Among women who were not using contraception, only 18 percent had visited a health facility and discussed family planning at the facility in the past 12 months, while 44 percent had visited a

Table 7.14 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, the percentage who during the past 12 months were visited by a fieldworker who discussed family planning, the percentage who visited a health facility and discussed family planning, the percentage who visited a health facility but did not discuss family planning, and the percentage who did not discuss family planning either with a fieldworker or at a health facility, by background characteristics, Uganda 2011

	Percentage of women who were visited by fieldworker who discussed	Percentage who visite facility in 12 months	d a health the past	Percentage of women who did not discuss family planning either with fieldworker or	
Background characteristic	family planning	family planning	family planning	at a health facility	Number of women
<b>Age</b> 15-19	6.9	7.2	33.6	87.2	1,908
20-24	9.4	23.4	48.5	70.8	1,269
25-29	11.3	24.0	51.2	70.1	1,074
30-34	9.9	25.5	48.1	70.8	722
35-39	6.7	20.1	50.5	75.2	673
40-44	6.2	21.8	43.6	73.7	496
45-49	10.2	10.9	47.5	82.4	484
Residence		40.0			4.4=0
Urban	8.7	16.3	44.8	78.5	1,150
Rural	8.6	18.0	44.3	76.6	5,475
Region	7.4	40.0	44.6	00.4	F70
Kampala Central 1	7.4 5.9	13.2 11.7	44.6 48.1	82.4 83.7	570 676
Central 2	6.6	18.7	48.9	77.0	644
East Central	8.8	17.0	42.9	77.0 78.0	639
Eastern	6.9	19.7	47.1	76.0 76.0	1,004
Karamoja	14.4	24.1	46.6	68.5	269
North	8.9	23.3	34.5	71.6	599
West Nile	13.0	19.2	36.5	73.8	441
Western	10.0	19.2	45.4	74.1	907
Southwest	8.9	14.4	44.9	78.9	877
Education	<b>-</b> .	40.4	47.5	70.7	004
No education	7.4	16.1	47.5	79.7	934
Primary	8.6 9.2	18.0 17.8	44.2 43.1	76.4 76.5	4,023 1,668
Secondary +	9.2	17.0	43.1	70.5	1,000
Wealth quintile	0.0	24.2	46.0	70.0	4 222
Lowest Second	9.6 8.1	21.3 18.4	46.2 44.1	72.8 76.8	1,333 1,291
Middle	8.1 8.7	18.4	44.1 46.5	76.8 77.1	1,291
Fourth	8.1	17.7 17.0	40.5 41.5	77.1 77.2	1,244
Highest	8.4	14.4	43.6	80.2	1,492
Total	8.6	17.7	44.4	76.9	6,625

health facility but did not discuss family planning.

Seventy-seven percent of female nonusers did not discuss family planning with a fieldworker or at a health facility in the 12 months preceding the survey.

There are no substantial differences in the contact of nonusers with family planning providers by background characteristics, with the exception of regional variations. Nonusers in Karamoja (14 percent) and West Nile (13 percent) regions are more likely to be contacted about family planning by a fieldworker than those from other regions, increases of 4 and 3 percent, respectively, over percentages reported in the 2006 UDHS survey. This improvement is probably due to the strong Village Health Team programme in these regions.

#### 7.16 FAMILY PLANNING COUNSELING

The 2011 **UDHS** included questions on family counseling planning women during the postmiscarriage, post-abortion, or post-stillbirth period. It also contained questions on family planning counseling women who gave birth in a health facility in the five years preceding the survey thus allowing determination of percentage received counseling before their discharge. The results are shown in Table 7.15.

Only 28 percent of women who had miscarriage, abortion, stillbirth in the five years preceding the survey were counselled on family planning after the pregnancy ended. Among women who had a live birth in a health facility in the five years preceding the survey, only 16 percent were counseled on family planning during their postpartum checkup before discharge. These results indicate missed many opportunities provide to

Table 7.15 Family planning counseling

Among women age 15-49 who had a miscarriage, abortion, or stillbirth in the five years preceding the survey, the percentage who received family planning counseling when the pregnancy ended, and among women who gave birth in a health facility in the five years preceding the survey, the percentage who received counseling before discharge, by background characteristics, Uganda 2011

	Among women		Among women	
	with a miscarriage, stillbirth, or		who gave birth in a health facility in the	
	abortion that ended		five years	
	in the five years		preceding the	
	preceding the		survey, percentage	
	survey, percentage		who received	
Background	who received	Number of	counseling before	Number of
characteristic	counseling	women	discharge	women
Age			u.co.na.go	
<b>Age</b> 15-19	34.6	67	11.9	370
20-24	27.4	180	15.2	1,197
25-29	29.8	193	15.7	1,337
30-34	35.0	115	17.0	875
35-39	26.5	131	16.4	719
40-44	19.5	104	18.5	358
45-49	23.7	57	23.1	112
Residence				
Urban	22.2	146	28.6	805
Rural	29.5	700	13.6	4,163
Region				•
Kampala	21.5	63	33.7	358
Central 1	31.4	102	13.8	504
Central 2	19.9	118	14.7	507
East Central	15.8	113	10.3	532
Eastern	35.3	108	17.1	794
Karamoja	50.2	27	17.9	186
North	24.7	61	18.8	445
West Nile	27.3	45	19.6	299
Western	26.3	114	13.2	739
Southwest	44.7	96	11.1	604
Education	22.7	407	10.7	713
No education Primary	23.7 27.4	127 534	10.7	3,079
Secondary +	33.8	186	24.5	3,079 1,177
	33.0	100	24.5	1,177
Wealth quintile	27.5	4.40	44.0	4.055
Lowest	27.5 29.7	142 151	11.8 12.6	1,055
Second Middle	23.8	172	13.3	1,026 963
Fourth	23.6 31.1	167	15.9	963 897
Highest	28.9	214	26.4	1,027
-				
Total	28.2	846	16.0	4,968

family planning counseling and services to women who may need them to limit or space their births.

The proportion of women who had a miscarriage, abortion, or a stillbirth in the five years preceding the survey and who were counseled on family planning after their pregnancy ended is lowest among women age 40-49, those in urban areas, and women in the East Central region. There are no clear variations by women's education or wealth.

The proportion of women who had a live birth in a health facility in the five years preceding the survey and were counseled on family planning before their discharge is lowest among the youngest women (age 15-19), rural women, those in East Central and Southwest regions, women with no education, and those in the lowest wealth quintile.

#### **Key Findings**

- One in every 19 Ugandan children dies before the first birthday, and one in every 11 children dies before the fifth birthday.
- Infant mortality declined from 88 deaths to 54 deaths per 1,000 live births between the 2000-01 UDHS and the 2011 UDHS.
- Under-5 mortality from 152 deaths per 1,000 live births to 90 deaths per 1,000 live births between the two survey periods.
- Childhood mortality is higher in rural areas than in urban areas. The mortality rates were lowest in Kampala.
- The neonatal and postneonatal mortality rates were 27 deaths per 1,000 live births, each. The perinatal mortality rate was 40 deaths per 1,000 pregnancies.

his chapter presents levels, trends, and differentials in perinatal, neonatal, postneonatal, infant, child, and under-5 mortality in Uganda. The information enhances understanding of population dynamics and will assist in the planning and evaluation of health policies and programmes. Estimates of infant and child mortality rates can be used to develop population projections. Information on childhood mortality also serves the need of the health sector to identify population groups that are at high risk.

One of the targets of the Millennium Development Goals (MDGs) is to reduce the under-5 mortality rate by two-thirds between 1990 and 2015. Results from the 2011 UDHS can be used to monitor the impact of major interventions, strategies, and policies at the national level. Policies that affect the under 5 mortality rate are the National Health Policy (NHP II 2010/19) and the Health Sector Strategic and Investment Plan (HSSIP 2010/11-2014/15).

The data used to estimate mortality were collected in the birth history section of the Woman's Questionnaire. The birth history section begins with questions about the respondent's experience with childbearing (i.e., the number of sons and daughters who live with the mother, the number who live elsewhere, and the number who have died). These questions are followed by a retrospective birth history, in which each respondent is asked to list each of her births, starting with the first birth. For each birth, data are obtained on sex, month and year of birth, survivorship status, and current age or, if the child is dead, age at death. This information is used to directly estimate mortality rates. In this report age-specific mortality rates are categorised and defined as follows:

- Neonatal mortality (NN): the probability of dying within the first month of life
- Postneonatal mortality (PNN): the arithmetic difference between neonatal and infant mortality
- Infant mortality (1q0): the probability of dying before the first birthday
- Child mortality (4q1): the probability of dying between the first and the fifth birthdays
- Under-5 mortality (5q0): the probability of dying between birth and the fifth birthday

All rates are expressed per 1,000 live births except for child mortality, which is expressed per 1,000 children surviving to 12 months of age.

## 8.1 DATA QUALITY

Estimates of infant and child mortality that are based on retrospective birth histories are subject to possible reporting errors that may adversely affect the quality of the data. The estimates may be affected by the completeness with which births and deaths are reported and recorded as well as the accuracy of information on current age and age at death for children who died. A lack of accurate information on the age at death may distort the age pattern of mortality. If age at death is misreported and the net effect of this age misreporting results in transference from one age bracket to another, it will bias the estimates. For example, a net transfer of deaths from an age of less than 1 month to a higher age will affect the estimates of neonatal and postneonatal mortality. To minimise errors in reporting age at death, interviewers were instructed to record age at death in days if the death took place in the month following the birth, in months if the child died before age 2, and in years if the child died at age 2 or older. Interviewers were also asked to probe for deaths reported at age 1 year to determine a more precise age at death in terms of months. Despite the emphasis during interviewer training and fieldwork monitoring on probing for accurate age at death, Appendix Table C.6 shows that, for the five years preceding the survey, there is considerable heaping of deaths at age 12 months, which is likely to lead to some underestimation of infant mortality.

Another potential data quality problem is the selective omission from the birth histories of births that did not survive, which can lead to underestimation of mortality rates. When selective omission of childhood deaths occurs, it is usually most severe for deaths occurring early in infancy. One way that such omissions can be detected is by examining the proportion of infant deaths that are neonatal deaths. Generally, if there is substantial underreporting of deaths, the result is an abnormally low ratio of neonatal deaths to infant deaths. In the 2011 UDHS, the proportion of infant deaths occurring in the first month of life is 53 percent for the period zero to four years preceding the survey (Appendix Table C.6), which is within the normal range. Appendix Table C.5 shows death heaping at 7 and 14 days, which indicates rounding of age at death to one and two weeks, respectively. The age heaping at seven days leads to lower estimates of early neonatal mortality and perinatal mortality. However, it appears that early neonatal deaths among births that occurred in the first month of life have not been seriously underreported, since 76 percent of neonatal deaths were early neonatal deaths for the period zero to four years before the survey.

Displacement of birth dates may distort mortality trends. This can occur if an interviewer knowingly records a death as occurring in an earlier year, which could happen if an interviewer were trying to cut down on the overall workload, because a lengthy set of additional questions must be asked about live births occurring during the five years preceding the interview. Appendix Table C.4 shows considerable year-of-birth transference for deceased children from 2006 to 2005, but relatively little transference for living children. This suggests that under-5 mortality is likely to be underestimated to some extent for the five-year period before the survey.

### 8.2 EARLY CHILDHOOD MORTALITY RATES: LEVELS AND TRENDS

Table 8.1 shows neonatal, postneonatal, infant, child, and under-five mortality rates for successive five-year periods before the survey. For the five years preceding the survey, the infant mortality rate was 54 per 1,000 live births. This implies that one in every 19 babies born in Uganda does not live to the first birthday. Those who survive to the first birthday, 38 out of 1,000 would die before reaching their fifth birthday. This shows that one in 11 children dies before their fifth birthday. The under-five mortality rate was 90 per 1,000 live births. The first month of life is associated with the highest risk to survival. As childhood mortality declines, postneonatal mortality usually declines faster than the neonatal mortality

because neonatal mortality is frequently caused by biological factors that are not easily addressed by primary health care interventions. The neonatal and postneonatal mortality rates were 27 deaths per 1,000 live births, each.

Results from the 2011 UDHS data show a remarkable decline in all levels of childhood mortality over the 15-year period preceding the survey. Infant mortality declined by 39 percent, from 89 deaths per 1,000 live births to 54 deaths per 1,000 live births. Furthermore, under-5 mortality declined by 37 percent over the same period, from 143 deaths per 1,000 live births to 90 deaths per 1,000 live births. As

Table 8.1 Early childhood mortality rates
Neonatal, postneonatal, infant, child, and under-5 mortality rates for five-year periods preceding the survey, Uganda 2011

Years preceding the survey	Neonatal mortality (NN)	Post- neonatal mortality (PNN) <sup>1</sup>	Infant mortality (1q0)	Child mortality (4q1)	Under-5 mortality (5q0)
0-4 5-9	27 34	27 43	54 77	38 52	90 125
10-14	34	54	89	60	143

<sup>&</sup>lt;sup>1</sup> Computed as the difference between the infant and neonatal mortality rates

childhood mortality declines, postneonatal mortality usually declines faster than neonatal mortality because neonatal mortality is frequently caused by biological factors that are not easily addressed by primary care interventions. This is corroborated in the data: the neonatal and postneonatal mortality declined over the 15-year period preceding the survey by 21 percent and 50 percent, respectively.

Mortality trends can also be examined by comparing data from UDHS surveys conducted in 2000-01, 2006, and 2011. Figure 8.1 shows improvement in all components of early childhood mortality rates. Under-5 mortality declined from 152 deaths per 1,000 live births in the 2000-01 UDHS to 90 in the 2011 UDHS, infant mortality declined from 88 deaths to 54 deaths per 1,000 live births, and postneonatal mortality declined from 55 deaths to 27 deaths per 1,000 live births during the same period. The change in neonatal mortality rate is not as pronounced; it declined from 33 deaths per 1,000 live births in 2000-01 to 29 deaths per 1,000 live births in 2006, and it declined only slightly to 27 deaths per 1,000 deaths in 2011.

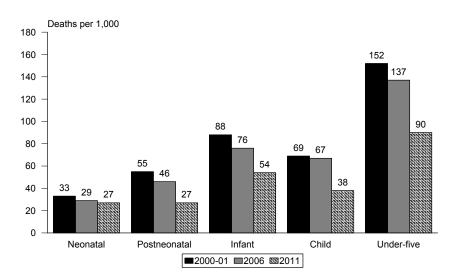


Figure 8.1 Trends in childhood mortality

Note: In the 2000-2001 UDHS, areas making up the districts of Amuru, Nwoya, Bundibugyo, Ntoroko, Gulu, Kasese, Kitgum, Lamwo, Agago, and Pader were excluded from the sample. These areas contained about 5 percent of the national population of Uganda. Thus, the trends need to be viewed in that light. Data refer to the 5 years before the survey.

#### 8.3 EARLY CHILDHOOD MORTALITY RATES BY SOCIOECONOMIC CHARACTERISTICS

Table 8.2 shows differentials in childhood mortality by socioeconomic characteristics of the mother for the 10-year period preceding the survey. All childhood mortality rates, except neonatal mortality, are lower in urban than in rural areas. For example, the infant and under-5 mortality rates in rural areas are 66 and 111 deaths per 1,000 live births compared with 54 and 77 deaths per 1,000 live births, respectively, in urban areas.

There are substantial regional variations in early childhood mortality rates. With the exception of neonatal mortality, Kampala, an entirely urban region with a higher socioeconomic status than the other regions, has the lowest childhood mortality rates when compared with other regions. The infant mortality rate ranges from a low of 47 deaths per 1,000 live births in Kampala to 87 and 88 deaths per 1,000 live births in Karamoja and West Nile, respectively. Similarly, the under-5 mortality is lowest in Kampala (65 deaths per 1,000 live births) and highest in Karamoja (153 deaths per 1,000 live births).

