Uganda

Demographic and Health Survey 1988/1989

Ministry of Health

DHS

Demographic and Health Surveys
Institute for Resource Development/Macro Systems, Inc.

Uganda Demographic and Health Survey 1988/1989

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This report presents the findings of the Uganda Demographic and Health Survey, implemented by the Ministry of Health in 1988/1989. The survey was a collaborative effort between the Ministry of Health, the Ministry of Planning and Economic Development, Makerere University and the Institute for Resource Development (IRD). The survey is part of the worldwide Demographic and Health Surveys (DHS) programme, which is designed to collect data on fertility, family planning, and maternal and child health. Funding for the survey was provided by the U.S. Agency for International Development through IRD (Contract No. DPE-3023-C-00-4083-00) and the Government of Uganda. Additional information can be obtained from the Ministry of Health, P.O. Box 8, Entebbe, Uganda, (Telephone 042-20201, Telex 61372 HEALTH UGA) or the Ministry of Planning, Statistics Division, P.O. Box 13, Entebbe, Uganda (Telephone Number 042-20741) (Telex 20147 Entebbe). Additional information about the DHS programme can be obtained by writing to: DHS Programme, IRD/Macro Systems, Inc., 8850 Stanford Boulevard, Suite 4000, Columbia, MD 21045, USA (Telephone 301-290-2800, Telex 87775, Fax 301-290-2999)

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PREFACE

The Uganda Demographic and Health Survey (UDHS) was conducted at a time when Uganda needed baseline information for planning and implementing national and regional programmes. The survey was conducted as part of the worldwide Demographic and Health Surveys (DHS) programme in which surveys are being carried out in countries in Africa, Asia, Latin America and the Near East. The UDHS used an ample survey designed to collect information on fertility, family planning, and maternal and child health.

The survey was conducted by the Ministry of Health in close collaboration with the Ministry of Planning and Economic Development, the Institute of Statistics and Applied Economics and the Geography Department, Makerere University. Fieldwork for the Uganda Demographic and Health Survey was carried out from September 1988 to February 1989 with financial and technical assistance from the U.S. Agency for International Development and the Uganda Government. The Institute for Resource Development (IRD), a Macro Systems company, provided technical assistance under terms of an agreement with the Uganda Government (through the Ministry of Health).

The objectives of the UDHS were to collect data on fertility, family planning knowledge, attitudes and use among women; and on maternal and child health coverage such as immunisation, breastfeeding, diarrhoeal diseases in children, nutrition, maternity care and child morbidity and treatment.

Planning for the UDHS started in 1987 when a statistical committee was set up by the Ministry of Health. Members included experts from the Ministry of Health, the Ministry of Planning and Economic Development, UNICEF, Makerere University and the Family Planning Association of Uganda. The role of the committee was to adapt the DHS model questionnaire to the social, economic, and health situation in Uganda.

The UDHS would not have been completed successfully without the relentless effort and dedication of several institutions and individuals, especially the employees of the Ministry of Health, the Ministry of Planning and Economic Development, Makerere University, and the Institute for Resource Development. In particular, I wish to extend my gratitude and appreciation to the following individuals and institutions who contributed to the success of the UDHS project:

Administrative: Mr. A.M. Ogola, Permanent Secretary, Ministry of Health; Mr. Paul Cohn, Health/Population/AIDS Officer; Mr. David Puckett, Technical Adviser for Child Survival (TACS).

Technical: Dr. Emmanuel M. Kaijuka, Ministry of Health/UDHS Project Director; Mr. Edward Kaija, Ministry of Planning and Economic Development/UDHS Project Coordinator; Dr. James Ntozi, Institute of Statistics and Applied Economics, Makerere University; Dr. John Kabera, Department of Geography, Makerere University; Professor Ben Kiregyera, Makerere University/Sampler; Ms. Anne R. Cross, Mr. Roger Pearson and Dr. Edilberto Loaiza, DHS coordinators, Dr. Chris Scott and Dr. Alfredo Aliaga, DHS samplers, IRD/Macro Systems, Inc.

Field Staff: Dr. V. Mwaka, Department of Geography, Makerere University/Field Coordinator; Mr. Ssekamatte, Makerere University/Field Supervisor; Ms. Rose Kabasinguzi, Mwanamugimu Nutrition Unit, Mulago Hospital/Field Supervisor; and the field editors and enumerators.

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Institutions: The Ministry of Local Government, the Ministry of Planning and Economic Development, and the Family Planning Association of Uganda provided administrative and field staff. UNICEF provided both technical and financial support to UDHS project.

In conclusion, I wish to extend my sincere thanks to all those who in one way or another contributed to the success of the UDHS project.

Z.K.R. KAHERU
Minister of Health

SUMMARY

The Uganda Demographic and Health Survey (UDHS) was conducted by the Ministry of Health in 24 districts between September 1988 and February 1989. The sample covered 4730 women aged 15-49. Nine northern districts were not surveyed due to security reasons (see map). The purpose of the survey was to provide planners and policymakers with baseline information regarding fertility, family planning, and maternal and child health. The survey data were also needed by UNFPA and UNICEF-Kampala for planning and evaluation of current projects in Uganda.

The UDHS data indicate that fertility is high in Uganda, with women having an average of seven births by the time they reach the end of their childbearing years. Overall, fertility in Uganda has remained the same, that is, just over seven children per woman during the last 15 years. Women in urban areas, especially Kampala, have fewer children than women in rural areas. A significant finding is that fertility is linked to education: women with higher education have an average of 5 births, compared with 7 births for women with primary education. Childbearing begins at an early age, with 60 percent of Ugandan women having their first birth before the age of 20. Less than 3 percent of women have their first birth at age 25 or older.

A major factor contributing to high fertility is age at first marriage; 54 percent of women marry before they reach 18 years of age and only 2 percent remain unmarried throughout their entire life. However, with increasing levels of education among women, there is evidence of a trend toward later marriage. The median age at first union has risen from 17 for older women to 18 for those age 20-24. Urban women marry 2 years later on average than rural women, while women with middle and higher education marry 4 years later than women with no education. Polygyny is common in Uganda, with 33 percent of currently married women reporting that their husband has other wives. The practice declines with higher levels of education.

Breastfeeding and postpartum abstinence provide some protection from pregnancy after the birth of a child. In Uganda, babies are breastfed for an average of 19 months and postpartum amenorrhoea lasts an average of 13 months. However, sexual abstinence after a birth is short, with an average duration of only 4 months. UDHS data show a decline in duration of breastfeeding and postpartum abstinence, especially among younger, urban, and educated women.

The low level of contraceptive use in Uganda is one of the leading factors contributing to high fertility, as evidenced by the UDHS data. Although 84 percent of currently married Ugandan women know at least one contraceptive method and 77 percent know of a source for a contraceptive method, only 22 percent have ever used a method; and only 5 percent are currently using a method. Low rates of use are due partially to the desire of women to have many children. However, access to family planning services may also be a factor since most clinics are in urban areas, while 89 percent of women live in rural areas.

Among currently married women using contraception, periodic abstinence is the most common method used (1.6 percent), followed by pill (1.1 percent) and female sterilisation (0.8 percent). Contraceptive use is higher among women with more children and women who reside in urban areas, especially Kampala. There are strong differentials in family planning use by education level. The level of use among women with higher education is eighteen times the rate for women with no education. Forty-two percent of users of modern methods obtained their method from government hospitals, while 33 percent reported Family Planning Association of Uganda (FPAU) clinics as the source. Ten percent of users rely on private sources such as private doctors and clinics.

The most common reasons for nonuse of contraception cited by women who are exposed to the risk of pregnancy, but do not want to get pregnant immediately are: fear of side effects, prohibition by religion, lack of knowledge, and disapproval by partner.

Despite the low level of contraceptive use in Uganda, the UDHS indicates that the potential need for family planning is great. Although 39 percent of the currently married women want another child soon (within 2 years), 33 percent want to space their pregnancies for at least two years and another 19 percent want no more children. This means that 52 percent of currently married women in the surveyed area are potentially in need of family planning services either to limit or to space their births. Furthermore, 35 percent of the women who had a birth in the 12 months prior to the survey indicated that their last birth was either unwanted or mistimed.

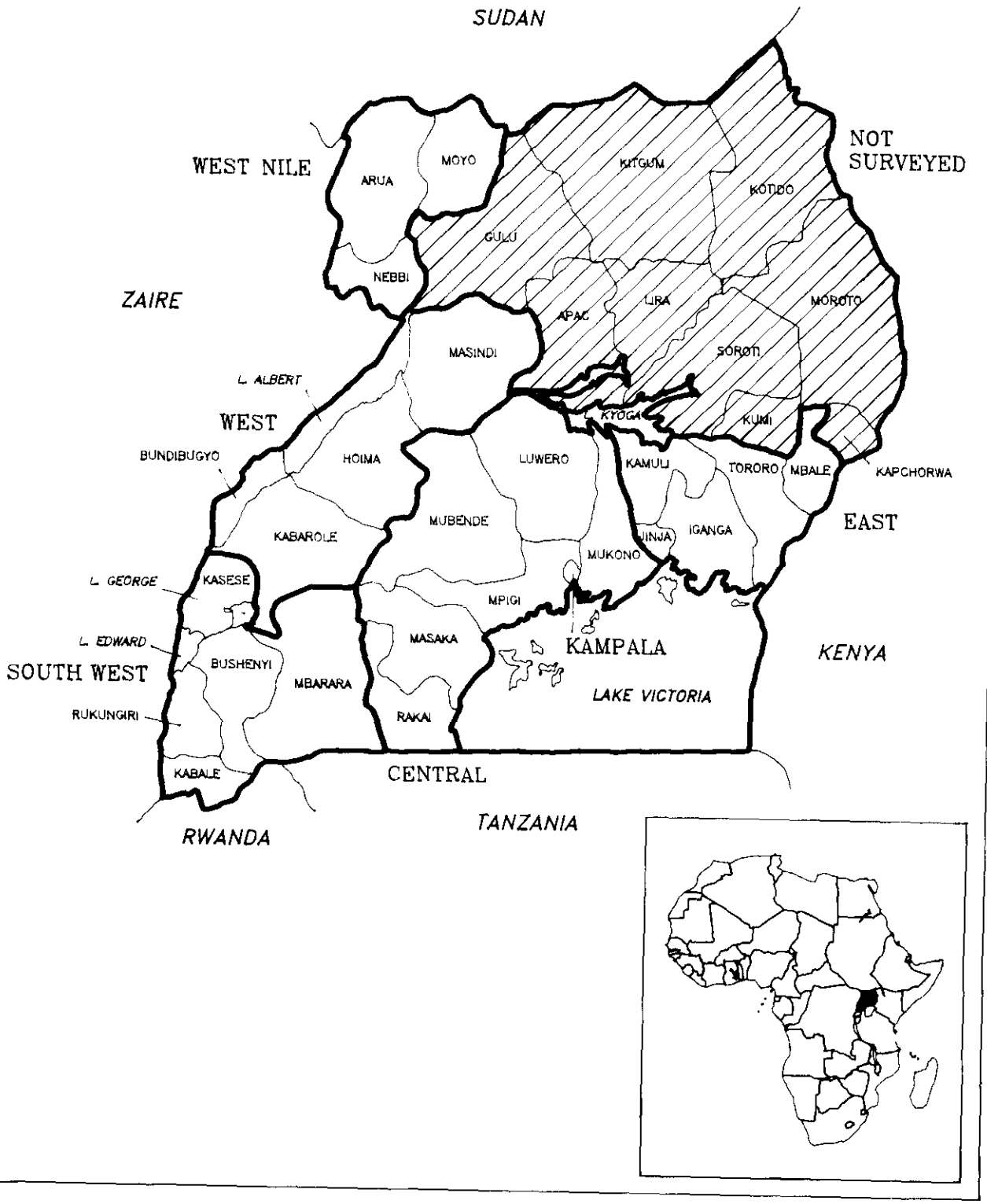
UDHS data indicate that infant and childhood mortality remain high. For every thousand live births, 100 children die before reaching their first birthday and 180 children die before reaching age five. While these rates indicate high levels of mortality, there is some evidence that rates have declined in the five years before the survey.

Forty-four percent of children under five with health cards have been fully immunised against the major vaccine-preventable diseases. This percentage is higher if children without health cards who have been immunised are included.

UDHS data further indicated high levels of prevalence of certain illnesses. Of children under five, 24 percent had diarrhea in the two weeks before the survey. Forty-one percent of children under five were reported to have had a fever in the previous four weeks and 22 percent had an episode of severe cough with difficult or rapid breathing in the four weeks preceding the interview. Various types of treatment including antibiotics and antimalarials were used to treat the illnesses.

The nutritional status of children in Uganda was assessed from UDHS data. Overall, 45 percent of the children age 0-60 months were found to be stunted, that is, two or more standard deviations below the mean reference population for height-for-age. These children are defined as chronically undernourished.

Uganda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TANZANIA
RWANDA

CHAPTER 1
BACKGROUND

1.1 Geography, History, and the Economy

Geography

The Republic of Uganda is located in East Africa and lies astride the equator (see map). It is a landlocked country bordering Kenya in the east, Tanzania and Rwanda in the south, Zaire in the west and Sudan in the north. The country has an area of 241,038 square kilometres, 18 percent of which is open water and swamps and 12 percent is forest reserves and game parks. Lake Victoria, the third largest lake in the world, makes up most of the open water area and is shared by Kenya and Tanzania.

Uganda has a favourable climate because of its relatively high altitude. Temperatures range between 17°C and 26°C. The Central, West and South West regions receive heavy rainfall during the months of March through May and light rainfall between September and December. The levels of rainfall diminish towards the North as the border with the Sudan is approached. The soil composition varies accordingly, being generally fertile in the Central, West and South West regions and becoming less fertile as one moves from the East to the North. Due to these combinations of climatic conditions, Uganda has tropical rain forest vegetation in the south and savanna woodlands and semi-desert vegetation in the north. The regional agricultural potential is determined by these climatic conditions and the land's population carrying capacity is closely related to these agricultural potentials.

History

Uganda is composed of many tribal groupings of Bantu, Nilotics, Nilo-Hamites and those of Sudanese origin. Before independence, Uganda was basically divided into kingdoms or similar groupings consisting of mainly homogeneous tribal groups, which occupied various parts of the country, spoke various languages and had unique cultural identities. This diversity has given rise to a rich cultural and social heritage. One of the most widely spoken languages is Luganda, followed by Swahili and English. English is the official language of the country.

Independence from British colonial rule was obtained in October 1962. After achieving sovereignty, Uganda became a member of the Commonwealth, the United Nations, the Organisation of African Unity, the African-Caribbean-Pacific States, and the Preferential Trade Area. At present Uganda is divided into 34 districts[1] which do not necessarily represent tribal groups, but were created for the ease of administration. Districts are further divided into 149 counties, 750 sub-counties and 3,721 parishes. In most cases parishes are divided into two sub-parishes.

The Economy

Uganda has an agricultural economy with 90 percent of the population dependant on agriculture and agro-based industries. Agricultural produce contributes 98 percent of Uganda's exports and the country is basically self-sufficient in food. From 1960 to 1970, Uganda had an expanding economy with a Gross Domestic Product (GDP) growth rate of 5 percent per annum, compared to a population growth rate of 2.6 percent per annum.

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[1] At the time of the survey there were 33 districts in Uganda. A 34th district consisting of islands in Lake Victoria was created recently.

However, during the past 25 years, the country experienced a period of civil and military unrest with the resultant destruction of social infrastructure and disruption of the economy. This has had a tremendous negative impact on the economic, educational, and health situation of the general population. By 1985, per capita GDP had fallen 43 percent and per capita Gross National Product (GNP) was estimated at $220 (US). Since 1986, however, the National Resistance Movement Government has introduced and implemented a recovery programme which is steadily moving the country toward economic prosperity. Table 1.1 presents some basic socioeconomic indicators.

Table 1.1 Basic socioeconomic indicators, Uganda, various years

Indicator	Year	Value
Population (thousands)	1988	15,947.8
Total area (sq. km.)	1988	241,038
Land area (sq. km.)	1988	197,100
Women of childbearing age as percent of the total popul.	1985	23
Population growth rate(year)	69-80	2.8
Life expectancy - males	1969	45.6
- females	1969	46.9
Hospital beds	1981	20,136
Beds per 10,000 population	1981	15
Population per physician	1981	23,000

Source: Ministry of Planning and Economic Development, various Development Plans

1.2 Availability of Demographic Data

The population of Uganda, estimated at more than 16 million, is increasing 2.8 percent per year. At this rate of growth, the population can be expected to double every 25 years. The high rate of growth is due primarily to the high levels of fertility prevailing in the country; each woman has an average of 7 children by the end of her childbearing years (Table 1.2).

The first systematic census which generated useable demographic data was held in 1948. Prior to this date, there were administrative counts or estimates varying in methodology, coverage and content. After the 1948 census, other censuses were conducted in 1959, 1969 and 1980. Some data from the census of 1980 were not available for inclusion into this report. The next census will be conducted in 1990.

Surveys have not been instrumental as a source of demographic data in Uganda. Although post-census or intercensal surveys were planned after each of the censuses, they were not implemented, due to logistical or financial problems. A few small-scale surveys were carried out by researchers at Makerere University, but none was representative of the whole country.

Civil registration in Uganda is incomplete and of limited use as a source of demographic information. The Births and Deaths Registration Ordinance of 1904 provided for voluntary registration of the native population and people did not seriously respond to it. In 1973, registration was made compulsory. Efforts are being made to improve the system although coverage is still incomplete.

Table 1.2 Demographic indices, Uganda

Index	Census year 1948	1959	1969	1980
Population	4,917,555	6,449,558	9,456,466	12,636,179
Intercensal growth rate	-	2.5	3.2	2.8
Sex ratio	100.0	100.8	101.8	98.2
Crude birth rate	42	44	50	50
Total fertility rate	5.9	5.9	7.1	7.4
Crude death rate	25	20	19	20
Infant mortality rate	200	160	120	115
Percent urban	-	4.8	7.8	8.7
Density (Pop./Km.)	25.2	33.2	48.4	64.1

Source: Statistics Department, Ministry of Planning and Economic Development, Entebbe

Information on emigration and immigration is collected at border posts, ports, and international airports where immigration cards are filled out. These cards collect social and demographic data on age, sex, date of birth, occupation, place of birth and residence, and reason for movement, in addition to place of origin and destination. There is evidence of sizeable illegal entrance and departure from the country. Internal migration is unrecorded and can only be estimated from censuses or surveys. There are official resettlement schemes which may have systematic records.

As a result of the varying climatic conditions mentioned above, certain regions are more densely populated than others. The country is divided into four major administrative regions: East, West, North and Central, but for purposes of this report, the country is divided into six major regions: West Nile, East, Central, West, South West and Kampala. This division was due primarily to the different major languages into which the survey questionnaire was translated. Kampala region consisted of the capital city and its suburbs, and because of its high population compared to some regions, it was regarded as a region.

1.3 Population and Family Planning Policies and Programmes

Family planning activities in Uganda started in 1957 with the establishment of the Family Planning Association of Uganda (FPAU), an affiliate of the International Planned Parenthood Federation (IPPF). Since the inception of the FPAU, family planning services have been largely limited to urban centres, despite the fact that 90 percent of the population resides in rural areas. With the acceptance and introduction of its primary health care strategy, the Government has integrated family planning into the overall maternal and child health program as a means of reducing maternal morbidity and mortality in Uganda.

Currently, family planning services are provided through clinics administered by FPAU, government and non-government health units. Available data indicate that most acceptors use oral contraceptives, female sterilisation, injectables and IUDs, while few couples use condoms. Natural family planning has gained some support in Uganda. A natural family planning programme organised by the Uganda Catholic Medical Secretariat covers most dioceses in Uganda and provides services through health units and home visits.

Since 1980, family planning has been increasingly viewed as an important component of maternal and child health. As a consequence, most government hospitals and health centres provide family planning services. In spite of this support and increasing family planning acceptance, national coverage has remained very low because of the heavy concentration of the services in the urban centres.

Uganda does not have an explicit population policy, but in 1988, a population secretariat was established in the Ministry of Planning and Economic Development. The secretariat's overall responsibility is to coordinate population activities conducted in different ministries and to develop population guidelines for the country.

1.4 Health Priorities and Programmes

Health services in Uganda are provided by the Ministry of Health, the Ministry of Local Government and non-government organisations (NGOs), particularly religious groups. The Ministry of Health is responsible for planning and developing health policies and for providing health care in all government hospitals. The Ministry of Local Government is in charge of health care delivery at the district level and below. NGOs provide services both to hospitals and to smaller medical units.

In its continuing efforts to expand services to the majority of the population, the government is gradually shifting away from costly curative services to cost-effective, preventive services. The government is developing a health policy with the goal of health for all people by means of a nationwide network of preventive and curative health services in a self-sustaining cost recovery system. Particular emphasis is placed on maternal and child health services, environmental sanitation, provision of essential drugs, water supply, and health education. The goal of the system is to extend health coverage to all Ugandan citizens by the turn of the century through community participation.

1.5 Objectives of the Survey

The primary objective of the UDHS was to provide data on fertility, family planning, childhood mortality and basic indicators of maternal and child health. Additional information was collected on educational level, literacy, sources of household water and housing conditions. The available demographic data were incomplete and hardly any recent information concerning family planning or other health and social indicators existed at the national level.

A more specific objective was to provide baseline data for the South West region and the area in Central region known as the Luwero Triangle, where the Uganda government and UNICEF are currently supporting a primary health care project. In order to effectively plan strategies and to evaluate progress in meeting the project goals and objectives, there was a need to collect data on the health of the target population.

Another important goal of UDHS was to enhance the skills of those participating in the project so that they could conduct high-quality surveys in the future. Finally, the contribution of Ugandan data to an expanding international data set was an objective of the UDHS.

1.6 Organisation of the Survey

The Uganda Demographic and Health Survey (UDHS) was conducted between September, 1988 and February, 1989 by the Ministry of Health, with the assistance of the Statistics Department of the Ministry of Planning and Economic Development and both the Department of Geography and the Institute of Statistics and Applied Economics at Makerere University. Financial and technical support for the survey was provided by the Demographic and Health Surveys Programme at the Institute for Resource Development (IRD) in Columbia, Maryland, through its contract with the U.S. Agency for International

Development (USAID). In addition, UNICEF provided some of the vehicles used for the listing operation and fieldwork.

The UDHS used a stratified, weighted probability sample of women aged 15-49 selected from 206 clusters. Due to security problems at the time of sample selection, 9 districts, containing an estimated 20 percent of the country's population, were excluded from the sample frame. Primary sampling units in rural areas were sub-parishes, which, in the absence of a more reliable sampling frame, were selected with a probability proportional to the number of registered taxpayers in the sub-parish. Teams visited each selected sub-parish and listed all the households by name of the household head. Individual households were then selected for interview from this list. The South West region and the area in Central region known as Luwero Triangle were each oversampled to provide a sample size sufficient to produce independent estimates of certain variables for these two areas. Results from oversampled areas are presented separately in this report.

Because Ugandans often pay taxes in rural areas or in their place of work instead of their place of residence, it was not possible to use taxpayer rolls as a sampling frame in urban areas. Consequently, a complete list of all administrative urban areas known as Resistance Council Ones (RC1s) was compiled, and a sampling frame was created by systematically selecting 200 of these units with equal probability. The households in these RC1s were listed, and 50 RC1s were selected with probability proportional to size. Finally, 20 households were then systematically selected in each of the 50 RC1s for a total of 1,000 urban households.

Three questionnaires were used for the UDHS: the household questionnaire, the individual woman's questionnaire, and the service availability questionnaire. The household questionnaire listed all usual members of the household and their visitors, together with information on their age and sex and information on the fostering of children under 15. It was used to identify women who were eligible for the individual interview, namely, those aged 15-49 who slept in the household the night before the household interview, whether they normally lived there or were visiting. For those women who were either absent or could not be interviewed during the first visit, a minimum of three revisits were made before recording nonresponse. Women were interviewed with the individual questionnaire, which contained questions on fertility, family planning and maternal and child health.

The service availability (SA) questionnaire collected information on family planning and health services and other socioeconomic characteristics of the selected areas and was completed for each rural cluster and for each urban area. The SA questionnaire was administered by a different team of interviewers from the one carrying out the individual women's interview. The same clusters chosen for the individual interviews were visited by the SA interviewer who was instructed to assemble 3 or 4 "knowledgeable" residents. These people were asked about the services available in the community and the distances to them. Based on this information, interviewers visited the facilities close to the cluster and collected information about equipment, staffing, services available, and general infrastructure. Results on service availability are not included in this report.

The household and the individual questionnaires were translated into four languages: Luganda, Lugbara, Runyankole-Rukiga and Runyoro-Rutoro. Luganda questionnaires were used in the East region, where there are a number of languages, but most people speak Luganda. A pretest of the translated questionnaires was conducted in October 1987 by interviewers who completed a three-week training course.

A three-week training course for the main survey was held in September 1988. Fifty-six interviewers, six field editors and six supervisors took part in the survey. All interviewers were women, although some of the supervisors and field editors were men. Field staff were recruited from the Ministries of Health and Planning and from among people who answered advertisements in the national press and passed selection interviews. A major qualification of the interviewers was educational

achievement and a good command of at least one of the local languages covered by the four translations. All field staff had at least Senior Four secondary school education and several were university graduates. Senior survey staff came from the Ministries of Health and Planning, as well as Makerere University. The National Director of the UDHS was the Assistant Director of Medical Services in charge of Maternal and Child Health. IRD provided technical collaboration through periodic staff visits regarding sample selection, questionnaire design, anthropometric measurement, training of interviewers, and data processing and analysis.

Completed questionnaires were sent to the data processing room at Makerere University where data entry and machine editing proceeded concurrently with fieldwork. Four desktop computers and ISSA, the Integrated System for Survey Analysis, were used to process the UDHS data. Of the households sampled, 5,101 were successfully interviewed, a completion rate of 91.3 percent. A total of 4,857 eligible women were identified in these households, of which 4,730 were interviewed, a completion rate of 97.4 percent. Data entry and editing were completed a few days after fieldwork ended.

1.7 Background Characteristics of Survey Respondents

Table 1.3 and Figure 1.1 show the background characteristics of all women interviewed in the survey. Encompassing 25 percent of UDHS respondents, 15-19 year olds are the largest age group. The percentages decrease gradually at each successive age group with 20-24 and 25-29 year olds constituting 21 and 18 percent, respectively. A young population distribution is to be expected in a country with high fertility such as Uganda.

The data indicate that almost 12 percent of women between 15-49 years of age, live in urban areas. Comparison with census data shows that a slight increase in urbanisation may have taken place in the past 30 years (see Table 1.2); however, since the UDHS excluded the more rural northern part of the country, twelve percent is a slight overestimate. The distribution of women by region is divided: for East, Central and South West regions, each accounts for 25-30 percent of respondents, for West Nile, West, and Kampala, each accounts for 6 percent of respondents.

Table 1.3 indicates that 44 percent of all women are Catholic, 42 percent are Protestant, 12 percent are Moslem, 1 percent are Seventh Day Adventists and less than 1 percent belong to other religions. Information on religion was collected because religious affiliation may affect attitude toward acceptance of certain family planning methods.

All women interviewed in the UDHS were asked if they had ever attended school. Those who had were further asked the highest level of school attended, according to the country's formal education system. Those women who had never attended school and those who had not completed primary education were requested to read a short sentence written in a local language.

Respondents were grouped into five education categories: those with no education; those with 1-6 years of primary education (some primary); those who completed primary school (including those with Junior 1 level); those with some secondary school (middle--including those with Junior 2 or 3 or level 1-4 of secondary school) and those with more than a secondary 4 education (higher). The latter category also includes women who completed at least one year of vocational training after secondary 4 or who completed at least two years of vocational after secondary level 3.

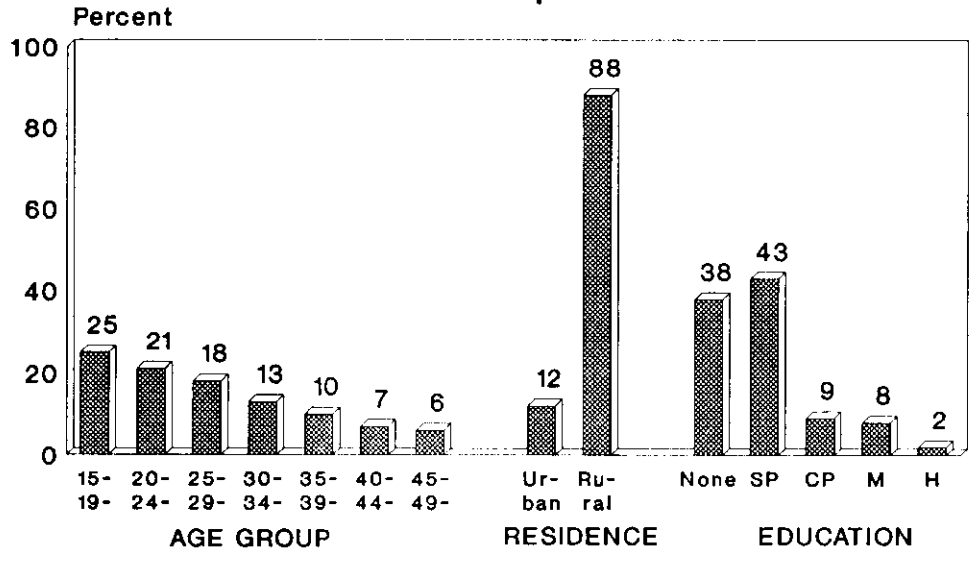
Almost 40 percent of respondents have never been to school and an additional 43 percent have only some primary education. Altogether, fewer than 20 percent have completed primary education, and only 3 percent have more than a secondary education. One reason for the low level of education among women has been the preference for educating boys rather than girls. For example, in 1982, there were twice as many boys as girls enrolled in Standard 7 in government schools. This situation is currently changing, due to vigorous government efforts, and soon females will be about equally represented at all levels of education.

Table 1.3 Percent distribution of women by background characteristics, Uganda, 1988/89

Background Characteristic	Weighted Percent	Weighted No. of Women	Unwtd. No. of Women
Age			
15-19	24.5	1157	1199
20-24	20.8	985	982
25-29	18.2	859	877
30-34	13.1	620	601
35-39	9.7	459	452
40-44	7.3	345	332
45-49	6.4	304	287
Residence			
Urban	11.5	542	964
Rural	88.5	4188	3766
Region			
West Nile	5.6	265	161
East	27.6	1305	865
Central	24.9	1177	1392
West	5.8	273	166
South West	29.9	1415	1619
Kampala	6.3	296	527
Luwero Triangle	10.4	491	873
Religion			
Catholic	44.3	2096	2062
Protestant	42.1	1991	2083
Muslim	11.6	547	489
Seventh Day Adventist	1.3	64	73
Other	0.7	32	23
Education *			
No education	37.8	1788	1631
Some primary	43.3	2048	2030
Primary completed	8.7	410	447
Middle	7.8	367	443
Higher	2.5	118	179
Total	100.0	4730	4730

* Throughout this report, women who completed Junior 1 were considered to have completed primary. Those with Junior 2 or 3 were tabulated in Middle, along with those who completed secondary education up to level 4. Women with more than secondary 4 education were put in the Higher category, which includes women who went on to complete at least one year of vocational training after secondary 4 or who completed at least two years of such training after secondary 3.

Figure 1.1
Background Characteristics of UDHS Respondents



Note: SP • Some Primary, CP • Complete Primary, M • Middle, H • Higher

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Table 1.4 shows that education is inversely related to age, that is, older women are less educated than younger women. For example, whereas 67 percent of women 45-49 have no education, only 21 percent of women aged 15-19 fall in this category.

The proportion of respondents with no education is three times higher in rural areas (41 percent) than in urban areas (13 percent). Two major factors influence this urban-rural differential. First, access to schools is more difficult in rural than in urban areas. Secondly, rural children are more likely to drop out of school due to inability to pay school fees.

Table 1.4 shows that West Nile region has the highest proportion of uneducated women, (65 percent), followed by South West region (46 percent) and East region (40 percent). Kampala has the smallest proportion of uneducated women (10 percent) and the highest proportion of women with middle (28 percent) and higher (17 percent) education. Until recently, vocational and university education was limited to Kampala, where most graduates with higher education remain.

In addition to the question on educational attainment, respondents were shown sentences written in their language and asked to read them. The next-to-last column in Table 1.4 shows the percentage of women with no formal education who can read. About 9 percent of the women with no education can read; the percentage is higher among older women and among residents of Kampala and the South West region.

Availability of various household amenities is an indicator of socioeconomic status, as well as having potential relevance for the health status of household members; the presence of a refrigerator may have an impact on nutrition and the presence of soap in the household may be regarded as a measure of personal hygiene, since it can be used for washing the body as well as washing utensils and clothes. Availability of a radio in a household is important since many educational messages, especially those regarding health education, are communicated by radio.

Table 1.4 Percent distribution of women by level of education, according to background characteristics, Uganda, 1988/89

Background Characteristic	Level of Education					Total	Percent Literate with No Education*	Weighted Number of Women
	None	Some Primary	Primary Complete	Middle	Higher			
Age								
15-19	20.7	56.6	10.5	11.6	0.7	100.0	4.7	1157
20-24	30.0	44.1	12.0	9.9	4.0	100.0	6.1	985
25-29	38.6	2.6	8.9	6.1	3.8	100.0	9.3	859
30-34	43.6	37.7	9.7	5.7	3.3	100.0	9.7	620
35-39	52.5	32.6	4.8	7.1	3.0	100.0	12.5	459
40-44	59.3	34.1	2.9	2.9	0.8	100.0	11.1	345
45-49	67.4	29.9	0.6	1.8	0.3	100.0	7.6	304
Residence								
Urban	13.4	34.9	12.9	24.4	14.5	100.0	14.7	542
Rural	41.0	44.4	8.1	5.6	0.9	100.0	8.4	4188
Region								
West Nile	65.2	27.3	3.1	2.5	1.9	100.0	2.9	265
East	39.9	44.6	7.5	7.1	0.9	100.0	3.2	1305
Central	26.4	50.8	10.6	10.1	2.2	100.0	7.1	1177
West	38.0	42.2	11.4	7.2	1.2	100.0	7.9	273
South West	46.0	41.5	7.5	3.3	1.6	100.0	15.2	1415
Kampala	9.5	31.9	14.0	27.9	16.7	100.0	16.0	296
Total	37.8	43.3	8.7	7.8	2.5	100.0	8.7	4730

* The proportion of women with no education who can read a sentence in their local language.

Table 1.5 presents data on the percent of women who own or have access to various household possessions, according to residence and region. Only 7 percent of women have electricity in their homes, and consequently, very few have hot plates/cookers, refrigerators, or televisions. Thirty percent have a charcoal iron and 21 percent have a charcoal stove. More than one in three women has a bicycle in the household, and 85 percent have soap. Over one-quarter have access to a radio and more than one-third listen to a radio at least once a week.

Not surprisingly, urban women are much more likely to have household amenities than rural women. One-half of urban women live in homes with electricity, and a majority of urban women have a radio, charcoal iron, and charcoal stove in their homes. Regionally, women in Kampala are far more likely to have access to these amenities than women in other regions, and women in West Nile are the least likely. For example, 76 percent of women in Kampala have a radio in their households, followed by Central and West regions (34 percent). Women in West Nile are the least likely to have radios (11 percent) and are therefore least likely to benefit from the messages sent by radio Uganda.

Table 1.5 Percent of women who own or have access to selected household amenities according to residence and region, Uganda, 1988/89

Household Amenity	Residence		Region						
	Urban	Rural	West Nile	East	Central	West	South West	Kam-pala	Total
Electricity	51.1	1.7	0.0	4.2	6.5	0.0	2.3	62.6	7.4
Hot plate/cooker	25.0	0.6	0.0	1.2	2.4	0.0	0.7	36.4	3.4
Television	14.6	0.2	0.0	1.0	0.2	0.0	0.1	23.9	1.9
Refrigerator	11.5	0.0	0.0	0.4	0.3	0.0	0.4	16.5	1.3
Charcoal iron	54.7	27.1	39.8	31.8	31.8	33.7	19.5	56.4	30.2
Charcoal stove	82.2	12.9	8.1	18.4	26.8	10.2	7.9	91.1	20.9
Bicycle	24.2	36.1	37.9	44.2	39.9	42.2	22.7	20.7	34.7
Soap in house	94.5	83.2	64.6	79.9	88.9	86.7	86.5	93.4	84.5
Radio	66.2	23.4	10.6	23.7	33.8	33.7	20.3	76.1	28.3
Listen to radio weekly	72.1	30.8	19.3	29.4	45.3	43.4	25.4	79.7	35.5
Number of women	542	4188	265	1305	1177	273	1415	296	4730

CHAPTER 2
MARRIAGE AND EXPOSURE TO THE RISK OF PREGNANCY

2.1 Current Marital Status

In Uganda, childbearing takes place mainly within socially prescribed and relatively stable marital unions. Therefore, the study of the patterns of marriage is essential to the understanding of fertility patterns in Uganda. Marriage, whether legal, customary or consensual, is the primary indication of the exposure of women to the risk of pregnancy.

There are several types of marriage in Uganda, including legal marriage, customary marriage and other unions. Legal marriage includes both religious and registered marriage. Customary marriage varies according to region and tribal groupings. In some areas a marriage is recognised so long as the parents of the bride and bridegroom agree, while in other areas a marriage is recognised only after the payment of the dowry is completed. Living together without fulfilling the legal or customary procedures is not encouraged but is socially tolerated and is becoming very common, particularly in urban areas. In the long run, these unions become acceptable to society but have serious implications for legal and inheritance rights and customary obligations.

In Table 2.1 the term "married" is intended to mean legal or formal marriage, while "living together" designates an informal union. In subsequent tables, the two categories are combined and referred to collectively as "currently married" or "currently in union". Those widowed, divorced, and not living together (separated) make up the remainder of the "ever-married" or "ever in union". In most cases, the distinction between not living together (or separated) and divorced is difficult to make. Divorce has connotations of legal or customary procedures while separation implies a temporary disunion pending divorce or reunion.

Table 2.1 and Figure 2.1 show the percent distribution of women by marital status at the time of the survey, according to age. That 41 percent of women 15-19 have already entered some kind of marital union is indicative of a general tendency to marry early. The legal age at marriage for women in Uganda is 16 years. By the time women reach the age of 30, 95 percent have been married; by the age of 35, 99 percent have been involved in some kind of marital union.

The percentage of women who are widowed is low in the younger age groups and high in the age groups 40-44 and 45-49. The same pattern applies for divorced women. This is due to the fact that older women have had a longer time in which to get divorced than younger, newly married women. Also, young divorced women remarry easily while older divorced women find it difficult to remarry. Hence, the high percentages of divorced women are concentrated in age groups 40-44 and 45-49. Apart from age group 15-19, where widowhood, divorce and separation are small (because these women have just married), the percentage separated is almost uniform for all age groups.

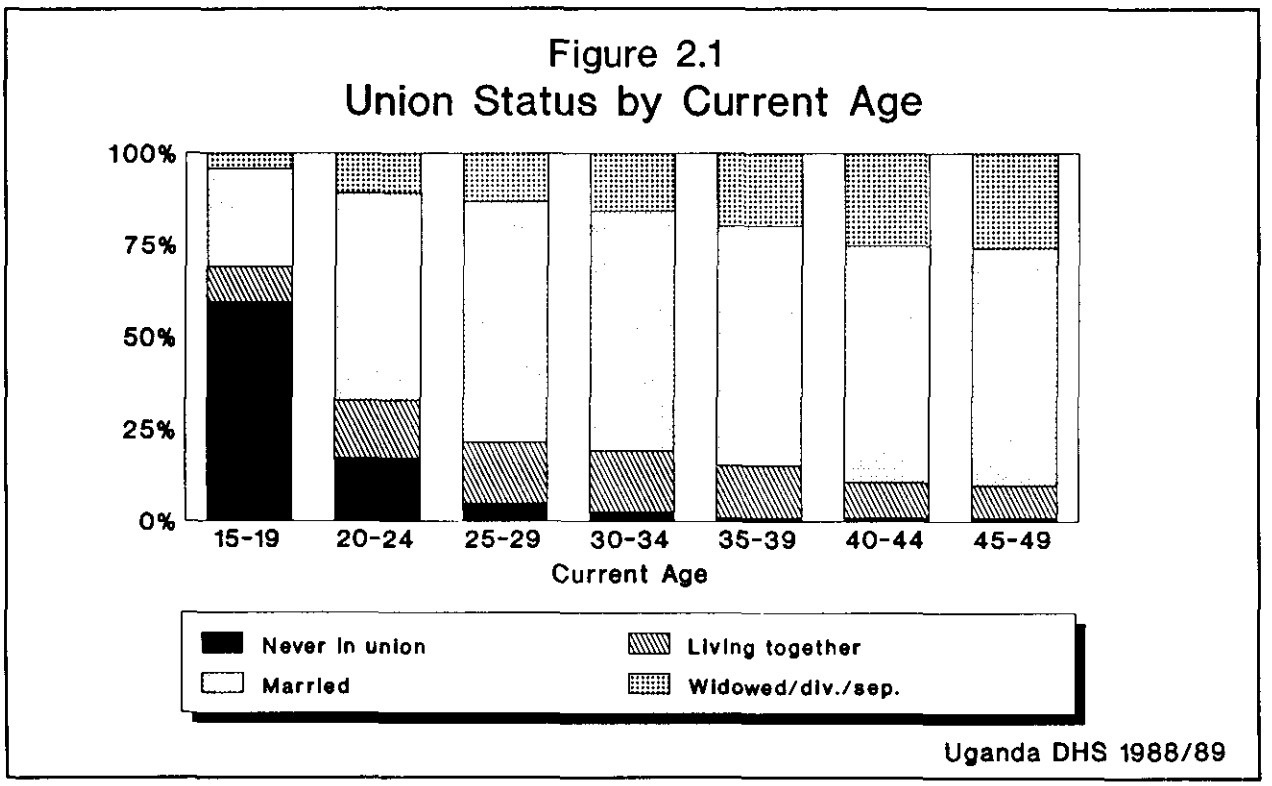
2.2 Polygyny

The custom of a man having more than one wife, polygyny, has long been acceptable in Uganda. Some religious denominations allow polygny, while others oppose it; however, the practice is rapidly declining as more women attain higher educational levels. Table 2.2 shows the percentage of currently married women in polygynous unions by age and selected background characteristics.

Overall, 33 percent of currently married women report that their husband has other wives. The percentage increases with age of the woman, from 21 percent of women 15-19, to over 40 percent of women in their 40s. This may indicate that polygyny is decreasing among younger women.

Table 2.1 Percent distribution of women by current marital status, according to age, Uganda, 1988/89

Age	Current Marital Status							Wtd. No. of Women
	Never Married	Married	Living Together	Widowed	Divorced	Separated	Total	
15-19	59.2	26.9	9.6	0.4	1.7	2.2	100.0	1157
20-24	17.0	56.3	15.8	1.1	3.6	6.3	100.0	985
25-29	4.8	65.5	16.6	1.9	4.8	6.4	100.0	859
30-34	2.5	64.9	16.7	3.6	5.4	6.9	100.0	620
35-39	1.0	64.9	14.1	6.0	7.4	6.5	100.0	459
40-44	1.0	63.6	9.5	10.0	10.4	5.6	100.0	345
45-49	0.9	64.4	8.8	10.7	9.1	6.1	100.0	304
Total	19.5	53.8	13.5	3.1	4.8	5.3	100.0	4730



Polygyny is slightly more common in rural areas, where 33 percent of the women report polygynous unions, compared with 31 percent in urban areas. The distributions for individual age groups are irregular, but generally indicate a similar pattern.

The regional distribution shows that the South West is least polygynous, particularly at the younger ages. This is probably due to a high proportion of Christians, particularly Protestants, who

Table 2.2 Percentage of currently married women in a polygynous union, by age, according to background characteristics, Uganda, 1988/89

Background Characteristic	Age							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Residence								
Urban	16.2	33.1	34.3	28.6	41.7	40.0	20.0	31.0
Rural	22.3	30.4	36.8	39.4	39.7	43.2	40.0	33.3
Region								
West Nile	(14.3)	37.0	34.8	30.4	(35.3)	(37.5)	(50.0)	33.1
East	35.3	40.9	43.7	47.5	38.3	46.4	43.6	42.3
Central	19.0	32.3	32.5	32.9	36.4	35.6	43.6	31.8
West	(21.4)	36.0	35.5	(56.3)	(26.7)	(58.3)	(60.0)	39.0
South West	15.3	20.9	21.4	31.3	43.3	41.7	29.6	27.1
Kampala	18.2	32.4	33.7	27.8	48.4	(58.3)	(25.0)	33.2
Luwero Triangle	21.5	37.8	36.7	33.3	29.6	29.3	51.3	33.8
Education								
No education	22.3	32.5	26.7	38.4	37.7	43.9	36.8	33.9
Some primary	20.7	29.4	33.9	35.3	40.5	43.2	41.2	32.2
Primary compl.	27.3	35.8	39.7	31.8	(61.1)	(20.0)	(0.0)	36.2
Middle	(1487)	31.6	35.8	27.6	38.5	(50.0)	(50.0)	31.7
Higher	(0.0)	17.4	22.2	28.6	(33.3)	(0.0)	(0.0)	22.7
Total	21.2	30.9	31.4	35.6	39.7	42.9	38.1	32.9

Note: The numbers in parentheses are based on fewer than 20 unweighted cases.

oppose polygyny. Protestants account for over 50 percent of the population in the South West. Central region and Kampala also show relatively little polygyny, basically because these are areas where development is most pronounced. People are generally more educated and are engaged in paid employment such that sustaining polygyny would be difficult. Polygyny is high in the East where the greatest concentration of Moslems is found. The distribution of polygyny does not correlate well with education level, although women with higher education are least likely to be in a polygynous union.

It should be noted that the relationship between polygyny and fertility is not straightforward. There is a tendency for women in polygynous unions to compete with co-wives in number of children, so as to have the largest share of family property. In this respect, the desire to have as many sons as possible is likely, and polygyny may be one of the factors which sustains high fertility. On the other hand, polygyny encourages prolonged birth spacing, which would tend to lower fertility among women in polygynous unions.

2.3 Age at First Union

Although a significant number of births take place outside a marital union, the majority occur in union. Age at first marriage is, therefore, an important indicator of exposure to the risk of conception and childbirth. Table 2.3 gives the percent distribution of women by age at first union (including never-married women) and median age at first union, according to current age.

Table 2.3 Percent distribution of women by age at first marriage, proportion of women married at different ages and median age at first marriage, according to current age, Uganda, 1988/89

Current Age	Never Married	Age at First Marriage						Total	Percent Married by Age:			Wtd. No.of Women	Median Age*
		<15	15-17	18-19	20-21	22-24	25+		18	20	25		
15-19	59.2	11.6	25.4	3.8	0.0	0.0	0.0	100.0	-	-	-	1157	-
20-24	17.0	17.8	34.7	20.3	7.4	2.7	0.0	100.0	52.5	72.8	82.9	985	17.8
25-29	4.8	17.2	38.9	18.1	10.5	7.5	3.0	100.0	56.1	74.2	92.2	859	17.5
30-34	2.5	19.9	42.1	17.1	8.0	5.9	4.5	100.0	62.0	79.1	93.0	620	17.0
35-39	1.0	27.1	38.1	15.0	7.4	7.3	4.0	100.0	65.2	80.2	94.9	459	16.8
40-44	1.0	27.4	39.5	16.1	6.7	5.5	3.8	100.0	66.9	83.0	95.2	345	16.6
45-49	0.9	26.7	38.5	15.6	9.2	4.0	5.0	100.0	65.2	80.8	94.0	304	16.7
Total	19.5	18.6	35.1	14.3	6.3	4.1	2.1	100.0	53.7	68.0	78.4	4730	-

* Defined as the exact age by which 50 percent of women have experienced marriage.
- Some data for women age 15-19 and the median for all women have been omitted, since a substantial proportion of these women have not yet married.

The median age at marriage suggests that there has been recently a slight rise in the age at first union, since women aged 20-24 and 25-29 entered their first union later (age 18) than women aged 30 and above (age 17). Younger women tend to enter their first union at a later age than older cohorts, as can be seen by the higher percentage of women married by age 18, 20, and 25 among older women. The exception is age group 45-49, which shows a lower percentage of women marrying by age 18, 20 and 25; this may be a result of misreporting of age at marriage due to recall lapse. Further indication of the trend toward later marriage is found in the analysis of data for eight districts from the 1980 census, which indicates that the singulate mean age at marriage for females rose from 17.7 in 1969 to 19.6 in 1980.

The median age at first union according to selected characteristics shows that urban women generally marry later than rural women and that in both urban and rural areas, the median age at first marriage is generally higher for younger women than for older women (Table 2.4). Women in Kampala, South West, and West Nile marry later than women in the other regions. The figures by age group for West Nile and Kampala vary greatly due to the small number of women involved. As in many countries, there is a strong inverse relationship between age at marriage and education; the median age at first marriage is six years later for those with higher education (23 years) than for those with no education (17 years) and women with intermediate levels of schooling are in between.

The balance of evidence seems to suggest that there has been a slight increase in the age at first union, which in the long run, will probably contribute to a gradual decline in fertility.

2.4 Breastfeeding, Postpartum Amenorrhoea and Abstinence

Data were collected in the UDHS on factors other than contraception that affect the length of pregnancy intervals. The factors were breastfeeding, amenorrhoea and sexual abstinence. The information was obtained for all live births during the five years prior to the survey and was analysed for all births within the 36 months prior to the survey. There were 3176 weighted births occurring 0-35 months prior to the survey.

Table 2.4 Median age at first union among women aged 20-49 years, by current age and background characteristics, Uganda, 1988/89

Current Age	Current Age						
	20-24	25-29	30-34	35-39	40-44	45-49	Total
Residence							
Urban	19.5	19.4	18.4	19.2	17.4	16.7	18.6
Rural	17.8	17.4	16.9	16.6	16.8	16.8	17.2
Region							
West Nile	16.9	17.0	17.5	(17.5)	(19.0)	(18.5)	17.4
East	16.9	16.8	16.3	16.2	15.8	15.9	16.5
Central	17.7	17.6	16.6	16.4	16.3	16.9	17.1
West	18.4	17.7	17.5	(14.8)	(16.0)	(17.3)	17.5
South West	18.9	17.9	17.6	17.6	18.0	17.2	18.0
Kampala	19.6	20.0	18.4	20.0	17.3	(17.0)	19.3
Luwero Triangle	17.7	17.5	16.6	16.4	16.1	16.7	17.1
Education							
No education	16.9	17.1	16.7	16.5	16.4	16.7	16.7
Some primary	17.7	17.4	16.7	16.7	16.7	16.6	17.2
Primary comp.	18.6	18.6	17.9	19.1	(18.0)	(20.5)	18.5
Middle	20.6	19.8	20.2	19.5	(20.0)	(18.5)	20.1
Higher	-	23.2	(22.7)	(22.6)	(25.2)	(25.5)	23.5
Total	18.1	17.7	17.1	17.1	16.7	16.8	17.5

Note: The numbers in parentheses are based on fewer than 20 unweighted cases.

Table 2.5 gives the proportion of births whose mother are still breastfeeding, amenorrhoeic, or abstaining, by months since the birth. The results show that breastfeeding is a common practice among Ugandan women. Eighty-two percent of births are breastfed 10 months after delivery and 42 percent are still breastfed at 20 months. After that, breastfeeding diminishes rapidly and at 24 months only 13 percent of the births are still being breastfed. Overall, the median duration of breastfeeding is 19 months.

Postpartum amenorrhoea is the period following a birth before the return of the menstrual cycle. In most societies, this period lasts about three months, during which time the woman is usually infecund. However, the length of amenorrhoea depends to a large extent on the woman's physiological condition. Factors such as nutrition, mental stress, and the length of breastfeeding influence the return of the menstrual cycle. In Table 2.5, the importance of breastfeeding can be seen by the fact that duration of amenorrhoea follows a pattern similar to duration of breastfeeding, with half of the women still amenorrhoeic 12 months after birth.

Postpartum sexual abstinence is widely practiced in Uganda, as in much of sub-Saharan Africa. Postpartum sexual abstinence is usually accompanied by breastfeeding, which is considered essential to the health and normal development of the child. However, the period of postpartum abstinence is shorter than the period of breastfeeding--less than 40 percent of women were still abstaining only 2-3 months

after birth. Column four in Table 2.5 shows the proportion of women protected from pregnancy due to either amenorrhoea or abstinence. Over half of the women are still insusceptible to pregnancy 12 months after birth, primarily due to amenorrhoea.

Table 2.5 Percentage of births whose mothers are still breastfeeding, postpartum amenorrhoeic, abstaining, or insusceptible, by number of months since birth, Uganda, 1988/89

Months Since Birth	Breast-feeding	Amenor-rhoeic	Abstain-ing	Insus-ceptible*	No. of Births
Less than 2	90.9	91.9	68.9	95.1	163
2-3	91.5	82.5	37.8	86.6	172
4-5	89.9	71.1	18.1	75.3	182
6-7	87.6	68.7	18.0	72.1	197
8-9	88.1	68.0	9.5	69.2	186
10-11	81.7	51.5	6.5	53.7	206
12-13	84.7	52.1	9.4	56.3	190
14-15	71.2	40.7	7.7	43.5	226
16-17	65.7	30.0	6.0	33.8	179
18-19	52.4	22.1	3.4	24.3	139
20-21	42.2	17.1	6.1	19.8	153
22-23	22.9	6.2	3.2	8.5	181
24-25	13.1	6.9	1.1	7.6	203
26-27	4.7	1.7	1.9	3.6	159
28-29	4.5	2.8	0.4	2.8	160
30-31	4.6	3.8	1.6	4.4	173
32-33	4.7	2.1	0.9	3.0	156
34-35	2.7	0.0	2.7	2.7	151
Total	52.0	35.7	11.2	38.1	3176
Median	19.0	12.9	1.8	13.5	-

Note: Includes births 0-35 months before survey.
* Either amenorrhoeic or abstaining at the time of the survey

Table 2.6 presents the mean number of months of breastfeeding, amenorrhoea, abstinence and insusceptibility by background characteristics of the mother. These estimates were calculated using the "prevalence/incidence" method borrowed from epidemiology: the total number of women breastfeeding (or amenorrhoeic, abstaining or insusceptible) is divided by the average number of births per month in the 36 months before the survey.

The average duration of breastfeeding is 19 months, which is longer than in several other sub-Saharan countries: Liberia (17 months) and Senegal (18 months). Ugandan women under age 30 breastfeed their children for slightly shorter durations than women aged 30 and over. Differentials by region show that West Nile women breastfeed for longer durations on average (26 months), while women in Kampala have the shortest average duration of breastfeeding (15 months). Table 2.6 also indicates that women with higher education breastfeed their children for shorter durations on average (14 months), probably due to their greater participation in the labour force which necessitates staying away from their children for long periods of time.

Table 2.6 Mean number of months of breastfeeding, postpartum amenorrhoea, postpartum abstinence, and postpartum insusceptibility, by background characteristics, Uganda, 1988/89

Background Characteristic	Breast-feeding	Amenor-rhoeic	Abstain-ing	Insus-ceptible*	No. of Births
Age					
<30	18.3	11.7	3.9	12.7	2153
30+	19.2	14.7	4.7	15.8	1063
Residence					
Urban	15.3	9.4	5.9	11.5	316
Rural	19.0	13.1	4.0	14.0	2900
Region					
West Nile	25.7	20.0	10.7	22.0	177
East	18.6	13.0	4.6	13.7	879
Central	16.7	11.1	3.6	12.1	812
West	17.9	11.9	2.6	12.5	209
South West	19.8	13.3	2.9	14.3	964
Kampala	14.9	8.8	6.4	11.4	174
Luwero Triangle	16.4	10.9	3.6	11.8	340
Education					
No education	19.8	14.8	4.5	15.7	1308
Some primary	18.2	11.8	3.5	12.8	1338
Primary completed	17.8	11.1	3.5	11.9	298
Middle	16.4	10.6	7.5	13.0	195
Higher	14.0	5.4	2.6	5.9	77
Total	18.6	12.7	4.1	13.7	3216

Note: Includes births 1-36 months before survey. Estimates are based on current status method (see text).
* Either amenorrhoeic or abstaining at the time of the survey

These findings imply a trend towards a shorter duration of breastfeeding. This can have adverse effects on the health of children since breast milk provides protection against certain illnesses. Shorter durations of breastfeeding also result in shorter periods of amenorrhoea, which may lead to higher fertility, if not compensated for with greater contraception. Most women know that breastfeeding tends to suppress the return of menstruation following a birth, thereby lengthening the period of amenorrhoea. Women in Uganda are now increasingly aware of the benefits of breastfeeding, which will hopefully result in a trend towards prolonged breastfeeding.

Table 2.6 indicates that the mean duration of postpartum amenorrhoea is 13 months. Postpartum amenorrhoea is longer for rural women (13 months) than for urban women (9 months). The mean duration of postpartum sexual abstinence is 4 months and is higher in urban areas (6 percent) than rural areas (4 months). It is also substantially longer for women in West Nile than for women in other regions.

CHAPTER 3
FERTILITY

3.1 Current Fertility Levels and Trends

In the past, fertility indices in Uganda have been almost entirely derived from population censuses using indirect methods. This is because there have not been any nationwide demographic surveys. Furthermore, Uganda did not participate in the World Fertility Survey. The first systematic census was conducted in 1948 with others in 1959, 1969, and 1980; reasonable fertility estimates are available only for these census years. The Uganda Demographic and Health Survey (UDHS) is the first national survey with the capacity to generate rural/urban, national, and regional indices.

Table 3.1 Total fertility rates (TFRs) for calendar year periods and for five years preceding the survey, and mean number of children ever born (CEB) to women 40-49 years of age, by background characteristics, Uganda, 1988/89

Background Characteristic	Total Fertility Rates* 1985-1988**	1982-1984	0-4 Years Before Survey	Mean Number of Children Ever Born to Women Age 40-49
Residence				
Urban	5.7	6.1	5.7	6.9
Rural	7.6	7.6	7.5	7.5
Region				
West Nile	7.4	7.2	7.2	7.4
East	7.6	7.0	7.4	7.1
Central	7.2	8.0	7.2	7.3
West	8.2	7.2	8.0	7.9
South West	7.8	7.5	7.6	8.0
Kampala	5.9	6.2	5.9	7.8
Luwero Triangle	7.3	7.3	7.3	7.9
Education				
No education	8.0	7.7	7.7	7.6
Some primary	7.2	7.3	7.2	7.4
Primary completed	7.1	8.4	7.3	7.3
Middle	6.6	7.0	6.7	7.9
Higher	5.2	7.2	5.1	5.0
Total	7.4	7.4	7.3	7.5

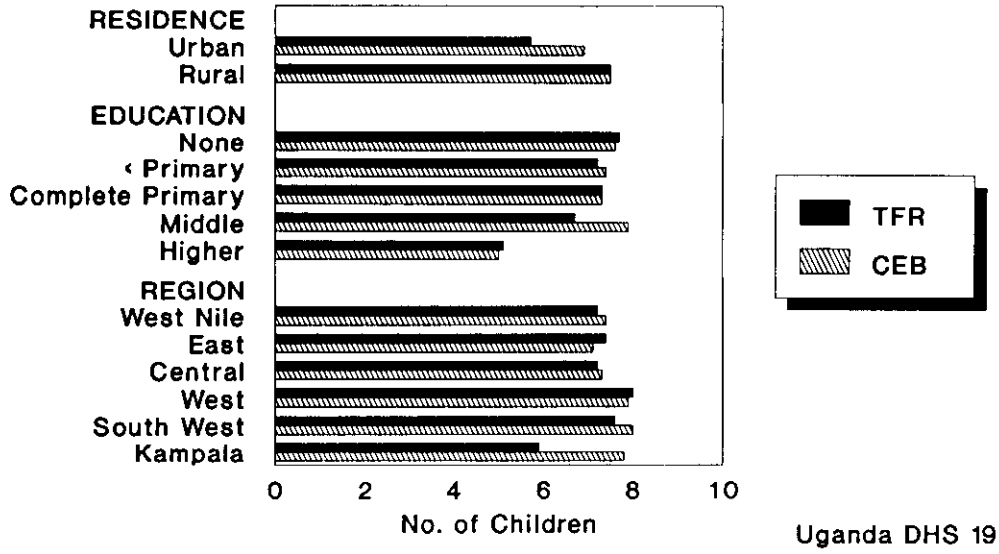
* Based on women aged 15-49
** Includes exposure in 1988 and 1989 up to the time of interview

Current Fertility

The total fertility rate (TFR) is defined as the number of births a woman would have if she survived through the reproductive period of 15-49 years and if she were subjected to the age-specific fertility rates which women are currently experiencing. The TFR is a measure of current fertility.

Table 3.1 and Figure 3.1 show TFRs for the periods 1985-88, 1982-84 and for the five-year period prior to the survey (approximately 1984-88). Also shown is the average number of children ever born to women 40-49, who have generally completed their childbearing. The data indicate high levels of fertility in Uganda (an average of 7.4 births per woman) with no indication of a recent decline. Fertility in urban areas is lower than in rural areas. This is true for all the periods under observation, as well as for older women aged 40-49 years. Urban women tend to be more educated, more likely to be engaged in wage employment, and more likely to have access to family planning services.

Figure 3.1
Total Fertility Rate 0-4 Years Before the Survey, and Children Ever Born to Women 40-49 Years



When the TFRs are examined on a regional basis, it is seen that Kampala has the lowest fertility. It should be kept in mind that Kampala is the capital city of Uganda and has the typical characteristics of urban areas. The South West and the West regions on the average stand out with fertility higher than the rest of the country. Fertility in the South West, particularly Ankole (i.e., Mbarara and Bushenyi Districts) has always been high and was the highest in the country according to the 1969 census. In the remaining regions, the TFRs are lower. Fertility generally declines with increasing education and women with higher education have much lower fertility than the rest of the women.

Fertility Trends

Trends in fertility can be observed by comparing the total fertility rate for the period 1985-88 with the TFR for the period 1982-84, and the mean number of children ever born to women aged 40-49. It should be noted that the fertility of women aged 40-49 refers to a specific cohort of women and to a reproductive experience that spans the past 25 to 30 years.

Overall, the TFR for the various periods has remained about the same, that is, just above 7 children per woman. In urban areas, there seems to be a sure decline in fertility from 6.9 for women aged 40-49 to the current level of 5.7; while in rural areas, the TFR shows no change. In the regions, the differences between various periods are so small that one can conclude that the TFR has remained stable, with only a slight indication of decline. Kampala, however, shows a sharp decline from 7.8 (completed fertility of women aged 40-49 years) to 5.9, the TFR for the period 1985-88. The trend by education shows that fertility has declined during the eighties among women with primary education and more, although the data on completed fertility among women 40-49 show a decline only for women with middle education. The data should be viewed with caution since the number of women is small in some categories.

In the past, a sharp increase in fertility was observed between census years 1959 and 1969, as indicated in Table 3.2, and it appears that the TFR rose slightly from 1969 to the present.

Another indicator of current fertility is the percentage of women who are pregnant, which is shown in Table 3.3 by age of woman. Overall, 13 percent of women reported themselves pregnant at the time of the survey, which may be a low estimate, since many women at early stages of pregnancy may not know that they are pregnant. Eleven percent of teenagers and 20 percent of women aged 20-24 were pregnant, showing the extreme youthfulness of childbearing in Uganda. Such early childbearing has serious implications for both maternal and child health.