As expected, the mother's level of education is associated with the child's probability for survival. Generally, children born to mothers with secondary or higher education have much lower childhood mortality rates when compared with children of uneducated mothers. For example, child mortality among children born to mothers with no education (59 deaths per 1,000 live births) is more than double that of children born to mothers with secondary or higher education (23 deaths per 1,000 live births). Similarly, the under-5 mortality among children born to uneducated mothers is 133 deaths per 1,000 live births compared with 79 deaths per 1,000 live births among children born to mothers with secondary or higher education. The only exception is neonatal mortality, where there is no clear pattern by mother's education.

With the exception of neonatal mortality, all other childhood mortality rates are highest among children in the lowest or second lowest wealth quintile and lowest among those in the wealthiest quintile. For example, under-5 mortality ranges from 72 deaths per 1,000 live births among the richest children to 125 deaths per 1,000 live births among children in the second lowest quintile.

Table 8.2 Early childhood mortality rates by socioeconomic characteristics
Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 10-year period preceding the survey, by background characteristics. Uganda 2011

Background characteristic	Neonatal mortality (NN)	Post- neonatal mortality (PNN) <sup>1</sup>	Infant mortality ( <sub>1</sub> q <sub>0</sub> )	Child mortality ( <sub>4</sub> q <sub>1</sub> )	Under-5 mortality (5q <sub>0</sub> )
<b>Residence</b> Urban Rural	31 30	23 36	54 66	25 47	77 111
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	27	20	47	19	65
	44	31	75	37	109
	31	23	54	35	87
	23	38	61	48	106
	24	23	47	41	87
	29	59	87	72	153
	31	35	66	42	105
	38	50	88	41	125
	30	38	68	52	116
	33	42	76	57	128
Mother's education No education Primary Secondary+  Wealth quintile Lowest Second	32	46	78	59	133
	29	34	63	45	105
	33	24	57	23	79
	26	50	76	52	123
	31	38	69	60	125
Middle	30	34	64	38	100
Fourth	33	30	63	44	104
Highest	34	14	48	25	72

<sup>&</sup>lt;sup>1</sup> Computed as the difference between the infant and neonatal mortality rates

## 8.4 EARLY CHILDHOOD MORTALITY BY DEMOGRAPHIC CHARACTERISTICS

The demographic characteristics of both mothers and children play an important role in the survival probability of children. Table 8.3 presents childhood mortality rates by demographic characteristics (sex of the child, mother's age at birth, birth order, previous birth interval, and the child's size at birth). Table 8.3 shows that childhood mortality rates are higher among male consistently children than among their female counterparts. For example, the infant and under-5 mortality rates for males are 70 deaths and 114 deaths per 1,000 live births, respectively, compared with 59 deaths and 98 deaths per 1,000 live births, respectively, for females.

Although there is no clear pattern in the variation of childhood mortality rates by mother's age at birth, these rates are lowest among <u>Table 8.3 Early childhood mortality rates by demographic characteristics</u>

Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 10-year period preceding the survey, by demographic characteristics, Uganda 2011

	0 1		, ,		
		Post-			
	Neonatal	neonatal	Infant	Child	Under-5
Demographic	mortality	mortality	mortality	mortality	mortality
characteristic	(NN)	(PNN)¹	( <sub>1</sub> q <sub>0</sub> )	( <sub>4</sub> q <sub>1</sub> )	( <sub>5</sub> q <sub>0</sub> )
Child's sex					
Male	34	36	70	48	114
Female	27	33	59	41	98
Mother's age at birth					
<20	43	34	77	44	117
20-29	27	30	57	42	96
30-39	27	44	71	50	118
40-49	49	21	70	63	129
Birth order					
1	46	33	78	45	120
2-3	25	28	54	38	90
4-6	24	35	59	42	98
7+	36	44	80	59	134
Previous birth interval <sup>2</sup>					
<2 years	36	59	95	54	144
2 years	22	27	49	41	88
3 years	23	23	46	42	86
4+ years	28	18	46	34	78
Birth size <sup>3</sup>					
Small/very small	38	28	66	na	na
Average or larger	23	27	50	na	na

na = Not applicable

<sup>2</sup> Excludes first-order births

children whose mother's age at birth was 20-29. Childhood mortality rates are highest among children of first and seventh or higher birth order. For example, under-5 mortality is 120 deaths and 134 deaths per 1,000 live births for children of the first and seventh or higher birth order compared with 90 to 98 deaths per 1,000 live births for other children.

Short birth intervals (those less than two years) substantially reduce children's chances of survival. For example, the infant mortality rate is 95 deaths per 1,000 live births for children born less than two years following a preceding birth compared with 46 to 49 deaths per 1,000 live births for children born after longer intervals.

Children's weight at birth is an important determinant of their survival. Because many births in Uganda occur at home and, as a result, children often are not weighed at birth, data on birth weight are available for only a few children. However, in the 2011 UDHS mothers were asked whether their child was very large, larger than average, average, smaller than average, or very small at birth, and the answer was used as a proxy for a child's weight. Babies who were reported as smaller than average or very small at birth had higher mortality rates than those who were reported as average or larger at birth. The data show that 66 in 1,000 children who were reported as small or very small at birth died before reaching their first birthday compared with 50 deaths per 1,000 children who were reported as average or large. This differential is most pronounced for neonatal mortality (38 deaths per 1,000 live births for children born small or very small compared with 23 deaths per 1,000 live births for those born average or larger).

Computed as the difference between the infant and neonatal mortality rates

<sup>&</sup>lt;sup>3</sup> Rates for the five-year period before the survey

#### 8.5 Perinatal Mortality

In the 2011 UDHS women were asked to report any pregnancy loss that occurred in the five years preceding the survey. For each pregnancy that did not end in a live birth, the duration of the pregnancy was recorded. Perinatal deaths refer to pregnancy losses occurring after seven completed months of gestation (stillbirths) plus deaths to live births within the first seven days of life (early neonatal deaths).

Underreporting remains a problem, especially with regard to early deaths and stillbirths. The causes of stillbirths and early neonatal deaths are closely linked, and examining just one or the other can understate the true level of mortality around the time of delivery.

The perinatal mortality rate is the sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration. The perinatal mortality is an important indicator in providing the information needed to improve the health status of pregnant women, new mothers, and newborns. Table 8.4 shows that out of the 8,240 reported pregnancies of at least seven months' gestation in the five years preceding the survey, 165 were stillbirths and 164 were early neonatal deaths, vielding an overall perinatal mortality rate of 40 per 1,000 pregnancies.

The perinatal mortality rate is highest among births to young mothers less than age 20 (61 deaths per 1,000 pregnancies) and old mothers age 40-49 (86 deaths per 1,000 pregnancies) compared with women age 20-29 and 30-39 (33 to 34 deaths per 1,000 pregnancies, respectively). Table 8.4 further shows that first births and births that occur within 15 months of a previous birth have the highest perinatal mortality at 60 and 62 pregnancy losses or early deaths per 1,000

<u>Table 8.4 Perinatal mortality</u>

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the 5-year period preceding the survey, by background characteristics, Uganda 2011

Number of stillbirths <sup>1</sup>	Number of early neonatal deaths <sup>2</sup>	Perinatal mortality rate <sup>3</sup>	Number of pregnancies of 7+ months duration
46	40	61	1,396
68	76	33	4,427
35	38	34	2,115
16	10	86	302
46	35	60	1,361
21	15	62	583
48	49	38	2,550
24	26	24	2,131
25	38	39	1,615
17	23	35	1,164
147	141	41	7,076
7 20 19 13 21 6 6 37 29	9 19 19 14 23 10 9 13 29	33 47 44 28 32 48 22 39 54 48	496 817 861 936 1,380 328 711 490 1,214 1,007
17	17	29	1,178
123	101	42	5,284
25	46	40	1,779
29	24	29	1,841
43	44	49	1,769
28	28	34	1,643
35	36	49	1,460
30	32	41	1,527
	stillbirths <sup>1</sup> 46 68 35 16  46 21 48 24 25  17 147  7 20 19 13 21 6 6 37 29  17 123 25	Number of stillbirths¹         early neonatal deaths²           46         40           68         76           35         38           16         10           46         35           21         15           48         49           24         26           25         38           17         23           147         141           7         9           20         19           19         19           19         19           13         14           21         23           6         9           6         13           37         29           29         19           17         17           123         101           25         46           29         24           43         44           28         28           35         36           30         32	Number of stillbirths¹         early neonatal deaths²         Perinatal mortality rate³           46         40         61           68         76         33           35         38         34           16         10         86           46         35         60           21         15         62           48         49         38           24         26         24           25         38         39           17         23         35           147         141         41           7         9         33           20         19         47           19         19         44           13         14         28           21         23         32           6         10         48           6         9         22           6         13         39           37         29         54           29         19         48           17         17         29           123         101         42           25         46         40

<sup>&</sup>lt;sup>1</sup> Stillbirths are fetal deaths in pregnancies lasting seven or more months.

<sup>&</sup>lt;sup>2</sup> Early neonatal deaths are deaths at age 0-6 days among live-born children.

<sup>&</sup>lt;sup>3</sup> The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1000.
<sup>4</sup> Categories correspond to birth intervals of <24 months, 24-35 months, 36-47 months, and</p>

pregnancies, respectively. The safest pregnancy interval is between 27 and 38 months, which has a perinatal mortality rate of 24 pregnancy losses or early deaths per 1,000 pregnancies, which is less than half the risk for first pregnancies or pregnancies with a birth interval of less than 15 months.

The perinatal mortality rate is higher in rural than in urban areas (41 versus 35 stillbirths or early deaths per 1,000 pregnancies, respectively). It is highest in the Western region (54 stillbirths or early deaths per 1,000 pregnancies) and lowest in the North region (22 stillbirths or early deaths per 1,000 pregnancies).

Unlike data from the 2006 UDHS, the 2011 data show that perinatal mortality is lowest among mothers with no education. Women in the lowest wealth quintile have the lowest perinatal mortality rate of 29 pregnancy losses or early deaths per 1,000 pregnancies, while those in the second and fourth quintiles have the highest perinatal mortality of 49 pregnancy losses or early deaths per 1,000 pregnancies.

#### 8.6 HIGH-RISK FERTILITY BEHAVIOUR

Findings from scientific studies have confirmed a strong relationship between a child's chance of dying and specific fertility behaviours. Typically, the probability of dying in early childhood is much greater for children born to mothers who are young or old, born after a short birth interval, or born to women who have had more than three births. Very young mothers may experience difficult pregnancies and deliveries because of their physical immaturity. Older women may experience agerelated problems during pregnancy and delivery. In this analysis a mother is considered to be 'too young' if she is less than age 18 and 'too old' if she is more than age 34 at the time of delivery. A 'short birth interval' characterises a birth occurring within 24 months of a previous birth.

Table 8.5 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Uganda 2011

	Births in the preceding to		Percentage of currently
Risk category	Percentage of births	Risk ratio	married women1
Not in any high risk category	22.0	1.00	16.6ª
Unavoidable risk category First order births between ages 18 and 34 years	12.5	1.30	4.7
Single high-risk category Mother's age <18 Mother's age >34 Birth interval <24 months Birth order >3	5.9 0.3 7.5 27.9	1.86 * 1.22 1.18	0.5 1.7 9.6 20.0
Subtotal	41.7	1.28	31.8
Multiple high-risk category Age <18 and birth interval <24 months² Age >34 and birth interval <24 months Age >34 and birth order >3 Age >34 and birth interval <24 months and birth order >3 Birth interval <24 months and birth order >3	0.7 0.0 10.6 2.7 9.9	2.14 * 1.50 2.75 2.09	0.3 0.1 24.3 5.4 16.8
Subtotal	23.8	1.90	46.9
In any avoidable high-risk category	65.5	1.51	78.7
Total Number of births/women	100.0 8,077	na na	100.0 5,418

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

na = Not applicable

The first column in Table 8.5 shows the percentage of children born in the five years preceding the survey that fall into different categories: 66 percent of births have high mortality risks that are avoidable; 42 percent fall into a single high-risk category, and 24 percent are in a multiple high-risk category. Only 22 percent of births are not in any high-risk category.

The risk ratios displayed in the second column of Table 8.5 denote the relationship between risk factors and mortality. In general, risk ratios are higher for children in a multiple high-risk category than in a single high-risk category. The most vulnerable births are those to women older than age 34 with a birth interval less than 24 months and of the third order or above. These children are about three times (2.75) as likely to die as children not in any high-risk category. Fortunately, only 3 percent of births fall into this category.

<sup>&</sup>lt;sup>1</sup> Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.

<sup>&</sup>lt;sup>2</sup> Includes the category age <18 and birth order >3

a Includes sterilized women

The last column of Table 8.5 shows the distribution of currently married women by the risk category into which a birth would fall if conceived at the time of the survey. This column is purely hypothetical and does not take into consideration the protection provided by postpartum insusceptibility, prolonged abstinence, or family planning methods other than sterilisation. However, it provides insight into the potential magnitude of high-risk births. Overall, 79 percent of currently married women have the potential for having a high-risk birth, with 32 percent falling into a single high-risk category and 47 percent falling into a multiple high-risk category.

#### **Key Findings**

- Ninety-five percent of mothers receive antenatal care from a skilled provider. This proportion has not changed since the 2006 UDHS.
- Forty-eight percent of women make four or more antenatal care visits during their pregnancy, and this percentage has remained almost the same since 2006. The median duration of pregnancy for the first antenatal visit is 5.1 months.
- More than half (51 percent) of the mothers were informed of possible complications during pregnancy, an increase from 35 percent in the 2006 UDHS.
- Eighty-four percent of last-born children during the five-year period before the survey were fully protected against neonatal tetanus.
- Fifty-eight percent of births in the past five years were assisted by a skilled provider, an increase from 42 percent in 2006.
- The percentage of births taking place in a health facility has increased noticeably in the past five years from 41 percent in the 2006 UDHS to 57 percent in the 2011 UDHS.
- One-third of women receive postnatal care in the first two days after delivery.
- For births in the two years preceding the survey, only 2 percent received a postnatal checkup within one hour, while 13 percent received a postnatal checkup within six days.
- Fifty-six percent of Ugandan women have heard of female circumcision while less than 2 percent of women have been circumcised.
- Two percent of Ugandan women have ever experienced obstetric fistula.

#### 9.1 ANTENATAL CARE

major objective of antenatal care is to identify and treat problems such as anaemia and infection. A well-designed and well-implemented antenatal care (ANC) programme therefore facilitates detection and treatment of such problems during pregnancy; it also provides an opportunity to disseminate health messages to women and their families. ANC from a trained provider is vital in monitoring the pregnancy and reducing the morbidity risk for the mother and child during pregnancy and delivery. In the 2011 UDHS, women who had given birth in the five years preceding the survey were asked about the type of ANC provider, number of ANC visits, number of months pregnant at the time of the first and last visits, and services and information provided during ANC. For women with two or more live births during the five-year period, data on antenatal care refer to the most recent birth only.

Table 9.1 shows the percent distribution of mothers in the five years preceding the survey by source of antenatal care received during pregnancy, according to selected characteristics. Women were asked to report on all persons they saw for antenatal care for their last birth. However, if a woman saw more than one provider, only the provider with the highest qualifications was considered in the tabulation of results.

Ninety-five percent of mothers received antenatal care from a skilled provider (a doctor, nurse/midwife, or clinical officer/medical assistant) for their most recent birth in the five years preceding the survey. Less than one percent of mothers received antenatal care from a traditional birth attendant. Four percent of women received no antenatal care for births in the five years before the survey.

Women age 20-34 are more likely to receive antenatal care from a skilled provider than older mothers age 35-49. There is almost no variation by birth order in antenatal care received from a skilled provider.

Table 9.1 Antenatal care

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth and the percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, Uganda 2011

			Antenatal ca	re provider			_		Percentage	
Background characteristic	Doctor	Nurse/ midwife	Medical assistant/ clinical officer	Traditional birth attendant	Other	Missing	No ANC	Total	receiving antenatal care from a skilled provider <sup>1</sup>	Number of women
Mother's age at										
birth										
<20	11.5	80.5	0.9	0.9	0.8	0.0	5.3	100.0	93.0	703
20-34	12.2	82.2	1.7	0.4	0.2	0.1	3.2	100.0	96.1	3,412
35-49	12.8	77.1	1.6	0.9	0.2	0.1	7.2	100.0	91.5	853
Birth order										
1	13.5	80.5	1.7	0.4	0.1	0.0	3.8	100.0	95.7	759
2-3	13.9	81.0	1.3	0.4	0.5	0.1	2.8	100.0	96.2	1,489
4-5	13.0	80.9	1.3	0.4	0.3	0.0	4.1	100.0	95.2	1,134
6+	9.5	81.6	1.9	0.9	0.2	0.1	5.8	100.0	93.0	1,587
Residence										
Urban	22.4	74.4	0.6	0.1	0.1	0.0	2.4	100.0	97.4	805
Rural	10.3	82.4	1.7	0.7	0.3	0.1	4.6	100.0	94.4	4,163
Region										
Kampala	27.1	70.1	0.8	0.1	0.0	0.0	1.9	100.0	98.0	358
Central 1	20.0	66.5	1.3	1.8	0.9	0.0	9.6	100.0	87.8	504
Central 2	19.3	73.9	0.9	1.2	0.6	0.0	4.1	100.0	94.1	507
East Central	9.2	80.9	1.1	0.5	0.6	0.5	7.2	100.0	91.2	532
Eastern	7.3	85.1	1.8	0.0	0.2	0.0	5.5	100.0	94.3	794
Karamoja	1.9	93.5	1.2	0.5	0.4	0.0	2.5	100.0	96.6	186
North	8.7	89.3	0.7	0.1	0.0	0.0	1.2	100.0	98.7	445
West Nile	5.1	91.7	0.8	0.0	0.5	0.2	1.7	100.0	97.6	299
Western	11.6	79.6	4.6	0.4	0.0	0.0	3.7	100.0	95.9	739
Southwest	10.2	87.3	0.2	1.0	0.0	0.0	1.4	100.0	97.6	604
Education										
No education	8.4	82.8	1.1	1.3	0.6	0.0	5.8	100.0	92.3	713
Primary	10.5	82.4	1.9	0.5	0.3	0.1	4.3	100.0	94.8	3,079
Secondary +	19.2	76.5	0.9	0.2	0.2	0.0	3.1	100.0	96.6	1,177
Wealth quintile										
Lowest	6.3	86.0	1.6	0.3	0.1	0.0	5.7	100.0	93.9	1,055
Second	7.5	85.3	1.7	0.8	0.6	0.0	4.1	100.0	94.5	1,026
Middle	10.5	81.5	2.3	0.6	0.4	0.2	4.5	100.0	94.3	963
Fourth	13.2	80.0	1.2	0.9	0.4	0.1	4.0	100.0	94.5	897
Highest	23.8	72.3	1.0	0.2	0.0	0.0	2.7	100.0	97.1	1,027
Total	12.2	81.1	1.6	0.6	0.3	0.1	4.2	100.0	94.9	4,968
		•		0.0	0.0	•			·	.,000

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.

Skilled provider includes doctor, nurse/midwife, and medical assistant/clinical officer

There are only very minor differences in the use of antenatal care services between urban and rural women. Ninety-seven percent of urban mothers received antenatal care from a skilled provider compared with 94 percent of rural mothers. Almost all mothers living in the North region received antenatal care from a skilled provider compared with 88 percent of mothers in the Central 1 region. Over 90 percent of the women in the remaining regions received antenatal care from a skilled provider.

The use of antenatal care services from a skilled provider increases with mother's education. Ninety-two percent of women with no education received antenatal care from a skilled provider, compared with 95 percent of women with primary education and 97 percent of women with secondary and higher education. Similarly, women in the highest wealth quintile were more likely to receive care from a skilled provider (97 percent) compared with 94 percent of the women in the lowest wealth quintile.

The proportion of women receiving antenatal care from a skilled provider has not changed in the past five years. Ninety-four percent of women received antenatal care from a skilled provider in 2006. However, the proportion of women who received care from a doctor increased from 9 percent in 2006 to 12 percent in 2011.

#### 9.1.1 **Number and Timing of Antenatal Visits**

Regular antenatal care is helpful in identifying and preventing adverse pregnancy outcomes when it is sought early in the pregnancy and is continued through delivery. In line with the WHO guidelines, the Ministry of Health (MOH) recommends that a woman have at least four ANC visits, the first of which should be made in the first trimester. It is possible during these visits to detect health problems associated with a pregnancy. In the event of any complications, more frequent visits are advised, and admission to a health facility may be necessary.

Table 9.2 presents information on the number of antenatal visits and the timing of the first antenatal visit for the most recent birth in the five years preceding the survey. The findings show that 48 percent of pregnant women make four or more antenatal care visits during their entire pregnancy. Urban women (57 percent) are more likely to have had four or more antenatal visits than rural women (46 percent).

Only 21 percent of women made their first antenatal care visit before the fourth month of pregnancy. The median duration of pregnancy at the first antenatal care visit was 5.1 months (5.0 months in urban areas and 5.2 months in rural areas).

Over the past 5 years, the results show almost no change in the percentage of women with four or more antenatal visits during their pregnancy (from 47 percent in 2006 to 48 Percent distribution of women age 15-49 who had a live birth in the five

Table 9.2 Number of antenatal care visits and timing of first visit

years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, and by the timing of the first visit, and among women with ANC, median months pregnant at first visit, according to residence, Uganda 2011

Number and timing	Resid	dence			
of ANC visits	Urban	Rural	Total		
Number of ANC visits					
None	2.4	4.6	4.3		
1	2.4	4.3	4.0		
2-3	35.7	43.7	42.4		
4+	57.0	45.8	47.6		
Don't know/missing	2.4	1.6	1.7		
Total	100.0	100.0	100.0		
Number of months pregnant at time of first ANC visit					
No antenatal care	2.4	4.6	4.3		
<4	23.6	20.2	20.8		
4-5	45.2	43.7	43.9		
6-7	27.4	27.7	27.7		
8+	1.1 0.2	3.5 0.3	3.1 0.3		
Don't know/missing	0.2	0.3	0.3		
Total	100.0	100.0	100.0		
Number of women	805	4,163	4,968		
Median months pregnant at first visit	F 0	F 0	E 1		
(for those with ANC) Number of women with ANC	5.0 785	5.2 3,971	5.1 4,756		
Number of women with ANC	100	5,371	7,730		

percent in 2011). Overall, antenatal attendance by gestational age has improved only slightly. The median gestational age at first visit has decreased from 5.5 months in the 2006 UDHS to 5.1 months in the 2011 survey.

#### 9.2 **COMPONENTS OF ANTENATAL CARE**

Focused antenatal care hinges on the principle that every pregnancy is at risk of complications. Ensuring that pregnant women receive information and undergo screening for complications should be a routine part of all antenatal care visits. Therefore, apart from receiving basic care, every pregnant woman should be monitored for complications as outlined in the Sexual and Reproductive Health Policy Guidelines for Uganda (MOH, 2011). To assess ANC services, mothers in the 2011 UDHS were asked a number of questions about the care they received during pregnancy for their most recent live birth in the five years preceding the survey.

Table 9.3 presents information on the content of ANC services during their most recent pregnancy for women with a live birth in the five years preceding the survey. Three-quarters of the mothers took iron tablets during pregnancy, while half of the women took drugs for parasites. Slightly more than half of the mothers were informed during their antenatal visits of the danger signs of pregnancy-related complications. Seventy-nine percent of the mothers were weighed during these visits. Blood pressure measurements were part of antenatal care for 59 percent of mothers. Urine and blood samples also were taken from 22 percent and 81 percent of women, respectively.

Table 9.3 Components of antenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup and drugs for intestinal parasites during the pregnancy of the most recent birth, and among women receiving antenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, Uganda 2011

	Among women with a live birth in the past five years, the percentage who during the pregnancy of their last birth:		_ Number of	Among womer the pas		_ Number of			
Background characteristic	Took iron tablets or syrup	Took intestinal parasite drugs	women with a live birth in the past five years	Informed of signs of pregnancy complications	Weighed	Blood pressure measured	Urine sample taken	Blood sample taken	women with ANC for their most recent birth
Mother's age at birth <20 20-34 35-49	74.4 76.5 69.8	51.7 50.9 44.5	703 3,412 853	51.0 50.2 52.4	77.5 78.4 82.3	55.3 59.2 62.0	23.8 22.5 20.1	82.8 81.1 76.0	666 3,300 790
Birth order 1 2-3 4-5 6+	78.0 78.6 74.6 70.7	51.1 52.8 50.8 45.9	759 1,489 1,134 1,587	56.4 51.0 49.6 48.3	77.5 80.5 78.3 78.5	64.6 59.0 58.4 57.1	32.3 22.6 21.8 17.4	86.4 85.9 78.3 74.0	730 1,445 1,087 1,494
Residence Urban Rural	83.1 73.5	53.7 49.2	805 4,163	61.6 48.5	87.1 77.3	81.7 54.7	42.7 18.2	91.6 78.3	785 3,971
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	83.9 69.8 77.5 69.6 76.8 90.8 81.3 86.4 73.3 61.7	51.5 43.9 51.2 37.6 57.5 43.1 51.2 61.9 51.7 46.7	358 504 507 532 794 186 445 299 739 604	68.4 40.7 33.9 32.2 45.1 76.4 62.6 60.9 61.1 49.7	92.5 73.2 76.6 74.4 72.2 96.8 88.7 91.9 80.6 68.0	91.5 59.7 59.0 48.6 48.9 88.7 63.8 75.0 53.5 47.7	56.0 25.6 22.3 13.0 20.6 9.5 20.7 11.9 22.7 19.3	95.2 75.2 78.3 73.0 83.6 85.4 89.7 68.3 80.9 77.3	352 455 486 491 750 182 440 294 712 595
Education  No education  Primary  Secondary +	70.4 73.5 82.0	43.7 49.7 54.2	713 3,079 1,177	48.6 48.7 57.1	79.6 75.8 86.4	55.0 54.5 73.6	15.4 18.2 36.9	69.0 79.8 89.0	671 2,945 1,141
Wealth quintile Lowest Second Middle Fourth Highest	75.4 72.5 71.0 74.6 81.4	48.4 48.3 47.1 51.3 54.5	1,055 1,026 963 897 1,027	53.0 48.9 45.9 46.2 58.3	80.7 74.9 73.9 78.1 86.4	57.2 48.5 51.0 58.6 79.6	16.0 16.3 17.6 21.5 39.3	76.1 76.7 78.3 81.0 90.2	995 984 919 859 1,000
Total	75.1	49.9	4,968	50.7	78.9	59.1	22.3	80.5	4,756

The quality of antenatal care relates to a mother's education, wealth, and place of residence, as well as birth order of her infant. For example, 57 percent of women with at least some secondary education were informed of signs of pregnancy complications, compared with 49 percent of women with little or no education. Results by wealth quintile generally show a U-shaped relationship. For example, more women in the lowest wealth quintile (53 percent) and highest wealth quintile (58 percent) were provided information about signs of pregnancy complications than women in the second, third, or fourth wealth quintiles. More urban women than rural women were provided with each of the components of antenatal care asked about in the survey.

The overall quality of antenatal care has improved in the past five years. The percentage of women who were informed of complications during pregnancy increased from 35 to 51 percent, the percentage that had their blood pressure measured increased from 53 percent to 59 percent, and the percentage that had urine samples taken increased from 12 to 22 percent during the same period.

Table 9.4 shows the percent distribution by the number of doses/times that drugs for intestinal parasites were taken among women with a live birth in the five years preceding the survey who reported that they took such drugs. Overall, 48 percent of women took one dose of drugs for intestinal worms, 24 percent took two doses, 14 percent took three doses, and 11 percent took four or more doses. There are no major variations by background characteristics.

Table 9.4 Doses of drugs for intestinal worms

Among women age 15-49 with a live birth in the five years preceding the survey who took intestinal parasite drugs during the pregnancy of the most recent birth, the percent distribution by the number of doses/times the intestinal parasite drugs were taken, according to background characteristics, Uganda 2011

Background	Number of	times/doses	drugs for inte	stinal worm	s were taken		Number of
characteristic	1	2	3	4+	Don't know	Total	women
Mother's age at birth							
<20	39.3	24.1	18.2	13.6	4.7	100.0	363
20-34	48.1	25.4	13.5	10.4	2.5	100.0	1,736
35-49	53.4	19.3	10.0	12.9	4.4	100.0	380
Birth order							
1	41.7	24.2	18.2	11.1	4.7	100.0	388
2-3	45.4	27.1	14.1	10.6	2.7	100.0	787
4-5	51.9	21.9	13.8	10.5	1.9	100.0	576
6+	49.8	23.2	10.7	12.6	3.7	100.0	729
Residence							
Urban	46.9	23.1	14.0	11.8	4.2	100.0	432
Rural	47.8	24.5	13.6	11.2	2.9	100.0	2,047
Region							
Kampala	52.3	22.3	13.7	7.3	4.4	100.0	184
Central 1	50.4	21.3	13.7	9.3	5.3	100.0	221
Central 2	47.7	27.5	11.4	9.4	4.0	100.0	260
East Central	40.3	25.3	19.6	10.5	4.2	100.0	200
Eastern	58.2	23.5	13.6	3.5	1.2	100.0	456
Karamoja	58.8	23.5	9.4	7.0	1.2	100.0	80
North	34.8	25.9	17.6	21.4	0.4	100.0	228
West Nile	35.8	24.7	13.5	21.3	4.7	100.0	185
Western	36.7	27.7	13.9	16.9	4.7	100.0	382
Southwest	60.4	19.7	9.4	9.0	1.6	100.0	282
	00.4	19.7	3.4	5.0	1.0	100.0	202
Education No education	47.2	25.0	10.5	14.9	2.4	100.0	311
Primary	47.8	24.0	13.6	11.5	3.2	100.0	1,530
Secondary +	47.5	24.6	15.5	9.0	3.4	100.0	638
·	47.5	24.0	13.3	5.0	3.4	100.0	030
Wealth quintile	= 4.0		44.0	40 =		400.0	= 10
Lowest	51.9	23.3	11.8	10.7	2.3	100.0	510
Second	43.3	26.0	14.0	14.4	2.3	100.0	496
Middle	46.9	23.2	15.4	10.2	4.2	100.0	454
Fourth	51.0	23.3	12.3	10.8	2.6	100.0	460
Highest	45.5	25.3	14.7	10.3	4.2	100.0	560
Total	47.7	24.3	13.7	11.3	3.1	100.0	2,480

## 9.3 TETANUS TOXOID VACCINATION

Tetanus toxoid (TT) injections are given to women during pregnancy to prevent deaths from neonatal tetanus. Neonatal tetanus can result when sterile procedures are not followed in cutting the umbilical cord after delivery. In the 2011 UDHS, information was collected on the number of doses of TT vaccine the mother received during the pregnancy of her most recent birth during the five-year period prior to the survey. In addition, questions were included to ascertain whether mothers received tetanus injections prior to the last birth as a means of determining whether the last birth was fully protected from neonatal tetanus.

Table 9.5 shows the percentage of women with a live birth in the five years preceding the survey who reported receiving TT injections during the pregnancy for the last live birth. Also shown is whether the last birth was fully protected against neonatal tetanus. An infant is considered to be fully protected if any of the following criteria are met: (1) the mother had two TT injections during the pregnancy; (2) the mother had two TT injections, the last of which was within 3 years of the last birth (3) the mother had at least 4 TT injections, the last of which was within 5 years of the last birth; (4) the mother had at least 4 TT injections, the last of which was within 10 years of the last birth; or (5) the mother had at least five TT injections prior to the pregnancy.