Table 3.2 Crude birth rates and total fertility rates from various censuses, Uganda

Rate	Year of Estimate			
	1948	1959	1969	1985-88*
Crude birth rate	42	44	50	-
Total fertility rate	5.9	5.9	7.1	7.4

* UDHS, based on women 15-49

Table 3.4 presents age-specific fertility rates for different five-year periods preceding the survey. Since women 50 years of age and over were not included in the survey, fertility rates cannot be calculated for the older age groups back into time. The data indicate that fertility is highest among women aged 20-24, and only slightly lower for women aged 25-29. For the last three five-year periods, the figures show a steady decrease in fertility for every age group. Although data from birth histories are often subject to error in reporting both the number and timing of births, which can lead to misrepresentation of trends in fertility, the data in Table 3.4 appear to indicate that fertility in Uganda is declining, which supports the figures presented above for changes observed in urban areas.

Table 3.3 Percent of all women who are currently pregnant by age, Uganda, 1988/89

Age	Percent Pregnant	No. of Women
15-19	10.8	1157
20-24	19.5	985
25-29	16.8	859
30-34	14.6	620
35-39	9.7	459
40-44	4.6	345
45-49	0.5	304
Total	13.0	4730

3.2 Children Ever Born

Information on children ever born describes the childbirth history of a cohort of women from the time they started childbearing up to the present. This lifetime or cumulated fertility is important for understanding current fertility in areas where statistics on current fertility are unreliable. The percent distribution of all women and currently married women by the number of children ever born is presented in Table 3.5. At younger ages, the numbers are different for all women and for currently married women; however, for the older age groups, the distributions are almost the same, indicating that since most women marry by age 25, the categories of "all women" and "currently married women" are almost identical after the age 25.

Fourteen percent of all women have 8 or more children, that is, above the observed TFR of around 7 children. The percentage of all women who had 8 or more children in 1969 was 15 (Republic of Uganda, 1976), showing that there has been hardly any change since 1969. These percentages are sizeable and indicate either a widespread preference for large families or considerable nonuse of contraception, or both.

Table 3.4 Age-period fertility rate by age of woman at birth of child, Uganda, 1988/89

Age at Birth	Number of Years Preceding Survey						
	0-4	5-9	10-14	15-19	20-24	25-29	30-34
15-19	187	213	222	232	236	226	(185)
20-24	325	331	338	333	352	(308)	-
25-29	319	326	335	322	(337)	-	-
30-34	273	288	294	(300)	-	-	-
35-39	224	213	(243)	-	-	-	-
40-44	96	(138)	-	-	-	-	-
45-49	(36)	-	-	-	-	-	-
Cumulative 15-29	4.2	4.4	4.5	4.4	-	-	-

Note: Figures in parentheses are partially truncated rates.

Table 3.5 Percent distribution of all women and currently married women by number of children ever born (CEB), according to age, Uganda, 1988/89

Age	Number of Children Ever Born											Total	Wtd. No. of Women	Mean No. Born
	0	1	2	3	4	5	6	7	8	9	10+			
All Women														
15-19	69.7	22.3	7.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1157	0.4
20-24	16.7	24.6	28.3	20.3	7.4	2.3	0.4	0.0	0.0	0.0	0.0	100.0	985	1.9
25-29	6.2	7.4	12.9	19.0	21.4	17.4	9.5	4.7	1.4	0.1	0.0	100.0	859	3.6
30-34	4.6	6.2	8.3	8.1	9.7	13.5	16.4	19.8	9.1	2.2	2.2	100.0	620	5.0
35-39	2.1	4.5	2.0	5.0	4.7	9.0	10.9	18.1	17.4	11.7	14.7	100.0	459	6.8
40-44	5.8	4.8	1.6	3.4	3.8	10.2	6.7	6.2	14.8	15.9	26.9	100.0	345	7.2
45-49	5.3	4.1	1.8	3.2	3.5	8.0	5.4	8.5	11.7	14.7	33.8	100.0	304	7.8
Total	23.2	13.8	11.5	9.9	7.7	7.5	5.8	6.2	5.0	3.5	5.8	100.0	4730	3.5
Currently Married Women														
15-19	38.7	42.0	16.5	2.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	422	0.8
20-24	7.6	24.1	31.3	24.5	9.3	2.7	0.4	0.0	0.0	0.0	0.0	100.0	710	2.1
25-29	3.7	6.1	12.5	19.2	23.3	18.7	10.5	4.3	1.5	0.1	0.0	100.0	705	3.8
30-34	3.3	5.6	7.8	7.3	10.0	13.4	16.5	20.9	10.1	2.7	2.6	100.0	506	5.3
35-39	1.7	3.8	1.8	4.6	4.7	7.7	10.8	16.7	17.4	14.3	16.5	100.0	363	7.0
40-44	5.1	3.1	0.7	3.4	3.6	10.0	6.1	7.0	14.8	14.9	31.4	100.0	252	7.6
45-49	4.2	2.9	1.5	3.8	2.6	7.3	5.9	7.5	10.2	16.0	38.0	100.0	223	8.1
Total	9.1	14.1	13.5	12.3	9.9	9.1	7.2	7.3	5.8	4.4	7.4	100.0	3180	4.2

Women who have almost completed their childbearing (40-44 and 45-49), have had well over 7 births on average (7.2 and 7.8, respectively). For currently married women, the mean number of children ever born is 7.6 and 8.1, for women aged 40-44 and 45-49 respectively. It is interesting to note that 60 percent of all women aged 45-49 gave birth to 8 or more children and 34 percent gave birth to ten or more children. It is clear that the cohorts which have recently completed childbearing had extremely high fertility.

Since contraceptive use in Uganda is low and marriage is almost universal, infecundity is probably the major reason that some older women have no children. It can be seen that 5-6 percent of all women aged 40-44 and 45-49 are childless. The figure is slightly lower (4-5 percent) for married women. Furthermore, 3-5 percent of older women have had only one birth. This is not likely to be a result of contraceptive use, but rather sub-fecundity (sterility).

Cumulative fertility as measured by children ever born to ever-married women, according to the duration of marriage and age at first marriage is presented in Table 3.6. In the absence of deliberate fertility control, the number of children a woman bears will depend largely on the age at which she marries (assuming that she does not experience premarital childbearing) and the duration of her marriage, and women married earlier will give birth to more children than women married later. This relationship is expected because women who marry earlier are younger and exposed to the risk of conception for a longer period of time than women married later.

Table 3.6 Mean number of children ever born to ever-married women, by age at first marriage and years since first marriage, Uganda, 1988/89

Years Since First Marriage	Age at First Marriage						
	<15	15-17	18-19	20-21	22-24	25+	Total
0-4	1.0	1.0	1.2	1.4	1.6	2.1	1.2
5-9	2.5	2.9	3.0	3.1	2.8	(5.5)	2.9
10-14	4.4	4.9	4.5	4.4	5.5	5.1	4.7
15-19	5.6	5.9	6.0	6.5	(6.0)	(5.2)	5.9
20-24	7.4	7.2	7.9	8.2	6.3	(7.1)	7.4
25-29	7.6	7.2	7.6	8.0	(4.8)	-	7.4
30+	8.2	7.8	(8.3)	-	-	-	8.0
Total	5.0	4.2	3.9	3.9	3.5	3.9	4.3

Note: Numbers in parentheses are based on fewer than 20 unweighted cases.
- Not available due to age truncation.

Overall, women married at an early age produce more children than women married later; however, this pattern is primarily due to the fact that women who married earlier were more likely to be older when the survey occurred, and thus had more children. When the figures are examined for individual duration groups, the relationship is inconsistent. For example, for marriages lasting 0-4 years, the average number of children rises with age at marriage. It appears that women married in their teens space births, while women married at age 20 or over produce children more frequently. For other marriage duration groups, the pattern fluctuates, sometimes rising with age at marriage and sometimes falling.

3.3 Age at First Birth

The age at which women start childbearing is an important demographic indicator. Although there are births which occur outside marital unions in Uganda, it is still true that the majority of births occur among married couples. So an increase in the age at marriage will in most cases imply an increase in the age at first birth, especially in the absence of premarital childbearing and wide use of contraceptives. Table 3.7 shows the percent distribution of women by age at first birth according to current age.

Table 3.7 Percent distribution of women by age at first birth, according to current age, Uganda, 1988/89

Current Age	No Births	Age at First Birth						Total	Weighted Number of Women	Median Age at First Birth*
		<15	15-17	18-19	20-21	22-24	25+			
15-19	69.7	3.5	22.2	4.7	0.0	0.0	0.0	100.0	1157	-
20-24	16.7	5.5	36.2	25.8	12.6	3.2	0.0	100.0	985	18.6
25-29	6.2	9.0	36.8	22.0	13.4	9.6	2.9	100.0	859	18.3
30-34	4.6	10.0	40.1	21.4	12.9	7.0	4.0	100.0	620	18.0
35-39	2.1	10.3	39.2	23.1	10.9	7.3	7.2	100.0	459	18.0
40-44	5.8	14.8	31.8	22.1	13.2	6.5	5.7	100.0	345	18.3
45-49	5.3	10.7	31.8	21.9	15.5	6.4	8.3	100.0	304	18.6
Total	23.2	7.7	33.1	18.6	9.8	4.9	2.7	100.0	4730	-

* Defined as the exact age by which 50 percent of women have had a birth.

The median age at first birth for the various age groups is almost uniform. For example, the median age at first birth of women aged 45-49 is 18.6, which is identical to the median age for women aged 20-24.

Table 3.7 shows that 8 percent of women had a birth before 15 years of age. This percentage is notable and is due to the early age at which women become sexually active and contributes to the medico-social problems related to teenage pregnancy. The percentage of women who gave birth before age 15 is lower for younger women, that is, it rises from about 6 percent for the women aged 20-24 to over 15 percent for women aged 40-44. On the other hand, only 3 percent of all women deliver their first birth at age 25 and older. This means that having a child before the age of 25 is almost universal among Ugandan women.

Table 3.8 presents the median age at first birth for women aged 20-49 by background characteristics of women. Urban women and women in West Nile, South West, and Kampala regions have a somewhat higher median age at first birth than rural women and women in other regions. Age at first birth definitely increases with education, from 18 for women with no education or some primary education to 24 among women with higher education.

The conclusion drawn from the results of the UDHS is that there has been a small increase in overall fertility during the last twenty years, with a possible slight decline due to the effects of modernisation (education) observed in the urban areas (mainly Kampala).

Table 3.8 Median age at first birth among women aged 20-49 years, by current age and background characteristics, Uganda, 1988/89

Background Characteristic	Current Age						Total
	20-24	25-29	30-34	35-39	40-44	45-49	
Residence							
Urban	19.8	18.5	18.5	18.8	18.2	18.2	19.0
Rural	18.6	18.5	18.2	18.0	18.3	18.8	18.4
Region							
West Nile	18.8	18.0	17.9	(18.8)	(21.0)	(19.7)	18.9
East	18.0	17.8	17.5	17.2	18.3	18.0	17.8
Central	18.2	18.2	17.8	17.8	17.5	18.6	18.0
West	18.6	18.9	17.6	(15.9)	(16.5)	(20.0)	18.0
South West	19.6	19.1	19.0	19.1	19.3	19.4	19.3
Kampala	19.7	18.2	18.6	18.7	18.0	(17.3)	18.8
Luwero Triangle	18.2	18.2	18.1	17.6	17.6	18.5	18.0
Education							
No education	18.3	18.5	17.8	18.2	18.3	18.8	18.3
Some primary	18.4	18.0	18.1	17.7	17.9	17.9	18.1
Primary completed	19.2	18.8	17.8	19.2	(19.0)	(22.5)	18.9
Middle	20.6	19.1	19.1	19.1	(19.0)	(20.5)	19.7
Higher	-	23.7	21.5	(22.2)	(25.7)	(25.5)	23.6
Total	18.8	18.5	18.2	18.3	18.3	18.8	18.5

Note: Median age is the exact age by which 50 percent of women have had a birth.
Note: Numbers in parentheses are based on fewer than 20 unweighted cases.

CHAPTER 4
CONTRACEPTIVE KNOWLEDGE AND USE

4.1 Contraceptive Knowledge

Collection of data about knowledge and use of contraceptive methods was a major objective of the UDHS. Furthermore, data about the places where contraceptive methods could be obtained and the type of family planning services offered to clients provided useful information regarding family planning coverage.

To determine knowledge of contraception, respondents were first asked to list ways or methods that a couple could use to delay or avoid a pregnancy. If a respondent did not spontaneously mention a particular method, the method was then described by the interviewer and the respondent was asked if she recognised the method. If the answer was positive, the respondent was asked whether she had ever used the method, the place where she would go to obtain the method if she wanted to use it and the main problem, if any, with using the method. Descriptions of seven modern methods (the pill, IUD, injection, condom, female sterilisation, male sterilisation, and vaginal methods--diaphragm, foam and jelly) and two traditional methods (periodic abstinence (rhythm) and withdrawal) were included in the questionnaire. Traditional methods mentioned by the respondent, such as herbs and tying strings around the waist were recorded as a tenth category "any other method".

Table 4.1 and Figure 4.1 indicate that 82 percent of all women interviewed know of at least one contraceptive method (84 percent of married women), while only 75 percent of all women know where to get a method of contraception (77 percent of the married women). More than 3 out of 4 women know of at least one modern method (77 percent of all women and 78 percent of married women).

The most well-known modern method is the pill which is known by 66 percent of all women and 68 percent of married women. This is not surprising, since it is the most widely available contraceptive and probably the easiest to use. Female sterilisation is the next most well-known method (59 percent of all women and 63 percent of married women). It is surprising that sources for female sterilisation are more widely known than sources for the pill. Sixty percent of married women know where they can be sterilised, whereas 54 percent know where to get the pill.

Male sterilisation is the least known method with only 9 percent of married women reporting awareness of this method. Vaginal methods (diaphragm/foam/jelly) are also largely unknown, with 12 percent of married women knowing one of these methods. Most women who know of these methods also know a source for obtaining them.

Among the traditional methods, 43 percent of all women and 45 percent of married women know of periodic abstinence. The percentages for withdrawal are about half of periodic abstinence. Surprisingly, 31 percent and 33 percent of all women and married women, respectively, report knowledge of traditional methods other than periodic abstinence and withdrawal.

Table 4.2 shows the percentage of currently married women who know at least one modern method and a place to obtain it by age, type of residence (rural or urban), region, and education. Age differentials in knowledge are not great, although knowledge tends to increase until age 30, after which it levels off, and drops slightly for the oldest women. This is probably due to the fact that women marry in their teens and early 20s. As more women get married, demand for/and knowledge of contraceptive methods rises to meet their needs. Also, the more women attend MCH clinics with young children or during pregnancy, the more likely it is they will be told about these methods.

Table 4.1 Percentage of all women and currently married women knowing any contraceptive method and knowing a source (For Information or Services), by specific method, Uganda, 1988/89

Method	Knows Method		Knows Source	
	AW	CMW	AW	CMW
Any method	81.9	84.0	74.5	76.7
Any modern method	76.5	77.9	70.7	72.3
Pill	66.4	67.7	53.6	54.4
IUD	20.2	21.1	15.9	16.3
Injection	39.7	40.8	34.9	35.5
Diaphragm/Foam/Jelly	11.3	11.6	8.8	8.7
Condom	32.5	31.1	21.9	20.9
Female sterilization	59.1	62.6	56.4	59.7
Male sterilization	8.2	8.8	7.5	8.2
Any traditional method	58.6	62.4	39.1	41.2
Periodic abstinence	42.6	45.0	39.1	41.2
Withdrawal	20.5	22.0	—	—
Other	31.1	33.4	—	—

AW = All women (4730); CMW = Currently married women (3180)

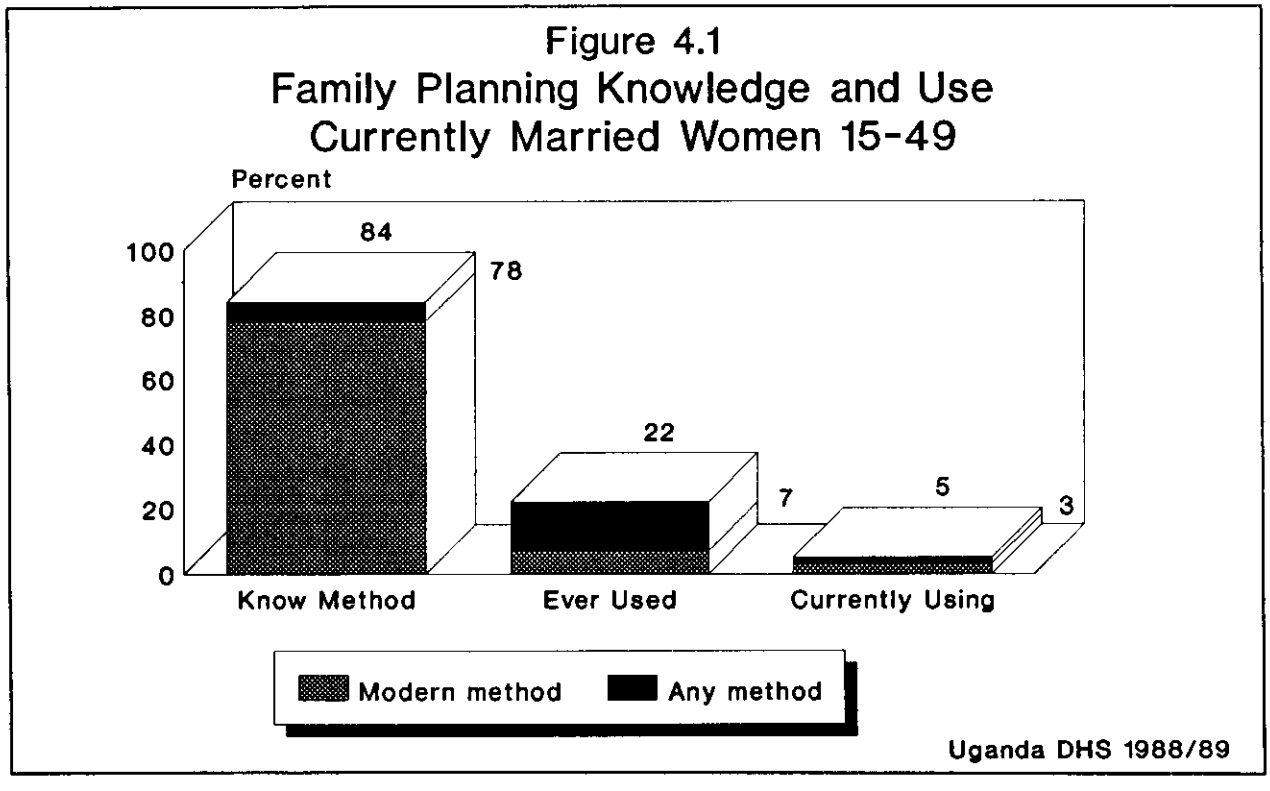


Table 4.2 Percentage of currently married women knowing at least one modern method and knowing a source for a modern method, by background characteristics, Uganda, 1988/89

Background Characteristic	Knows Modern Method	Knows Source	Wtd. No. of Women
Age			
15-19	74.4	69.5	422
20-24	78.2	72.9	710
25-29	83.2	77.7	705
30-34	76.9	69.8	506
35-39	79.3	74.2	363
40-44	76.1	70.3	252
45-49	69.1	61.8	223
Residence			
Urban	94.2	90.3	290
Rural	76.3	70.4	2890
Region			
West Nile	17.8	11.9	194
East	84.8	75.4	979
Central	78.7	74.1	777
West	61.0	56.8	194
South West	83.3	79.9	886
Kampala	96.3	93.3	151
Luwero Triangle	89.7	84.9	313
Education			
No education	67.1	58.7	1409
Some primary	83.2	79.2	1294
Primary comp.	94.1	91.5	241
Middle	95.3	93.1	172
Higher	99.1	99.1	64
Total	77.9	72.2	3180

As expected, the percentage of married women who know at least one modern method is higher among urban women (94 percent) than rural women (76 percent). Almost all women who know a modern method also know of a place to obtain it (90 percent for urban women and 70 percent for rural women). Given that most family planning clinics are in urban areas, the difference in knowledge between urban and rural women is not surprising.

Women in West Nile seem to have the least knowledge about modern methods and their sources, with only 18 percent knowing a modern method and 12 percent knowing a source. There are two possible explanations for this. Foremost, the sample in West Nile was small and more prone to erratic results. Secondly, there are concentrations of Catholics and Moslems in West Nile who generally do not use contraceptives. In contrast, the figures for Kampala, South West and East regions are high.

The education of women is an important determinant of knowledge of family planning methods. Table 4.2 shows that the percentage of women knowing a method and its source increases as educational level increases. Thus, 99 percent of women with higher education know at least one family planning method and its source, compared with 67 percent and 59 percent of women with no education.

In an effort to identify obstacles to the wider use of family planning methods, the UDHS interviewers asked respondents who reported knowing about a method, what they thought was the main problem, if any, with using the method. As shown in Table 4.3, between 50 and 70 percent of women answered either "don't know", or "no problem". A substantial proportion of women cited health-related problems as the main reason associated with using modern methods. The proportion of women giving this reason was 45 percent for the pill, 33 percent for the IUD, and 32 percent for injection. The only other commonly cited reason was "method permanent" which was given by 27 percent of women who know female sterilisation, 36 percent of women who know male sterilisation, and oddly, by 9 percent of women who know injection. Lack of effectiveness was cited as a problem for periodic abstinence and withdrawal more frequently than it was for modern methods. For withdrawal, women also gave inconvenience of the method and disapproval of the husband or partner as problems with using the method.

Table 4.3 Percent distribution of women who have ever heard of a contraceptive method by main problem perceived in using the method, according to specific method, Uganda, 1988/89

Main Problem Perceived	Contraceptive Method								
	Pill	IUD	Injec-tion	Diaphragm/ Foam Jelly	Con-dom	Female Sterili-sation	Male Sterili-sation	Periodic Absti-nence	With-drawal
Not effective	1.7	3.7	0.6	4.8	4.8	0.3	0.1	15.7	12.5
Husband disapproved	0.1	0.4	0.1	1.1	2.6	0.3	2.8	6.2	11.9
Health concerns	45.0	33.3	31.8	21.0	22.4	22.9	10.4	0.0	2.0
Access/availability	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Costs too much	0.0	0.1	0.4	0.1	0.2	1.1	1.1	0.0	0.0
Inconvenient to use	0.8	2.7	1.0	6.5	5.6	0.0	0.0	4.4	18.7
Method permanent	3.0	1.4	8.6	0.7	0.3	26.6	35.8	0.2	0.2
Other	0.6	0.0	0.4	0.0	0.4	0.7	0.8	1.3	0.5
None	7.0	7.1	8.7	10.1	11.6	11.8	7.5	38.9	23.6
Don't know	41.8	51.4	48.2	55.7	52.2	36.3	41.5	33.3	30.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3141	956	1878	535	1536	2796	390	2015	968

Knowledge of a source for modern family planning methods is a precondition for their use. However, the level of use may be quite low if methods are not easily accessible. Table 4.4 shows the type of supply source that women say they would use to obtain specific methods if they wanted to use them. For all methods except periodic abstinence, government hospitals are by far the most frequently named potential source. For the pill, IUD, injection, and diaphragm, foam and jelly, the next most frequently mentioned source is the Family Planning Association of Uganda (FPAU) clinic, followed by the "don't know" responses. For the condom, 15 percent cited FPAU, while twice as many did not know where to obtain condoms. When asked where they could obtain advice about periodic abstinence, most women cited the church (54 percent); eleven percent responded "nowhere."

Table 4.4 Percent distribution of women knowing a contraceptive method by supply source they said they would use, according to specific method, Uganda, 1988/89

Supply Source that Would be Used	Contraceptive Method							
	Pill	IUD	Injec-tion	Diaphragm/ Foam Jelly	Con-dom	Female Sterili-sation	Male Sterili-sation	Periodic Absti-nence
Government hospital	47.1	48.4	59.5	37.4	33.9	90.1	81.1	7.8
Govt. health center	1.4	1.1	1.4	1.9	1.0	0.7	1.2	0.7
FPAU* clinic	21.8	24.8	22.6	29.3	15.1	1.7	5.8	6.0
Mobile clinic	0.2	0.1	0.2	0.4	0.3	0.0	0.1	0.2
Field worker	0.2	0.0	0.2	0.4	0.0	0.0	0.0	1.3
Private doctor	1.2	1.2	0.8	0.8	0.7	0.2	0.5	1.1
Private hosp.,clinic	2.3	2.7	2.7	0.8	1.7	2.8	2.3	0.5
Pharmacy/shop	5.1	0.0	0.0	5.8	12.8	0.0	0.0	1.8
Church	0.6	0.0	0.0	0.5	0.4	0.0	0.4	54.1
Friends, relatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Other	0.4	0.0	0.0	0.3	0.9	0.0	0.1	6.9
Nowhere	0.5	0.3	0.5	0.0	0.5	0.0	0.0	11.2
Don't know	19.2	20.5	11.9	22.3	32.5	4.2	8.1	8.1
Missing	0.1	0.9	0.2	0.0	0.2	0.3	0.4	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3141	956	1878	535	1536	2796	390	2015

* Family Planning Association of Uganda

4.2 Contraceptive Use

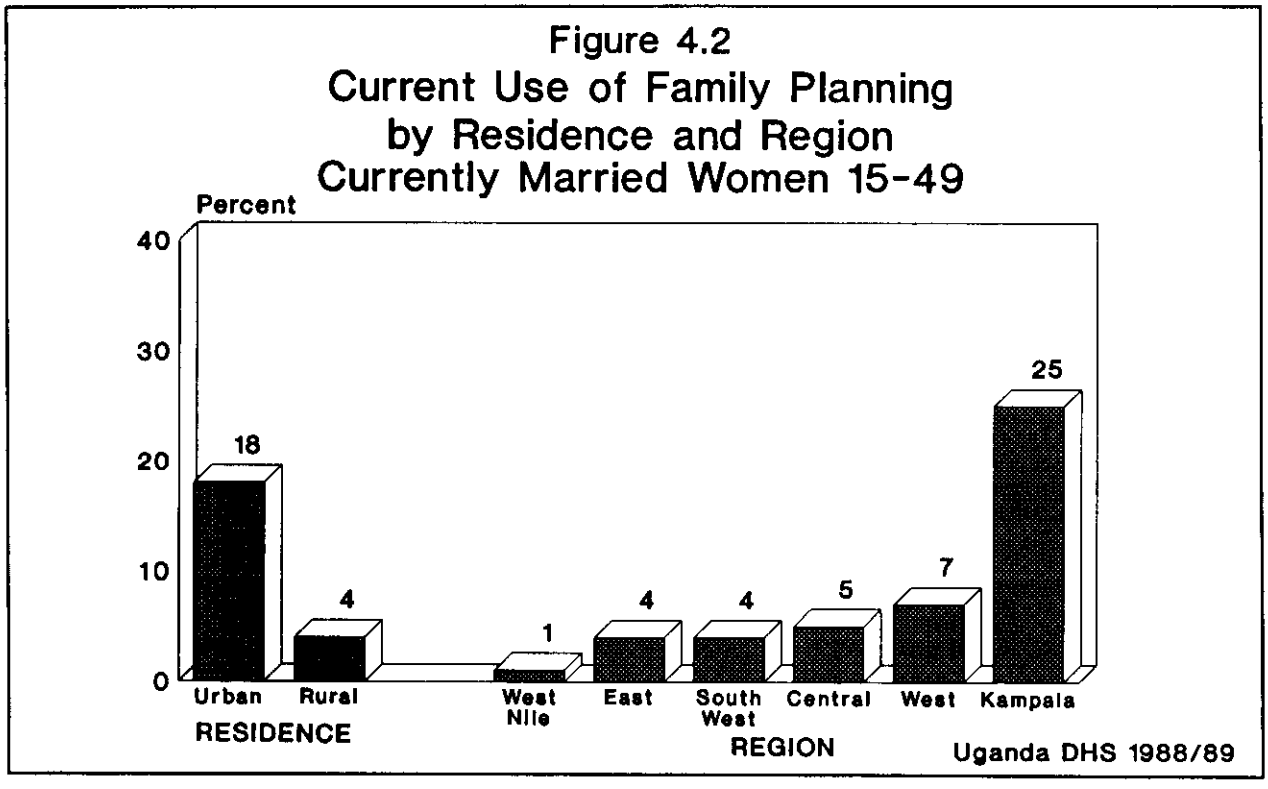
For each family planning method that a respondent said she had heard of, she was also asked if she had ever used it. As shown in Table 4.5 and Figure 4.1, 21 percent of all women and 22 percent of currently married women have used a method at some point in their lives. Thirteen percent of all women report having used periodic abstinence, 6 percent have used the pill, 4 percent have used withdrawal, and 1 percent have used injection. Fewer than one percent of women have used any of the other methods, including condoms; this is of particular concern, given the emphasis placed on use of condoms to prevent AIDS. Women in their late 20s and 30s are somewhat more likely to have used a method of family planning than either younger or older women, although the differences are not great, especially among currently married women.

On the whole, current use of contraception is still very low. Only 6 percent of all women and 5 percent of currently married women reported using a contraceptive method at the time of the interview, and only half of these were using a modern method. Periodic abstinence is the most popular method, followed by the pill and female sterilisation. The IUD, injection and condom account for a very small percentage of users. The percentage of currently married women using any method increases with age except in the oldest age group, 45-49, where it declines slightly. The percentage rises from 2 in the 15-19 age group to 8 in the 40-44 and 45-49 age groups. Interestingly, family planning use is slightly higher among all women than among currently married women, which implies that single women use methods to avoid pregnancies outside marriage.

With regard to differentials in current use by background characteristics, Table 4.7 and Figure 4.2 show that contraceptive use is five times higher among urban married women (18 percent) than rural

Table 4.5 Percentage of all women and currently married women who have ever used a contraceptive method, by specific method and age, Uganda, 1988/89

Age	Any Method	Any Modern Method	Pill	IUD	Injection	Diaph. Foam Jelly	Condom	Female Steriliset.	Any Trad'l Method	Periodic Abstinence	Withdrawal	Other	Weighted Number of Women
						Contraceptive Method							
						All Women							
15-19	13.3	3.6	3.0	0.0	0.1	0.0	0.6	0.0	10.9	9.1	1.7	1.4	1157
20-24	22.9	7.5	6.4	0.2	0.6	0.1	1.2	0.0	17.9	14.9	5.4	2.2	985
25-29	25.7	9.6	8.2	0.7	1.0	0.4	1.3	0.3	20.7	16.3	6.1	2.5	859
30-34	23.9	8.9	6.7	0.8	2.1	0.5	0.8	0.7	18.5	14.8	4.7	3.5	620
35-39	25.0	10.1	6.5	1.0	4.2	0.4	0.4	1.3	19.0	14.9	4.6	2.9	459
40-44	20.9	10.5	4.9	0.6	3.4	0.4	0.6	3.9	15.0	11.2	2.8	4.7	345
45-49	18.1	4.6	1.9	0.5	1.1	0.2	0.0	2.5	15.6	10.2	4.8	4.2	304
Total	20.9	7.4	5.5	0.5	1.3	0.2	0.8	0.7	16.5	13.1	4.2	2.6	4730
						Currently [redacted]							
15-19	19.8	4.5	3.8	0.0	0.1	0.0	0.8	0.0	16.5	12.0	3.6	2.8	422
20-24	18.6	5.0	4.5	0.1	0.4	0.1	0.6	0.0	15.3	11.9	5.5	2.3	710
25-29	24.3	8.0	6.6	0.7	0.7	0.3	1.0	0.2	20.2	16.4	6.0	1.9	705
30-34	22.1	6.9	4.7	0.9	2.0	0.3	0.8	0.5	18.0	14.2	4.1	3.7	506
35-39	24.1	9.9	5.8	1.1	3.6	0.0	0.0	1.7	18.4	15.3	4.4	2.3	363
40-44	21.5	11.0	5.5	0.2	2.8	0.3	0.9	3.8	15.5	11.3	3.2	5.6	252
45-49	18.9	5.1	2.6	0.7	1.2	0.3	0.0	2.5	15.7	10.0	5.0	5.1	223
Total	21.5	7.0	5.0	0.5	1.3	0.2	0.7	0.8	17.4	13.5	4.8	3.0	3180



married women (4 percent). Urban users are also much more likely to be using a modern method than rural users. This urban emphasis is reflected in the rates by region, where Kampala leads with 25 percent of married women using contraception. Use is also higher than average in West region (7 percent) and is lowest in West Nile, where less than one percent of married women are using a method.