Table 9.5 Tetanus toxoid injections

Among mothers age 15-49 with a live birth in the five years preceding the survey, the percentage receiving two or more tetanus toxoid injections (TTI) during the pregnancy for the last live birth and the percentage whose last live birth was protected against neonatal tetanus, according to background characteristics, Uganda 2011

Background characteristic	Percentage receiving two or more injections during last pregnancy	Percentage whose last birth was protected against neonatal tetanus <sup>1</sup>	Number of mothers
Mother's age at birth <20 20-34 35-49	54.9 56.9 50.4	80.2 85.0 84.6	703 3,412 853
Birth order  1 2-3 4-5 6+ Residence Urban	59.8 59.2 55.0 50.3	82.2 84.8 86.5 83.1	759 1,489 1,134 1,587
Rural  Region  Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western	54.4 62.3 57.8 61.5 62.7 44.7 67.7 59.8 44.3 53.9	83.8 84.6 80.3 84.2 82.5 84.8 93.1 84.3 87.1 83.6	4,163  358 504 507 532 794 186 445 299 739
Southwest  Education No education Primary Secondary +	52.8 52.6 53.2 63.1	84.8 79.8 83.7 88.5	604 713 3,079 1,177
Wealth quintile Lowest Second Middle Fourth Highest	50.8 53.0 51.9 56.9 64.9	83.8 80.9 83.6 84.2 88.7	1,055 1,026 963 897 1,027 4,968

<sup>&</sup>lt;sup>1</sup> Includes mothers with two injections during the pregnancy of her last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections at any time prior to the last birth

According to the 2011 UDHS results, 56 percent of the mothers received two or more tetanus toxoid injections during their pregnancy, and 84 percent of last-born children during the five-year period before the survey were fully protected against neonatal tetanus, an increase from 76 percent during the 2006 UDHS. There were regional variations in the percentage of last-born children who were fully protected against neonatal tetanus, with Karamoja region having the highest percentage (93 percent) and Central 1 having the lowest (80 percent).

There is little variation in tetanus toxoid coverage by age at birth, birth order, or place of residence. However, there are differences by education. For example, 80 percent of births to women with no education in Uganda are protected against tetanus, compared with 89 percent of those births to women with secondary or higher education. Women living in wealthier households are more likely to have their births protected against tetanus than women living in less wealthy households.

#### 9.4 PLACE OF DELIVERY

An important component of efforts to reduce the health risks of mothers and children is increasing the proportion of babies delivered under the supervision of health professionals. Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may cause

death or serious illness to either the mother or the baby (or both). Data on delivery care were obtained for all births that occurred in the five years preceding the survey.

Table 9.6 presents the percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics. Fifty-seven percent of births take place in a health facility: 44 percent are delivered in a public-sector health facility and 13 percent in a private sector facility. Forty-two percent of deliveries in the last five years took place at home. Delivery in a health facility is common among young mothers less than age 20 (66 percent) and mothers of first-order births (73 percent). Children of women in urban areas are more likely to be delivered in an institutional setting than children born to rural women (90 percent versus 52 percent).

<u>Table 9.6 Place of delivery</u>

Percent distribution of live births in the five years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Uganda 2011

	Health	facility					Percentage	
Background characteristic	Public sector	Private sector	Home	Other	Missing	Total	delivered in a health facility	Number of births
Mother's age at birth								
<20	53.2	12.6	33.5	0.6	0.1	100.0	65.8	1,351
20-34	43.1	13.4	42.3	1.1	0.1	100.0	56.5	5,632
35-49	37.1	14.0	48.0	8.0	0.1	100.0	51.1	1,092
Birth order								
1	56.5	16.6	26.2	0.6	0.1	100.0	73.1	1,423
2-3	46.7	14.4	38.0	0.8	0.1	100.0	61.1	2,523
4-5	40.5	11.8	46.3	1.4	0.1	100.0	52.3	1,816
6+	36.1	11.5	51.2	1.0	0.2	100.0	47.6	2,313
Antenatal care visits								
None	22.2	10.0	64.9	1.7	1.2	100.0	32.2	212
1-3	41.0	12.1	45.9	1.0	0.0	100.0	53.1	2,305
4+	51.8	16.6	30.6	1.0	0.0	100.0	68.5	2,366
Don't know/missing	63.3	22.0	14.7	0.0	0.0	100.0	85.3	86
Residence								
Urban	63.5	26.1	9.8	0.6	0.0	100.0	89.5	1,147
Rural	40.8	11.3	46.8	1.0	0.1	100.0	52.0	6,928
Region								
Kampala	56.4	36.5	6.7	0.4	0.0	100.0	92.9	489
Central 1	38.1	23.6	37.6	0.8	0.0	100.0	61.7	797
Central 2	49.4	19.7	30.2	0.6	0.0	100.0	69.1	842
East Central	42.8	24.3	32.3	0.2	0.4	100.0	67.1	923
Eastern	49.5	1.7	48.0	0.7	0.0	100.0	51.2	1,358
Karamoja	25.0	2.1	71.3	1.6	0.0	100.0	27.1	322
North	45.7	6.2	47.4	0.7	0.0	100.0	51.9	704
West Nile	55.7	3.0	40.1	0.9	0.4	100.0	58.7	484
Western	41.9	14.0	43.1	0.7	0.3	100.0	55.9	1,177
Southwest	33.4	7.0	56.6	3.0	0.0	100.0	40.3	978
Mother's education								
No education	26.7	9.5	62.4	1.2	0.3	100.0	36.1	1,161
Primary	43.3	10.7	44.9	1.0	0.3	100.0	54.0	5,161
Secondary +	57.5	23.9	17.9	0.7	0.0	100.0	81.4	1,754
•	07.0	20.0	17.5	0.7	0.0	100.0	01.4	1,704
Wealth quintile Lowest	37.2	5.0	56.7	1.0	0.0	100.0	42.2	1,812
Second	39.1	9.8	49.8	1.1	0.0	100.0	48.9	1,727
Middle	43.6	10.8	49.6 44.6	0.9	0.2	100.0	54.4	1,616
Fourth	42.7	15.7	40.6	0.8	0.1	100.0	58.4	1,425
Highest	59.7	28.0	11.3	0.8	0.0	100.0	87.7	1,425
=								
Total	44.0	13.4	41.6	1.0	0.1	100.0	57.4	8,076

<sup>&</sup>lt;sup>1</sup> Includes only the most recent birth in the five years preceding the survey

Delivery in a health facility varies widely by region, being lowest in the Karamoja region (27 percent) and highest in Kampala (93) and Central 2 (69 percent) region. There is a strong association between health facility delivery, mother's education, and wealth quintile. The proportion of deliveries in a health facility is more than twice as high among births to mothers with secondary or higher education (81 percent) as among births to mothers with no education (36 percent). A similar pattern is observed among women by wealth quintile: delivery at a health facility is less likely among births in the lowest wealth quintile (42 percent) than in the highest wealth quintile (88 percent).

The percentage of births taking place in a health facility has increased noticeably in the past five years (from 41 percent in the 2006 UDHS to 57 percent in the 2011 UDHS).

#### 9.5 Assistance during Delivery

Obstetric care from a health professional during delivery is recognized as critical for the reduction of maternal and neonatal mortality. Children delivered at home are usually more likely to be delivered without assistance from a trained provider, whereas children delivered at a health facility are more likely to be delivered by a trained health professional.

Table 9.7 shows delivery assistance by type of provider, according to background characteristics. Fifty-eight percent of births take place with the assistance of a skilled provider, which may be a doctor, nurse or midwife, medical assistant or clinical officer. During the survey, there are cases where the respondent mentioned more than one person attending during delivery. The analysis has considered only the most qualified person. Doctors assist in the delivery of 7 percent of births, nurses/midwives assist in 50 percent, and traditional birth attendants (TBAs) assist in 18 percent of the births. Fifteen percent of the births are only attended by a relative, a friend, or some other person, while 7 percent of births take place without any type of assistance.

Births to mothers less than age 20 and first-order births (67 percent and 74 percent, respectively) are more likely to be assisted by a skilled provider. Almost nine in ten births in urban areas are assisted by a skilled provider compared with 53 percent of births in rural areas. Births in Karamoja region (31 percent) are less likely to be attended by a skilled provider than births in other areas. The results further show that 19 percent of the women in the Southwest region deliver without any person providing assistance.

There is a strong relationship between mother's education and delivery by a skilled provider. The percentage of births to highly educated women (those with at least some secondary education) attended by a skilled provider was 81 percent, which compares favorably with 38 percent of births to women with no education. Similarly, assistance during delivery by a skilled provider varies by women's economic status: births to women in the highest wealth quintile are much more likely to be assisted by a skilled provider (88 percent) than births to women in the lowest wealth quintile (44 percent).

Table 9.7 also shows that 5 percent of births are delivered by caesarean section. Delivery by C-section is highest among births to highly educated mothers (11 percent), births to mothers in the highest wealth quintile (13 percent), urban births (14 percent), births in Kampala (18 percent), and first births (9 percent).

The percentage of births assisted at delivery by a skilled provider has increased in the last five years (from 42 percent in the 2006 UDHS to 58 percent in the 2011 UDHS), while the percentage of births assisted by relatives and others has declined from 25 percent to 15 percent. The percentage of births attended by a TBA dropped from 23 percent in the 2006 UDHS to 18 percent in the 2011 UDHS. Also noteworthy is the fact that delivery assistance by a skilled provider in rural areas has increased in the last five years, from 37 percent in the 2006 UDHS to 53 percent in the 2011 UDHS

Table 9.7 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, percentage of birth assisted by a skilled provider, and percentage delivered by caesarean-section, according to background characteristics, Uganda 2011

			Person pr	oviding ass	sistance durin	g delivery						
Background characteristic	Doctor	Nurse/ midwife	Medical assistant/ clinical officer	Nursing aide	Traditional birth attendant	Relative/ friend/ other	No one	Don't know/ missing	Total	Percentage delivered by a skilled provider <sup>1</sup>	Percentage delivered by C-section	Number of births
Mother's age at birth												
<20	9.2	57.5	0.4	1.1	16.7	13.0	2.0	0.1	100.0	67.1	6.5	1,351
20-34	6.9	49.6	0.7	1.2	18.7	15.8	7.1	0.2	100.0	57.1	5.1	5,632
35-49	6.1	44.7	0.5	1.8	18.5	15.3	13.1	0.1	100.0	51.3	4.6	1,092
Birth order												
1	12.7	60.6	0.5	0.6	14.1	10.3	1.2	0.1	100.0	73.7	9.3	1,423
2-3	8.2	53.0	8.0	1.4	19.4	13.4	3.8	0.1	100.0	62.0	6.1	2,523
4-5	5.9	47.1	0.3	1.5	19.4	17.4	8.4	0.1	100.0	53.2	4.2	1,816
6+	3.6	43.3	0.7	1.3	18.9	18.7	13.1	0.3	100.0	47.6	2.6	2,313
Place of delivery												
Health facility	12.4	84.3	0.9	1.4	0.4	0.4	0.2	0.0	100.0	97.6	9.2	4,633
Elsewhere	0.2	4.4	0.1	1.1	42.5	35.3	16.3	0.1	100.0	4.7	0.0	3,433
Residence												
Urban	20.5	68.1	0.5	1.2	4.8	4.0	0.9	0.0	100.0	89.1	13.7	1,147
Rural	5.0	47.3	0.6	1.3	20.5	17.1	8.1	0.2	100.0	52.8	3.9	6,928
Region												
Kampala	29.5	63.2	0.2	8.0	3.7	1.8	0.7	0.0	100.0	93.0	17.8	489
Central 1	14.0	45.9	2.0	2.4	25.9	7.4	2.3	0.0	100.0	62.0	7.8	797
Central 2	4.9	63.4	1.6	0.6	14.0	11.3	4.2	0.0	100.0	69.9	5.8	842
East Central	3.6	63.1	0.5	3.2	9.5	11.4	8.3	0.4	100.0	67.1	4.1	923
Eastern	3.1	48.7	0.2	8.0	17.4	22.2	7.7	0.0	100.0	51.9	2.5	1,358
Karamoja	1.9	28.8	0.0	0.1	18.4	47.3	3.4	0.0	100.0	30.8	1.1	322
North	4.6	48.5	0.3	1.3	37.0	6.3	2.0	0.0	100.0	53.4	2.5	704
West Nile	4.1	53.7	0.7	2.2	13.8	16.7	8.4	0.5	100.0	58.5	4.6	484
Western	6.6	48.8	0.4	1.0	20.3	15.7	6.8	0.4	100.0	55.8	5.5	1,177
Southwest	7.1	34.3	0.1	0.3	19.1	20.3	18.9	0.0	100.0	41.5	4.9	978
Mother's education												
No education	3.4	34.0	0.3	0.6	22.3	27.7	11.5	0.3	100.0	37.7	2.6	1,161
Primary	5.2	49.0	0.6	1.3	20.3	15.8	7.6	0.1	100.0	54.8	4.0	5,161
Secondary +	15.5	64.6	8.0	1.5	9.7	5.3	2.5	0.0	100.0	80.8	10.9	1,754
Wealth quintile												
Lowest	3.6	39.7	0.2	0.6	23.2	24.7	7.9	0.1	100.0	43.5	2.2	1,812
Second	3.3	45.2	0.3	1.4	22.0	18.2	9.3	0.2	100.0	48.9	3.2	1,727
Middle	4.9	48.4	1.1	1.6	17.8	15.9	10.3	0.1	100.0	54.4	3.9	1,616
Fourth	6.0	53.1	0.4	1.4	21.6	11.5	5.7	0.3	100.0	59.6	5.7	1,425
Highest	19.5	68.0	0.9	1.4	5.6	3.3	1.3	0.0	100.0	88.4	12.6	1,496
Total	7.2	50.2	0.6	1.3	18.3	15.3	7.0	0.1	100.0	58.0	5.3	8,076

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. 

Skilled provider includes doctor, nurse/midwife, or medical assistant/clinical officer.

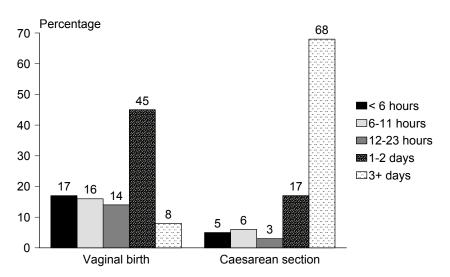
#### 9.6 POSTNATAL CARE

During the postpartum period, women may develop serious, life-threatening complications. Evidence has shown that a large proportion of deaths occur during this period, with postpartum hemorrhage and infections being important causes. A postnatal care visit is an ideal time to educate a new mother on how to care for herself and her newborn.

### 9.6.1 Duration of Health Facility Stay and Timing of First Postnatal Checkup

Figure 9.1 shows the length of stay in a health facility following the last live birth among women with a birth in the five years preceding the survey who delivered in a health facility. The vast majority of women who had a vaginal birth stayed in the health facility either for less than one day (47 percent) or for one to two days (45 percent). By comparison, the majority of women who had a delivery by Caesarean section (68 percent) stayed in the health facility for three or more days.

Figure 9.1 Mother's duration of stay in the health facility after giving birth



Uganda 2011 DHS

Table 9.8 shows that in the two years preceding the survey, 33 percent of women received postnatal care for their last birth within the critical first two days following delivery (21 percent of women received postnatal care within four hours of delivery, 8 percent received care within 4-23 hours, and 4 percent were seen one to two days following delivery). More than two in every three women (64 percent) did not receive any postnatal checkup.

There are differences in postnatal care by mother's age, birth order, place of residence, wealth quintile, and education; these are similar to the differences discussed for delivery care.

The percentage of women with a postnatal visit in the two days after birth has increased over the last five years, from 26 percent in 2006 to 33 percent in 2011. The percentage of mothers who did not receive any postpartum checkup declined from 74 percent in 2006 to 64 percent in 2011.

Table 9.8 Timing of first postnatal checkup

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution of the mother's first postnatal checkup for the last live birth by time after delivery, and the percentage of women with a live birth in the two years preceding the survey who received a postnatal checkup in the first two days after giving birth, according to background characteristics, Uganda 2011

	Tir	me after del	ivery of moth	er's first pos	tnatal check	up			Percentage of women with a postnatal	
Background characteristic	Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing	No postnatal checkup <sup>1</sup>	Total	checkup in the first two days after birth	Number of women
Mother's age at birth										
<20	20.1	8.7	3.6	0.8	2.8	1.0	62.9	100.0	32.4	480
20-34	22.0	8.3	3.3	0.9	1.2	0.6	63.7	100.0	33.7	2,160
35-49	17.7	8.3	4.5	1.0	0.2	1.2	67.1	100.0	30.5	453
Birth order										
1	25.7	9.7	2.6	1.1	3.1	1.0	56.9	100.0	38.0	528
2-3	24.4	10.0	3.9	1.1	1.5	0.7	58.4	100.0	38.3	975
4-5	19.0	6.9	3.6	0.8	0.7	0.8	68.2	100.0	29.5	691
6+	16.4	6.9	3.7	0.7	0.4	0.7	71.2	100.0	27.0	898
Place of delivery										
Health facility	31.8	12.8	4.2	0.8	1.3	1.2	47.8	100.0	48.9	1,831
Elsewhere	5.5	2.0	2.5	1.0	1.3	0.1	87.6	100.0	10.0	1,258
Residence										
Urban	35.8	14.9	5.1	0.7	1.9	1.4	40.1	100.0	55.9	450
Rural	18.6	7.3	3.3	0.9	1.2	0.6	68.1	100.0	29.1	2,642
Region										
Kampala	40.5	15.5	5.2	0.8	2.5	2.2	33.3	100.0	61.2	187
Central 1	29.0	7.7	2.7	0.8	1.0	0.6	58.2	100.0	39.4	322
Central 2	27.9	10.1	1.2	0.7	2.0	0.6	57.5	100.0	39.3	340
East Central	18.8	3.5	2.3	0.4	2.2	1.3	71.4	100.0	24.5	345
Eastern	22.8	10.1	2.6	0.0	0.5	0.3	63.7	100.0	35.5	529
Karamoja	12.8	10.3	3.6	0.6	0.6	1.8	70.3	100.0	26.8	107
North	10.3	6.5	11.0	2.8	3.3	0.5	65.7	100.0	27.8	276
West Nile	29.1	8.8	2.6	1.5	1.3	1.2	55.6	100.0	40.5	187
Western	16.9	8.5	3.5	1.8	0.1	0.1	69.2	100.0	28.8	423
Southwest	9.4	6.4	3.0	0.3	0.6	0.8	79.5	100.0	18.8	375
Education										
No education	13.3	3.7	3.4	0.9	0.0	0.7	77.9	100.0	20.5	399
Primary	17.5	7.8	3.7	0.8	1.3	0.8	68.1	100.0	29.0	1,975
Secondary +	35.3	12.4	3.2	1.2	1.9	0.6	45.2	100.0	51.0	718
Wealth quintile										
Lowest	12.8	9.1	3.2	0.5	0.8	0.6	72.9	100.0	25.1	694
Second	18.8	5.9	3.5	1.2	1.3	0.9	68.4	100.0	28.2	679
Middle	14.9	8.5	2.3	1.3	0.7	0.7	71.6	100.0	25.7	602
Fourth	20.5	8.4	4.6	0.9	1.6	0.1	64.0	100.0	33.5	561
Highest	41.7	10.4	4.2	0.6	2.1	1.4	39.5	100.0	56.3	556
Total	21.1	8.4	3.5	0.9	1.3	0.8	64.1	100.0	33.0	3,092
		-			-		-			-,

<sup>&</sup>lt;sup>1</sup> Includes women who received a checkup after 41 days

### 9.6.2 Provider of First Postnatal Checkup for Mother

The skill level of the provider who performs the first postnatal checkup also has important implications for maternal and neonatal health. Table 9.9 shows that 30 percent of women received postnatal care from a doctor, nurse, or midwife. Only 2 percent of women received postnatal care from a TBA. Mothers of births of order 1 to 3, those who delivered in a health facility, those with secondary and higher education, those from the wealthiest households, and those in urban areas were more likely to have received postnatal care from a skilled provider than other mothers. Postnatal care from a doctor, nurse, or midwife was highest in Kampala (57 percent), followed by Central 2 (38 percent) and Central 1 (34 percent) regions. The Southwest region had the lowest percentage of postnatal checkup (18 percent).

Table 9.9 Type of provider of first postnatal checkup for the mother

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health check in the two days after the last live birth, according to background characteristics, Uganda 2011

	Type of hea	alth provider of mot	ther's first posti	natal checkup	No postnatal		
		Medical			checkup in the		
Background	Doctor/nurse/	assistant/	Nursing	Traditional birth	first two days		Number of
characteristic	midwife	clinical officer	aide/VHT	attendant	after birth	Total	women
Mother's age at birth							
<20	30.3	0.0	0.1	2.0	67.6	100.0	480
20-34	30.1	0.5	0.4	2.8	66.2	100.0	2,160
35-49	28.7	0.4	0.5	0.9	69.5	100.0	453
Birth order							
1	34.5	0.1	0.2	3.1	62.0	100.0	528
2-3	35.2	0.7	0.6	1.9	61.5	100.0	975
4-5	26.3	0.0	0.2	3.0	70.4	100.0	691
6+	24.2	0.5	0.4	2.0	73.0	100.0	898
Place of delivery							
Health facility	47.9	0.6	0.3	0.1	51.0	100.0	1,831
Elsewhere	3.7	0.2	0.5	5.7	90.0	100.0	1,258
Residence							,
Urban	53.9	8.0	0.5	0.8	44.1	100.0	450
Rural	25.8	0.4	0.4	2.6	70.8	100.0	2,642
	20.0	0.1	0.1	2.0	70.0	100.0	2,012
Region	E7 1	1.0	0.0	1 5	20.0	100.0	107
Kampala	57.1	1.8	0.8	1.5	38.8	100.0	187
Central 1	33.8	0.7	0.0	5.3	60.2	100.0	322
Central 2	37.6	0.8	0.0	0.8	60.7	100.0	340
East Central	22.7	0.0	0.8	1.1	75.3	100.0	345
Eastern	31.6	0.0	0.7	3.2	64.5	100.0	529
Karamoja	26.8	0.0	0.0	0.0	73.2	100.0	107
North	22.6	0.0	1.2	3.9	72.2	100.0	276
West Nile	33.0	1.2	0.3	5.9	59.5	100.0	187
Western	27.1	0.5	0.0	1.2	71.2	100.0	423
Southwest	17.9	0.1	0.0	0.8	81.2	100.0	375
Education							
No education	18.5	0.2	0.0	1.7	79.5	100.0	399
Primary	25.5	0.3	0.4	2.8	70.9	100.0	1,975
Secondary+	48.3	8.0	0.5	1.6	48.8	100.0	718
Wealth guintile							
Lowest	22.0	0.1	0.2	2.8	74.9	100.0	694
Second	24.7	0.4	0.6	2.4	71.8	100.0	679
Middle	23.1	0.3	0.0	2.4	74.1	100.0	602
Fourth	30.2	0.1	0.4	2.8	66.5	100.0	561
Highest	53.1	1.4	0.4	1.4	43.6	100.0	556
•							
Total	29.9	0.4	0.4	2.4	66.9	100.0	3,092

VHT = Village Health Team

#### 9.7 NEWBORN CARE

Newborn care is essential to reduce neonatal problems and death and to identify, manage, and prevent complications soon after delivery. According to the Sexual and Reproductive Health Policy Guidelines for Uganda (MOH, 2011), a newborn is expected to receive a postnatal checkup within the first 24 hours of life. The policy guidelines further indicate that within the first 6 hours of birth, care should be provided on an hourly basis. After the mother is discharged from the health facility, she is expected to return for a checkup within seven days of delivery. The next follow-up visit is recommended within six weeks of delivery, that is, when mothers bring their infants for immunisation. Mothers who deliver outside a health facility are expected to seek postnatal care immediately after giving birth, that is, within the first six hours after birth. Thereafter, the mother is expected to return to the health facility within the first seven days and then within six weeks.

Table 9.10 shows the percent distribution of last births in the two years preceding the survey by timing of the first postnatal checkup after birth, along with the percentage of births with a postnatal checkup in the first two days after birth, according to background characteristics. Eleven percent of newborns were taken for their first postnatal checkup within the critical first two days after birth. Only 2 percent of the births had a postnatal checkup within the first hour after birth, while 9 percent of births had a postnatal visit within 24 hours after birth. The vast majority of newborns (86 percent) did not receive a postnatal checkup.

Table 9.10 Timing of first postnatal checkup for the newborn

Percent distribution of last births in the two years preceding the survey by time after birth of first postnatal checkup, and the percentage of births with a postnatal checkup in the first two days after birth, according to background characteristics, Uganda 2011

	Т	ime after bir	th of newbor	n's first postr	natal checku	ıp			Percentage of births with a postnatal	
Background characteristic	Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	Don't know/ missing	No postnatal checkup <sup>1</sup>	Total	checkup in the first two days after birth	Number of births
Mother's age at birth <20 20-34 35-49	1.9 2.3 1.3	4.5 4.5 3.4	2.4 2.3 2.1	1.9 1.9 2.7	2.3 2.4 3.3	0.0 0.2 0.4	86.9 86.2 86.9	100.0 100.0 100.0	10.8 11.1 9.5	480 2,160 453
Birth order 1 2-3 4-5 6+ Place of delivery	3.1 3.2 1.1 1.1	5.6 4.8 3.9 3.5	2.7 2.5 2.3 1.9	2.3 1.9 1.8 2.2	2.8 2.3 3.2 2.1	0.0 0.1 0.5 0.2	83.4 85.2 87.1 89.1	100.0 100.0 100.0 100.0	13.8 12.4 9.2 8.6	528 975 691 898
Health facility Elsewhere	3.3 0.3	6.7 1.0	3.1 1.2	1.4 2.9	1.1 4.7	0.3 0.1	84.1 89.8	100.0 100.0	14.5 5.4	1,831 1,258
Residence Urban Rural	5.1 1.6	10.2 3.4	3.4 2.1	2.2 2.0	1.9 2.6	0.3 0.2	76.9 88.1	100.0 100.0	20.9 9.1	450 2,642
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	8.3 4.9 1.0 1.6 1.3 0.0 1.7 1.2 2.0 0.6	13.8 3.7 5.3 4.7 5.6 5.5 2.4 4.7 2.9 0.1	4.1 1.5 1.4 1.0 3.8 2.3 5.2 1.7 2.4 0.1	2.8 0.5 0.0 1.0 3.1 10.8 3.8 3.4 1.5	2.0 0.8 1.5 1.2 3.6 16.0 2.5 6.5 1.3 0.3	0.0 0.0 0.0 0.4 0.3 0.0 0.0 1.2 0.4	68.9 88.5 90.8 90.1 82.3 65.4 84.5 81.2 89.5 98.5	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	29.1 10.6 7.7 8.3 13.8 18.6 13.0 11.1 8.7	187 322 340 345 529 107 276 187 423 375
Mother's education No education Primary Secondary +	1.7 1.3 4.4	2.7 3.3 8.3	1.3 2.2 3.2	2.2 2.1 1.8	4.3 2.5 1.6	0.5 0.2 0.2	87.2 88.4 80.5	100.0 100.0 100.0	7.9 8.9 17.7	399 1,975 718
Wealth quintile Lowest Second Middle Fourth Highest	1.4 1.1 1.4 2.0 5.1	3.9 2.1 2.8 3.8 10.0	1.7 2.4 2.5 1.8 3.3	3.9 2.4 0.6 1.2 1.7	4.3 2.8 1.9 1.2 1.8	0.4 0.4 0.0 0.2 0.0	84.4 88.9 90.7 89.7 78.1	100.0 100.0 100.0 100.0 100.0	10.8 7.9 7.4 8.8 20.0	694 679 602 561 556
Total	2.1	4.4	2.3	2.0	2.5	0.2	86.4	100.0	10.8	3,092

<sup>&</sup>lt;sup>1</sup> Includes newborns who received a checkup after the first week

The proportion of postnatal checkups within the first two days of birth is higher among births to mothers with secondary or higher education (18 percent) compared with 8 percent of mothers with no education. Newborns delivered outside of a health facility were less likely to receive a postnatal checkup within the first two days after birth (5 percent) than newborns delivered in a health facility (15 percent). Similarly, postnatal checkups were less likely among births of order six and over, rural births, and births in the Southwest region than among births in the other categories.

Table 9.11 presents the percent distribution of last births in the two years preceding the survey by type of provider of newborn care during the first two days after delivery, according to background characteristics.

The findings show that one in every ten newborns received postnatal care in the two days following birth from a doctor, nurse, or midwife. The distribution of newborns who received care from a skilled provider by background characteristics is similar to the pattern described for providers of mothers' postnatal checkups.

Table 9.11 Type of provider of first postnatal checkup for the newborn

Percent distribution of last births in the two years preceding the survey by type of provider of the newborn's first postnatal health check during the two days after the last live birth, according to background characteristics, Uganda 2011

	Ту	pe of health pro first postna	vider of newbo	rn's			
Background characteristic	Doctor/ nurse/ midwife	Medical assistant/ clinical officer	Nursing aide/ VHT	Traditional birth attendant	No postnatal checkup in the first two days after birth	Total	Number of births
Mother's age at birth <20 20-34 35-49	9.6 10.3 9.0	0.0 0.3 0.0	0.0 0.0 0.1	1.2 0.5 0.4	89.2 88.9 90.5	100.0 100.0 100.0	480 2,160 453
Birth order 1 2-3 4-5 6+	12.7 11.5 8.7 7.7	0.0 0.5 0.1 0.0	0.0 0.0 0.1 0.0	1.1 0.4 0.3 0.9	86.2 87.6 90.8 91.4	100.0 100.0 100.0 100.0	528 975 691 898
Place of delivery Health facility Elsewhere	14.2 3.8	0.1 0.3	0.0 0.1	0.1 1.3	85.5 94.6	100.0 100.0	1,831 1,258
<b>Residence</b> Urban Rural	20.0 8.3	0.6 0.1	0.1 0.0	0.2 0.7	79.1 90.9	100.0 100.0	450 2,642
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	27.8 9.3 7.7 8.3 12.9 16.3 10.9 9.2 8.4 0.8	1.3 0.0 0.0 0.0 0.3 0.8 0.0 0.2	0.0 0.1 0.0 0.0 0.0 0.1 0.2 0.0 0.0	0.0 1.2 0.0 0.5 1.3 1.9 1.6 0.3	70.9 89.4 92.3 91.7 86.2 81.4 87.0 88.9 91.3 98.8	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	187 322 340 345 529 107 276 187 423 375
Mother's education No education Primary Secondary +	7.1 8.0 16.9	0.2 0.1 0.3	0.0 0.1 0.0	0.6 0.7 0.5	92.1 91.1 82.3	100.0 100.0 100.0	399 1,975 718
Wealth quintile Lowest Second Middle Fourth Highest	9.6 7.3 6.6 8.1 19.2	0.1 0.1 0.0 0.3 0.5	0.1 0.0 0.0 0.0 0.0	0.9 0.6 0.8 0.5 0.2	89.2 92.1 92.6 91.2 80.0	100.0 100.0 100.0 100.0 100.0	694 679 602 561 556
Total	10.0	0.2	0.0	0.6	89.2	100.0	3,092

## 9.8 PROBLEMS ACCESSING HEALTH CARE

Many factors can prevent women from getting medical advice or treatment for themselves when they are sick. Information on such factors is particularly important in understanding and addressing the barriers women may face in seeking care during pregnancy and at the time of delivery.

In the 2011 UDHS, women were asked whether or not each of the following factors would be a significant problem for them in seeking medical care: getting permission to go for treatment, getting money for treatment, distance to a health facility, and not wanting to go alone. The majority of women (65 percent) reported that at least one of these problems would pose a barrier to seeking health care for themselves when they are sick (Table 9.12). Almost half of women said that getting money for treatment was a problem in accessing health care, while almost as many (41 percent) said that distance to a facility was a problem. Twenty-two percent of women stated that not wanting to go alone is a problem in accessing health care. Only 6 percent of women perceived getting permission to go for treatment as a problem.