Table 4.7 and Figure 4.3 also show very large differentials in contraceptive use according to level of education. Thirty-four percent of women with higher education currently use a contraceptive method compared with 2 percent of women with no education. Thus, even without other motivating factors such as a vigorous family planning education campaign or an increase in standards of development, contraceptive use might be expected to increase in the future simply as a result of trends toward urbanisation and increasing educational attainment of women.

Family planning use also increases with the number of living children a woman has. The percentage of currently married women using any method ranges from 1 percent among women with no children to 7 percent among women with 4 or more children. This is an indication of decreasing desire for more children as women realise that it is not necessary to have additional children when those already born can survive.

Table 4.6 Percent distribution of all women and currently married women, by contraceptive method currently being used, according to age, Uganda, 1988/89

	Contraceptive Method													
Age	Any Method	Any Modern Method	Pill	IUD	Injec-tion	Con-dom	Female Steri-lisa-tion	Any Trad'l Method	Peri-odic Absti-nence	With-draw-al	Other	Not Cur-rently Using	Total	Weighted Number of Women
							All Women							
15-19	2.6	1.2	1.2	0.0	0.0	0.0	0.0	1.3	1.2	0.0	0.1	97.4	100.0	1157
20-24	5.4	1.8	1.6	0.1	0.2	0.0	0.0	3.6	3.1	0.4	0.1	94.6	100.0	985
25-29	5.7	2.6	1.8	0.4	0.1	0.1	0.3	3.1	2.2	0.6	0.2	94.3	100.0	859
30-34	6.7	3.1	1.3	0.1	1.0	0.0	0.7	3.7	2.5	0.3	0.8	93.3	100.0	620
35-39	7.9	5.6	1.9	0.5	1.8	0.0	1.3	2.3	2.2	0.0	0.2	92.1	100.0	459
40-44	8.6	5.4	0.7	0.2	0.6	0.0	3.9	3.1	1.6	0.0	1.5	91.4	100.0	345
45-49	7.1	2.5	0.0	0.0	0.0	0.0	2.5	4.5	2.7	1.1	0.7	92.9	100.0	304
Total	5.5	2.7	1.4	0.2	0.4	0.0	0.7	2.9	2.2	0.3	0.4	94.5	100.0	4730
							Currently [redacted] Married + Living Together							
15-19	1.7	1.2	1.2	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	98.3	100.0	422
20-24	2.8	1.1	0.9	0.1	0.1	0.0	0.0	1.7	1.4	0.3	0.0	97.2	100.0	710
25-29	4.3	1.9	1.1	0.4	0.1	0.1	0.2	2.4	1.8	0.6	0.1	95.7	100.0	705
30-34	5.9	2.6	1.1	0.1	1.0	0.0	0.5	3.3	2.0	0.3	0.9	94.1	100.0	506
35-39	8.1	6.0	1.8	0.6	1.8	0.0	1.7	2.2	2.0	0.0	0.2	91.9	100.0	363
40-44	8.2	5.2	1.0	0.2	0.2	0.0	3.8	2.9	0.9	0.0	2.1	91.8	100.0	252
45-49	7.9	2.5	0.0	0.0	0.0	0.0	2.5	5.5	3.0	1.5	1.0	92.1	100.0	223
Total	4.9	2.5	1.1	0.2	0.4	0.0	0.8	2.4	1.6	0.3	0.4	95.1	100.0	3180

Table 4.7 Percent distribution of currently married women by contraceptive method currently being used, according to background characteristics, Uganda, 1988/89

Background Characteristic	Contraceptive Method Currently Being Used													
	Any Method	Any Modern Method	Pill	IUD	Injection	Condom	Female Sterilisation	Any Trad. meth.	Periodic Abstinence	Withdrawal	Oth.	Not Currently using	TOTAL	Weighted Number of Women
Residence														
Urban	18.0	12.2	7.0	1.7	1.7	0.2	1.6	5.8	4.5	0.8	0.6	82.0	100.0	290
Rural	3.6	1.5	0.5	0.1	0.3	0.0	0.7	2.0	1.3	0.3	0.4	96.4	100.0	2890
Region														
West Nile	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.0	0.0	99.2	100.0	194
East	3.5	2.0	0.2	0.3	0.6	0.0	0.9	1.5	1.2	0.2	0.2	96.5	100.0	979
Central	4.7	2.4	1.1	0.0	0.3	0.0	1.0	2.3	1.2	0.3	0.8	95.3	100.0	777
West	6.8	3.4	1.7	0.0	0.0	0.0	1.7	3.4	1.7	0.8	0.8	93.2	100.0	194
South West	3.6	0.9	0.5	0.0	0.2	0.0	0.2	2.7	1.8	0.5	0.4	96.4	100.0	886
Kampala	24.6	17.9	10.1	2.2	2.6	0.4	2.6	6.7	5.6	0.7	0.4	75.4	100.0	151
Luwero Tri.	5.0	2.2	0.7	0.0	0.0	0.0	1.4	2.9	2.3	0.2	0.4	95.0	100.0	313
Education														
No educa.	1.9	0.9	0.2	0.0	0.3	0.0	0.4	1.0	0.6	0.2	0.2	98.1	100.0	1409
Some prim.	4.8	2.3	0.8	0.2	0.4	0.0	0.9	2.5	1.7	0.2	0.6	95.2	100.0	1294
Prim.comp.	9.1	4.0	1.4	0.2	1.1	0.0	1.3	5.1	3.1	1.4	0.7	90.9	100.0	241
Middle	12.7	7.2	3.9	1.0	0.3	0.0	2.0	5.5	4.4	0.8	0.3	87.3	100.0	172
Higher	34.1	22.7	15.8	2.6	0.9	0.9	2.6	11.4	7.9	2.6	0.9	65.9	100.0	64
No. of living children														
None	0.9	0.4	0.4	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.0	99.1	100.0	380
1	2.7	1.2	0.7	0.1	0.1	0.0	0.3	1.5	1.1	0.4	0.0	97.3	100.0	538
2	3.9	2.7	1.9	0.0	0.0	0.1	0.7	1.1	0.8	0.0	0.3	96.1	100.0	487
3	4.4	2.0	1.1	0.3	0.0	0.0	0.6	2.4	1.9	0.5	0.0	95.6	100.0	444
4+	7.4	3.7	1.0	0.4	1.0	0.0	1.3	3.7	2.3	0.5	0.9	92.6	100.0	1331
Total	4.9	2.5	1.1	0.2	0.4	0.0	0.8	2.4	1.6	0.3	0.4	95.1	100.0	3180

The number of children at the time family planning is first used is an indicator of the acceptance of family planning for spacing purposes (Table 4.8). The data indicate a strong shift in the timing of first contraceptive use. Only 3 percent of ever-married women 45-49 first used contraception when they had no children, compared to 14 percent of women 15-19.

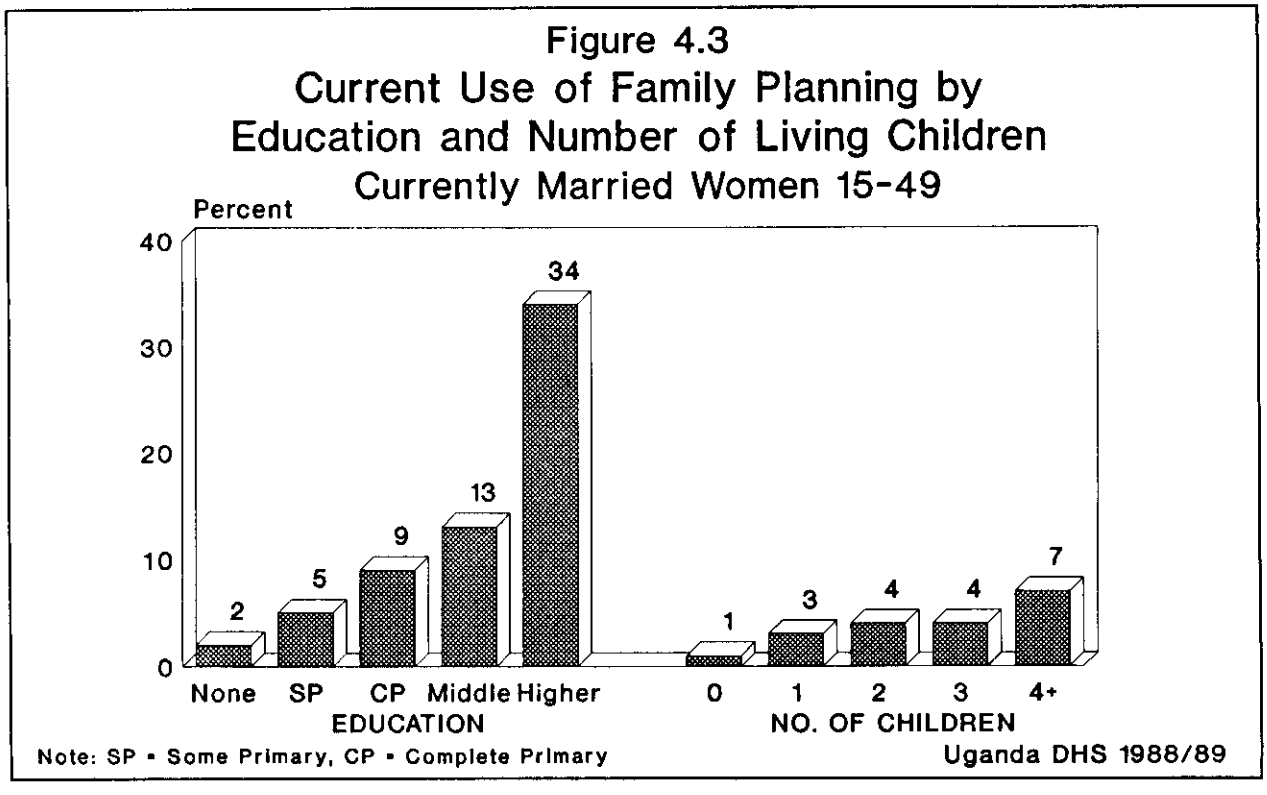
4.3 Knowledge of the Fertile Period

Table 4.9 shows the percent distribution of all women and of women who have ever used periodic abstinence by knowledge of the fertile period during the ovulatory cycle. The data indicate that knowledge of the reproductive cycle is very limited, with one-third of all women answering "don't know", and only 10 percent giving the "correct" response ("in the middle of her cycle"). Women who have used periodic abstinence are more likely to know when they are most fertile, and only 13 percent said they did

not know. It should be noted that the response categories for this question are only one attempt at dividing the ovulatory cycle into distinct periods. It is possible that women who gave an answer of, say, "one week after her period" were coded in the category "just after her period has ended", instead of in the category "in the middle of the cycle". Thus, women may actually have a more accurate understanding of their fertility cycles than is reflected in the data.

Table 4.8 Percent distribution of ever-married women by number of living children at time of first use of contraception, according to current age, Uganda, 1988/89

Age	Never Used	Number of Living Children at Time First Used					Wtd. No. of Women
		None	1	2	3	4+	Total	
15-19	80.7	14.0	4.0	1.2	0.0	0.0	100.0	472
20-24	78.8	8.7	7.6	3.2	1.0	0.4	100.0	818
25-29	74.7	6.4	5.6	6.2	3.0	3.8	100.0	817
30-34	76.5	3.6	3.5	4.1	3.6	8.6	100.0	605
35-39	75.1	3.0	2.5	1.9	3.5	14.0	100.0	454
40-44	79.0	1.1	2.4	1.3	2.5	13.6	100.0	342
45-49	81.9	2.9	0.3	1.7	1.3	11.9	100.0	302
Total	77.6	6.3	4.4	3.3	2.2	6.1	100.0	3809



4.4 Source for Methods

In the UDHS, women using modern methods of contraception were asked where they obtained their method the last time they received their supply. Table 4.10 and Figure 4.4 show that overall, 42 percent of users of modern methods rely on government hospitals and 33 percent rely on the Family Planning Association of Uganda (FPAU). Thirteen percent of users obtain their method from a private doctor, clinic or pharmacy.

Table 4.9 Percent distribution of all women and women who have ever used periodic abstinence by knowledge of the fertile period during the ovulatory cycle, Uganda, 1988/89

Knowledge of the Fertile Period	All Women	Ever Users of Periodic Abstinence
During her menstrual period	0.5	0.2
Right after her period has ended	47.0	58.8
In the middle of the cycle	10.1	21.3
Just before her period begins	2.6	3.2
At any time	6.2	2.9
Other	0.7	0.4
Don't know	32.9	13.2
Total	100.0	100.0
Number	4730	621

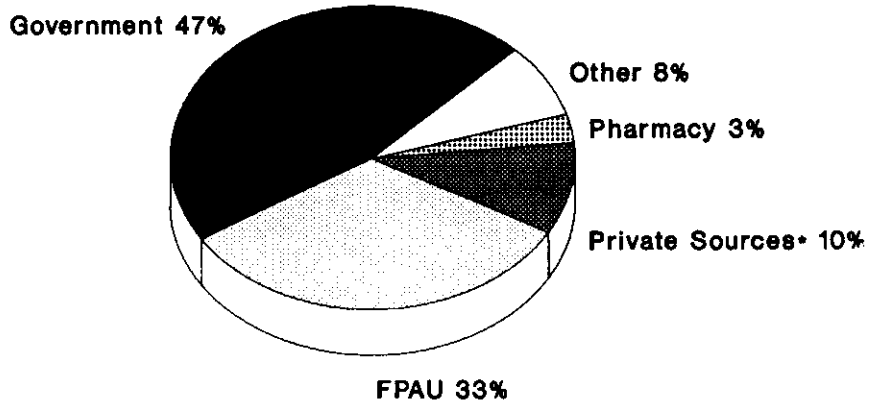
Sources vary by the type of method used. For supply methods (pill, condom, injection), the FPAU provides 44 percent of users with supplies, while government hospitals provide 24 percent of users with supplies. Interestingly, FPAU is a more significant supplier to actual users than is reflected in responses regarding potential sources (Table 4.4). For clinic methods (IUD and male and female sterilisation), the FPAU services only 12 percent of users, while government hospitals provide for 78 percent. Ninety percent of female sterilisations are done in government hospitals and the remaining 10 percent in either private hospitals or clinics.

Table 4.10 Percent distribution of current users of modern methods by most recent source of supply or information, according to specific method, Uganda, 1988/89

Source of Supply	Total supply Methods	Pill	Total Clinic Methods	Female sterili-sation	Total Users
Government hospital	24.4	25.0	78.3	90.3	41.9
Government health center	7.2	4.4	0.0	0.0	4.7
FPAU* clinic	44.1	42.2	12.3	0.0	33.2
Mobile clinic	0.7	0.9	0.0	0.0	0.8
Field worker	2.6	0.9	0.0	0.0	1.6
Private doctor	5.9	7.8	0.0	0.0	3.9
Private hospital, clinic	4.7	5.2	9.4	9.7	6.3
Pharmacy	4.2	5.6	0.0	0.0	3.1
Church	3.9	5.2	0.0	0.0	2.4
Friends, relatives	1.0	1.3	0.0	0.0	0.8
Other	0.7	0.9	0.0	0.0	0.8
Missing	0.7	0.9	0.0	0.0	0.8
Total	100.0	100.0	100.0	100.0	100.0
Number of users	85	65	41	34	126

Note: Totals include 1 condom user, 19 injection users (both are supply methods), and 7 IUD users (clinic method).
* Family Planning Association of Uganda

Figure 4.4
Source of Family Planning Supply
Current Users of Modern Methods



* Includes private doctors and hospitals

Uganda DHS 1988/89

4.5 Attitude Toward Pregnancy and Reasons for Nonuse

Nonpregnant women who are sexually active and not using contraception are exposed to the risk of pregnancy. These women were asked about their attitude toward becoming pregnant in the next few weeks. Table 4.11 shows that 44 percent of women reported that they would be happy if they became pregnant in the following few weeks, 51 percent said that they would be unhappy if they became pregnant, and 5 percent said it would not matter. The proportion who would be unhappy increased with the number of living children a woman already had, from 28 percent among women with no children, to 67 percent among those with 4 or more children.

Table 4.11 Percent distribution of nonpregnant women who are sexually active and who are not using any contraceptive method by attitude toward becoming pregnant in the next few weeks, according to number of living children, Uganda, 1988/89

Number of Living Children	Attitude Toward Becoming Pregnant in Next Few Weeks				Wtd. Number of Women
	Happy	Unhappy	Would Not Matter	Total	
None	68.1	27.9	4.0	100.0	556
1	57.4	37.6	5.0	100.0	507
2	46.9	49.3	3.8	100.0	447
3	41.7	54.5	3.8	100.0	376
4+	27.4	67.2	5.4	100.0	1180
Total	44.3	51.0	4.7	100.0	3066

Women who would be unhappy if they became pregnant, were asked the main reason for not using any method. Table 4.12 shows that 33 percent report lack of knowledge of contraception as the main reason for nonuse, while 20 percent report that religion prohibits them from using contraception. Other reasons for nonuse include opposition to family planning either by the respondent, her husband, or others (9 percent), lack of accessibility (9 percent), inconvenience of the method (8 percent), and being postpartum, amenorrhoeic or breastfeeding (6 percent). It is important to note that many of the reasons

given by nonusers of contraceptive methods can be addressed by a combination of improved accessibility to family planning services and a health education campaign.

Table 4.12 Percent distribution of nonpregnant women who are sexually active and who are not using any contraceptive method, who would be unhappy if they became pregnant,by main reason for nonuse, according to age, Uganda, 1988/89

Main Reason for Nonuse	Age <30	Age 30+	Total
Lack of knowledge	37.9	27.5	33.4
Opposed to F.P.	6.3	3.1	4.9
Husband disapproves	4.0	3.6	3.8
Others disapprove	0.6	0.4	0.5
Infrequent sex	2.8	4.4	3.5
Postpartum/breastfeeding	6.2	4.7	5.6
Menopausal/subfecund	2.5	2.0	2.3
Health concerns	1.0	1.3	1.2
Access/availability	8.5	9.2	8.8
Costs too much	0.8	2.6	1.6
Fatalistic	0.4	1.2	0.8
Religion	23.7	14.4	19.6
Inconvenient to use	0.0	18.3	8.1
Other	4.6	6.0	5.2
Don't know	0.6	1.2	0.8
Total	100.0	100.0	100.0
Number of women	870	693	1563

4.6 Intention to Use in the Future

The intention to use contraception in the future provides an indication of the potential demand for family planning and acts as an indicator of potential use among current nonusers. In the UDHS, women who were not using a contraceptive method at the time of the interview were asked if they intended to use a method to avoid pregnancy at any time in the future. Table 4.13 shows the percent distribution of currently married women who are not currently using any contraceptive method by their intention to use a method in future, according to living children.

Over 70 percent of these women do not intend to use contraception in the future, 21 percent intend to use, and 8 percent are unsure. The intention not to use contraception falls somewhat as the number of children increases, and the intention to use in the next 12 months increases with the number of living children.

Those women who said they intended to use a method of family planning at some time in the future were asked which method they preferred. The pill (Table 4.14) is the most frequently cited method (33 percent), followed by injection (22 percent) and periodic abstinence (11 percent). There are only minor differences in method preference according to whether the respondent intends to use in the next 12 months or later.

Table 4.13 Percent distribution of currently married women who are not currently using any contraceptive method, by intention to use in the future, according to number of living children, Uganda, 1988/89

Intention to Use in the Future	Number of Living Children					
	None	1	2	3	4+	Total
Intend to use in next 12 months	2.8	5.3	11.0	10.9	17.0	11.9
Intend to use later	5.2	9.1	7.0	8.5	5.8	6.9
Intend to use, not sure when	0.2	0.7	2.5	2.2	4.0	2.6
Unsure about whether will use	7.9	11.0	6.8	9.6	6.4	7.8
Do not intend to use	83.9	73.9	72.8	68.8	66.8	70.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	275	496	513	425	1316	3025

Note: Women who were pregnant at the time of the survey are included.

Table 4.14 Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future, by preferred method, according to whether they intend to use in the next 12 months or later, Uganda, 1988/89

Preferred Method	Intends to Use:		
	In Next 12 Months	After 12 Months	Total
Pill	34.7	30.5	33.1
IUD	3.5	2.3	3.1
Injection	23.0	19.9	21.9
Diaphragm/Foam/Jelly	0.6	1.2	0.8
Condom	0.2	1.6	0.7
Female sterilization	7.7	9.3	8.3
Male sterilization	0.0	0.3	0.1
Periodic abstinence	11.3	11.7	11.4
Withdrawal	1.5	0.7	1.2
Other	8.3	6.6	7.7
Don't know	8.9	15.8	11.4
Total	100.0	100.0	100.0
Number of women	361	208	568

4.7 Attitude Toward Family Planning

Attitude toward family planning is an important indicator of future use of contraception. Information about attitudes toward family planning was obtained by asking respondents four questions: whether they accepted the idea of family planning information being (1) provided on the radio or in the newspaper, or (2) taught in school, (3) whether they themselves approved or disapproved of couples using a method to avoid pregnancy, and, if married, (4) whether they thought their husband approved or disapproved of couples using family planning.

Table 4.15 shows that 68 percent of all women find it acceptable to provide family planning information on the radio or in the newspaper and 66 percent find it acceptable to teach family planning in school. It is clear that acceptability of family planning information on the radio or in school is higher for urban women than rural and increases as the educational level increases. Among regions, women in Kampala and East region accept the idea of family planning most frequently, and women in West Nile accept it least. As noted earlier, the West Nile sample may be predominantly Moslem.

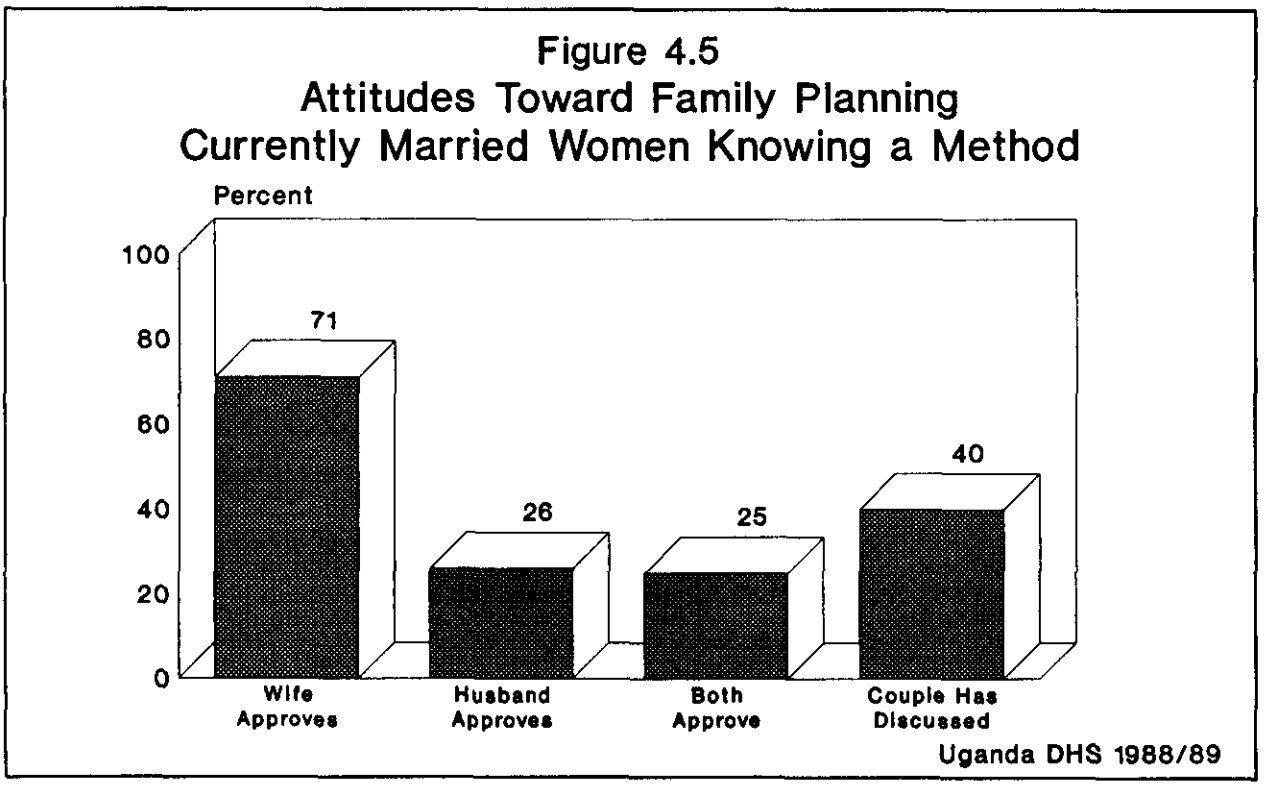
Table 4.15 Percent distribution of all women by whether they feel it is acceptable to have family planning information presented on the radio, in the newspaper, or taught in school, by background characteristics, Uganda, 1988/89

Background Characteristic	Radio or Newspaper			Taught in School			No. of Women
	Acceptable	Not Acceptable	Don't Know	Acceptable	Not Acceptable	Don't Know	
Residence							
Urban	80.2	17.3	2.5	73.0	24.7	2.3	542
Rural	66.4	28.4	5.2	65.4	30.0	4.6	4188
Region							
West Nile	32.9	50.9	16.1	30.4	55.3	14.3	265
East	78.7	16.7	4.7	78.1	16.7	5.1	1305
Central	62.6	34.1	3.3	58.5	38.0	3.5	1177
West	60.8	34.3	4.8	57.8	37.3	4.8	273
South West	67.5	27.6	4.9	69.1	28.2	2.7	1415
Kampala	82.5	15.2	2.3	71.9	26.0	2.1	296
Luwero Triangle	72.2	25.3	2.5	68.5	29.2	2.3	491
Education							
No education	58.4	34.8	6.8	59.0	34.7	6.3	1788
Some primary	70.0	25.2	4.9	68.2	27.7	4.0	2048
Primary complete	80.3	18.6	1.1	75.5	23.1	1.4	410
Middle	81.1	17.4	1.6	76.0	23.7	0.3	367
Higher	93.7	4.7	1.6	81.1	17.5	1.4	118
Total	68.0	27.1	4.9	66.3	29.4	4.3	4730

Table 4.16 and Figure 4.5 show the percent distribution of currently married women who know a contraceptive method by the husband's and wife's attitude toward the use of family planning. Seventy-one percent of currently married women knowing about family planning approve of family planning use by couples. Only 26 percent of married women think that their husband approves of family planning use by couples. One-third of women do not know their husband's attitude.

Table 4.16 Percent distribution of currently married women who know a contraceptive method by the husband's and wife's attitude toward the use of family planning, Uganda, 1988/89

Wife's Attitude Toward Family Planning	Husband's Attitude Toward Family Planning				
	Disapproves	Approves	Don't Know	Total	Number
Disapproves	15.7	1.4	11.7	28.8	770
Approves	24.2	24.7	21.6	70.5	1881
Missing	0.2	0.3	0.2	0.7	19
Total	40.1	26.4	33.4	100.0	2670
Number	1070	705	895	2670	2670



As shown in Table 4.17, there are few differences in either wife's or husband's approval of family planning use by age of the wife. Approval is higher for both wives and husbands in urban areas and in Kampala, and lower in rural areas and West Nile. Also, the more educated the respondent, the more likely she is to approve of family planning use and the more likely she is to report that her husband approves.

Table 4.17 Percentage of currently married women knowing a contraceptive method who approve of family planning and who say their husband approves of family planning by background characteristics, Uganda, 1988/89

Background Characteristic	Woman Approves	Husband Approves	Total
Age			
15-19	64.7	22.2	346
20-24	72.4	27.1	602
25-29	73.8	26.2	616
30-34	68.3	29.8	420
35-39	66.9	27.9	310
40-44	76.3	25.4	208
45-49	67.6	23.5	168
Residence			
Urban	81.6	46.4	278
Rural	69.2	24.1	2392
Region			
West Nile	47.0	10.6	108
East	74.0	20.5	848
Central	63.6	25.8	682
West	69.7	34.2	125
South West	73.5	29.7	761
Kampala	83.8	51.4	146
Luwero Triangle	67.2	20.5	297
Education			
No education	64.0	17.7	1065
Some primary	70.5	26.8	1141
Primary completed	82.5	38.4	233
Middle	86.1	43.2	168
Higher	91.3	76.7	63
Total	70.5	26.4	2670

Currently married women were asked how often they talked to their husbands about family planning in the past year. The results in Table 4.18 indicate that 60 percent had never discussed family planning with their husband in the year preceding the UDHS, 27 percent had discussed the subject once or twice, and 14 percent had done so more often. The youngest and the oldest women are least likely to have discussed family planning with their husband.

Table 4.18 Percent distribution of currently married women knowing a contraceptive method by number of times discussed family planning with husband, according to current age, Uganda, 1988/89

Age	Number of Times Discussed Family Planning			Total	Wtd. Number of Women
	Never	Once or Twice	More Often		
15-19	67.8	23.1	9.1	100.0	346
20-24	61.3	27.4	11.3	100.0	602
25-29	57.2	29.2	13.6	100.0	616
30-34	56.3	26.0	17.6	100.0	420
35-39	52.6	30.1	17.3	100.0	310
40-44	55.4	24.9	19.7	100.0	208
45-49	72.6	17.1	10.3	100.0	168
Total	59.6	26.5	13.8	100.0	2670

CHAPTER 5
FERTILITY PREFERENCES

5.1 Future Fertility Preferences

This chapter analyses the fertility preferences of women aged 15-49. The results are important for family planning programmes which use the information to evaluate the need for family planning services. The goal of family planning programmes is to allow women to have the number of children they want, when they want them.

The UDHS questionnaire includes a number of questions to ascertain fertility preferences. Each currently married woman was asked if she wanted to have another child and if so, how long she wanted to wait before having her next child. All women, regardless of marital status, were asked how many children they would like to have, if they could go back to the time when they didn't have any children. This latter variable is referred to in this report as the "ideal" number of children. Additionally, women who had a birth in the five years before the survey were asked if the birth was either unwanted or mistimed.

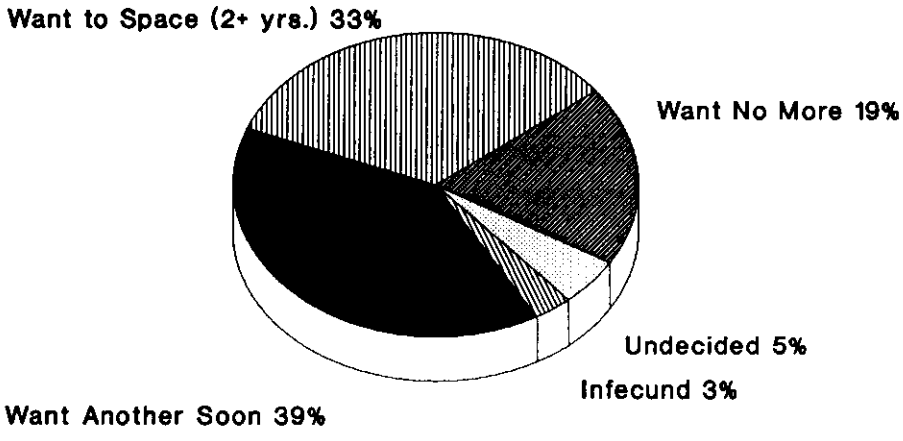
As shown in Table 5.1 and Figure 5.1, 39 percent of women want to have another child within the next two years, 33 percent want to wait at least two years before having another child, 19 percent do not want any more children, and the remaining 9 percent are either undecided (as to when they want or whether they want another birth) or say that they cannot have any more children.

Table 5.1 Percent distribution of currently married women by desire for children, according to number of living children, Uganda, 1988/89

Desire for More Children	Number of Living Children							
	0	1	2	3	4	5	6+	Total
Want another:								
Soon (within two years)	74.3	51.5	47.8	36.9	30.8	30.4	17.8	38.6
Later (after 2+ years)	3.6	40.7	43.9	48.5	46.3	35.4	16.0	33.4
Undecided when	5.7	2.0	2.4	2.0	1.5	2.8	0.2	2.0
Want no more	0.0	1.8	3.8	8.5	17.9	24.6	55.1	19.4
Undecided if want more	3.4	1.2	1.1	3.0	3.1	3.9	5.8	3.2
Say can't have more	13.1	2.7	0.9	1.1	0.4	2.8	5.2	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	279	510	532	444	367	305	743	3180

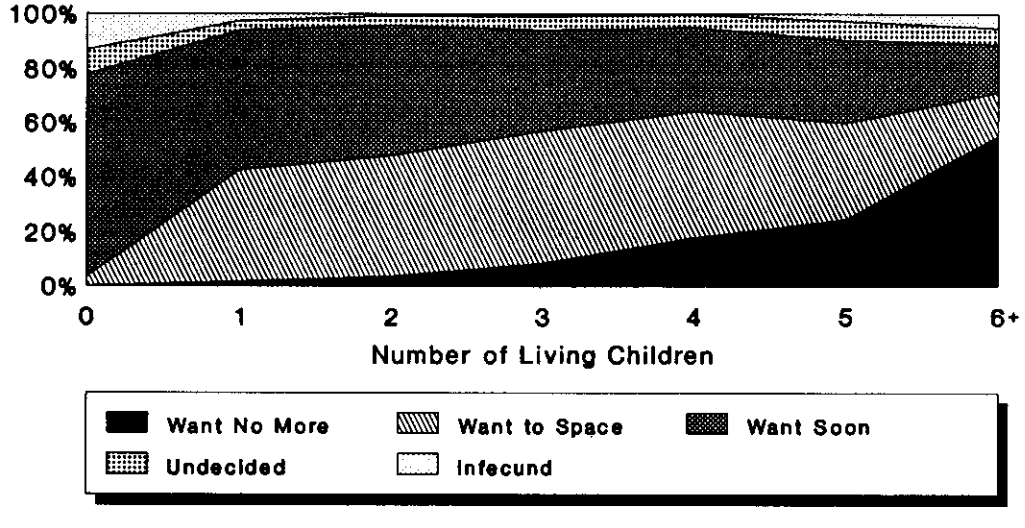
The results show a high inverse correlation between the number of living children a woman has and her desire for more children (Figure 5.2). Almost three-quarters of the childless women want to have a baby within the next two years. This high demand falls to one-half for women with one child. As family size increases, the demand for another child decreases; however, it is notable that 18 percent of the women with six or more children still want to have another child within the next two years.

Figure 5.1
Fertility Preferences
Currently Married Women 15-49



Uganda DHS 1988/89

Figure 5.2
Fertility Preferences by
Number of Living Children
Currently Married Women 15-49



Uganda DHS 1988/89

One would expect a different pattern in the case of the women who want another child, but after two years or more. As expected, only 4 percent of the childless women want to wait to have a baby. The demand rises to a peak at 3 children, where nearly half of the women want to have another child after two or more years. Thereafter, it declines steadily until only 16 percent of women with 6 or more living children want to have another child after two or more years. As expected, the proportion of women who want to stop childbearing rises with the number of children, from zero percent among childless women to 55 percent of women with 6 or more children (Figure 5.2).

Several conclusions can be made here. First, there is still a very high demand for children in this society; even among women with 6 or more children, one-third still want to have more children. Secondly, there is a high demand for spacing of children, even among women with only one or two children. It also should be noted that there are few women who either want to have another child but are not sure when, or are undecided whether they want another child or not.

Table 5.2 shows the percent distribution of currently married women by desire for children, according to age. The demand for more children declines with age, because the younger women are more likely to have fewer children, while the older women are more likely to have a greater number. The demand for another child within the next two years is highest among the 15-19 age-group, where nearly 50 percent of the women want a child within two years. The demand then declines, to a low of 20 percent for the 45-49 age group.

Table 5.2 Percent distribution of currently married women by desire for children, according to age, Uganda, 1988/89

Desire for More Children	Age							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Want another:								
Soon (within two years)	47.7	43.4	41.1	36.8	34.7	27.7	20.5	38.6
Later (after 2+ years)	43.8	48.3	41.9	30.6	17.1	9.3	0.4	33.4
Undecided when	3.1	2.3	1.3	2.4	2.9	0.7	0.0	2.0
Want no more	0.9	3.3	11.4	22.0	37.8	50.7	59.8	19.4
Undecided if want more	3.3	1.6	3.0	4.5	4.0	4.4	1.5	3.1
Say can't have more	1.1	1.0	1.3	3.7	3.5	7.3	17.9	3.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	422	710	705	506	363	252	223	3180

The women who want to wait two or more years to have another child present a different pattern. Except for the first age group the proportion of women wanting a child after two years or more declines with age. Almost half of the women 20-24 want to wait two or more years for their next child, compared to less than 1 percent of women 45-49.

The proportion of women wanting no more children is lowest for the youngest age group (1 percent), but increases to 22 percent for women in their early thirties. One-half of the women aged 40-44 want no more children and 60 percent of those 45-49 years old want no more. Similarly, the proportion of women who say that they cannot have more children increases with age to 18 percent for women 45-49.

The demand for children can be further analysed according to background characteristics of women. Table 5.3 presents the percentage of women who want no more children by the number of living children they have, according to background variables. Overall, there appears to be little difference in reproductive intentions between urban and rural women; 21 per cent of urban women do not want to have another child, compared with 19 percent of rural women. However, once they have 3 or more children, urban women are somewhat more likely to want no more children.

The regional distribution of currently married women who want no more children reveals some interesting patterns. Overall, the percentage of women who want no more children is about 20, with Kampala being slightly higher. West Nile region is lower, with only 11 percent wanting no more children. This may be due to the religious composition in West Nile; over 90 percent of the women interviewed in West Nile are either Catholic or Moslem.

Table 5.3 Percentage of currently married women who want no more children (including those sterilized) by number of living children and background characteristics, Uganda, 1988/89

Background Characteristic	Number of Living Children 1	2	3	4+	Total
Residence					
Urban	1.0	2.8	13.9	50.0	20.9
Rural	1.5	3.4	6.4	37.4	18.9
Region					
West Nile	(0.0)	5.0	(11.1)	18.2	11.0
East	4.3	4.6	9.4	43.9	21.4
Central	0.7	3.4	7.4	34.9	16.6
West	(0.0)	13.0	(23.5)	33.9	22.0
South West	0.0	0.0	2.7	40.0	19.9
Kampala	2.0	5.5	14.6	53.1	23.1
Luwero Triangle	1.2	4.8	2.6	32.4	16.0
Education					
No education	2.5	3.8	7.7	37.2	21.1
Some primary	0.8	2.8	6.4	39.1	17.2
Primary completed	0.0	0.0	10.5	34.7	15.4
Middle	3.7	8.2	2.9	50.6	22.3
Higher	(0.0)	0.0	(25.0)	65.6	25.8
Total	1.4	3.3	7.7	39.1	19.3

() = fewer than 20 unweighted cases.

There is greater variation when the number of living children is considered, especially among women with two or more living children. Among women with two living children, up to 13 percent in the West region do not want to have more children, compared with 5 percent or less in other regions. For women with three living children, nearly 15 percent in Kampala do not want more children, while in the South West the proportion is only 3 percent. One should note that in the 1969 census, the highest fertility in Uganda was reported in the South West (Ankole). At four or more living children there is a sharp increase in the proportion of women not wanting another child, with the exception of West Nile. More than 50 percent of the women in Kampala and more than 40 percent of those in the East do not want another child, while less than 20 percent of women in West Nile want no more children. There is need to point out that in addition to religious affiliation and other socioeconomic variables, the sample sizes in West Nile, West, and Kampala regions were small and subject to sampling errors.

Education is another variable which seems to influence the desire for more children, although overall, the differences are not important. Variation can be seen when family size is taken into account. At one and two living children, the pattern is erratic. This may be due to the small number of women with more than primary education. When family size reaches 4 or more, 66 percent of the women with higher education and 51 percent of those with middle level education want no more children. For the rest, the percentage is considerably lower. It is clear, therefore, that the desire to stop childbearing is positively associated with education only at higher levels of education.

5.2 Need for Family Planning

Women who are not using contraception and either want no more children or want to space their next child are considered to be in need of family planning. According to this, more than 50 percent of all women in Uganda are in need of family planning. Given the high demand for children among women, there is a much greater need for family planning services for spacing than for stopping purposes. Table 5.4 shows that 37 percent of currently married women want to wait two or more years before their next birth and are not using contraception, and 17 percent want no more children and are not using contraception.

Table 5.4 Percentage of currently married women who are in need of family planning and the percentage who are in need and who intend to use family planning in the future by background characteristics, Uganda, 1988/89

Background Characteristic	Not Using Contraception			Not Using Contraception but Intends to Use			Wtd. Number of Women
	Want No More	Want to Post-pone*	Total	Want No More	Want to Post-pone*	Total	
Residence							
Urban	14.9	32.6	47.5	8.3	15.3	23.6	290
Rural	17.1	37.3	54.3	5.4	7.9	13.3	2890
Region							
West Nile	10.2	53.4	63.6	0.8	4.2	5.1	194
East	19.4	35.1	54.6	6.2	8.6	14.9	979
Central	14.8	34.1	48.8	4.5	6.6	11.1	777
West	16.9	44.1	61.0	8.5	10.2	18.6	194
South West	17.6	37.0	54.7	5.9	9.5	15.3	886
Kampala	15.3	30.2	45.5	9.7	17.2	26.9	151
Luwero Triangle	13.1	34.7	47.8	4.3	8.1	12.4	313
Education							
No education	19.9	34.8	54.7	3.7	5.1	8.8	1409
Some primary	14.7	36.9	51.6	6.5	9.1	15.7	1294
Primary completed	12.3	46.0	58.3	9.0	17.3	26.4	241
Middle	15.8	43.0	58.8	9.0	17.1	26.1	172
Higher	14.5	27.9	42.4	10.6	18.0	28.5	64
Total	16.9	36.8	53.7	5.7	8.6	14.3	3180

* Want next birth after two or more years

The need for family planning is slightly greater in rural areas than in urban. By region of residence, the need is greatest in West Nile, where 64 percent of the women are in need of family planning. By contrast, need is least in Kampala, where 45 percent are in need. When educational levels are compared, the greatest need for family planning is found in the middle education group. Among these women nearly 60 percent are in need of family planning, whether for spacing or limiting. The lowest level of need is among women with higher education (42 percent).

Of those in need of family planning, only a small proportion say they intend to use family planning in the future. Thus, only 14 percent (27 percent of those in need) of currently married women are in need of and intend to use family planning. Although rural women have a greater need for family planning, the intention to use family planning is greatest among urban women (24 vs. 13 percent). The pattern by region is also reversed since Kampala has the largest proportion of women intending to use family planning (27 percent), while West Nile has the smallest (5 percent).

5.3 Ideal Number of Children

In order to obtain greater insight into fertility preferences among Ugandan women, all the UDHS respondents were asked: "(If you could go back to the time when you didn't have any children, and) if you could choose the number of children to have in your whole life, how many would that be?" Women with children were asked the entire question, while those with no children were asked the question excluding the part in parentheses.

Table 5.5 presents the distribution of women by ideal number of children, according to the number of living children. It is interesting to note that on the whole, less than one-tenth of women gave non-numeric responses (e.g., "As many as God gives me", "It is not up to me to decide"). This suggests that Ugandan women have a good idea of the number of children they consider ideal.

Table 5.5 Percent distribution of all women by ideal number of children and mean ideal number of children for all women and currently married women, according to number of living children, Uganda, 1988/89

Ideal Number of Children	Number of Living Children*							
	0	1	2	3	4	5	6+	Total
0	0.5	0.1	0.1	0.0	0.0	0.0	0.1	0.2
1	0.6	0.6	0.0	0.0	0.0	0.2	0.1	0.3
2	2.5	1.6	2.8	0.3	0.5	0.8	1.2	1.6
3	4.7	3.4	1.3	2.1	0.4	0.2	2.1	2.5
4	22.6	21.7	20.6	17.7	14.3	8.5	12.4	17.8
5	11.2	11.3	14.4	9.8	7.2	13.8	3.3	9.8
6+	50.5	53.9	54.7	63.1	66.7	65.8	71.7	59.8
Non-numeric response	7.4	7.3	6.1	7.0	10.9	10.8	9.1	8.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1101	728	658	531	437	368	908	4730
Mean (all women)	5.9	6.0	6.1	6.6	6.8	6.9	7.5	6.5
Mean (currently married)	6.3	6.2	6.2	6.7	6.9	7.0	7.7	6.8

* Includes current pregnancy.

It is clear that very few women think that three children or less is an ideal family size. Furthermore, the number of living children a woman has seems to have little effect. The percentage choosing 4 as the ideal number of children is considerably higher, being 20 percent for women with fewer than four children. This percentage decreases as the current family size increases. Surprisingly, the proportion choosing an ideal of 5 children is considerably lower than the proportion choosing either 4 or 6 or more children. This may be due to avoidance of the figure 5, perhaps as a result of myths about the number.

Most women consider a large family to be the ideal; sixty percent of women report 6 or more children as the ideal number. This ranges from 50 percent of the women who have not yet started childbearing to 70 percent of women with 6 or more living children. The results presented in this table further show that claims that women may rationalise the families they already have when asked questions about ideal family size are not entirely true. The fact is, a high proportion of women say that they want more children than they already have.

The mean ideal number of children is 6.5 for all women and 6.8 among currently married women. Despite fluctuations, the mean ideal number of children tends to increase with number of living children, which may reflect the fact that women who want more children actually end up having them, or that there is some rationalisation as mentioned above. On the other hand, it may be that younger, lower parity women are actually lowering their ideal family goals.

Ideal number of children varies considerably according to background variables. Table 5.6 shows the mean ideal number of children for all women by age group and background characteristics. The mean increases with age in a pattern similar to that found in Table 5.5 for number of living children, from 5.9 for women 15-19 to 7.5 for women 45-49.

The mean ideal number of children expressed by urban women (5.5) is about one child less than that expressed by rural women (6.6). Among the younger age groups, i.e. below 40, urban women clearly state a lower ideal number than their rural counterparts. At older ages the difference becomes less pronounced, until for age group 45-49, urban women express an ideal that is almost one child higher than the rural women. This may be due in part to the small numbers of women at older ages.

Kampala has the lowest ideal number of children (5.3), with little variation among the other regions. Data by education category reflects the expected pattern. Women with higher education express the lowest ideal number of children (4.7). This increases as education declines, until the highest ideal of over 7 children, expressed by women with no education. Although background variables clearly influence ideal family size, even the lower ideal numbers of children reported by some groups are still quite high by international standards.

5.4 Unplanned Fertility

To get a more direct assessment of the need for family planning, it is useful to find out the extent to which births are either mistimed or unwanted. Respondents in the UDHS who had a birth in the five years preceding the survey were asked: "At the time you became pregnant with (NAME), did you want to have that child then, did you want to wait until later, or did you want no more children at all?" The results from this question are presented in Table 5.7 for births that occurred in the 12 months before the survey.

The majority of women (65 percent) wanted the birth when it occurred. However, a substantial number of women (30 percent) would have preferred to wait longer before having that birth, and 5 percent reported that they had not wanted the birth at all. It is significant that in a pro-natalist country such as Uganda 5 percent of women reported that a birth was unwanted. Birth order seems to have little effect on the proportions of births unwanted or mistimed.

Table 5.6 Mean ideal number of children for all women by age and background characteristics, Uganda, 1988/89

Background Characteristic	Age							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Urban	5.2	5.1	5.2	5.6	5.7	7.2	8.2	5.5
Rural	6.1	6.2	6.7	7.0	7.3	7.5	7.5	6.7
Region								
West Nile	6.4	5.7	6.0	7.0	7.9	(7.7)	(9.1)	6.7
East	5.6	6.1	6.4	6.6	6.8	6.6	6.8	6.3
Central	5.8	5.9	6.3	6.7	7.3	7.4	7.5	6.4
West	5.3	5.4	6.8	(7.9)	(7.7)	(7.3)	(6.3)	6.4
South West	6.3	6.4	6.9	7.1	7.2	8.2	8.0	6.9
Kampala	5.3	4.9	4.9	5.3	5.8	6.7	(8.4)	5.3
Luwero Triangle	5.8	6.0	6.3	6.9	7.7	7.4	7.4	6.5
Education								
No education	6.7	6.7	7.1	7.6	7.6	7.7	7.7	7.3
Some primary	6.0	6.0	6.4	6.6	7.1	7.2	7.5	6.4
Primary completed	5.4	5.7	5.7	5.9	5.8	(7.9)	(6.0)	5.7
Middle	5.0	5.0	5.4	5.4	5.7	(6.7)	(7.4)	5.2
Higher	(4.8)	4.4	4.1	4.8	(5.4)	(5.4)	(4.0)	4.5
Total	5.9	5.9	6.3	6.8	7.1	7.5	7.6	6.4

() = fewer than 20 unweighted cases.

Table 5.7 Percentage of women who had a birth in the last 12 months by fertility planning status and birth order, Uganda, 1988/89

Planning Status of Birth	Birth Order		
	1-2	3+	Total
Wanted then	67.7	64.2	65.3
Wanted later	31.7	29.4	30.1
Wanted no more children	0.6	6.3	4.6
Total	100.0	100.0	100.0
Number	370	801	1170

CHAPTER 6
MORTALITY AND HEALTH

6.1 Mortality

One of the major objectives of the Uganda Demographic and Health Survey was to collect data on mortality and health of children. Information on these topics is relevant both to the assessment of the morbidity and mortality levels in the population and of the health policies and programmes in Uganda. Information on mortality and the health status of children serves the needs of health ministries by locating sectors of the population which are at high risk and by assessing the coverage of the existing services. In this section mortality rates are presented for three age intervals:

Infant mortality--the probability of dying between birth and exact age one;

Childhood mortality--the probability of dying between age one and age five;

Under five mortality--the probability of dying between birth and exact age five.

Mortality rates are calculated on a period basis (i.e., based on deaths occurring during a certain time period), rather than on a birth cohort basis (i.e., based on deaths occurring to those born during a certain period) for two reasons. First, period-specific rates are more appropriate for programme evaluation and second, the data necessary for the calculation of cohort-based childhood mortality rates are only partially available for the five-year period immediately preceding the survey.

The data for estimation of mortality rates were collected by asking the respondents about their childbearing experience, namely the number of sons and daughters who live in the household, who live elsewhere, and who have died. Additional questions on sex, date of birth, status of survival, and current age or age at death of each of a respondent's live births were asked. The data obtained from these questions are used to calculate infant and childhood mortality rates.

Readers interested in this section should note that estimates of infant and childhood mortality based on survey data have limitations. First, most mortality estimates using survey data are based on relatively small numbers of cases, especially when mortality levels are low, leading to unreliable estimates. To reduce this problem, mortality measures based on the UDHS are calculated for five or ten year periods.

The second limitation is that birth histories are collected through retrospective reports. This method of data collection is subject to underreporting of events and misreporting of birth and death dates. The extent of these errors affects the overall results. However, such data problems are usually less serious for time periods close to the survey date.

Third, estimates of mortality trends using birth histories as reported by women in the reproductive ages at a given point in time are affected by truncation bias because women past age 49 are not interviewed. Estimates of mortality in the past are based only on those births reported by women interviewed at the time of the survey and therefore exclude births in the past that occurred to women who are 50 or older when the survey was done. As the length of the time period covered extends further into the past, the resulting truncation bias of information becomes progressively severe. To minimize the effect of this bias, analysis of trends in infant and birth mortality from the UDHS is limited to a period not exceeding 15 years prior to the survey.

Several analyses were conducted in order to investigate some of these potential problems. For example, the data on age at death were tested for digit preference at 12 months of age. In the absence of digit preference, the distribution of deaths by age should be more or less uniform. The distribution of deaths by age in months is as follow:

Age in Months	Number of Deaths
8	82
9	89
10	20
11	19
12	300
13	12
14	22
15	19
16	10
17	8
18	54

Clearly, there is a great concentration of responses at 12 months of age, and a deficiency of events in the immediately preceding and succeeding months. Since infant mortality covers only deaths under 12 months, a correction of this problem would involve an increase in infant mortality, and a decrease in child mortality.

Mortality Levels and Trends 1973-1988

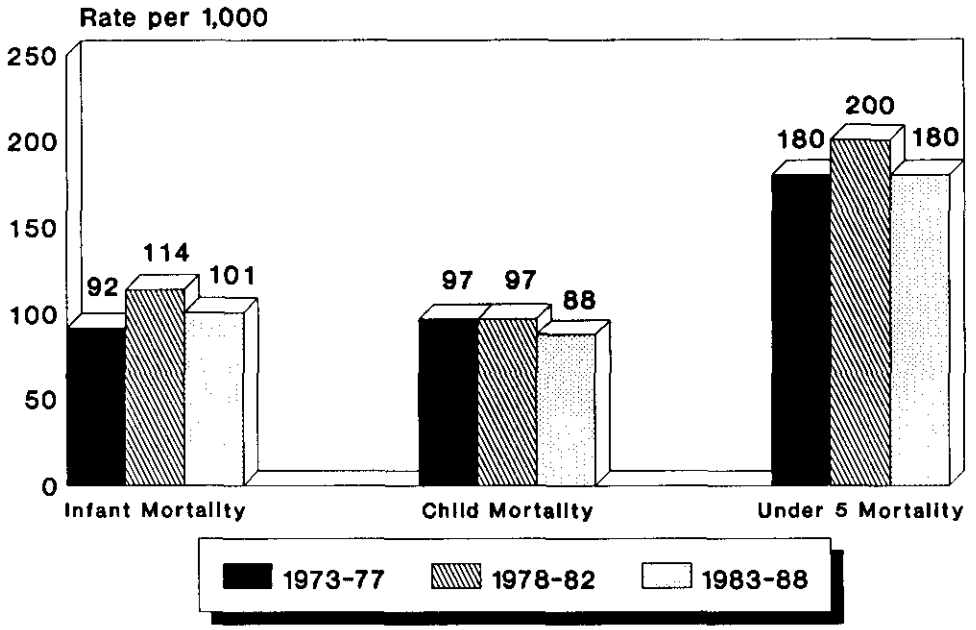
Table 6.1 and Figure 6.1 show infant and childhood mortality rates for the five-year period preceding the survey (1983-1988) and for two earlier five-year time periods (1973-1977 and 1978-1982). The infant mortality rate for the period 1983-1988 is 101 per 1,000 live births and the childhood mortality rate is 88 per 1,000. This means that of 1000 live births in Uganda, 101 do not live to their first birthday and an additional 88 do not live to age five. The overall probability of dying between birth and exact age five is 180 per 1,000.

Table 6.1 Infant and childhoood mortality by five-year calendar periods, Uganda, 1988/89

Period	Infant Mortality Rate (1q0)	Childhood Mortality Rate (4q1)	Under 5 Mortality Rate (5q0)
1983-1988*	101.2	88.1	180.4
1978-1982	113.9	97.0	199.9
1973-1977	91.9	96.5	179.6

* Includes calendar year 1988 up to the month preceding date of interview.

Figure 6.1
Trends in Infant and Child Mortality



The rates for the 1973-1977 period are lower than for the periods 1978-1982 and 1983-1988. This is an indication of increasing mortality, particularly for infants. One likely reason for this increase is the deterioration and destruction of the health infrastructure during the civil unrest in Uganda from 1973 to 1982. However during the period 1983-1988, health services, especially those aimed at prevention of diseases among children (e.g., immunisation programmes) improved markedly. By the end of the 1983-1988 period, infant mortality had declined by 11 percent, childhood mortality by 9 percent and the overall probability of dying between birth and exact age five by 10 percent.

Table 6.2 and Figure 6.2 show mortality differentials by urban-rural residence, region, and mother's level of education for the ten-year period (1978-88) preceding the survey. The infant mortality rate for the urban population is only slightly lower (103 per 1,000) than for the rural population (107 per 1,000); however, childhood mortality in urban areas is much lower than in rural areas.

Region-specific rates are lowest in South West region (172) and highest in West Nile (211). Differentials associated with the level of mother's education indicate lower levels of both infant and childhood mortality for children whose mothers have completed primary education and above, than those children whose mothers have either no education or have not completed primary education. Children born to women with the highest level of education have half the risk of dying under 5 than children born to women with no education.

Mortality differentials by sex, mother's age at birth, birth order, and length of the previous birth interval are shown in Table 6.3. As expected, mortality rates are somewhat higher in males than females during infancy and childhood. Infant mortality rates are also higher among children of mothers less than 20 and over 40 years of age, which is the pattern found in many other countries. Infant and childhood mortality estimates by birth order are highest among the first born and 2-3 subsequent children.

Table 6.2 Infant and childhoood mortality by background characteristics of the mother for the ten-year period preceding the survey, Uganda, 1988/89

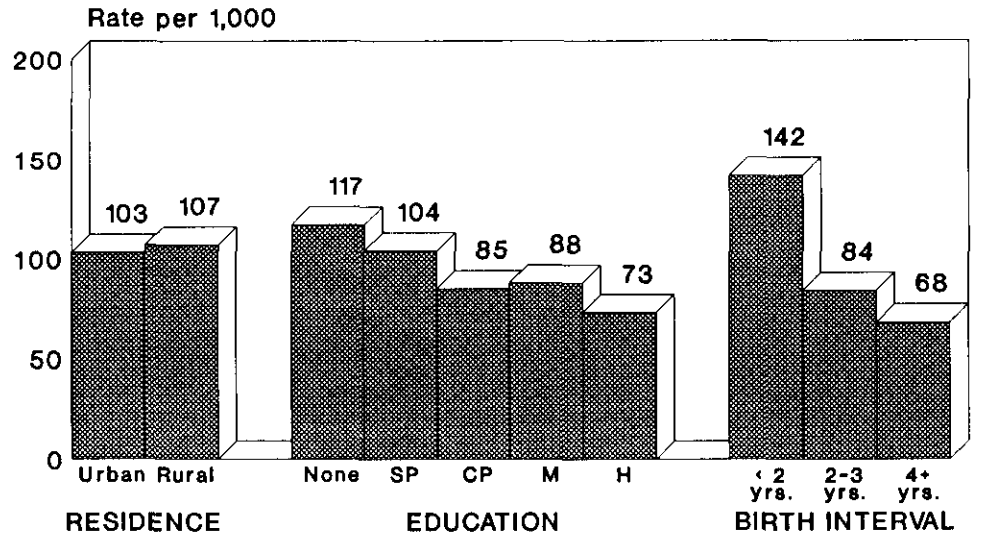
Background Characteristic	Infant Mortality Rate (1q0) 1978-88*	Childhood Mortality Rate (4q1) 1978-88*	Under 5 Mortality Rate (5q0) 1978-88*
Residence			
Urban	103.1	67.6	163.7
Rural	106.6	94.0	190.6
Region			
West Nile	121.7	101.4	210.8
East	118.0	100.4	206.5
Central	98.9	97.5	186.8
West	120.6	66.0	178.7
South West	95.5	84.9	172.3
Kampala	107.6	74.3	173.9
Luwero Triangle	98.3	105.6	193.5
Education			
No education	116.6	92.6	198.4
Some primary	103.6	102.6	195.5
Primary completed	85.2	74.8	153.6
Middle	88.1	55.5	138.6
Higher	73.0	26.0	97.1
Total	106.3	91.6	188.2

* Includes calendar year 1988 up to the month preceding date of interview.

The length of the preceding birth interval depicts the most significant differentials. The infant mortality rates are 142 per 1,000 births born after intervals of less than two years, 84 for births after intervals of 2 to 3 years and 68 for births after intervals of 4 years or more. This means that children born less than two years after an older sibling have more than twice the risk of dying in infancy as those born 4 or more years after a prior birth. These differentials suggest that an increase in birth spacing practices would substantially reduce infant and childhood mortality levels in Uganda.

Additional evidence of the high level of childhood mortality in Uganda is shown in Table 6.4 which gives the mean number of children ever born, surviving, and dead, and proportion dead among children ever born by age of mother. Almost 20 percent of all children born to women 15-49 have died. As expected, the proportion dead rises with age of woman, which reflects the fact that children of older women were themselves born longer ago and have been exposed longer to the risk of mortality.

Figure 6.2
Differentials in Infant Mortality
For the Period 1978-88



Note: SP = Some Primary, CP = Complete Primary, M = Middle, H = Higher

6.2 Maternity Care

In Uganda maternity care is provided by several categories of trained health workers and non-trained service providers. The health care that a mother receives during pregnancy and at the time of delivery is important to the survival and well-being of the child as well as the mother. The quality and adequacy of maternity services contribute to a great extent to the levels of infant and maternal mortality of any country. In the UDHS, information on the type of maternity care which women receive in Uganda was obtained by asking respondents whether they had seen anyone for a prenatal checkup for all births in the five years preceding the interview. They were also asked if anyone assisted them with the delivery of that child. If they had received a prenatal checkup or assistance at delivery, they were asked who provided the care. For cases in which maternity care was received from more than one provider, the most qualified provider was recorded by the interviewer. It should be noted that a small proportion of traditional birth attendants in Uganda are trained.

For all births in the five years before the survey, mothers were also asked if they had received an injection to protect the baby from getting tetanus. Neonatal tetanus has been one of the major causes of neonatal deaths in Uganda and the level of tetanus toxoid vaccinations during pregnancy is one of the measures of the success of routine immunisation programmes in the prevention of neonatal tetanus. The respondent's ability to distinguish the tetanus toxoid vaccination from other injections she may have received during pregnancy may affect the quality of the results.

Table 6.5 indicates that for 76 percent of births in the last five years, the mother received prenatal care from trained nurses and for 56 percent, the mother received at least one tetanus toxoid injection. For a small proportion of births (11 percent), the mothers received prenatal care from a doctor. It is important to note the high percentage of mothers who did not obtain prenatal care at all (12 percent).

Table 6.3 Infant and childhoood mortality by selected demographic characteristics, for the ten-year period preceding the survey, Uganda, 1988/89

Demographic Characteristic	Infant Mortality Rate (1q0) 1978-88*	Childhood Mortality Rate (4q1) 1978-88*	Under 5 Mortality Rate (5q0) 1978-88*
Sex of child			
Male	111.0	97.3	197.5
Female	101.7	86.0	178.9
Age of mother at birth			
Less than 20	119.8	117.4	223.1
20-29	104.3	91.6	186.3
30-39	94.2	66.2	154.2
40-49	129.7	63.8	185.2
Birth order			
First	117.8	106.1	211.5
2-3	104.1	105.1	198.3
4-6	104.7	86.0	181.7
7+	101.2	65.0	159.6
Previous birth interval			
<2 years	142.2	104.9	232.2
2-3 years	84.1	82.0	159.3
4 years or more	68.2	68.8	132.4

* Includes calendar year 1988 up to the month preceding date of interview.