Table 9.12 Problems accessing health care

Percentage of women age 15-49 who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, Uganda 2011

	Problems in accessing health care									
Background characteristic	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Not wanting to go alone	At least one problem accessing health care	Number of women				
<b>Age</b> 15-19 20-34 35-49	7.3 5.2 4.7	42.8 47.3 56.8	36.0 39.7 49.0	22.6 21.8 23.5	60.0 63.7 71.5	2,048 4,284 2,342				
Number of living children 0 1-2 3-4 5+	7.0 4.5 5.3 5.3	40.9 43.5 51.9 58.3	33.4 38.4 41.6 51.0	21.1 20.7 22.5 25.1	56.7 61.8 66.2 74.2	2,279 2,099 1,832 2,464				
Marital status Never married Married or living together Divorced/separated/widowed	6.8 5.4 3.8	41.7 48.4 64.4	32.4 43.7 47.3	20.3 22.8 24.8	57.0 66.0 75.0	2,118 5,418 1,134				
Employed last 12 months Not employed Employed for cash Employed not for cash	7.2 5.0 4.8	45.3 47.9 55.2	34.0 41.0 50.9	18.7 22.8 26.1	58.8 64.7 72.6	2,299 4,446 1,928				
<b>Residence</b> Urban Rural	3.8 6.0	32.2 52.9	13.3 48.3	9.3 25.7	39.9 71.1	1,717 6,957				
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	2.4 5.1 5.2 5.0 5.9 5.3 4.7 6.2 8.4 5.9	27.9 33.8 43.7 40.9 49.3 86.3 77.4 59.6 53.5 48.5	9.9 36.5 41.4 36.3 41.7 41.9 52.4 46.2 49.0 55.0	6.4 15.2 17.6 22.1 19.7 18.0 19.0 29.9 29.5 40.6	34.5 53.2 61.9 57.5 66.1 87.0 87.6 76.4 71.8	839 956 902 869 1,267 289 735 500 1,221 1,097				
Education No education Primary Secondary +	6.9 6.0 4.0	67.5 52.7 31.8	56.1 45.3 26.0	26.8 25.3 14.3	81.4 70.0 46.4	1,120 5,152 2,402				
Wealth quintile Lowest Second Middle Fourth Highest	6.4 7.0 5.0 6.4 3.6 5.5	71.1 61.8 54.6 40.3 27.0 48.8	55.4 57.2 47.1 40.5 17.2	26.8 29.6 29.0 21.6 10.4 22.4	85.3 78.8 72.5 61.2 38.7 64.9	1,519 1,579 1,608 1,726 2,242 8,674				
iotai	0.0	₹0.0	71.7	44.7	U <del>T</del> .5	0,017				

Note: Total includes 5 women with missing information on marital status and 1 woman missing information on employment status

Women with five or more children, those who are divorced, widowed, or separated, those employed but not for cash, and those living in rural areas, Karamoja, North, and West Nile regions were more likely than their counterparts to cite having at least one of these problems in seeking health care for themselves, as were women with no education and women from the poorest households.

## 9.9 FEMALE CIRCUMCISION

Female genital cutting (FGC)—also called female circumcision and female genital mutilation—involves cutting some part of the clitoris or labia, usually as part of a traditional ceremony or rite of passage into adolescence. In Uganda, this practice is mostly practiced by members of two ethnic groups, the Sabiny group that live in the Eastern region, and the Pokot group that live in the Karamoja region.

Female circumcision in these groups is carried out as a ritual to initiate young girls into womanhood. It involves cutting the genital area of young girls, usually age 10 and older, which is occasionally followed by a more severe form of female circumcision.

During the early nineties, the REACH (Reproductive and Community Health) programme was introduced in Kapchorwa and Kween Districts located in the Eastern region to curb the practice. The programme aims to sensitize community leaders and point out the many harmful effects of genital cutting. In December 2010, a law against female circumcision was enacted by the parliament of Uganda.

Women interviewed during the 2011 UDHS were asked whether they had ever heard of female circumcision. Those who had heard were asked if they were circumcised. Information was also solicited on their opinions as to whether the practice should be continued or stopped. Table 9.13 presents the findings.

Table 9.13 Female circumcision

Percentage of women age 15-49 who have heard of female circumcision and percentage who are circumcised, and among women who have heard of female circumcision, percent distribution according to their attitude toward continuation of the practice, according to background characteristics, Uganda 2011

	Percentage of women who have heard of Percentage  Attitude about female circumcision					Number of women who		
Background characteristic	female circumcision	of women circumcised	Number of women	Continue	Be stopped	Depends/ Don't know	Total	heard of circumcision
<b>Age</b> 15-19 20-24	47.9 60.0	1.0 0.8	2,048 1,629	12.8 9.4	80.6 83.2	6.6 7.4	100.0	980 978
25-29 30-34	57.1 59.9	1.9 2.1	1,569 1,086	7.4 8.9	84.8 80.6	7.8 10.5	100.0 100.0 100.0	896 650
35-39 40-44 45-49	54.4 56.7 58.1	1.3 1.7 1.9	1,026 729 587	7.1 5.5 4.3	82.6 81.9 86.1	10.3 12.6 9.5	100.0 100.0 100.0	559 414 341
Residence Urban	68.2 52.4	1.4 1.4	1,717	4.6 10.0	90.0	5.5	100.0 100.0	1,172
Rural Region	52.4	1.4	6,957	10.0	80.3	9.7	100.0	3,645
Kampala Central 1 Central 2	74.2 52.6 61.1	1.8 1.5 1.4	839 956 902	3.8 8.8 5.3	90.5 86.6 86.3	5.7 4.5 8.4	100.0 100.0 100.0	622 503 551
East Central Eastern Karamoja	67.8 75.4 67.8	0.6 2.3 4.8	869 1,267 289	6.3 8.2 10.9	83.3 78.9 80.1	10.3 12.9 9.0	100.0 100.0 100.0	589 955 196
North West-Nile Western	55.5 21.6 37.6	0.5 0.2 1.1	735 500 1,221	16.9 13.3 9.5	73.1 78.5 85.3	10.0 8.2 5.3	100.0 100.0 100.0	408 108 459
Southwest	38.8	1.4	1,097	13.5	77.7	8.8	100.0	426
Education No education Primary Secondary +	43.9 50.1 72.6	1.5 1.4 1.5	1,120 5,152 2,402	11.1 10.0 6.0	76.5 79.9 88.4	12.4 10.0 5.7	100.0 100.0 100.0	491 2,582 1,743
Wealth quintile Lowest Second Middle Fourth Highest	49.8 49.0 48.7 53.9 70.2	2.2 1.2 1.2 1.0 1.5	1,519 1,579 1,608 1,726 2,242	13.1 10.6 10.6 7.4 5.4	74.5 77.9 81.9 83.1 89.0	12.4 11.5 7.5 9.4 5.6	100.0 100.0 100.0 100.0 100.0	757 774 783 930 1,573
Total	55.5	1.4	8,674	8.7	82.6	8.7	100.0	4,817

The results show that 56 percent of Ugandan women have heard of female circumcision, an increase from 34 percent during the 2006 UDHS. Knowledge of female circumcision varies by residence and region, with higher proportions among urban women (68 percent) than among rural counterparts (52 percent). Knowledge of female circumcision was highest among women in the Eastern region (75 percent) followed by Kampala (74 percent). The West Nile region had the lowest percentage (22 percent).

Prevalence of female circumcision in Uganda is low, with less than 2 percent of the women circumcised. The Karamoja region recorded the highest percentage of female circumcision (5 percent) followed by the Eastern region (2 percent).

Greater support for discontinuation of circumcision among younger women suggests that the practice is likely to continue declining in the future. Overall, 9 percent of the female respondents declared that they wanted the practice to continue, while 83 percent declared that they wanted the practice to stop.

Nine percent of the women were undecided. Variations by age show that young women under age 20 were more likely to be in favour of female circumcision (13 percent) compared with women in older age groups. Regional differentials show that women in the North (17 percent) followed by those residing in the Southwest and West Nile regions (14 and 13 percent, respectively) were in favour of female circumcision, compared with 4 percent of those residing in Kampala. There is an inverse relationship between support for continuation of the practice of female circumcision and education and household wealth. Less educated women and women with the least wealth were more likely to declare that female circumcision should be continued compared with women who have more education and wealth.

#### 9.10 OBSTETRIC FISTULA

Obstetric fistula (fistula is a Latin word for 'hole') is predominantly caused by neglect of obstructed labour. If the obstruction is unrelieved, the baby usually dies. The prolonged impact of a baby's head against the mother's internal tissue results in a serious medical condition in which a hole (fistula) develops between either the rectum and vagina or the bladder and vagina. Loss of the baby, persistent incontinence, and foul smelling odor may follow, along with many other possible complications such as infertility and chronic infection. As a result, the woman may be isolated from family, society, and employment. Though a simple surgical repair can mend most cases of obstetric fistula, most women go untreated, afraid to admit to the condition or too poor to afford the repair. Obstetric fistula is particularly prevalent in Sub-Saharan Africa, and Uganda has been reported to have the third-highest rate of fistula in the world.<sup>1</sup>

The 2006 UDHS collected data on this condition to assess its prevalence. All women in the survey were asked the following question: 'Sometimes a woman can have a problem of constant leakage of urine or stool from her vagina during day and night. This problem usually occurs after a difficult child birth, but may also occur after sexual assault or after pelvic surgery. Have you ever experienced constant leakage of urine or stool from your vagina during day and night?'

Table 9.14 presents data on women who responded affirmatively to this question, according to selected background characteristics. The data show that 2 percent of Ugandan women have experienced fistula. In the 2006 UDHS, the prevalence was 3 percent. Differences by background characteristics are small.

Table 9.14 Obstetric fistula

Percentage of women age 15-49 who have experienced obstetric fistula, according to background characteristics, Uganda 2011

Percentage of women who have experienced obstetric fistula	Number of women
1.0	2,048
1.8	1,629
1.8	1,569
3.1	1,086
2.5	1,026
2.8	729
2.6	587
1.1	1,717
2.2	6,957
1.0 1.8 2.1 1.8 1.5 0.6 2.3 2.0 4.0	839 956 902 869 1,267 289 735 500 1,221 1,097
1.8	1,120
2.3	5,152
1.3	2,402
2.1	1,519
2.6	1,579
2.6	1,608
1.7	1,726
1.3	2,242
2.0	8,674
	of women who have experienced obstetric fistula  1.0 1.8 1.8 3.1 2.5 2.8 2.6  1.1 2.2  1.0 1.8 1.5 0.6 2.3 2.0 4.0 1.4  1.8 2.3 1.3  2.1 2.6 2.6 1.7 1.3

Among those who have ever experienced fistula, 62 percent sought treatment, 12 percent felt that it was an embarrassment and hence did not seek treatment, 9 percent did not know where to go for treatment, 7 percent did not know that a fistula could be fixed, and 3 percent said treatment is too expensive (data not shown).

Maternal Health • 121

<sup>&</sup>lt;sup>1</sup> See Uganda village project website: <a href="http://www.ugandavillageproject.org/what-we-do/healthy-villages/obstetric-fistula/">http://www.ugandavillageproject.org/what-we-do/healthy-villages/obstetric-fistula/</a>

# REFERENCES

Arimond, M., and Marie T. Ruel. 2003. *Generating Indicators of Appropriate Feeding of Children 6 through 23 Months from the KPC 2000+*. Report of the Food and Nutrition Technical Assistance Project (FANTA). Washington, D.C.: Academy for Educational Development. http://pdf.usaid.gov/pdf docs/PNACW465.pdf.

Bailey, R. C., S. Moses, C. B. Parker, K. Agot, I. Maclean, J. N. Krieger, C. F. Williams, R. T. Campbell, and J. O. Ndinya-Achola. 2007. Male Circumcision for HIV Prevention in Young Men in Kisumu, Kenya: A Randomized Controlled Trial. *Lancet* 369(9562): 643-56. doi:10.1016/S0140-6736(07)60312.

Bloom, Shelah S. 2008. *Violence against Women and Girls: A Compendium of Monitoring and Evaluation Indicators*. http://www.cpc.unc.edu/measure/publications/pdf/ms-08-30.pdf

Bradley, A. K., B. M. Greenwood, A. M. Greenwood, K. Marsh, P. Byass, S. Tulloch, and R. Hayes. 1986. Bed Nets (Mosquito Nets) and Morbidity from Malaria. *The Lancet* 328: 204-207. doi:10.1016/S0140-6736(86)92500-6

Bradley, Sarah E. K., Trevor N. Croft, Joy D. Fishel, and Charles F. Westoff. 2012. *Revising Unmet Need for Family Planning. DHS Analytical Studies No. 25.* Calverton, Maryland, USA: ICF International.

de Pee, S., and O. Dary. 2002. Biochemical Indicators of Vitamin A Deficiency: Serum Retinol and Serum Retinol Binding Protein. *Journal of Nutrition* 132(9 suppl): 2895S-2901S. doi: 10.3945/jn.111.155937

Doolan, D. L., C. Dobaño, and J. K. Baird. 2009. Acquired Immunity to Malaria. *Clinical Microbiology Review* 22(1):13-36. doi:10.1128/CMR.00025-08

Graham, W., W. Brass, and R. W. Snow. 1989. Indirect Estimation of Maternal Mortality: The Sisterhood Method. *Studies in Family Planning* 20(3): 125-135. doi:10.2307/1966567.

Hossain, M. I., and C. F. Curtis. 1989. Permethrin-impregnated Bed Nets: Behavioural and Killing Effects on Mosquitoes. *Medical and Veterinary Entomology* 3: 367-376. doi:10.1111/j.1365-2915.1989.tb00243.x

Killeen G. F., T. A. Smith, H. M. Ferguson, H. Mshinda, S. Abdulla, C. Lengeler, and S. P. Kachur. 2007. Preventing Childhood Malaria in Africa by Protecting Adults from Mosquitoes with Insecticide-Treated Nets. *PLOS Medicine*. 4(7): e229-1258. doi:10.1371/journal.pmed.0040229

Kish, L. 1965. Survey Sampling. New York: John Wiley and Sons Inc.

Krug, E.G., L. Dahlberg, J. Mercy, A. Zwi, and R. Lozano, eds. 2002. *World Report on Violence and Health*. Geneva, Switzerland: World Health Organization.

Lengeler C. 2004. Insecticide-treated Bed Nets and Curtains for Preventing Malaria. *Cochrane Database of Systematic Reviews 2004*. Issue 2. Art. No.: CD000363. doi:10.1002/14651858.CD000363.pub2.

Lindsay, S. W., and M. E. Gibson. 1988. Bed Nets Revisited: Old Idea, New Angle. *Parasitology Today* 4: 270-272. doi:10.1016/0169-4758(88)90017-8

Lines, J. O., J. Myamba, and C. F. Curtis. 1987. Experimental Hut Trials of Permethrin-impregnated Mosquito Nets and Eave Curtains against Malaria Vectors in Tanzania. *Medical and Veterinary Entomology* 1: 37-51. <a href="https://doi.org/10.1111/j.1365-2915.1987.tb00321.x">doi:10.1111/j.1365-2915.1987.tb00321.x</a>

Ministry of Finance, Planning and Economic Development (MoFPED). 2008. *National Population Policy for Social Transformation and Sustainable Development. Kampala, Uganda: MoFPED. http://www.hsph.harvard.edu/population/policies/uganda.pop.08.pdf* 

Ministry of Gender, Labour, and Social Development. 2007. Uganda Gender Policy. Kampala, Uganda.

Ministry of Health (MOH) [Uganda]. 2005. *Uganda Malaria Control Strategic Plan, 2005/6–2009/10*. Kampala, Uganda: MOH.

Ministry of Health (MOH) [Uganda]. 2010a. *Heath Sector Strategic Plan*, 2010/11 – 2014/15. Kampala, Uganda: MOH. <a href="http://www.health.go.ug/docs/HSSP">http://www.health.go.ug/docs/HSSP</a> III 2010.pdf

Ministry of Health (MOH) [Uganda]. 2010b. *Health Sector Strategic and Investment Plan. Promoting People's Health to Enhance Socio-Economic Development 2010/11-2014/15*. Kampala, Uganda. MOH. http://www.kampala.cooperazione.esteri.it/utlkampala/Download/HSSIP%20Final.pdf

Ministry of Health (MOH) [Uganda]. 2010c. *The Second National Health Policy*. Kampala, Uganda: Ministry of Health.