Table 6.4 Mean number of children ever born, surviving, and dead, and proportion of children dead among those born, by age of woman, Uganda, 1988/89

Age	Mean Number of Children: Ever Born	Surviving	Dead	Proportion Dead	Wtd. Number of Women
15-19	0.39	0.34	0.06	0.14	1157
20-24	1.86	1.53	0.33	0.18	985
25-29	3.65	3.00	0.64	0.18	859
30-34	5.04	4.10	0.95	0.19	620
35-39	6.79	5.55	1.24	0.18	459
40-44	7.24	5.76	1.47	0.20	345
45-49	7.77	5.97	1.80	0.23	304
Total	3.49	2.83	0.67	0.19	4730

Table 6.5 Percent distribution of births in the last 5 years by type of prenatal care for the mother and percentage of births whose mother received a tetanus toxoid injection, according to background characteristics, Uganda, 1988/89

Background Characteristic	Type of Prenatal Care							Percent Receiving Tetanus Toxoid Injection	Number of Births
	Doctor	Trained Nurse/ Midwife	Trad'l Birth Attend.	Other	None	Missing	Total		
Age									
<30	11.3	76.4	0.6	0.6	11.0	0.1	100.0	57.3	3184
30+	10.7	74.3	0.8	0.2	13.3	0.6	100.0	52.5	1820
Residence									
Urban	29.1	66.2	0.1	0.0	3.7	0.9	100.0	74.9	487
Rural	9.1	76.6	0.7	0.5	12.7	0.3	100.0	53.5	4517
Region									
West Nile	12.0	54.5	2.4	0.0	30.5	0.6	100.0	57.5	274
East	7.0	88.0	0.6	0.0	4.1	0.3	100.0	68.9	1378
Central	20.0	70.6	0.2	0.4	8.6	0.1	100.0	47.9	1267
West	3.1	59.8	2.6	5.7	28.4	0.5	100.0	52.1	319
South West	4.7	78.3	0.4	0.0	16.4	0.2	100.0	45.9	1499
Kampala	34.2	61.2	0.0	0.0	3.2	1.5	100.0	79.7	267
Luwero Triangle	16.4	72.0	0.1	0.1	11.4	0.0	100.0	50.9	524
Education									
No education	6.8	74.3	1.0	0.5	17.1	0.3	100.0	49.7	2071
Some primary	10.3	78.2	0.5	0.3	10.3	0.3	100.0	56.0	2058
Primary completed	17.0	78.8	0.4	0.0	3.7	0.1	100.0	64.9	448
Middle	23.3	71.0	0.0	2.1	3.0	0.5	100.0	72.0	310
Higher	44.4	53.7	0.0	0.0	1.0	1.0	100.0	73.3	117
Total	11.1	75.6	0.6	0.5	11.9	0.3	100.0	55.6	5004

There are almost no differentials by age of the mother in type of prenatal care obtained or the proportion receiving tetanus injections; however, births to urban women are three times more likely to benefit from prenatal care from a doctor (29 percent) than births to rural women (9 percent). This is at least partly due to the high concentration of health units in urban areas, coupled with the preference of most service providers to work in urban areas, thus leaving rural areas, underserved.

About 30 percent of births to women in West Nile and West regions do not benefit from any prenatal care at all, while for 90 percent or more of births to women in East and Central regions and Kampala, the mothers obtain prenatal care from either a doctor or trained nurse or midwife. It is clear that the higher the educational attainment of the mother, the greater the likelihood that she will seek prenatal care and obtain a tetanus injection.

Comparison between the proportion of births benefitting from prenatal care from trained staff and the proportion receiving assistance at delivery shows a large disparity between the two services (Table 6.6). While mothers receive prenatal care from trained nurses for 76 percent of their births, only 36

percent of births are assisted at delivery by the same service providers. The disparity is even larger with doctors; Table 6.5 shows that for 11 percent of births, women see doctors for prenatal care, compared with only 3 percent of births assisted at delivery by a doctor. Furthermore, the proportion of women without any type of assistance at delivery (17 percent), is much greater than for women receiving no assistance (12 percent).

Table 6.6 Percent distribution of births in the last 5 years by type of assistance during delivery, according to background characteristics, Uganda, 1988/89

Background Characteristic	Type of Assistance at Delivery								Number of Births
	Doctor	Trained Nurse/ Midwife	Trad'l Birth Attend.	Relative	Other	None	Missing	Total	
Age									
<30	3.1	38.4	5.9	38.6	1.7	11.9	0.2	100.0	3184
30+	2.3	30.4	7.1	30.6	1.8	27.1	0.7	100.0	1820
Residence									
Urban	12.2	67.7	2.4	10.9	1.2	4.7	0.9	100.0	487
Rural	1.8	32.0	6.8	38.4	1.8	18.8	0.3	100.0	4517
Region									
West Nile	1.2	17.4	22.8	37.7	0.0	20.4	0.6	100.0	274
East	1.9	45.7	4.6	33.9	2.1	11.4	0.4	100.0	1378
Central	3.9	47.8	7.2	32.1	1.3	7.5	0.2	100.0	1267
West	1.0	20.1	10.3	46.4	4.1	17.5	0.5	100.0	319
South West	1.0	16.4	4.3	43.0	1.7	33.4	0.3	100.0	1499
Kampala	17.5	68.8	1.3	6.5	1.3	3.2	1.5	100.0	267
Luwero Triangle	4.5	38.7	6.7	37.8	1.9	10.3	0.0	100.0	524
Education									
No education	1.1	22.1	7.8	40.0	2.2	26.3	0.4	100.0	2071
Some primary	2.9	38.2	5.9	37.8	1.6	13.3	0.4	100.0	2058
Primary completed	3.5	54.6	5.5	27.6	1.4	7.4	0.1	100.0	448
Middle	8.1	66.4	1.8	17.5	1.2	4.4	0.5	100.0	310
Higher	16.4	70.1	4.2	2.4	0.0	5.9	1.0	100.0	117
Total	2.8	35.5	6.3	35.7	1.8	17.4	0.4	100.0	5004

Table 6.6 shows that 6 percent of births in the five years before the survey received assistance at delivery from a traditional birth attendant and 36 percent from a relative. Although the UDHS interviewers were trained to distinguish the different types of providers that assisted the respondent at delivery, it may have been difficult to distinguish a traditional birth attendant from a relative, especially since some traditional birth attendants may in fact, be related to the mother. If this is true, the proportion of births assisted by traditional birth attendants may be higher than the 6 percent reported in the UDHS. It may also be possible that the relatively high proportion (17 percent) of births reportedly assisted by no one, may include some births assisted by birth attendants.

Younger women, urban women, women in Kampala, and better educated women are more likely to obtain assistance at delivery from a doctor,trained nurse or midwife than are other women. The proportion of births to women with no education who are not assisted at delivery by any service provider (26 percent) is about 4 times higher than it is for births to women who completed primary education or more. The inability of a pregnant woman to easily obtain prenatal care and assistance at delivery may be one of the major contributing factors keeping infant and maternal mortality high in Uganda.

6.3 Child Health Indicators

Questions on immunisation coverage, the prevalence and treatment of diarrhoea, fever, and respiratory illness among children under the age of five were asked of respondents in the UDHS. The purpose of these questions was to provide information on the frequency and mode of treatment of three illnesses that contribute to the high infant and childhood mortality in Uganda. Data were only collected for children under five whose mothers were interviewed in the UDHS.

Immunisation of Children

Women who had children under age five were asked if their children had health cards. If the health card was available, the interviewer then copied from the card the dates on which the child had received immunisations against the following diseases: tuberculosis (BCG); diphtheria, whooping cough (pertussis) and tetanus (DPT); polio and measles. If the child had no card or the interviewer was not able to examine the card, the mother was then asked if the child had ever received a vaccination. No attempt was made to obtain information on specific vaccinations for these children because of the possible unreliability of the mother's recall and lack of knowledge about the immunisation programme in general.

Table 6.7 indicates that health cards were seen for 44 percent of all children under five and mothers reported an additional 26 percent of children had at least one immunisation but could not produce a card.[1] We can therefore assume that about 70 percent of children under five in Uganda have received some immunisation.

Uganda launched the Expanded Programme of Immunisation in October 1983 and since then the programme has made steady progress. The following immunisation schedule has been used nationally:

Age	Immunisations
Birth	BCG and Polio
6 Weeks	DPT, Polio
10 Weeks	DPT, Polio
14 Weeks	DPT, Polio
9 Months	Measles

Readers of this report should note that polio vaccination was not given at birth in Uganda until 1988 when the Uganda Technical Committee on Immunisation adopted the recommendation by the World Health Organisation. Therefore in the UDHS children who had received 3 polio vaccinations were regarded as having been completely immunised against polio.

[1]Results not shown here also indicate that for the 44 percent of children under five with health cards seen, about 87 percent had a BCG scar. Among children whose mothers reported at least one immunisation (26 percent) 68 percent had a BCG scar. Overall, 56 percent of the children under the age five have a BCG scar.

Table 6.7 Among all children under 5 years of age, the percentage with health cards seen by interviewer, the percentage who are immunised as recorded on a health card or as reported by the mother and, among children with health cards, the percentage for for whom BCG, DPT, polio and measles immunisations are recorded on the health card, according to age, Uganda, 1988/89

	Among All Children Under 5, Percent with:			Among All Children Under 5 with Health Cards Seen, the Percent Who Have Received:									
Age in Months	With Health Card Seen	Some Immun-isation on Card	Mother Reports Child Immun.	BCG	DPT 1	DPT 2	DPT 3	Polio 1	Polio 2	Polio 3	Meas-les	All Immun-isa-tions*	Num-ber of Chil-dren
<6	23.0	23.0	7.1	100.0	69.5	24.2	11.4	77.0	28.1	12.5	0.6	0.0	433
6-11	48.0	48.0	15.6	98.4	90.1	66.0	45.9	89.7	66.6	45.9	21.9	15.1	540
12-17	48.9	48.9	20.5	99.3	94.8	72.9	53.6	95.4	74.2	54.1	63.8	42.6	541
18-23	49.9	49.7	24.0	96.3	95.7	81.3	61.5	95.3	82.1	61.6	81.5	54.5	405
24-59	44.9	44.8	34.0	97.2	97.7	78.7	59.8	97.9	78.2	59.2	85.0	52.8	2411
Total	44.0	44.0	26.4	97.7	94.6	73.6	54.7	95.0	73.9	54.5	68.7	43.7	4330

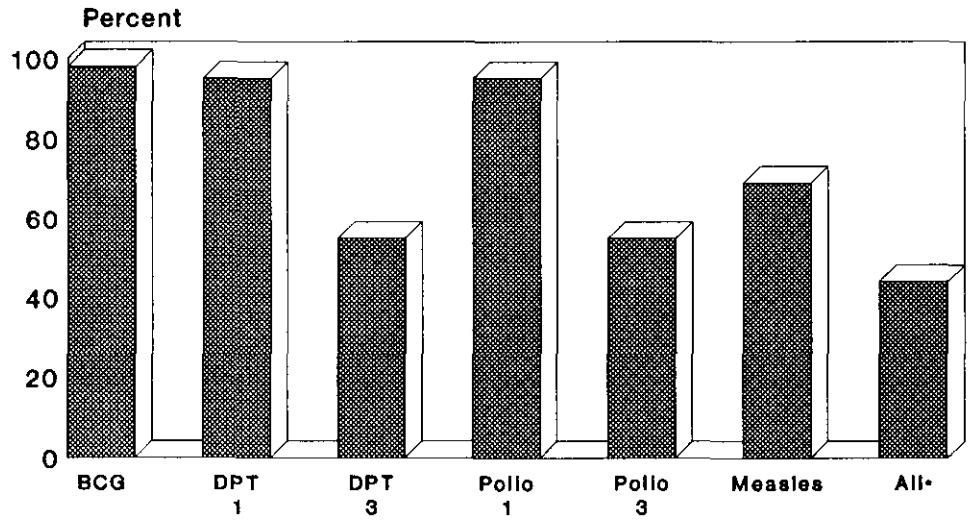
* BCG, at least 3 doses of DPT and polio, and measles

Table 6.7 and Figure 6.3 show that among children under five for whom health cards were available, 98 percent have received a BCG vaccination, 55 percent have received three doses of DPT vaccine, 55 percent have received three doses of polio vaccine, and 69 percent have received vaccine against measles. Overall, 44 percent of the children under five with health cards have been fully immunised against vaccine-preventable diseases. There is a substantial drop-off between the proportion of children who receive the first dose of either DPT or polio and the proportion who go on to get the second and third doses. Except for the first 2 age groups, when some children cannot be expected to have received all immunisations, the differences by age group are not large.

Table 6.8 presents similar information by background characteristics, but is restricted to children 12-23 months of age, since these children represent the best way to evaluate the coverage of the immunisation programme. The data show that there is little difference in immunisation coverage between boys and girls, but that a greater proportion of children are immunised in urban areas than rural areas. Although the same proportion of rural children as urban children receive the first few immunisations, far fewer continue on to obtain the later doses. West region has the highest proportion of children with health cards seen. Of those with health cards seen, two and a half times as many children in Kampala are fully immunised as in West Nile (77 percent *vs.* 29 percent). The higher the mother's education, the more likely she has a health card for her child and the more likely her child has received immunisations.

Estimates of coverage for **all** children, including those whose health cards were not seen can be derived by multiplying the proportion of children with particular immunisations recorded on health cards by the proportion of children whose health cards were seen. For example, multiplying the 47.7 percent of children 12-23 months who are fully immunised according to their health cards by the 49.3 percent who produced health cards for the interviewers, gives an estimate of 23.5 percent of all children 12-23 months who were fully immunised. This produces a minimum estimate of coverage, since the method assumes that all children without cards have not received any immunisation.

Figure 6.3
Immunisation Coverage
Children Under 5 Years With Health Cards



* Includes BCG, measles, and at least 3 doses DPT and polio.

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A more precise estimate of the coverage for children 12-23 months can be obtained by assuming that from those children whose mothers reported immunisation, some did get the specific vaccine. The results shown below are obtained by adding to the proportion vaccinated according to the health card the proportion vaccinated according to the information from the mother. This second value is obtained by using the following proportions of those observed in the health card seen: BCG = 1.0 (meaning that all the children with mothers information got BCG), DPT1 and PV1 = .95 (meaning that 95 percent of the children with mothers information got the vaccine) DPT2 and PV2 = .90, DPT3 and PV3 = .80, MEASLES= .90, and .75 as fully immunised. These values are the median values observed among seven countries for which DHS has implemented surveys (to be presented in a forthcoming analysis).

When this method of estimation is applied to UDHS data, the result is an estimate of 31 percent of children 12-23 months fully immunised. The method was also applied to UDHS data from Mbarara District in South West region for comparison with a UNICEF survey conducted in Mbarara in 1988 (Republic of Uganda, 1989b). The results are:

	Immunisation Received										
	BCG	DPT1	DPT2	DPT3	PV1	PV2	PV3	MSLS	All	Some	None
UDHS	60	61	48	33	60	48	31	50	31	33	36
UNICEF	52	49	38	26	49	39	25	29	17	41	42

Source: Baseline Survey for the South-West Integrated Project Mbarara. Ministry of Health, UNICEF. March-April 1988, Tables 10-14.

Based on the results, the UDHS estimates for Mbarara District, signal a higher immunisation coverage than that obtained in the UNICEF study. However this could be attributed to the assumption made earlier, which will eventually inflate the coverage value.

Table 6.8 Among all children aged 12-23 months, the percentage with health cards seen by interviewer, the percentage who are immunised as recorded on a health card or as reported by the mother and, among children with health cards, the percentage for whom BCG, DPT, polio and measles immunisations are recorded on the health card, according to background characteristics, Uganda, 1988/89

Background Characteristic	Among Children 12-23 Months, Percent with:			Among Children 12-23 Months with Health Cards Seen, the Percent Who Have Received:									Number of Children
	With Health Card Seen	Some Immunisation on Card	Mother Reports Some Immun.	BCG	DPT 1	DPT 2	DPT 3	Polio 1	Polio 2	Polio 3	Measles	All Immunisations*	
Sex of child													
Male	51.2	51.0	21.9	98.4	93.6	79.0	59.0	93.9	79.0	59.0	73.3	50.3	459
Female	47.5	47.5	22.2	97.6	96.8	74.1	55.0	96.8	76.2	55.7	69.5	45.1	487
Residence													
Urban	56.5	56.5	31.2	97.7	96.6	89.7	85.1	96.6	89.7	85.1	83.9	75.9	87
Rural	48.6	48.5	21.1	98.0	95.0	75.0	53.7	95.2	76.2	54.1	70.0	44.5	860
Region													
West Nile	58.6	58.6	20.7	100.0	100.0	41.2	29.4	100.0	41.2	29.4	82.4	29.4	48
East	42.7	42.7	27.6	96.6	89.7	63.3	41.2	91.2	67.7	44.2	58.4	31.9	262
Central	41.6	41.6	22.6	98.4	95.8	86.6	68.0	95.8	86.6	66.4	67.1	49.4	250
West	70.6	70.6	20.6	100.0	91.7	70.8	50.0	91.7	70.8	50.0	62.5	45.8	56
South West	56.2	55.9	13.9	97.9	98.3	85.0	62.6	97.7	85.0	62.6	82.3	56.9	283
Kampala	51.8	51.8	40.0	97.7	97.7	88.6	88.6	97.7	88.6	88.6	81.8	77.3	48
Luwero Tri.	48.4	48.4	19.0	96.6	97.8	86.5	69.7	97.8	86.5	69.7	80.9	59.6	104
Education													
No education	44.7	44.5	18.0	97.7	93.9	68.1	42.9	93.9	69.1	42.8	66.5	35.7	375
Some primary	50.4	50.4	24.6	97.6	95.9	79.6	60.2	96.7	80.4	61.1	71.6	49.6	416
Primary comp.	56.0	56.0	18.9	98.8	91.7	74.7	61.1	90.0	78.2	61.1	74.0	50.5	83
Middle	57.6	57.6	33.9	100.0	100.0	100.0	94.8	100.0	100.0	94.8	83.3	83.3	46
Higher	63.6	63.6	28.2	100.0	100.0	90.3	87.0	100.0	90.3	87.0	93.4	80.4	27
Total	49.3	49.2	22.0	98.0	95.2	76.5	57.0	95.4	77.6	57.4	71.5	47.7	946

* BCG, at least 3 doses of DPT and polio, and measles

In the UDHS, information was collected on recent episodes of diarrhoea and the treatment provided for children under the age of five. Respondents were asked whether each child had experienced an episode of diarrhoea in the last 24 hours or in the last two weeks. Additional questions were asked about the occurrence of fever and respiratory illness in the four weeks preceding the interview and the treatment given to the children suffering from such illnesses. The data collected cannot be used to measure the incidence of such diseases but they provide an estimate of children under 5 years whose mothers report that they had illness during the specified number of weeks preceding the survey. Caution should be taken in interpreting the results of these questions, as the responses are clearly dependent upon what the mother understands as diarrhoea, fever, or respiratory illness and her ability to recall when the episode of the illness in question occurred. The number of cases of diarrhoea, fever, and respiratory illness also vary seasonally.

Diarrhoea

Table 6.9 shows that 14 percent of children under 5 years of age were reported by the mother to have had diarrhoea in the 24 hours before the interview and 24 percent had diarrhoea in the two weeks before the interview. Diarrhoea prevalence is highest among children 6-17 months of age, with over 40 percent reported to have had an episode in the previous two weeks. This is the age when children begin to eat other foods besides breastmilk and may be exposed to more contaminating agents. Prevalence of diarrhoea is somewhat higher among rural children than urban children and among children in East region. Differences by sex of child and by education of mother are small, except for the highest level of education.

Table 6.10 indicates the percentage of children with diarrhoea in the two weeks before the survey who consulted a medical facility and the type of treatment received. Overall, 15 percent were taken to a medical facility, 15 percent received some form of oral rehydration therapy (ORT), 30 percent received some other treatment and 63 percent received no treatment. Children under 6 months of age are less likely than older children be taken to a medical facility or to receive treatment for their episode of diarrhoea. Children who live in urban areas, Kampala, or whose mothers have higher education are more likely to receive some treatment and more likely to receive ORT than other children. This is probably due to the increased access to health facilities in urban areas compared with limited access to similar facilities in rural areas.

Oral rehydration therapy is an effective and inexpensive way to treat the dehydration caused by diarrhoea. In the UDHS, all mothers of children under the age of five were asked if they knew of a product called Dalozi for treating diarrhoea--specially prepared packets of oral rehydration salts (ORS). Table 6.11 shows that just under half of the mothers had heard of the packets. Knowledge about ORS increases dramatically with the level of education of women. It is also substantially higher among urban women and women in Kampala.

Table 6.9 Among children under 5 years of age, the percentage reported by the mother to have had diarrhoea in the past 24 hours and the past two weeks, according to background characteristics, Uganda, 1988/89

Background Characteristic	Percent of Children Under 5 with Diarrhoea in: Past 24 Hours	Past Two Weeks	Number of Children Under 5
Age of child			
Under 6 months	20.5	27.5	433
6-11 months	27.4	43.3	540
12-17 months	22.8	42.2	541
18-23 months	17.6	34.6	405
24-59 months	7.5	13.7	2411
Sex			
Male	15.2	25.4	2122
Female	13.2	23.2	2208
Residence			
Urban	11.2	20.1	425
Rural	14.5	24.8	3904
Region			
West Nile	15.1	24.0	240
East	21.3	33.6	1178
Central	10.3	19.0	1083
West	14.0	24.4	269
South West	11.4	20.9	1331
Kampala	11.1	21.5	228
Luwero Triangle	9.4	20.3	447
Education			
No education	13.9	23.4	1785
Some primary	15.1	26.5	1769
Primary comp.	14.3	24.0	402
Middle	13.8	20.4	268
Higher	3.2	13.7	106
Total	14.2	24.3	4330

Table 6.10 Among children under 5 years of age, who had diarrhoea in the past two weeks, the percentage consulting a medical facility, the percentage receiving different treatments as reported by the mother, and the percentage not consulting a medical facility and not receiving treatment, according to background characteristics, Uganda, 1988/89

Background Characteristic	Percent Consulting a Medical Facility	Percent of Children with Diarrhoea Treated with:[1]				Not Consulting Facility and No Treatment[2]	Children with Diarrhoea
		ORS Packets	Home Solution	Other Treatment	No Treatment		
Age							
Under 6 months	7.2	10.9	0.0	12.6	80.5	12.8	119
6-11 months	16.6	17.9	1.8	24.3	65.0	11.4	234
12-17 months	19.7	14.7	1.7	33.7	57.6	10.6	229
18-23 months	14.4	11.4	0.8	35.3	57.4	12.9	140
24-59 months	13.0	12.1	1.5	32.0	61.0	11.9	332
Sex							
Male	13.8	13.2	1.6	28.6	63.3	11.2	540
Female	15.8	14.3	1.0	29.2	62.4	12.4	513
Residence							
Urban	20.4	20.4	2.6	34.9	57.2	7.9	86
Rural	14.3	13.1	1.2	28.4	63.4	12.1	967
Region							
West Nile	5.7	14.3	0.0	11.4	74.3	25.7	58
East	14.9	12.9	0.4	30.4	61.7	5.9	396
Central	16.7	12.2	4.3	32.1	62.7	11.9	206
West	20.0	12.5	2.5	25.0	67.5	15.0	66
South West	12.3	14.4	0.3	27.5	62.6	16.7	279
Kampala	23.0	24.1	2.3	36.8	55.2	9.2	49
Luwero Triangle	17.4	18.0	6.8	36.6	54.0	13.0	91
Education							
No education	12.8	13.6	1.2	25.5	65.0	14.0	418
Some primary	16.8	12.6	0.5	31.7	60.8	9.8	469
Primary completed	17.1	21.4	4.6	30.8	60.4	9.7	97
Middle	7.1	7.7	4.1	20.9	73.5	11.2	55
Higher	19.5	27.3	0.0	54.2	45.8	22.7	14
Total	14.8	13.7	1.3	28.9	62.9	11.7	1053

[1] Percents may add to more than 100, since children may receive more than treatment.
[2] Some children did not consult a medical facility but received treatment from other sources.

Fever

The questions in the UDHS on fever were designed to obtain a rough estimate of the extent to which children experienced a bout of malaria during the 4 weeks preceding the interview and what type of treatment was given for the fever. It should be noted that malaria is endemic in Uganda and therefore most fevers in children are attributed to malaria infection.

Overall, 41 percent of the children under five were reported to have had a fever in the previous 4 weeks, of whom 45 percent were taken to a medical facility, 57 percent were treated with antimalarial drugs, and 70 percent were given other medicines (Table 6.12). While 4 percent were given antibiotics for treatment of fever, 14 percent were given no treatment at all. Fever prevalence is highest among children 6-17 months of age and among children in East region. As expected, medical consultation is higher for urban children and children in Kampala.

Cough/Difficult Breathing

Upper respiratory tract infection is one of the three main causes of morbidity and mortality among children under five in Uganda. To obtain information on the prevalence of respiratory illness, respondents were asked whether for each child under age five there was an episode of severe cough with difficult or rapid breathing in the four weeks preceding the interview. Twenty-two percent of the children were reported to have had a cough in the past 4 weeks, of whom 48 percent consulted a medical provider, while 23 percent received antibiotics for treatment and another 23 percent got no treatment (Table 6.13). Fifteen percent of children who had severe cough with difficult or rapid breathing did not receive anything at all to treat the illness. This may be due to the inaccessibility of the respondents to a health unit, lack of money to pay for medical consultation, or lack of severity of the illness.

Table 6.11 Among mothers of children under 5 the percent who know about ORT, according to background characteristics, Uganda, 1988/89

Background Characteristic	Percent
Residence	
Urban	81.3
Rural	43.9
Region	
West Nile	26.0
East	44.4
Central	62.0
West	52.5
South West	34.4
Kampala	93.1
Education	
None	32.4
Some primary	51.8
Primary completed	73.7
Middle	85.3
Higher	87.1
Total	50.6

6.4 Nutritional Status of Children

Nutritional status assessment is based on the concept that in a well-nourished population, there will be a statistically predictable distribution of children of a given age with respect to height and weight. In terms of a particular index (say, height-for-age), the distribution will approximate the normal curve, that is, about 68 percent of children will have a height within 1 standard deviation from the mean for that age. About 14 percent will be relatively tall for their age, that is, between +1 and +2 standard deviations from the mean and another 14 percent will be relatively short for their age, that is, between -1 and -2 standard deviations from the mean. Finally, about 2 percent will be very tall for their age, that is, more than +2 standard deviations from the mean and another 2 percent will be very short for their age, that is, more than -2 standard deviations from the mean. Comparison of the distribution of height and weight in a given population with that of a standard reference population facilitates analyses across countries and over time. For comparative purposes, the nutritional status tables in this report use the reference population defined by the U.S. National Center for Health Statistics (NCHS) and accepted by the U.S. Centers for Disease Control (CDC) and the World Health Organisation (WHO).

Table 6.12 Among children under 5 years of age, the percentage who are reported by the mother as having had fever in the past four weeks, and, among them the percentage consulting a medical facility, the percentage receiving various treatments, and the percentage not consulting a medical facility and not receiving treatment, according to background characteristics, Uganda, 1988/89

Background Characteristic	Percent with Fever in Past 4 Weeks	Among Children with Fever, Percent Treated by:[1]					Not Consulting Medical Facility and No Treatment[2]	Number of Children Under 5
		Consult Medical Facility	Anti-malarial	Anti-biotics	Other Medicine	No Treatment		
Age								
Under 6 months	35.3	40.3	44.7	3.6	57.3	20.4	15.3	433
6-11 months	52.8	54.5	60.2	4.4	71.3	12.4	6.6	540
12-17 months	51.2	48.3	56.3	1.6	71.2	13.1	9.0	541
18-23 months	46.6	44.0	58.8	7.6	69.8	10.6	6.3	405
24-59 months	36.9	41.0	58.2	4.1	70.8	13.4	8.8	2411
Sex								
Boy	41.4	46.7	56.9	5.4	69.1	14.0	8.5	2122
Girl	41.4	42.4	57.4	2.9	70.2	13.0	9.0	2208
Residence								
Urban	31.6	62.8	55.6	8.8	75.3	9.2	2.9	425
Rural	42.5	43.0	57.3	3.7	69.2	13.8	9.3	3904
Region								
West Nile	43.8	50.0	34.4	4.7	81.3	15.6	14.1	240
East	67.0	46.1	65.4	3.5	64.8	14.6	10.1	1178
Central	38.2	41.5	41.7	4.5	82.2	7.8	4.8	1083
West	34.8	38.6	70.2	1.8	80.7	5.3	5.3	269
South West	23.9	39.2	61.3	4.7	58.3	20.8	11.4	1331
Kampala	31.9	66.7	53.5	8.5	69.8	9.3	2.3	228
Luwero Triangle	42.9	45.2	62.5	3.2	78.0	8.2	5.6	447
Education								
No education	39.4	42.8	53.3	3.1	64.8	18.1	13.0	1785
Some primary	44.3	44.1	58.0	3.9	69.9	12.4	8.0	1769
Primary completed	46.7	50.9	64.6	6.3	80.3	5.6	1.6	402
Middle	34.7	47.1	61.9	6.0	78.7	7.1	0.6	268
Higher	23.0	48.7	65.4	16.0	88.4	2.3	0.0	106
Total	41.4	44.5	57.1	4.1	69.7	13.5	8.8	4330

[1] Percents may add to more than 100, since children may receive more than one treatment.
[2] Some children did not consult a medical facility but received treatment from other sources.

Table 6.13 Among children under 5 years of age, the percentage who are reported by the mother as having suffered from severe cough with difficult or rapid breathing in the past four weeks, and, among them the percentage consulting a medical facility, the percentage receiving various treatments, and the percentage not consulting a medical facility and not receiving treatment, according to background characteristics, Uganda, 1988/89

Background Characteristic	Percent with Cough in Past 4 Weeks	Among Children with Cough, Percent Treated by:[1]					Not Consulting Medi.Facility & No Treat.[2]	No. of Children Under 5
		Consult Medical Facility	Antibiotics	Cough Syrup	Other Medicine	No Treatment		
Age								
Under 6 months	22.4	29.8	14.7	21.0	61.7	31.1	24.6	433
6-11 months	30.2	53.6	24.2	30.7	59.8	21.2	11.6	540
12-17 months	24.7	51.6	20.0	26.0	57.7	24.6	14.5	541
18-23 months	26.0	48.4	21.7	22.6	49.6	30.7	15.1	405
24-59 months	19.6	49.2	25.6	28.3	58.8	19.5	13.5	2411
Sex								
Male	22.5	49.4	23.2	29.7	54.1	23.2	14.9	2122
Female	22.3	47.1	23.0	24.5	62.0	22.5	14.3	2208
Residence								
Urban	20.1	56.6	21.7	52.0	51.3	14.5	5.3	425
Rural	22.7	47.4	23.2	24.6	58.8	23.7	15.5	3904
Region								
West Nile	25.3	56.8	21.6	16.2	51.4	27.0	27.0	240
East	21.9	67.7	38.9	29.9	54.6	24.8	13.6	1178
Central	19.4	50.1	15.4	37.9	67.9	12.6	8.7	1083
West	15.2	52.0	12.0	32.0	72.0	16.0	12.0	269
South West	26.7	29.6	18.5	15.4	56.1	29.0	18.6	1331
Kampala	20.2	59.8	17.1	59.8	45.1	12.2	2.4	228
Luwero Triangle	17.6	50.7	27.9	28.6	72.9	5.7	4.3	447
Education								
No education	21.3	44.2	24.5	21.3	57.1	28.2	19.4	1785
Some primary	25.2	47.4	21.4	24.9	60.8	20.7	12.9	1769
Primary completed	21.3	58.4	20.9	41.5	56.0	19.0	7.7	402
Middle	16.2	68.2	30.6	56.8	51.5	10.1	7.5	268
Higher	15.8	56.5	29.8	59.8	36.5	13.5	3.4	106
Total	22.4	48.2	23.1	27.0	58.1	22.9	14.6	4330

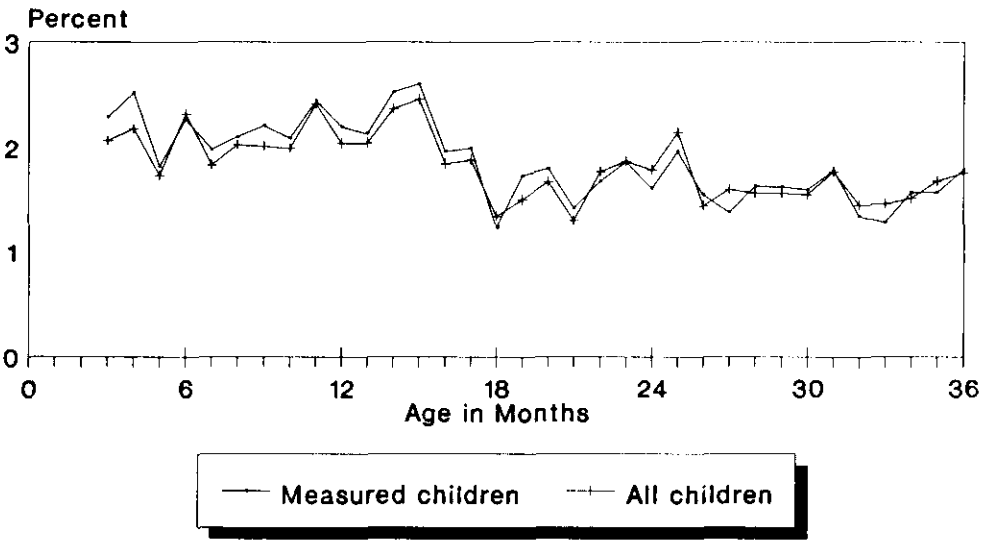
[1] Percents may add to more than 100, since children may receive more than one treatment.
[2] Some children did not consult a medical facility but received treatment from other sources.