Ministry of Health (MOH), 2011. *The National Policy Guidelines and Service Standards for Sexual and Reproductive Health and Rights*. Third Edition. Kampala, Uganda: MOH.

National Planning Authority (NPA) [Uganda]. 2010. *National Development Plan 2010/11-2014/15*. Kampala, Uganda: NPA. http://www.unpei.org/PDF/uganda-NDP April 2010.pdf

PAHO/WHO. 2003. Guiding Principles for Complementary Feeding of the Breastfed Child. Washington, DC/Geneva, Switzerland: PAHO/WHO.

Population Secretariat (POPSEC), Ministry of Finance, Planning and Economic Development [Uganda]. 2008. *National Population Policy for Social Transformation and Sustainable Development.* Kampala, Uganda, POPSEC.

Ross, D., B. Dick, and J. Ferguson, eds. 2006. *Preventing HIV/AIDS in Young People: A Systematic Review of the Evidence from Developing Countries.* WHO Technical Report Series No. 938. Geneva, Switzerland: World Health Organisation.

Rutenberg, N., and J. Sullivan. 1991. Direct and Indirect Estimates of Maternal Mortality from the Sisterhood Method. In *Proceedings of the Demographic and Health Surveys World Conference*, 3: 1669-1696. Columbia, Maryland: IRD/Macro International Inc.

Rutstein, S. 1999. Wealth versus Expenditure: Comparison between the DHS Wealth Index and Household Expenditures in Four Departments of Guatemala. Calverton, Maryland, USA: ORC Macro (Unpublished).

Strauss, M.A. 1990. Measuring intra-family conflict and violence: The Conflict Tactics Scale. In *Physical violence in American families: Risk factors and adaptation to violence in 8,145 families*. New Brunswick, New Jersey: Transaction Publications.

The Republic of Uganda. 2010. National Development Plan 2010/11-2014/15. Kampala, Uganda.

Uganda AIDS Commission (UAC). 2007. *Moving Toward Universal Access: National HIV & AIDS Strategic Plan 2007/8 – 2011/12.* Kampala, Uganda: UAC

Uganda Bureau of Statistics (UBOS). 2006a. 2002 *Uganda Population and Housing Census: Analytical Report, Abridged Version*. Kampala, Uganda: UBOS.

Uganda Bureau of Statistics (UBOS). 2006b. 2006 Statistical Abstract. Kampala, Uganda: UBOS.

Uganda Bureau of Statistics (UBOS), Macro International Inc., and MEASURE Evaluation. 2008. *Uganda Child Verbal Autopsy Study 2007*. Calverton, Maryland, USA: UBOS, Macro International Inc., and MEASURE Evaluation.

Uganda Bureau of Statistics (UBOS). 2010. *Uganda National Household Survey; Socio-Economic Report* Kampala, Uganda: UBOS.

Uganda Bureau of Statistics (UBOS). 2010. *The Uganda National Household Survey 2009/10: Report on the Socio-Economic Module. Abridged Report.* Kampala, Uganda: UBOS. <a href="http://www.ubos.org/UNHS0910/unhs200910.pdf">http://www.ubos.org/UNHS0910/unhs200910.pdf</a>

Uganda Bureau of Statistics (UBOS) and ICF Macro, 2010. Uganda Malaria Indicator Survey 2009. Calverton, Maryland, USA: UBOS and ICF Macro.

Uganda Bureau of Statistics (UBOS) and Macro International Inc. 2007. *Uganda Demographic and Health Survey 2006*. Calverton, Maryland, USA: UBOS and Macro International Inc.

Uganda Bureau of Statistics (UBOS) and ORC Macro. 2001. *Uganda Demographic and Health Survey* 2000-2001. Calverton, Maryland, USA: UBOS and ORC Macro.

United Nations (UN). 1993. Declaration on the Elimination of Violence against Women. New York: United Nations.

United Nations (UN). 1995. *Beijing Declaration and Platform for Action at the Fourth World Conference on Women*. <a href="http://www.unesco.org/education/information/nfsunesco/pdf/BEIJIN\_E.PDF">http://www.unesco.org/education/information/nfsunesco/pdf/BEIJIN\_E.PDF</a>

World Health Organisation (WHO). 1999. *Violence against Women, a Priority Health Issue*. WHO/FRH/WHD/97.8. Geneva, Switzerland: WHO.

World Health Organization (WHO). 2001a. *Iron Deficiency Anemia, Assessment, Prevention, and Control. A Guide for Programme Managers*. Geneva, Switzerland: WHO.

World Health Organization (WHO). 2001b. Putting Women First: Ethical and Safety Recommendations for Research on Domestic Violence against Women. Geneva, Switzerland: Department of Gender and Women's Health, World Health Organization.

World Health Organization (WHO). 2005. *Guiding Principles for Feeding Nonbreastfed Children 6 to 24 Months of Age*. Geneva, Switzerland: WHO. http://www.helid.desastres.net/pdf/s13445e/s13445e.pdf.

WHO/Global Malaria Program. 2007. Insecticide-Treated Mosquito Nets: A WHO Position Statement. Geneva, Switzerland: WHO. http://www.who.int/malaria/publications/atoz/itnspospaperfinal/en/index.html

World Health Organization (WHO). 2008. *Indicators for Assessing Infant and Young Child Feeding Practices*. *Part I: Definitions*. Conclusions of a consensus meeting held 6-8 November 2007 in Washington, D.C., USA. http://whqlibdoc.who.int/publications/2008/9789241596664 eng.pdf.

World Health Organisation (WHO)/United Nations Children's Fund (UNICEF) Joint Monitoring Programme on Water Supply and Sanitation. 2005. *Water for Life: Making It Happen*. Geneva, Switzerland: WHO. <a href="http://whqlibdoc.who.int/publications/2005/9241562935.pdf">http://whqlibdoc.who.int/publications/2005/9241562935.pdf</a>

World Health Organization (WHO)/United Nations Children's Fund (UNICEF) Joint Monitoring Program on Water Supply and Sanitation. 2010. *Progress on Sanitation and Drinking Water: 2010 Update*. Geneva, Switzerland,: WHO. http://whqlibdoc.who.int/publications/2010/9789241563956\_eng.pdf

World Health Organization (WHO), Multicentre Growth Reference Study Group. 2006. WHO Child Growth Standards: Length/Height-for-Age, Weight-for-Length, Weight-for-Height and Body Mass Indexfor-Age: Methods and Development. Geneva, Switzerland: WHO.

# **DATA QUALITY TABLES**

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Uganda 2011

Uganda 2011						
	Fei	male	Ma	ale		
Age	Number	Percent	Number	Percent		
0	814	3.7	878	4.1		
1 2 3 4 5 6 7 8	829	3.7	745 882	3.5		
3	820 836	3.7 3.8	810	4.2 3.8		
4	831	3.7	829	3.9		
5	696	3.1	788	3.7		
7	882 775	4.0 3.5	806 806	3.8 3.8		
8	780	3.5	758	3.6		
9 10	632	2.8	679	3.2		
11	756 590	3.4 2.6	808 633	3.8 3.0		
12	665	3.0	750	3.5		
13 14	644 588	2.9 2.6	634 547	3.0 2.6		
15	515	2.3	544	2.6		
16	445	2.0	530	2.5		
17 18	407 455	1.8 2.0	415 414	2.0 1.9		
19	368	1.7	301	1.4		
20	410	1.8	372	1.8		
21 22	350 334	1.6 1.5	202 258	1.0 1.2		
23	340	1.5	249	1.2		
24	277	1.2	234	1.1		
25 26	419 281	1.9 1.3	385 244	1.8 1.2		
27	314	1.4	255	1.2		
28	362	1.6 1.3	285	1.3		
29 30	287 313	1.3 1.4	201 347	0.9 1.6		
31	217	1.0	172	0.8		
32 33	249 169	1.1 0.8	232 161	1.1 0.8		
34	196	0.8	158	0.8		
35	267	1.2	307	1.4		
36 37	204 207	0.9 0.9	169 149	0.8 0.7		
38	226	1.0	218	1.0		
39	152	0.7	152	0.7		
40 41	254 115	1.1 0.5	283 110	1.3 0.5		
42	170	0.8	171	0.8		
43	116	0.5	95	0.4		
44 45	98 144	0.4 0.6	64 191	0.3 0.9		
46	102	0.5	81	0.4		
47 48	103 137	0.5 0.6	84 121	0.4 0.6		
49	134	0.6	98	0.6		
50	133	0.6	140	0.7		
51 52	85 146	0.4 0.7	65 99	0.3 0.5		
53	108	0.5	69	0.3		
54	82	0.4	84	0.4		
55 56	103 91	0.5 0.4	64 68	0.3 0.3		
57	57	0.3	71	0.3		
58	79	0.4	49	0.2		
59 60	51 150	0.2 0.7	57 110	0.3 0.5		
61	32	0.1	25	0.1		
62 63	49 32	0.2 0.1	45 31	0.2 0.1		
64	52 57	0.1	42	0.1		
65	85	0.4	72	0.3		
66 67	20 56	0.1 0.3	18 45	0.1 0.2		
68	46	0.3	36	0.2		
69	33	0.1	18	0.1		
70+ Don't know/missing	508 4	2.3 0.0	404 5	1.9 0.0		
ŭ						
Total	22,285	100.0	21,223	100.0		

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

#### Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54 and interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, Uganda 2011

	Household population of	Interview age	Percentage of		
Age group	women age 10-54	Number	Percentage	eligible women interviewed	
10-14 15-19 20-24 25-29 30-34	3,243 2,191 1,711 1,663 1,145	na 2,017 1,627 1,559 1,073	na 23.4 18.9 18.1 12.5	na 92.1 95.1 93.8 93.7	
30-34 35-39 40-44 45-49 50-54	1,145 1,056 753 620 553	1,073 1,012 729 584 na	12.5 11.8 8.5 6.8 na	93.7 95.8 96.9 94.2 na	
15-49	9,138	8,602	100.0	94.1	

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the Household Questionnaire.

na = Not applicable

#### Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-64 and interviewed men age 15-59; and percent distribution and percentage of eligible men who were interviewed (weighted), by five-year age groups, Uganda 2011

	Household population of _	Intervie age	Percentage of eligible men	
Age group	men age 10-59	Number	Percentage	interviewed
10-14 15-19 20-24 25-29 30-34 35-39	1,098 609 361 408 352 300	na 551 313 362 328 271	na 24.0 13.7 15.8 14.3 11.8	na 90.5 86.9 88.7 93.1 90.2
40-44 45-49 50-54 55-59 60-64	223 176 126 100 70	193 157 120 na na	8.4 6.9 5.2 na na	90.2 86.4 89.2 95.4 na na
15-59	2,656	2,296	100.0	86.4

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the Household Schedule. na = Not applicable

#### Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Uganda 2011

Subject	Reference group	Percentage with information missing	Number of cases
Birth date Month only Month and year	Births in the 15 years preceding the survey	1.41 0.08	21,402 21,402
Age at death	Deceased children born in the 15 years preceding the survey	0.00	2,332
Age/date at first union <sup>1</sup>	Ever-married women age 15-49 Ever married men age 15-54)	0.37 0.39	6,556 1,461
Respondent's education	All women age 15-49 All men age 15-54	0.00 0.00	8,674 2,295
Diarrhoea in last 2 weeks	Living children 0-59 months	2.83	7,535
Anthropometry Height Weight Height or weight	Living children age 0-59 months (from the Household Questionnaire)	4.86 4.86 5.16	2,587 2,587 2,587
Anaemia	Living children age 6-59 months (from the Household Questionnaire) All women (from the Household Questionnaire)	7.83 8.84	2,324 2,886

<sup>&</sup>lt;sup>1</sup> Both year and age missing

#### Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), Uganda 2011

	Nu	mber of bir	ths	Percentage with complete birth date <sup>1</sup>		Sex ratio at birth <sup>2</sup>			Calendar year ratio <sup>3</sup>			
Calendar year	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
2011	1,158	41	1,200	100.0	100.0	100.0	107.7	80.4	106.6	na	na	na
2010 2009	1,498 1,519	102 113	1,600 1,632	100.0 100.0	100.0 100.0	100.0 100.0	90.7 103.8	114.2 122.6	92.0 105.0	na 100.8	na 96.0	na 100.4
2008 2007	1,516 1,412	133 123	1,650 1.535	99.9 99.9	100.0 100.0	99.9 100.0	96.5 104.5	145.3 108.9	99.7 104.8	103.5 96.6	112.9 91.7	104.2 96.2
2006	1,406	136	1,542	100.0 98.4	99.1	99.9 97.7	104.7 89.4	113.3 157.0	105.5 96.4	99.4	78.2 148.6	97.1 107.6
2005 2004	1,417 1,342	224 165	1,641 1,508	98.6	93.1 93.6	98.0	96.5	114.1	98.3	103.2 96.9	80.1	94.7
2003 2002	1,354 1,144	189 160	1,543 1,304	98.2 98.3	92.8 95.6	97.5 98.0	97.2 97.3	96.2 94.7	97.1 97.0	108.9 94.9	115.9 90.3	109.7 94.3
2007-2011 2002-2006	7,104 6,663	513 874	7,616 7,537	100.0 98.7	100.0 94.5	100.0 98.2	100.1 96.9	118.6 115.0	101.2 98.8	na na	na na	na na
1997-2001	5,095	908	6,003	97.7	93.3	97.1	101.7	118.7	104.1	na	na	na
1992-1996 <1992	3,635 3,230	749 913	4,384 4,143	97.7 96.4	94.1 92.0	97.1 95.5	104.7 106.1	114.0 132.9	106.3 111.4	na na	na na	na na
All	25,727	3,955	29,683	98.4	94.3	97.9	100.9	120.0	103.3	na	na	na

na = Not applicable

1 Both year and month of birth given

2 (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively

3 [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Uganda 2011

	Number of years preceding the survey					
Age at death (days)	0-4	5-9	10-14	15-19	Total 0-19	
<1	74	93	79	49	295	
1	43	41	25	20	130	
2 3	23	22	14	12	71	
	16	12	11	6	45	
4	3	15	8	2	28	
5	1	6	3	1	10	
6	3	5	0	4	12	
7	22	33	28	13	95	
8	2 2 2	2	3	0	6	
9	2	1	0	1	4	
10		0	2	0	5 2	
11	0 0	1	1 2	0 2	4	
12 13	0	0	0	1	1	
14	16	21	16	6	60	
15	10	0	2	0	4	
17	0	1	0	0	1	
18	0	Ó	1	0	i	
19	Ö	0	Ó	ŏ	Ö	
21	4	2	3	2	12	
23	Ó	0	Ö	0	0	
26	Ö	Ö	2	Ö	2	
27	Ö	1	0	Ō	1	
30	1	0	1	Ö	3	
Total 0-30 Percentage early neonatal <sup>1</sup>	215 76.4	256 75.4	204 69.3	119 77.7	794 74.4	

<sup>&</sup>lt;sup>1</sup> ≤6 days/≤30 days

### Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, Uganda 2011

Age at death	Number of years preceding the survey						
(months)	0-4	5-9	10-14	15-19	Total 0-19		
<1	215	256	204	119	794		
1	15	35	32	25	107		
2	12	35	19	21	87		
3	25	31	34	20	110		
4	22	26	23	30	101		
5 6	13	22	26	18	80		
6	31	33	47	25	136		
7	14	19	27	20	81		
8	21	30	43	30	124		
9	27	33	37	41	138		
10	3	15	7	5	31		
11	6	12	8	4	30		
12	32	59	51	42	184		
13	9	12	13	6	40		
14	9	10	7	5	31		
15	4	12	6	6	28		
16	1	4	6	1	12		
17	2	10	3	1	16		
18	4	11	13	5	33		
19	2	4	9	5	20		
20	0	4	9 5 2 2 3	4	13		
21	2	0	2	2	7		
22	1	2	2	0	5		
23	4	0		1	8		
24+	1	1	0	1	3		
1 Year	6	13	26	29	74		
Total 0-11	405	546	507	360	1,818		
Percentage neonatal <sup>1</sup>	53.1	47.0	40.1	33.1	43.7		