In the UDHS, all children under the age of five born to women interviewed were eligible for measurement of weight and height. Of the 3621 eligible children, 3150, or 87 percent were weighed and measured. The most common reason for not being measured was that the child was not in the house at the time of the interview.

The accuracy of anthropometric data depends heavily on the ability of the measurer to perform the measurements correctly. In order to minimise errors, team supervisors and field editors were trained to weigh and measure children following procedures described in the United Nations manual "How to Weigh and Measure Children". Each participant was provided with a copy of this manual to which he/she could refer. Equipment consisted of standardised 25-kg. hanging scales and portable, wooden measuring boards. Trainees were taught to measure to DHS standards: these are to weigh children to within 100 grams of true weight and to measure supine length within 0.5 centimeters of true length. A test of weighing accuracy was carried out and each team was given two members who passed the test. During the survey, spot checks on measurement techniques were made by an experienced anthropometrist and a second standardisation test was conducted to check on accuracy.

Inaccurate reporting of age of children can adversely affect the validity of the anthropometric data. While age in years is sufficient for most demographic analyses, age in months is required for anthropometric assessment. This is because a child can be misclassified as severely undernourished or overnourished if his/her reported age is in error by just a few months. In the UDHS, efforts were made to obtain accurate information on birth dates of children by probing carefully and utilising the information on the health card whenever possible. The data presented in the subsequent tables are based on children with exact dates of birth from which exact ages were calculated. Figure 6.4 shows the distribution of all children, and of children measured, by age in months. The presence of minimal heaping indicates that UDHS anthropometric data are not influenced by misreported ages.

Figure 6.4
Age Distribution of Measured Children and All Children



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Four standard indices of physical growth that describe the nutritional status of children 0 through 60 months are presented in this report:

Height-for-age
Weight-for-height
Height-for-age by weight-for-height
Weight-for-age.

Each index provides different information on the nutritional status of children.

Height-for-age is a measure of linear growth. A child who is 2 or more standard deviations (SD) below the mean of the reference population in terms of height for age is considered short for his/her age which could reflect the cumulative effect of chronic malnutrition. Such a child is referred to as "stunted".

Weight-for-height describes current nutritional status. A child who is 2 or more standard deviations below the mean of the reference population in terms of weight-for-height is considered thin for his/her age which could reflect a recent episode of illness resulting in acute malnutrition. Such a child is referred to as "wasted".

Height-for-age by weight for height is a cross tabulation of the above two indices (also known as a Waterlow table) and can indicate children who are both chronically and acutely undernourished. Children who are 2 or more standard deviations below the mean of the reference population on both indices are considered severely undernourished.

Weight-for-age is a composite index of weight for height and height for age and does not provide additional information beyond that already provided by the three indices described above. However weight-for-age is commonly used in clinical settings to monitor the growth of children on a longitudinal basis and is included in this report to provide a useful reference for clinical weight programmes.

The terms "stunted" and "wasted" are purely descriptive. Stunting is a measure of chronic undernutrition that indicates growth retardation. It is typically associated with poor economic conditions. Severe stunting is a relatively gradual process that represents the accumulated effects of undernutrition over a number of years. Wasting, on the other hand, can develop rapidly. Usually, a child will double its height during the first year of life but triple its weight. The term wasting refers to inadequate food intake which results in thinness or a deficit in tissue and fat mass compared to the amount expected in a healthy, well-fed child. Several factors can precipitate wasting such as infection and disease (most commonly diarrhoeal disease) and seasonal variations of food supply.

Figure 6.5 summarises the height-for-age, weight-for-height, and weight-for-age findings according to the age of the child. At any age, children exceed the median measures of the reference population, indicating an inadequate nutritional status. Tables 6.14 to 6.17 present each index according to selected background characteristics.

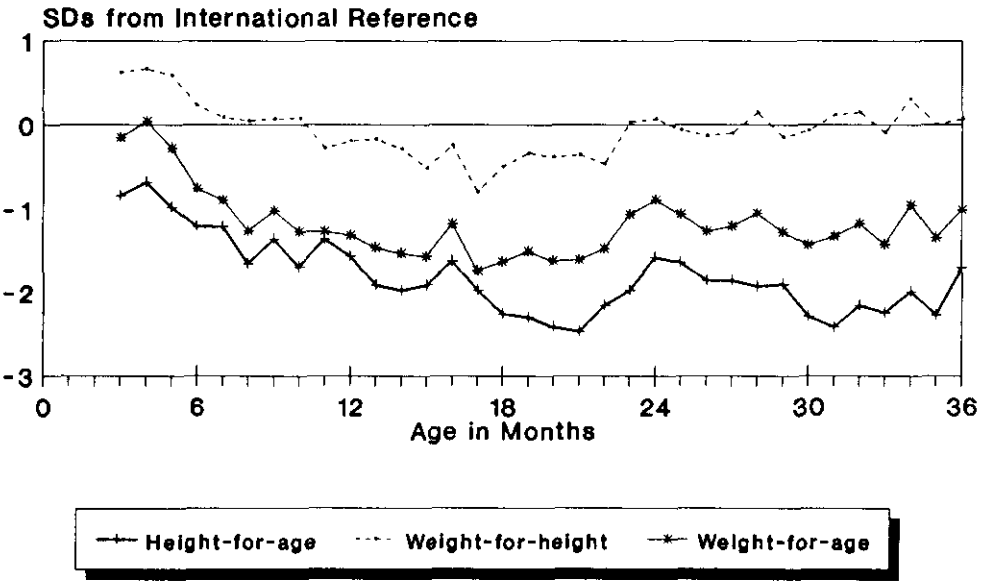
Height-for-age

Table 6.14 shows the percent distribution of children aged 0-60 months by standard deviation category from the mean of height-for-age using the NCHS/CDC/WHO international reference. Overall, 45 percent of the children are 2 or more standard deviations below the mean of the reference population. These children are defined as stunted or chronically undernourished. Almost one in five children is severely stunted, that is, 3 or more standard deviations below the mean. These represent relatively high levels of chronic undernutrition.[2]

Stunting is equally distributed among males and females. By age, children become more stunted by 12-23 months but the stunting levels off and remains constant as the child grows older. Children born less than 2 years after a previous birth are more likely to be stunted than those born after intervals of 2 or more years. Multiple births are associated with extreme stunting, with 70 percent being 2 standard deviations or more below the mean of the reference population, compared to 44 percent of children from

[2]Some questions arise from these results, especially when compared with other sources. This can be illustrated for the district of Mbarara for which comparable information is available. The proportion of stunted children (0-60 months) was estimated by the UNICEF Baseline Study as 31 percent, compared to 51 percent obtained for the same district in this study.

Figure 6.5
Nutritional Status
Children 3-36 Months



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single births. Children with recent diarrhoea, fever, cough, or other sickness are slightly more likely to be stunted than those who do not have such illnesses.

Urban children are far less likely to be stunted than rural children, with 26 percent moderately or severely stunted in urban areas, compared to 46 percent of children in rural areas. Kampala has the lowest percentage of children stunted (22 percent). The percentage of stunted children is also low in Central region (35 percent) and highest in South West region (54 percent). Stunting decreases as the education of the mother increases. Among women with no education, 48 percent of their children are -2SD or more below the reference mean, compared to 15 percent of children whose mothers have attained higher education.

Weight-for height

Weight-for-height is an indicator of recent nutritional status. Children who are 2 or more standard deviations below the mean of the reference population are considered thin for their age (wasted) or acutely undernourished. Severe wasting represents the failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of recent disease episodes, especially diarrhoea, or of seasonal variations in food supply. The weight-for-height index measures body mass in relation to body length and since age is not a variable included in this measure, weight-for-height is not influenced by any possible misreporting of age by the mother.

Table 6.14 Percent distribution of children aged 0-60 months by standard deviation category from the mean of height-for-age, using the NCHS/CDC/WHO international reference population, according to background characteristics, Uganda, 1988/89

Background Characteristic	Standard Deviation from the Reference Mean: -3.00 or more	-2.00 to -2.99	-1.00 to -1.99	-0.99 to +0.99	+1.00 to +1.99	+2.00 or more	Total	No. of Children 0-60 Months
Reference	0.1	2.2	13.6	68.2	13.6	2.3	100.0	-
Sex								
Male	20.2	27.1	28.7	21.2	1.7	1.1	100.0	1869
Female	18.1	23.5	28.5	24.8	3.4	1.7	100.0	1920
Age								
0-11 months	5.0	16.3	35.8	38.1	3.2	1.6	100.0	924
12-23 months	20.4	32.9	26.2	17.5	1.7	1.3	100.0	872
24-35 months	25.5	26.8	26.4	16.2	2.7	2.3	100.0	708
36-47 months	24.0	26.5	26.9	18.8	2.5	1.4	100.0	681
48-60 months	26.2	25.0	25.4	20.5	2.7	0.2	100.0	605
Previous birth interval								
First birth	18.6	25.0	30.7	23.8	1.3	0.7	100.0	620
<2 years	22.5	26.3	25.4	22.0	3.0	0.7	100.0	851
2-3 years	17.8	25.9	29.6	22.8	2.5	1.4	100.0	1925
4 or more years	19.2	20.9	27.2	24.8	3.9	4.0	100.0	393
Type of birth								
Single	18.6	25.2	28.9	23.4	2.5	1.4	100.0	3691
Multiple	40.8	29.5	16.2	8.4	3.3	1.7	100.0	99
Diarrhoea in 4 weeks								
Diarrhoea	17.8	27.8	28.2	23.1	2.1	1.0	100.0	999
No diarrhoea	19.5	24.7	28.6	22.9	2.7	1.6	100.0	2744
Fever in 4 weeks								
Fever	19.0	27.3	27.2	22.5	2.8	1.3	100.0	1649
No fever	19.1	24.2	29.5	23.4	2.3	1.5	100.0	2094
Cough in 4 weeks								
Cough	21.9	26.3	28.3	20.3	1.8	1.5	100.0	897
No cough	18.1	25.3	28.5	23.8	2.7	1.4	100.0	2846
Any illness in 4 weeks								
Sick	19.3	26.6	28.0	22.3	2.5	1.2	100.0	2349
Not sick	18.6	23.7	29.2	24.2	2.6	1.7	100.0	1394
Residence								
Urban	9.5	16.1	32.7	36.0	4.1	1.7	100.0	339
Rural	20.1	26.2	28.2	21.7	2.4	1.4	100.0	3450
Region								
West Nile	26.8	18.1	26.8	17.3	5.5	5.5	100.0	209
East	17.0	27.9	28.1	22.8	3.2	1.1	100.0	1040
Central	13.6	21.6	30.9	29.0	2.6	2.3	100.0	905
West	17.2	29.7	24.8	25.5	2.1	0.7	100.0	238
South West	25.9	27.9	27.9	16.4	1.4	0.4	100.0	1214
Kampala	7.7	14.2	31.4	41.5	3.7	1.5	100.0	183
Luwero Triangle	11.4	22.6	32.1	30.9	2.0	1.1	100.0	370
Education								
No education	22.3	25.2	27.9	20.3	2.8	1.6	100.0	1581
Some primary	19.6	27.2	27.9	21.6	2.1	1.6	100.0	1536
Primary completed	11.8	25.8	31.8	29.0	1.2	0.5	100.0	361
Middle	11.4	18.3	30.4	32.4	6.8	0.8	100.0	221
Higher	4.9	10.5	35.6	47.1	1.2	0.6	100.0	90
Total	19.2	25.3	28.6	23.0	2.6	1.4	100.0	3789

Table 6.15 shows the percentage of children who fall into various standard deviation categories from the mean of the reference population for weight for height. Approximately 2 percent of children 0-60 months are 2 or more standard deviations below the reference mean. In fact, the overall distribution of children in Uganda is quite similar to the reference population, indicating that acute undernutrition is not a major problem in Uganda.[3]

There are few differentials by background characteristics in the proportion of children who are wasted. Acute undernutrition is higher among children 12-23 months of age than for children of other ages. The period between one and two years is crucial for children's nutrition, as this is the time they are weaned and supplementary feeding begins. Inadequate and inappropriate supplementary feeding, coupled with a high incidence of diarrhoeal and other infectious diseases predispose children in the age group 12-23 months to acute undernutrition. Multiple births are also at higher risk of acute undernutrition, with 7 percent falling 2 or more standard deviations below the reference mean. Regionally, West Nile has the highest acute undernutrition in Uganda, with approximately 4 percent of children falling 2 or more standard deviations below the mean of the reference population.

Height-for-age by weight-for-height

Table 6.16 and Figure 6.6 show the relationship between shortness and thinness (stunting and wasting) or chronic undernutrition and acute undernutrition. The results represent a cross-tabulation of height-for-age by weight-for-height and indicate that 1 percent of all children aged 0-60 months are both stunted and wasted. These children fall 2 or more standard deviations below the mean of the reference population both in terms of their height-for-age and their weight-for-height. These are the most severely undernourished children under five years of age. The results also show approximately 38 percent of children in the age group 0-60 months are stunted but not wasted. These children fall 2 or more standard deviations below the mean of the reference population in terms of height-for-age, but are not wasted. Such children are considered to represent "hidden undernutrition" because they do not look undernourished. They are short, but have more or less normal weight-for-height, so they just look small. Special nutrition programmes need to be developed and implemented in Uganda to address the problem of chronic undernutrition in children under five years of age.

Weight-for age

Weight-for-age is a combined index which reflects long-term chronic undernutrition and recent acute undernutrition. It does not provide information beyond that already presented in the tables on height-for-age and weight-for-height. The weight-for-age index does not distinguish between a child who is underweight because of thinness and one who is underweight because of shortness. In addition, loss of body weight can occur rapidly and show seasonal fluctuation. Therefore, a single point estimate of weight-for-age, as was done in the UDHS, can sometimes be difficult to interpret, particularly when compared with other estimates obtained at different time periods. Weight-for-age is a measure commonly used in clinical pyrogrammes such as those found in young child clinics in Uganda.

[3]Contrasting with the results of stunting, the results of Table 6.15 seem to be conservative estimates. The district of Mbarara for example showed higher levels of acute undernutrition for the UNICEF Baseline Study (4 percent) than the UDHS (1 percent).

Table 6.15 Percent distribution of children aged 0-60 months by standard deviation category from the mean of weight-for-height, using the NCHS/CDC/WHO international reference population, according to background characteristics, Uganda, 1988/89

Background Characteristic	Standard Deviation from the Reference Mean: -3.00 or more	-2.00 to -2.99	-1.00 to -1.99	-0.99 to +0.99	+1.00 to +1.99	+2.00 or more	Total	No. of Children 0-60 Months
Reference	0.1	2.2	13.6	68.2	13.6	2.3	100.0	-
Sex								
Male	0.0	1.8	11.0	75.1	10.0	2.0	100.0	1870
Female	0.2	1.7	11.4	72.3	11.6	2.8	100.0	1920
Age								
0-11 months	0.2	0.4	10.3	68.0	17.1	4.0	100.0	925
12-23 months	0.2	4.0	21.8	64.9	6.9	2.3	100.0	872
24-35 months	0.1	1.3	7.2	82.3	8.0	1.1	100.0	709
36-47 months	0.0	1.3	7.8	77.6	11.3	2.0	100.0	681
48-60 months	0.0	1.7	6.1	80.4	9.6	2.2	100.0	605
Previous birth interval								
First birth	0.1	0.6	12.9	73.6	9.7	3.0	100.0	620
<2 years	0.0	1.3	12.0	73.3	11.3	2.0	100.0	852
2-3 years	0.2	2.4	10.7	72.8	11.4	2.6	100.0	1926
4 or more years	0.0	1.5	9.7	78.9	8.4	1.4	100.0	393
Type of birth								
Single	0.1	1.6	11.4	73.6	10.8	2.4	100.0	3692
Multiple	0.0	6.7	5.6	75.8	9.5	2.5	100.0	99
Diarrhoea in 4 weeks								
Diarrhoea	0.0	2.8	14.6	70.9	9.3	2.4	100.0	999
No diarrhoea	0.1	1.4	10.1	74.5	11.4	2.5	100.0	2745
Fever in 4 weeks								
Fever	0.1	2.7	13.2	73.2	8.8	2.1	100.0	1649
No fever	0.1	1.1	9.8	73.8	12.4	2.7	100.0	2096
Cough in 4 weeks								
Cough	0.2	1.3	11.7	72.6	11.3	2.9	100.0	897
No cough	0.1	1.9	11.1	73.8	10.7	2.3	100.0	2847
Any illness in 4 weeks								
Sick	0.1	2.2	12.1	73.3	9.9	2.4	100.0	2349
Not sick	0.1	1.2	9.9	74.0	12.3	2.5	100.0	1395
Residence								
Urban	0.0	1.0	9.4	73.1	12.7	3.8	100.0	340
Rural	0.1	1.9	11.4	73.7	10.6	2.3	100.0	3450
Region								
West Nile	0.0	3.9	15.7	71.7	6.3	2.4	100.0	209
East	0.0	1.3	9.7	76.7	9.6	2.7	100.0	1040
Central	0.2	2.6	14.8	70.3	9.8	2.3	100.0	906
West	0.0	0.7	11.7	78.6	8.3	0.7	100.0	238
South West	0.2	1.6	9.1	72.9	13.8	2.5	100.0	1215
Kampala	0.0	0.9	10.5	74.5	10.8	3.4	100.0	183
Luwero Triangle	0.0	1.1	11.7	70.2	14.1	2.9	100.0	370
Education								
No education	0.2	1.9	11.7	72.2	11.3	2.7	100.0	1581
Some primary	0.1	2.1	12.0	73.7	10.1	2.1	100.0	1536
Primary completed	0.0	1.1	7.6	77.8	10.9	2.6	100.0	362
Middle	0.0	0.5	10.8	75.5	10.2	3.0	100.0	221
Higher	0.0	0.6	5.9	77.6	14.0	1.9	100.0	90
Total	0.1	1.8	11.2	73.7	10.8	2.4	100.0	3791

Table 6.16 Percent distribution of children aged 0-60 months, the percent in each height-for-age standard deviation category by each weight-for height standard deviation category (Waterlow classification) using the NCHS/CDC/WHO international reference population, Uganda, 1988/89

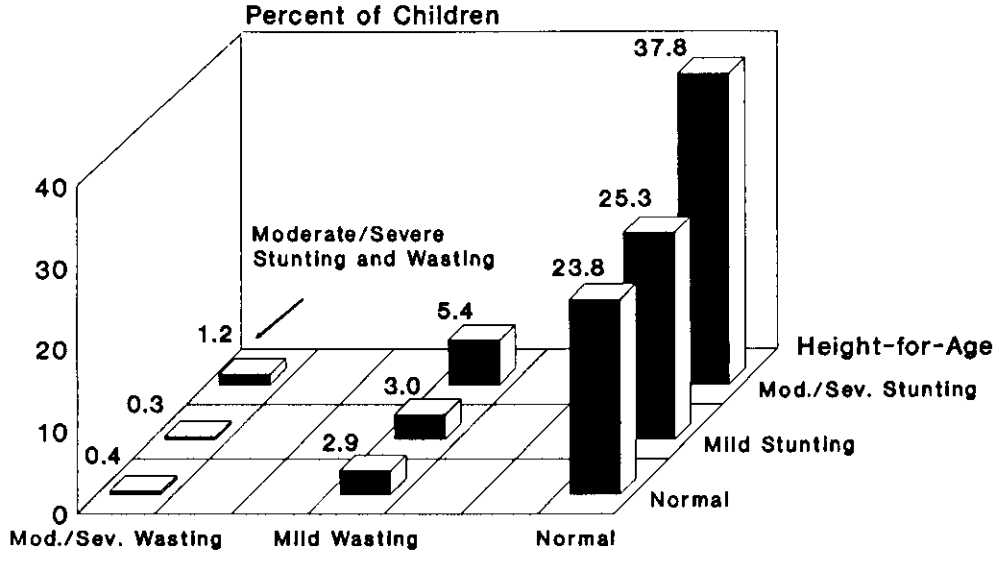
Height-for age Standard Deviation from NCHS/CDC/WHO Reference Population	Weight-for-height Standard Deviation from NCH/CDC/WHO Reference Population						
	-3.00 or more	-2.00 to -2.99	-1.00 to -1.99	-0.99 to +0.99	+1.00 or more	Total	No. of Children 0-60 Months
-3.00 or more	0.0	0.0	0.0	0.0	0.1	0.1	4
-2.00 to -2.99	0.7	0.5	0.3	0.1	0.2	1.8	67
-1.00 to -1.99	2.6	2.8	3.0	2.5	0.4	11.2	426
-0.99 to +0.99	14.2	19.1	20.8	16.7	2.9	73.7	2791
+1.00 or more	1.6	2.9	4.5	3.7	0.5	13.2	501
Total	19.2	25.3	28.6	23.0	4.0	100.0	
Number	726	958	1083	872	150		3789

Table 6.17 shows the percentage of children aged 0-60 months in each standard deviation category of weight-for-age. Overall, 23 percent of children fall 2 or more standard deviations below the mean of the reference population. A comparison of weight-for-age by age in months from the UDHS with the international reference population shows that the weight of children 12-23 months in Uganda is considerably lower than the international reference population. Children from multiple births and children in West Nile are more likely to have low weight-for age than other children[4].

[4]Values for the district of Mbarara are: 17 percent of children 0-60 months 2 or more standard deviations below the mean based on the UNICEF Baseline Study, and 25 percent for the present study, UDHS.

Figure 6.6

Cross-tabulation of Weight-for-Height and Height-for-Age



Uganda DHS 1988/89

Table 6.17 Percent distribution of children aged 0-60 months by standard deviation category from the mean of weight-for-age, using the NCHS/CDC/WHO international reference population, according to background characteristics, Uganda, 1988/89

Background Characteristic	Standard Deviation from the Reference Mean: -3.00 or more	-2.00 to -2.99	-1.00 to -1.99	-0.99 to +0.99	+1.00 to +1.99	+2.00 or more	Total	No. of Children 0-60 Months
Reference	0.1	2.2	13.6	68.2	13.6	2.3	100.0	-
Sex								
Male	5.0	18.1	34.6	38.9	2.6	0.8	100.0	1869
Female	4.8	18.6	29.8	41.8	3.6	1.3	100.0	1920
Age								
0-11 months	1.8	11.8	27.9	49.4	6.6	2.5	100.0	924
12-23 months	8.8	23.0	36.4	29.1	1.6	1.0	100.0	872
24-35 months	7.1	19.3	29.6	40.7	2.3	1.0	100.0	708
36-47 months	2.9	19.3	33.8	41.2	2.7	0.1	100.0	681
48-60 months	3.7	19.7	33.8	41.3	1.4	0.1	100.0	605
Previous birth interval								
First birth	3.9	19.2	32.3	42.0	1.9	0.7	100.0	620
<2 years	6.1	20.9	30.4	38.8	3.2	0.7	100.0	851
2-3 years	4.9	17.1	33.8	40.0	3.1	1.2	100.0	1925
4 or more years	4.2	18.0	28.0	42.8	5.3	1.6	100.0	393
Type of birth								
Single	4.6	18.2	32.2	40.9	3.1	1.1	100.0	3691
Multiple	17.5	25.9	33.1	20.1	3.3	0.0	100.0	99
Diarrhoea in 4 weeks								
Diarrhoea	7.1	20.1	33.3	35.4	2.9	1.2	100.0	999
No diarrhoea	4.2	17.6	32.0	41.9	3.2	1.0	100.0	2744
Fever in 4 weeks								
Fever	6.0	20.7	32.5	37.3	2.7	0.9	100.0	1649
No fever	4.2	16.4	32.2	42.5	3.5	1.2	100.0	2094
Cough in 4 weeks								
Cough	6.3	21.1	30.4	39.0	2.4	1.0	100.0	897
No cough	4.6	17.4	33.0	40.5	3.4	1.1	100.0	2846
Any illness in 4 weeks								
Sick	5.9	19.9	31.7	38.7	2.8	0.9	100.0	2349
Not sick	3.4	15.6	33.5	42.6	3.7	1.3	100.0	1394
Residence								
Urban	1.7	11.1	24.7	53.6	6.6	2.3	100.0	339
Rural	5.2	19.1	32.9	39.1	2.8	0.9	100.0	3450
Region								
West Nile	6.3	26.8	25.2	35.4	3.1	3.1	100.0	209
East	4.3	16.9	33.0	41.4	3.6	0.8	100.0	1040
Central	4.8	16.1	30.5	43.6	3.8	1.2	100.0	905
West	5.5	17.2	35.9	40.0	1.4	0.0	100.0	238
South West	5.6	21.2	34.9	35.2	2.1	0.9	100.0	1214
Kampala	2.2	10.5	20.6	58.8	6.5	1.5	100.0	183
Luwero Triangle	3.2	12.6	30.5	47.6	4.1	2.0	100.0	370
Education								
No education	4.7	21.5	31.8	38.6	2.3	1.1	100.0	1581
Some primary	5.9	18.2	33.9	38.0	3.0	1.0	100.0	1536
Primary completed	3.0	11.7	33.9	47.4	3.8	0.2	100.0	361
Middle	3.0	12.8	24.8	49.0	8.2	2.3	100.0	221
Higher	2.4	5.9	21.4	62.8	5.0	2.5	100.0	90
Total	4.9	18.4	32.2	40.4	3.1	1.1	100.0	3789

APPENDIX A

SURVEY DESIGN

APPENDIX A
SURVEY DESIGN

Sample Design and Implementation

The sample used for the Uganda Demographic and Health Survey was a stratified, weighted probability sample of women aged 15-49 selected from 206 clusters. Due to security problems at the time of sample selection, 9 of the country's 34 districts, containing an estimated 20 percent of the population, were excluded from the sample frame. Primary sampling units in rural areas were sub-parishes, which, in the absence of a more reliable sampling frame, were selected with a probability proportional to the number of registered taxpayers in the sup-parish. This gives a first stage probability of:

$$P_{1i} = (a * T_i) / T$$

where

a is the number of sub-parishes selected,

T_i is the number of taxpayers in the sub-parish, and

T is the total number for taxpayers in all sub-parishes.

Teams visited each selected sub-parish and listed all he households by name of the household head. Individual households were then selected for the interview from this list. The conditional household probability, P_{2i}, was calculated so that $P_{1i} * P_{2i} = f$, where f is the overall sampling fraction. The parameter f was estimated with the housing listing operation by stopping at every 10th household and recording the number of persons who slept last night in that household. In addition the South West region and the area in Central region known as Luwero Triangle were each over-sampled to provide a sample with sufficient size to produce independent estimates of certain variables for these two areas.

The urban sector was over-sampled by a factor of three compared with a proportionate urban/rural sample. Since it was not possible to use an appropriate sampling frame in the urban area, it was necessary to look for an alternative procedure. A convenient solution avoiding excessive cost was to use a two-phase sampling. A description of each phase follows.

- 1st Phase: A complete list of all administrative urban areas known as Resistance Council Ones (RC1s) was compiled and a sampling frame was created by systematically selecting 200 of these units with equal probability for a complete household updating.

- 2nd Phase: After the first phase selection and updating was completed, a sub-sample of 50 RC1s were selected with probability proportional to size (size as reported in the housing listing). At the subsequent stage, 20 households were then systematically selected in each of the 50 RC1s for a total of 1,000 urban households.

Characteristics of the Sample

Table A.1 provides a summary of the outcome of the fieldwork for households and eligible women. Out of 5,587 addresses visited, 5,123 households were located. The remaining addresses (8.3 percent) were not valid households, either because the dwelling had been vacated or destroyed, or the household could not be located or did not exist. Of the located households, 5101 were successfully interviewed, producing a household response rate of 99.6 percent.

Table A.1 Summary of results of Household and Individual interviews
UDHS 1988/89

Results of Interview and Response Rate	Number	Percent
Addresses Visited	5,587	100.0
Household located	5,123	91.7
Household absent last night	33	0.6
Unoccupied dwelling	245	4.4
Destroyed, no dwelling, other	186	3.3
Household Located	5,123	100.0
Interviewed	5,101	99.6
Not interviewed	22	0.4
HOUSEHOLD RESPONSE RATE		99.6
Eligible women	4,857	100.0
Not interviewed	127	2.6
Absent	57	1.2
Postponed	0	0.0
Refusal	12	0.2
Other	58	1.2
Interviewed	4,730	97.4
Eligible women per household		0.95
INDIVIDUAL RESPONSE RATE		98.4
OVERALL RESPONSE RATE		98.0

The household questionnaires identified 4,857 women eligible for the individual interview (that is, they were aged 15-49 and had spent the night before the interview in the selected household). This represents an average of slightly under one eligible women per household. Questionnaires were completed for 4,730 women, indicating an individual response rate of 98.4 percent. The overall response rate, that is, the product of response rates at the household and individual levels was 98.0 percent (Table A.1).

Contact was not made with 127 eligible women, either because the respondent was not at home during any of the visits by the interviewer, or because the respondent refused to be interviewed, or because of other reasons. In any case, the overall level of nonresponse is very low.

The response rates for the urban-rural areas, and regions were similar (Table A.2). In the urban areas, the overall individual response rate was 96.0 percent, compared with 97.7 percent for the rural areas. These lower rates of response in the urban areas are influenced by the low rates of response observed for Kampala.

Table A.2 Summary of results of Household and Individual interviews and Response Rates by Place of Residence, UDHS 1988/89

Place of Residence	HOUSEHOLD		INDIVIDUAL	
	Number	Rates	Number	Rates
Urban	931	98.4	1,004	96.0
Rural	4,192	99.8	3,853	97.7
West Nile	149	100.0	164	97.6
East	975	99.6	890	97.1
Central	1,849	99.0	1,433	97.4
West	382	99.0	349	98.6
South West	1,353	99.0	1,465	98.2
Kampala	448	96.7	556	95.0

APPENDIX B

ESTIMATES OF SAMPLING ERROR

APPENDIX B
ESTIMATES OF SAMPLING ERROR

The results from sample surveys are affected by two types of errors: (1) nonsampling error and (2) sampling error. Nonsampling error is due to mistakes made in carrying out field activities, such as failure to locate and interview the correct household, errors in the way questions are asked, misunderstanding of the questions on the part of either the interviewer or the respondent, data entry errors, etc. Although efforts were made during the design and implementation of the UDHS to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate analytically.

The sample of women selected in the UDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each one would have yielded results that differed somewhat from the actual sample selected. The sampling error is a measure of the variability between all possible samples; although it is not known exactly, it can be estimated from the survey results. Sampling error is usually measured in terms of the "standard error" of a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which one can be reasonably assured that, apart from non-sampling errors, the true value of the variable for the whole population falls. For example, for any given statistic calculated from a sample survey, the value of that same statistic as measured in 95 percent of all possible samples with the same design (and expected size) will fall within a range of plus or minus two times the standard error of that statistic.

If the sample of women had been selected as a simple random sample, it would have been possible to use strightforward formulas for calculating sampling errors. However, the UDHS sample design depended on stratification, stages, and clusters; consequently, it was necessary to utilize more complex formulas. The computer package CLUSTERS was used to assist in computing the sampling errors with the proper statistical methodology.