 <sup>&</sup>lt;sup>a</sup> Includes deaths under one month reported in days
 <sup>1</sup> Under one month/under one year

Table C.7 Nutritional status of children

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, based on the NCHS/CDC/WHO International Reference Population, Uganda 2011

-	Height-for-age <sup>1</sup> Weight-for-height			Weight-for-age								
Background characteristic	Percent- age below -3 SD	Percent- age below -2 SD <sup>2</sup>	Mean Z-score (SD)	Percent- age below -3 SD	Percent- age below -2 SD <sup>2</sup>	Percent- age above +2 SD	Mean Z-score (SD)	Percent- age below -3 SD	Percent- age below -2 SD <sup>2</sup>	Percent- age above +2 SD	Mean Z-score (SD)	Number of children
Age in months <6 6-8 9-11 12-17 18-23 24-35 36-47 48-59	2.1 2.2 5.7 10.9 17.2 11.0 13.0 12.0	6.4 7.9 19.4 32.1 41.4 29.6 31.5 31.5	-0.2 -0.5 -1.1 -1.5 -1.7 -1.4 -1.5 -1.4	1.3 0.0 1.1 0.7 0.5 0.3 0.3	5.0 6.7 8.4 6.8 5.9 1.9 1.8 1.3	6.4 2.6 2.1 1.9 1.6 0.3 0.9 0.3	0.1 -0.4 -0.3 -0.6 -0.4 -0.2 -0.1	0.9 3.6 1.1 4.4 6.8 3.7 3.4 1.7	4.4 16.2 17.5 25.5 24.1 20.1 14.5 13.9	3.3 0.1 0.0 0.8 1.7 0.9 0.2 0.3	0.0 -0.7 -1.1 -1.4 -1.2 -1.1 -1.0 -1.0	228 131 121 249 267 445 477 435
<b>Sex</b> Male Female	11.5 9.8	30.3 25.7	-1.3 -1.2	0.7 0.3	3.9 3.4	1.5 1.6	-0.3 -0.2	2.7 3.9	17.6 16.3	0.8 1.0	-1.0 -0.9	1,172 1,183
Birth interval in months <sup>3</sup> First birth <sup>4</sup> <24 24-47 48+	9.4 13.7 11.0 5.7	29.3 34.1 28.0 17.3	-1.3 -1.5 -1.3 -0.9	0.4 0.3 0.8 0.0	3.4 2.8 4.8 2.2	2.5 0.5 1.5 3.7	-0.2 -0.3 -0.2 -0.2	2.2 5.2 3.0 2.5	13.8 22.8 17.2 10.4	0.8 0.2 1.3 0.6	-0.9 -1.1 -0.9 -0.7	331 416 1,025 278
Size at birth <sup>3</sup> Very small Small Average or larger Missing	19.2 11.9 9.5 17.0	36.7 34.7 25.8 33.5	-1.7 -1.5 -1.2 -1.4	0.0 0.1 0.7 0.0	9.1 4.8 3.3 1.7	0.0 1.1 2.0 1.4	-0.6 -0.4 -0.2 -0.1	10.2 3.9 2.6 5.2	35.4 23.4 14.4 14.4	0.8 0.6 1.0 0.0	-1.5 -1.2 -0.8 -1.0	100 339 1,556 53
Mother's interview status Interviewed Not interviewed but in household Not interviewed and not in the household <sup>5</sup>	10.6 7.9 12.9	28.0 26.0 28.8	-1.3 -1.6 -1.3	0.5 0.0 0.0	3.8 2.6 2.2	1.7 0.9 0.1	-0.2 -0.6 -0.3	3.3 2.0 4.5	16.9 19.6 16.7	0.9 0.9 0.7	-0.9 -1.3 -1.0	2,050 105 199
Mother's nutritional status <sup>6</sup> Thin (BMI<18.5) Normal (BMI 18.5-24.9) Overweight/obese (BMI	8.9 11.4	27.7 29.8	-1.3 -1.3	0.0 0.6	9.2 3.6	1.0 2.0	-0.8 -0.2	4.3 3.3	29.5 17.5	0.6 0.8	-1.4 -1.0	200 1,542
≥25)  Residence  Urban  Rural	8.0 3.4 11.7	22.6 13.5 30.1	-0.9 -0.7 -1.4	0.5 0.0 0.5	1.9 2.6 3.8	1.2 3.7 1.2	0.1 -0.1 -0.3	2.2 0.9 3.7	9.1 8.4 18.3	1.9 3.4 0.5	-0.5 -0.5 -1.0	345 305 2,049
Region Kampala Central 1 Central 2 East Central Eastern Karamoja North West Nile Western Southwest	2.2 11.2 11.7 10.6 4.4 19.6 8.4 14.0 13.6 16.7	10.4 27.7 30.8 28.8 21.3 36.7 19.6 31.0 35.7 36.3	-0.6 -1.3 -1.2 -1.2 -1.0 -1.8 -1.2 -1.5 -1.6 -1.5	0.0 0.5 0.0 1.4 0.4 0.3 0.7 1.2 0.4 0.0	3.4 3.6 2.1 5.7 4.3 7.9 2.0 6.2 1.4 3.0	3.7 2.8 1.5 0.9 0.4 0.0 1.8 0.8 2.3 1.9	-0.0 -0.1 -0.1 -0.3 -0.4 -1.1 -0.1 -0.4 -0.2 0.0	1.4 2.5 1.8 3.4 1.6 11.9 3.9 4.6 3.9	9.6 17.3 15.1 18.3 15.4 33.0 13.4 21.9 17.1 17.8	3.9 1.4 1.6 0.7 0.1 0.2 0.7 0.7 0.4 0.8	-0.4 -0.9 -0.9 -1.0 -1.0 -1.8 -0.8 -1.2 -1.1 -0.9	132 244 217 271 448 84 191 151 327 290
Mother's education No education Primary Secondary+	14.5 11.0 6.4	36.8 29.5 18.1	-1.5 -1.3 -1.0	0.7 0.6 0.3	6.5 3.5 3.1	1.6 1.7 1.8	-0.3 -0.2 -0.2	5.8 2.9 2.8	25.2 17.3 11.9	0.3 0.9 1.2	-1.2 -1.0 -0.8	275 1,406 459
Wealth quintile Lowest Second Middle Fourth Highest	14.5 8.7 16.1 9.1 3.4	31.5 27.3 38.4 24.9 15.3	-1.4 -1.2 -1.6 -1.2 -0.7	0.7 0.3 1.0 0.3 0.0	4.7 4.5 3.6 2.5 2.4	0.8 1.6 1.8 1.2 2.6	-0.4 -0.2 -0.3 -0.1 -0.1	5.9 3.1 4.3 1.1 1.5	21.4 17.4 22.6 11.1 10.6	0.8 0.5 0.6 0.4 2.3	-1.2 -1.0 -1.2 -0.8 -0.6	504 509 491 445 406
Total	10.6	28.0	-1.3	0.5	3.6	1.6	-0.2	3.3	17.0	0.9	-1.0	2,354

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

Includes children who are below -3 standard deviations (SD) from the International Reference Population median

Excludes children whose mothers were not interviewed

First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval

Includes children whose mothers are deceased

Excludes children whose mothers are deceased

Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10

For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Questionnaire

## C.8 Completeness of information on siblings

Completeness of data on survival status of sisters and brothers reported by interviewed women, age of living siblings and age at death (AD) and years since death (YSD) of dead siblings (unweighted), Uganda 2011

	Sis	ters	Brot	hers	All siblings		
	Number	Percent	Number	Percent	Number	Percent	
<b>All siblings</b> Living Dead Survival status unknown	68,061	100.0	68,785	100.0	136,846	100.0	
	53,315	78.3	51,700	75.2	105,015	76.7	
	14,660	21.5	16,971	24.7	31,631	23.1	
	86	0.1	114	0.2	200	0.1	
<b>Living siblings</b> Age reported Age missing	53,315	100.0	51,700	100.0	105,015	100.0	
	53,132	99.7	51,521	99.7	104,653	99.7	
	183	0.3	179	0.3	362	0.3	
Dead siblings AD and YSD reported Missing only AD Missing only YSD Missing AD and YSD	14,660	100.0	16,971	100.0	31,631	100.0	
	14,344	97.8	16,586	97.7	30,930	97.8	
	33	0.2	37	0.2	70	0.2	
	111	0.8	160	0.9	271	0.9	
	172	1.2	188	1.1	360	1.1	

#### C.9 Sibship size and sex ratio of siblings

Mean sibship size and sex ratio of siblings at birth, Uganda 2011  $\,$ 

Age of respondents	Mean sibship size <sup>1</sup>	Sex ratio of siblings at birth <sup>2</sup>
15-19	7.4	98.8
20-24	7.7	95.2
25-29	7.8	99.9
30-34	7.9	102.8
35-39	8.1	95.4
40-44	8.3	104.6
45-49	8.1	98.7
40-49	0.1	30.7
Total	7.7	101.1

<sup>&</sup>lt;sup>1</sup> Includes the respondent <sup>2</sup> Excludes the respondent

# PERSONS INVOLVED IN THE 2011 **UGANDA DEMOGRAPHIC AND HEALTH SURVEY**



# **Uganda Bureau of Statistics (UBOS)**

### Management

J. B. Male-Mukasa, Executive Director, Uganda Bureau of Statistics B. P. Mungyereza, Deputy Executive Director, Uganda Bureau of Statistics Dr. H. Mwebesa, Commissioner, Ministry of Health/Chairman, UDHS Technical Working Committee

#### **Technical Staff**

A. Mukulu, Survey Director P. Kakande, Project Coordinator V. Ssennono, Deputy Project Coordinator H. Namirembe-Nviiri, Principal Statistician P. Lumala, Statistician A. Okurut, Statistician

#### **ICF** International

A. R. Cross, Regional Coordinator Z. Moore, Senior Research Associate A. Aliaga, Sampling Statistician A. Themme, Data Processing Specialist D. Garrett, Biomarker Specialist B. Zachary, GIS Specialist S. Poedjastoeti, Country Manager (Report Reviewer) J. Fishel, Country Manager (Report Reviewer) V. Lopez, Country Manager (Report Reviewer) P. Govindasamy, Regional Coordinator (Report Reviewer) H. R. Kim, Communications Associate N. Johnson, Senior Editor A. Shenett, Production Specialist

#### **Report Authors**

P. Kakande - Chapter 1: Introduction J. Muwonge - Chapter 2: Household Characteristics and Household Population V. Ssennono - Chapter 3: Respondents' Characteristics P. Kakande - Chapter 4: Marriage and Sexual Activity P. Ntale - Chapter 5: Fertility J. Kagugube - Chapter 6: Fertility Preferences S. Kibira - Chapter 7: Family Planning J. Galande - Chapter 8: Infant and Child Mortality H. Namirembe-Nviiri - Chapter 9: Reproductive Health P. Kakande - Chapter 10: Child Health

Z. Moore - Chapter 11: Nutrition of Children and Adults A. Kiconco - Chapter 12: Malaria S. Barvahirwa - Chapter 13: HIV/AIDS-Related Knowledge, Attitudes, and Behavior R. Nalwadda - Chapter 14: Women's Empowerment and Demographic and Health Outcomes

Z. Moore - Chapter 15: Adult and Maternal Mortality Z. Moore - Chapter 16: Domestic Violence

# **Report Reviewers**

B.P Mungyereza

A. Mukulu

N. Madaya

A.K Mbonye

# **UDHS Technical Working Committee**

# **Ministry of Health**

- H. Mwebesa
- M. Ssendyona
- J. Nsungwa
- D. Rubahika
- J. Wanyana
- M. Mugagga
- S. Ngalombi
- R. Seruyange
- J. Musinguzi
- W. L. Kirungi
- C. Kyozira

## **USAID**

- P. Okello
- X. Nsabagasani
- J. T. Duworku

#### **UNFPA**

- F. Mugisha
- F. Tukwasibwe
  - E. Akiror

#### **MGLSD**

M. Mabuya

#### UNICEF

- S. Kabaija
- C. Hudspeth
- M. Balaba

# **Population Secretariat**

A. Tiondi

# **Biochemistry Department MUK**

R. Baingana

# WHO

- N. Natseri
- O. Ssemtubwe

#### **UBOS**

Mukulu H. Namirembe-Nviiri P.Kakande V.Ssennono

#### **Trainers**

P. Kakande
A. Mukulu
A. Kiconco
V. Ssennono
Y. Koire
S. Apio
R. Makombe
A. Okurut
H. Namirembe-Nviiri
R. Navuga
H. Katikajjiira
P. Ntale

#### **Translators**

C. Adriko, Lugbara
J. Turyamureeba, Runyankore/Rukiga
H. Asaba, Runyoro/Rutoro
M. Ssemwanga, Luganda
W. Ochieng, Luo
A. Atim, Ateso
E. Lomongin, Ngakarimojong

#### **Back Translators**

J. Galande

P. Lumala

D. Nabukwasi

S. Kyewalyanga

S. Ngalombi M. Ssentongo

D. Rubahika

J. Nsungwa

M. Ssendyona M. Turinawe

C. Adriku

C. Walube

B. Okua, Lugbara
M. Mugasho, Runyankole/Rukiga
A. Baguma, Runyoro/Rutoro
C. Nakanyike, Luganda
B. Bomongin, Luo
W. Eriaku, Ateso
P. Ngorok, Ngakarimojong

# The Community Mobilisation Team

#### **UBOS**

G. Nabbongo (Leader)
R. Kisakye
A. Musamali
W. Akullo
B. Okua
H. Katikajjira
M. Kajubi

# **The Quality Control Team**

C. Garimoi-Orach (Leader)

S. Kibira

B. Akello

G. Holoya

S. Kamukama

# Field Staff

# **Health Supervisor**

N. Lyadda

# **Health Technicians**

S. Opus	O. Apio	M. Atuhaire
Z. Mwanje	R. Yiga	M. Kakazi
E. Mutegeki	R. Yiga E.Enyiku	J. Esimu
M. Mbawadde	G. Deboru	D. Muhwezi
K. Ayebazibwe	M. Nakalinzi	I. Kemigisha
J. Naggujja	I. Tenda	

# **Supervisors**

J. Turyamureeba	M. Waiswa	M. Ssemwanga
S. Ňalwoga	A. Atim	E. Nabwire
B. Ntambi	N. Okiror	G. Bolingo
E. Twinomujuni	T. Jawoko	J. Mugenyi
Z.Wabiretta	B. Lukwiya	P. Ahimbisibwe
M. Kaddu	M. Mugasho	

# **Field Editors**

D. Amoit	M. Nakibinge	H. Nyaketcho
D. Nabbaka	I. Kembabazi	J. Masawi
D. Asaba	G. Nakagimu	J. Kubal
B. Tabingwa	M. Driwaru	B. Nyogire
R. Mugabi	C. Assimwe	J. Openycan
C. Akello	P. Nakintu	

# **Interviewers**

# Listers

Z. Kaddu	
S. Mwanje	
M. Kalema	
S. Namugerwa	
R. Agani	
V. Tashobya	
B. Bongomin	
E. Buwembo	
N. Olwalwa	

A. Bagonza	P. Kavuma
S. Birungi	M. Mbakoma
J. Tabingwa	A. Kyomuhangi
S. Nakijoba	A. Kyobusingye
I. Ssegawa	A. Nantumbwe
R. Namayanja	W. Ewojat
R. Barasa	T. Byaruhanga
R. Ojobira	J. Lochoro

# **Drivers**

J. Ochokol S. Mugweri M. Ngobi H. Ssimbwa S. Sempa J. Mukasa

# **Data Processing**

<b>Data Processing Officers</b>	<b>Data Entry Operators</b>	Office Editors
F. Kayondo	Z. Namutebi	A. Okurut
L. Mugula	J. Tuwangye	L. Patrick
	P. Kuweebwa	
Data Processing Supervisor J. Kemigisha	C. Nalwoga	Support Staff
	T. Kasule	H. Kabura J. Yuanzhongshon
	V. Wakabi	
	J. Salaamu	B. Nsabirabandi
	H. Nabakooza	D. 13aonabandi