The CLUSTERS programme treats any percentage or average as a ratio estimate, r=y/x. where both x and y are considered to be random variables. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$\text{var}(r) = \frac{1-f}{\bar{x}^2} \sum_{h=1}^{H} \left[\frac{m_h}{m_h - 1} \left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which, $z_{hi} = y_{hi} - r\,x_{hi}$, and $z_h = y_h - rx_h$, where

h represents the stratum and varies from 1 to H,

m_h is the total number of EAs selected in the h-th stratum,

y_{hi} is the sum of the values of variable y in cluster i in the h-th stratum,

x_{hi} is the sum of the number of cases (women) in cluster i in the h-th stratum, and

f is the overall sampling fraction, which is so small that the CLUSTERS programme ignores it.

In addition to the standard errors, CLUSTERS computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample; a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design.

Sampling errors are presented in Tables B.2.1-B.2.12 for 35 variables considered to be of major interest. Results are presented for the whole country, for urban and rural areas, for women in three broad age groups, and for the six regions as defined in this report. For each variable, the type of statistic (mean, proportion) and the base population are given in Table B.1. For each variable, Table B.2.1-B.2.12 presents the value of the statistic, its standard error, the number of unweighted and weighted cases, the design effect, the relative standard error, and the 95 percent confidence limits.

The confidence interval has the following interpretation. For the mean number of children ever born (CEB), the overall average from the sample is 3.493 and its standard error is 0.049. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 3.493 + or - (2 x 0.049), which means that there is a high probability (95 percent) that the *true* average number of children ever born falls within the interval of 3.395 to 3.592.

The relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. The magnitude of the error increases as estimates for subpopulations such as particular age groups, and especially geographical areas, are considered. For the variable CEB, for example, the relative standard error (as a percentage of the estimated mean) for the whole country, rural areas, and Kampala is, respectively, 1.4 percent, 1.4 percent, and 7.1 percent. This means that the survey can provide estimates of CEB only with a margin of uncertainty (at the 95 percent confidence level) of +/- 2.8 percent, 2.8 percent, and 14.2 percent respectively for these three domains.

Table B.1 List of selected variables with sampling errors, UDHS, 1988/89

Variable	Type	Description	Base Population
EDUC	Proportion	With educa	All women
SECED	Proportion	Secondary or more	All women
CUNION	Proportion	Currently in union	All women
MBEF18	Proportion	Union before 18	All women
BBEF18	Proportion	Birth before 18	All women
CEB	Mean	Children ever born	All women
CEB40	Mean	Children ever born	Women 40-49
CSUR	Mean	Children surviving	All women
PREG	Proportion	Pregnant	All women
KNW	Proportion	Knowing any method	Women in union
KNWMOD	Proportion	Knowing any modern method	Women in union
KNWSRC	Proportion	Knowing method's source	Women in union
KNWOV	Proportion	Knows ovulatory cycle	Women in union
EVUS	Proportion	Ever use any method	Women in union
CURUSE	Proportion	Currently using any method	Women in uion
PILLUS	Proportion	Using pill	Women in union
TRUSE	Proportion	Using traditional methods	Women in union
APPRF	Proportion	Approving family planning	Women in union
WANTNM	Proportion	Wanting no more children	Women in union
WANT2	Proportion	Wanting to delay 2+ years	Women in union
BF	Mean	Breastfeeding interval	Births in last 3 years
AMEN	Mean	Amenorrhea interval	Births in last 3 years
ABST	Mean	Postpartum interval	Births in last 3 years
TETANU	Proportion	Received tetanus	Mothers, births last 5 years
ATTE	Proportion	Medical attention at birth	Mothers, births last 5 years
WCARD	Proportion	Had health card seen	Children 12-23 months*
BCG	Proportion	Received BCG	Children 12-23 months*
DPT	Proportion	Received DPT (3 dosis)	Children 12-23 months*
POL	Proportion	Received Polio (3 dosis)	Children 12-23 months*
MEASL	Proportion	Received Measles	Children 12-23 months*
FULLIM	Proportion	Fully immunized	Children 12-23 months*
DIAR	Proportion	Diarrhea last 2 weeks	Children < 5 years
HAGE	Proportion	Height for age	Children < 5 years
WAGE	Proportion	Weight for age	Children < 5 years
WHEIGH	Proportion	Weight for height	Children < 5 years

* With health card seen.

Table B.2.1 Sampling errors for the entire sample, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	R+2SE
EDUC	.622	.012	4730.0	4730.0	1.679	.019	.598	.646
SECED	.103	.008	4730.0	4730.0	1.817	.078	.086	.119
CUNION	.672	.009	4730.0	4730.0	1.301	.013	.655	.690
MBEF18	.537	.011	4730.0	4730.0	1.571	.021	.514	.560
BBEF18	.408	.010	4730.0	4730.0	1.465	.026	.387	.429
CEB	3.493	.049	4730.0	4730.0	1.032	.014	3.395	3.592
CEB40	7.487	.167	619.0	649.6	1.177	.022	7.153	7.820
CSUR	2.827	.040	4730.0	4730.0	1.017	.014	2.746	2.907
PREG	.130	.005	4730.0	4730.0	1.124	.042	.119	.140
KNW	.840	.010	3055.0	3180.1	1.482	.012	.820	.859
KNWMOD	.779	.012	3055.0	3180.1	1.659	.016	.754	.804
KNWSRC	.722	.013	3055.0	3180.1	1.614	.018	.696	.748
KNWOV	.102	.006	3055.0	3180.1	1.026	.055	.091	.113
EVUS	.215	.012	3055.0	3180.1	1.663	.058	.190	.239
CURUSE	.049	.005	3055.0	3180.1	1.166	.093	.040	.058
PILLUS	.011	.002	3055.0	3180.1	.996	.173	.007	.014
TRUSE	.024	.003	3055.0	3180.1	1.046	.122	.018	.029
APPRFP	.653	.015	3055.0	3180.1	1.797	.024	.622	.684
WANTNM	.194	.009	3055.0	3180.1	1.201	.044	.177	.211
WANT2	.334	.009	3055.0	3180.1	1.082	.028	.316	.353
BF	18.613	.329	3165.0	3215.6	1.187	.018	17.954	19.272
AMEN	12.706	.301	3165.0	3215.6	1.088	.024	12.103	13.308
ABST	4.144	.271	3165.0	3215.6	1.344	.065	3.602	4.686
TETANU	.556	.014	4915.0	5003.9	1.625	.025	.528	.584
ATTE	.028	.003	4915.0	5003.9	1.228	.119	.022	.035
WCARD	.493	.021	481.0	466.7	1.263	.042	.452	.535
BCG	.980	.007	481.0	466.7	1.009	.007	.967	.993
DPT	.570	.027	481.0	466.7	1.179	.048	.515	.625
POL	.574	.028	481.0	466.7	1.189	.048	.518	.629
MEASL	.715	.030	481.0	466.7	1.415	.042	.655	.775
FULLIM	.477	.029	481.0	466.7	1.243	.061	.419	.536
DIAR	.243	.009	4268.0	4329.6	1.338	.037	.225	.261
HAGE	.448	.010	4268.0	4329.6	1.074	.021	.429	.467
WAGE	.234	.009	4268.0	4329.6	1.185	.038	.216	.251
WHEIGH	.019	.002	4268.0	4329.6	1.062	.129	.014	.024

Table B.2.2 Sampling errors for the urban population, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	R+2SE
EDUC	.866	.015	964.0	542.2	1.393	.018	.836	.897
SECED	.389	.030	964.0	542.2	1.935	.078	.328	.450
CUNION	.535	.022	964.0	542.2	1.381	.041	.491	.580
MBEF18	.376	.025	964.0	542.2	1.584	.066	.326	.425
BBEF18	.331	.025	964.0	542.2	1.620	.074	.282	.380
CEB	2.611	.130	964.0	542.2	1.439	.050	2.350	2.872
CEB40	6.845	.379	84.0	47.2	.921	.055	6.087	7.603
CSUR	2.225	.107	964.0	542.2	1.333	.048	2.010	2.440
PREG	.124	.010	964.0	542.2	.939	.080	.105	.144
KNW	.957	.009	516.0	290.2	.970	.009	.940	.975
KNWMOD	.942	.011	516.0	290.2	1.030	.011	.921	.963
KNWSRC	.903	.013	516.0	290.2	1.001	.014	.877	.929
KNWOV	.198	.026	516.0	290.2	1.475	.131	.146	.249
EVUS	.525	.029	516.0	290.2	1.302	.055	.468	.582
CURUSE	.180	.021	516.0	290.2	1.248	.117	.138	.222
PILLUS	.070	.013	516.0	290.2	1.151	.185	.044	.096
TRUSE	.058	.010	516.0	290.2	1.014	.180	.037	.079
APPRFP	.793	.019	516.0	290.2	1.074	.024	.754	.831
WANTNM	.209	.023	516.0	290.2	1.271	.109	.164	.255
WANT2	.364	.021	516.0	290.2	.991	.058	.322	.406
BF	15.337	.713	561.0	315.5	1.090	.047	13.910	16.764
AMEN	9.369	.630	561.0	315.5	1.020	.067	8.109	10.629
ABST	5.904	.638	561.0	315.5	1.111	.108	4.628	7.179
TETANU	.749	.013	866.0	487.1	.752	.018	.723	.776
ATTE	.122	.017	866.0	487.1	1.207	.135	.089	.156
WCARD	.565	.047	87.0	48.9	1.174	.084	.470	.660
BCG	.977	.017	87.0	48.9	1.029	.017	.944	1.010
DPT	.851	.039	87.0	48.9	.952	.046	.773	.928
POL	.851	.039	87.0	48.9	.952	.046	.773	.928
MEASL	.839	.048	87.0	48.9	1.210	.057	.743	.935
FULLIM	.759	.047	87.0	48.9	.991	.062	.664	.853
DIAR	.201	.017	756.0	425.2	1.120	.086	.167	.236
HAGE	.257	.021	756.0	425.2	1.061	.081	.215	.299
WAGE	.128	.016	756.0	425.2	1.116	.125	.096	.160
WHEIGH	.010	.004	756.0	425.2	1.004	.406	.002	.018

Table B.2.3 Sampling errors for the rural population, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	R+2SE
EDUC	.590	.013	3766.0	4187.8	1.662	.023	.564	.617
SECED	.065	.007	3766.0	4187.8	1.852	.114	.050	.080
CUNION	.690	.009	3766.0	4187.8	1.256	.014	.671	.709
MBEF18	.558	.012	3766.0	4187.8	1.484	.022	.534	.582
BBEF18	.418	.011	3766.0	4187.8	1.392	.027	.396	.440
CEB	3.607	.052	3766.0	4187.8	.952	.014	3.504	3.710
CEB40	7.537	.178	535.0	602.3	1.172	.024	7.182	7.892
CSUR	2.905	.042	3766.0	4187.8	.947	.015	2.820	2.989
PREG	.130	.006	3766.0	4187.8	1.105	.047	.118	.142
KNW	.828	.011	2539.0	2889.9	1.436	.013	.806	.849
KNWMOD	.763	.014	2539.0	2889.9	1.615	.018	.735	.790
KNWSRC	.704	.014	2539.0	2889.9	1.579	.020	.675	.732
KNWOV	.092	.006	2539.0	2889.9	.974	.061	.081	.104
EVUS	.183	.013	2539.0	2889.9	1.733	.073	.157	.210
CURUSE	.036	.004	2539.0	2889.9	1.192	.123	.027	.044
PILLUS	.005	.002	2539.0	2889.9	1.113	.320	.002	.008
TRUSE	.020	.003	2539.0	2889.9	1.066	.148	.014	.026
APPRFP	.639	.017	2539.0	2889.9	1.766	.026	.605	.672
WANTNM	.193	.009	2539.0	2889.9	1.168	.047	.174	.211
WANT2	.331	.010	2539.0	2889.9	1.068	.030	.311	.351
BF	18.969	.361	2604.0	2900.1	1.172	.019	18.247	19.691
AMEN	13.069	.327	2604.0	2900.1	1.059	.025	12.415	13.723
ABST	3.953	.292	2604.0	2900.1	1.336	.074	3.369	4.537
TETANU	.535	.015	4049.0	4516.8	1.594	.028	.505	.565
ATTE	.018	.003	4049.0	4516.8	1.402	.179	.012	.025
WCARD	.486	.022	394.0	417.8	1.226	.046	.441	.531
BCG	.980	.007	394.0	417.8	.984	.007	.966	.994
DPT	.537	.030	394.0	417.8	1.134	.055	.478	.596
POL	.541	.030	394.0	417.8	1.144	.055	.481	.601
MEASL	.700	.033	394.0	417.8	1.371	.047	.634	.766
FULLIM	.445	.031	394.0	417.8	1.198	.070	.382	.507
DIAR	.248	.010	3512.0	3904.4	1.303	.039	.228	.267
HAGE	.467	.010	3512.0	3904.4	1.008	.021	.447	.487
WAGE	.244	.009	3512.0	3904.4	1.129	.039	.225	.263
WHEIGH	.020	.003	3512.0	3904.4	1.017	.134	.015	.025

Table B.2.4 Sampling errors for women aged 15-24, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	R+2SE
EDUC	.750	.013	2181.0	2142.4	1.400	.017	.724	.776
SECED	.130	.011	2181.0	2142.4	1.582	.088	.107	.153
CUNION	.528	.014	2181.0	2142.4	1.327	.027	.500	.557
MBEF18	.441	.015	2181.0	2142.4	1.391	.034	.412	.471
BBEF18	.330	.013	2181.0	2142.4	1.337	.041	.304	.357
CEB	1.067	.035	2181.0	2142.4	1.310	.033	.997	1.136
CEB40	.000	.000	.0	.0	.000	.000	.000	.000
CSUR	.884	.028	2181.0	2142.4	1.224	.032	.828	.940
PREG	.148	.009	2181.0	2142.4	1.137	.059	.130	.165
KNW	.838	.016	1083.0	1131.5	1.460	.020	.805	.870
KNWMOD	.768	.021	1083.0	1131.5	1.648	.028	.725	.810
KNWSRC	.717	.021	1083.0	1131.5	1.530	.029	.675	.759
KNWOV	.100	.011	1083.0	1131.5	1.172	.107	.078	.121
EVUS	.190	.014	1083.0	1131.5	1.204	.076	.161	.219
CURUSE	.024	.004	1083.0	1131.5	.946	.184	.015	.033
PILLUS	.010	.003	1083.0	1131.5	1.047	.312	.004	.017
TRUSE	.012	.003	1083.0	1131.5	.920	.249	.006	.019
APPRFP	.648	.021	1083.0	1131.5	1.425	.032	.607	.689
WANTNM	.024	.006	1083.0	1131.5	1.211	.234	.013	.035
WANT2	.466	.016	1083.0	1131.5	1.084	.035	.433	.499
BF	18.480	.607	1273.0	1301.5	1.366	.033	17.267	19.693
AMEN	11.516	.470	1273.0	1301.5	1.097	.041	10.576	12.456
ABST	4.193	.311	1273.0	1301.5	.982	.074	3.571	4.816
TETANU	.586	.016	1743.0	1789.9	1.204	.028	.554	.619
ATTE	.032	.006	1743.0	1789.9	1.245	.186	.020	.044
WCARD	.502	.030	194.0	195.6	1.200	.061	.441	.563
BCG	.993	.005	194.0	195.6	.855	.005	.983	1.003
DPT	.564	.039	194.0	195.6	1.093	.069	.487	.641
POL	.568	.039	194.0	195.6	1.118	.069	.489	.647
MEASL	.716	.047	194.0	195.6	1.467	.066	.623	.810
FULLIM	.475	.043	194.0	195.6	1.194	.090	.390	.560
DIAR	.264	.013	1482.0	1521.4	1.145	.049	.238	.290
HAGE	.439	.018	1482.0	1521.4	1.200	.042	.402	.475
WAGE	.229	.014	1482.0	1521.4	1.158	.063	.200	.257
WHEIGH	.016	.004	1482.0	1521.4	1.127	.248	.008	.024

Table B.2.5 Sampling errors for women aged 25-34, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	Confidence Limits R+2SE
EDUC	.593	.019	1478.0	1479.2	1.513	.033	.554	.632
SECED	.095	.011	1478.0	1479.2	1.394	.112	.074	.116
CUNION	.819	.011	1478.0	1479.2	1.120	.014	.796	.841
MBEF18	.586	.015	1478.0	1479.2	1.193	.026	.555	.616
BBEF18	.476	.015	1478.0	1479.2	1.138	.031	.447	.506
CEB	4.232	.065	1478.0	1479.2	1.120	.015	4.102	4.362
CEB40	.000	.000	.0	.0	.000	.000	.000	.000
CSUR	3.463	.059	1478.0	1479.2	1.137	.017	3.345	3.580
PREG	.158	.010	1478.0	1479.2	1.049	.063	.139	.178
KNW	.856	.012	1181.0	1211.1	1.177	.014	.832	.880
KNWMOD	.806	.015	1181.0	1211.1	1.281	.018	.776	.835
KNWSRC	.744	.016	1181.0	1211.1	1.241	.021	.712	.775
KNWOV	.108	.010	1181.0	1211.1	1.132	.095	.088	.129
EVUS	.234	.015	1181.0	1211.1	1.201	.063	.204	.264
CURUSE	.050	.007	1181.0	1211.1	1.090	.139	.036	.064
PILLUS	.011	.003	1181.0	1211.1	.000	.277	.005	.017
TRUSE	.028	.004	1181.0	1211.1	.924	.160	.019	.036
APPRFP	.671	.017	1181.0	1211.1	1.221	.025	.637	.704
WANTNM	.158	.013	1181.0	1211.1	1.223	.082	.132	.184
WANT2	.371	.015	1181.0	1211.1	1.097	.042	.341	.402
BF	18.359	.462	1379.0	1301.5	1.126	.025	17.434	19.283
AMEN	12.734	.418	1379.0	1301.5	1.009	.033	11.898	13.571
ABST	3.715	.421	1379.0	1301.5	1.438	.113	2.873	4.556
TETANU	.545	.018	2273.0	2267.8	1.424	.034	.508	.582
ATTE	.028	.004	2273.0	2267.8	1.022	.154	.019	.037
WCARD	.474	.026	209.0	193.0	1.050	.055	.421	.526
BCG	.970	.012	209.0	193.0	.957	.012	.946	.994
DPT	.614	.040	209.0	193.0	1.131	.066	.533	.695
POL	.614	.041	209.0	193.0	1.148	.067	.532	.696
MEASL	.739	.043	209.0	193.0	1.342	.058	.654	.825
FULLIM	.509	.042	209.0	193.0	1.154	.083	.424	.593
DIAR	.234	.011	1995.0	1972.8	1.081	.046	.212	.255
HAGE	.464	.014	1995.0	1972.8	1.031	.030	.437	.492
WAGE	.247	.013	1995.0	1972.8	1.150	.054	.220	.274
WHEIGH	.019	.003	1995.0	1972.8	.979	.167	.013	.026

Table B.2.6 Sampling errors for women aged 35-49, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	R+2SE
EDUC	.413	.016	1071.0	1108.5	1.077	.039	.381	.445
SECED	.059	.008	1071.0	1108.5	1.060	.129	.044	.075
CUNION	.756	.016	1071.0	1108.5	1.199	.021	.724	.787
MBEF18	.658	.015	1071.0	1108.5	1.063	.023	.627	.689
BBEF18	.467	.017	1071.0	1108.5	1.100	.036	.433	.500
CEB	7.197	.108	1071.0	1108.5	1.093	.015	6.981	7.413
CEB40	7.487	.167	619.0	649.6	1.177	.022	7.153	7.820
CSUR	5.732	.096	1071.0	1108.5	1.108	.017	5.540	5.924
PREG	.056	.007	1071.0	1108.5	1.054	.133	.041	.071
KNW	.818	.018	791.0	837.5	1.328	.022	.782	.855
KNWMOD	.756	.020	791.0	837.5	1.319	.027	.716	.796
KNWSRC	.697	.022	791.0	837.5	1.337	.031	.654	.741
KNWOV	.097	.011	791.0	837.5	1.034	.112	.075	.118
EVUS	.219	.022	791.0	837.5	1.513	.101	.175	.264
CURUSE	.081	.012	791.0	837.5	1.210	.145	.058	.105
PILLUS	.011	.004	791.0	837.5	1.061	.360	.003	.019
TRUSE	.033	.007	791.0	837.5	1.037	.200	.020	.046
APPRFP	.633	.020	791.0	837.5	1.189	.032	.592	.674
WANTNM	.475	.023	791.0	837.5	1.306	.049	.429	.522
WANT2	.103	.015	791.0	837.5	1.355	.143	.073	.132
BF	19.593	.850	513.0	434.1	1.211	.043	17.892	21.294
AMEN	15.530	.846	513.0	434.1	1.171	.054	13.838	17.222
ABST	5.134	.668	513.0	434.1	1.217	.130	3.799	6.469
TETANU	.524	.030	899.0	946.1	1.476	.058	.463	.584
ATTE	.023	.005	899.0	946.1	.983	.231	.012	.033
WCARD	.524	.054	78.0	78.1	1.243	.102	.417	.631
BCG	.972	.021	78.0	78.1	1.117	.022	.929	1.014
DPT	.476	.073	78.0	78.1	1.216	.153	.331	.622
POL	.487	.070	78.0	78.1	1.176	.145	.346	.628
MEASL	.649	.062	78.0	78.1	1.074	.096	.525	.772
FULLIM	.406	.072	78.0	78.1	1.213	.176	.263	.549
DIAR	.228	.018	791.0	835.5	1.125	.078	.193	.263
HAGE	.427	.018	791.0	835.5	.974	.043	.391	.464
WAGE	.211	.016	791.0	835.5	1.071	.078	.178	.244
WHEIGH	.025	.009	791.0	835.5	1.342	.364	.007	.042

Table B.2.7 Sampling errors for West Nile Region, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	Confidence Limits R+2SE
EDUC	.348	.055	161.0	264.5	1.463	.158	.238	.458
SECED	.043	.034	161.0	264.5	2.079	.771	-.024	.111
CUNION	.733	.035	161.0	264.5	1.012	.048	.662	.804
MBEF18	.559	.085	161.0	264.5	2.154	.151	.390	.728
BBEF18	.404	.066	161.0	264.5	1.708	.164	.271	.536
CEB	3.640	.078	161.0	264.5	.342	.022	3.483	3.796
CEB40	7.381	.449	21.0	34.5	.935	.061	6.482	8.280
CSUR	2.832	.067	161.0	264.5	.365	.024	2.698	2.967
PREG	.112	.020	161.0	264.5	.813	.181	.071	.152
KNW	.559	.040	118.0	193.9	.862	.071	.480	.638
KNWMOD	.178	.018	118.0	193.9	.503	.100	.142	.214
KNWSRC	.119	.023	118.0	193.9	.780	.196	.072	.165
KNWOV	.059	.012	118.0	193.9	.548	.202	.035	.083
EVUS	.085	.022	118.0	193.9	.866	.263	.040	.129
CURUSE	.008	.008	118.0	193.9	.909	.909	-.007	.024
PILLUS	.000	.000	118.0	193.9	.000	.000	.000	.000
TRUSE	.008	.008	118.0	193.9	.909	.909	-.007	.024
APPRFP	.373	.058	118.0	193.9	1.298	.156	.257	.489
WANTNM	.110	.017	118.0	193.9	.585	.154	.076	.144
WANT2	.364	.033	118.0	193.9	.744	.091	.298	.431
BF	25.667	.649	108.0	177.4	.926	.064	22.368	28.965
AMEN	20.000	.806	108.0	177.4	1.071	.090	16.388	23.612
ABST	10.667	.387	108.0	177.4	.877	.130	7.892	13.441
TETANU	.575	.084	167.0	274.4	1.782	.146	.407	.743
ATTE	.012	.012	167.0	274.4	1.471	.042	-.013	.037
WCARD	.586	.068	17.0	27.9	.744	.116	.450	.723
BCG	1.000	.000	17.0	27.9	.000	.000	1.000	1.000
DPT	.294	.157	17.0	27.9	1.420	.535	-.021	.609
POL	.294	.157	17.0	27.9	1.420	.535	-.021	.609
MEASL	.824	.118	17.0	27.9	1.271	.143	.588	1.059
FULLIM	.294	.157	17.0	27.9	1.420	.535	-.021	.609
DIAR	.240	.061	146.0	239.9	1.633	.255	.118	.362
HAGE	.456	.050	146.0	239.9	.995	.109	.356	.556
WAGE	.336	.039	146.0	239.9	.827	.117	.257	.415
WHEIGH	.040	.009	146.0	239.9	.500	.219	.023	.057

Table B.2.8 Sampling errors for the East Region, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	R+2SE
EDUC	.601	.024	865.0	1304.5	1.457	.040	.552	.649
SECED	.080	.017	865.0	1304.5	1.856	.214	.046	.114
CUNION	.750	.019	865.0	1304.5	1.288	.025	.712	.788
MBEF18	.646	.019	865.0	1304.5	1.167	.029	.608	.684
BBEF18	.487	.020	865.0	1304.5	1.170	.041	.447	.526
CEB	3.641	.084	865.0	1304.5	.740	.023	3.474	3.809
CEB40	7.126	.360	142.0	222.5	1.144	.051	6.406	7.846
CSUR	2.857	.074	865.0	1304.5	.815	.026	2.709	3.006
PREG	.115	.010	865.0	1304.5	.922	.087	.095	.135
KNW	.867	.019	639.0	978.5	1.438	.022	.828	.905
KNWMOD	.848	.022	639.0	978.5	1.515	.025	.805	.891
KNWSRC	.754	.028	639.0	978.5	1.618	.037	.699	.809
KNWOV	.065	.008	639.0	978.5	.828	.124	.049	.081
EVUS	.256	.032	639.0	978.5	1.874	.126	.192	.321
CURUSE	.035	.009	639.0	978.5	1.212	.250	.018	.053
PILLUS	.002	.002	639.0	978.5	.898	.748	-.001	.006
TRUSE	.015	.004	639.0	978.5	.891	.284	.007	.024
APPRFP	.692	.031	639.0	978.5	1.701	.045	.630	.754
WANTNM	.213	.020	639.0	978.5	1.256	.095	.173	.254
WANT2	.285	.015	639.0	978.5	.844	.053	.255	.315
BF	18.604	.530	574.0	879.3	.822	.028	17.545	19.664
AMEN	13.016	.605	574.0	879.3	.950	.046	11.807	14.225
ABST	4.647	.686	574.0	879.3	1.406	.148	3.276	6.018
TETANU	.689	.019	900.0	1378.2	.994	.027	.651	.727
ATTE	.019	.005	900.0	1378.2	1.103	.290	.008	.030
WCARD	.427	.032	74.0	111.9	.825	.074	.364	.490
BCG	.966	.020	74.0	111.9	.957	.021	.925	1.006
DPT	.412	.061	74.0	111.9	1.064	.149	.290	.535
POL	.442	.062	74.0	111.9	1.055	.139	.319	.565
MEASL	.584	.081	74.0	111.9	1.399	.139	.422	.746
FULLIM	.319	.068	74.0	111.9	1.242	.212	.184	.455
DIAR	.336	.021	769.0	1178.1	1.222	.062	.295	.378
HAGE	.457	.024	769.0	1178.1	1.140	.053	.408	.506
WAGE	.215	.018	769.0	1178.1	1.076	.084	.179	.251
WHEIGH	.014	.004	769.0	1178.1	.792	.260	.006	.021

Table B.2.9 Sampling errors for the Central Region, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	R+2SE
EDUC	.736	.020	1392.0	1177.3	1.675	.027	.696	.775
SECED	.123	.016	1392.0	1177.3	1.809	.130	.091	.154
CUNION	.660	.014	1392.0	1177.3	1.076	.021	.633	.687
MBEF18	.565	.020	1392.0	1177.3	1.479	.035	.526	.604
BBEF18	.460	.016	1392.0	1177.3	1.218	.035	.427	.492
CEB	3.555	.088	1392.0	1177.3	.991	.025	3.378	3.732
CEB40	7.252	.326	190.0	155.5	1.115	.045	6.601	7.903
CSUR	2.916	.075	1392.0	1177.3	.990	.026	2.766	3.066
PREG	.143	.009	1392.0	1177.3	.922	.061	.125	.160
KNW	.878	.015	899.0	776.8	1.332	.017	.849	.907
KNWMOD	.787	.027	899.0	776.8	2.004	.035	.732	.842
KNWSRC	.741	.026	899.0	776.8	1.762	.035	.690	.793
KNWOV	.088	.011	899.0	776.8	1.217	.131	.065	.110
EVUS	.186	.016	899.0	776.8	1.240	.086	.154	.219
CURUSE	.047	.006	899.0	776.8	.918	.138	.034	.060
PILLUS	.011	.004	899.0	776.8	1.018	.315	.004	.019
TRUSE	.023	.005	899.0	776.8	1.052	.229	.012	.033
APPRFP	.613	.024	899.0	776.8	1.471	.039	.565	.661
WANTNM	.173	.014	899.0	776.8	1.139	.083	.144	.202
WANT2	.324	.016	899.0	776.8	1.044	.050	.291	.357
BF	16.701	.595	957.0	811.6	1.187	.036	15.511	17.892
AMEN	11.115	.489	957.0	811.6	.983	.044	10.137	12.093
ABST	3.572	.397	957.0	811.6	1.155	.111	2.778	4.366
TETANU	.479	.027	1483.0	1267.4	1.715	.055	.426	.532
ATTE	.039	.010	1483.0	1267.4	1.704	.253	.019	.058
WCARD	.416	.036	133.0	104.0	1.218	.086	.345	.487
BCG	.984	.009	133.0	104.0	.826	.010	.965	1.003
DPT	.680	.051	133.0	104.0	1.211	.076	.577	.783
POL	.664	.056	133.0	104.0	1.306	.085	.551	.776
MEASL	.671	.078	133.0	104.0	1.819	.116	.515	.826
FULLIM	.494	.066	133.0	104.0	1.439	.134	.361	.626
DIAR	.190	.015	1273.0	1083.4	1.285	.078	.160	.220
HAGE	.351	.017	1273.0	1083.4	1.024	.047	.318	.385
WAGE	.208	.016	1273.0	1083.4	1.194	.076	.176	.239
WHEIGH	.028	.007	1273.0	1083.4	1.258	.256	.014	.042

Table B.2.10 Sampling errors for the West Region, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	R+2SE
EDUC	.620	.060	166.0	272.7	1.585	.096	.501	.740
SECED	.084	.036	166.0	272.7	1.663	.426	.012	.156
CUNION	.711	.037	166.0	272.7	1.042	.052	.637	.784
MBEF18	.548	.039	166.0	272.7	1.003	.071	.470	.626
BBEF18	.440	.025	166.0	272.7	.655	.058	.389	.490
CEB	3.753	.206	166.0	272.7	.803	.055	3.341	4.165
CEB40	7.889	.436	18.0	29.6	.756	.055	7.017	8.761
CSUR	2.988	.097	166.0	272.7	.470	.032	2.794	3.181
PREG	.163	.034	166.0	272.7	1.188	.210	.094	.231
KNW	.644	.041	118.0	193.9	.923	.063	.562	.726
KNWMOD	.610	.036	118.0	193.9	.808	.060	.537	.683
KNWSRC	.568	.039	118.0	193.9	.845	.068	.490	.645
KNWOV	.110	.039	118.0	193.9	1.331	.350	.033	.187
EVUS	.212	.044	118.0	193.9	1.172	.209	.123	.300
CURUSE	.068	.020	118.0	193.9	.850	.291	.028	.107
PILLUS	.017	.014	118.0	193.9	1.166	.821	-.011	.045
TRUSE	.034	.013	118.0	193.9	.771	.380	.008	.060
APPRFP	.534	.097	118.0	193.9	2.107	.182	.340	.728
WANTNM	.220	.032	118.0	193.9	.837	.146	.156	.284
WANT2	.364	.050	118.0	193.9	1.135	.139	.263	.465
BF	17.858	.682	127.0	208.7	1.256	.094	14.495	21.222
AMEN	11.906	.855	127.0	208.7	.622	.072	10.195	13.616
ABST	2.551	.994	127.0	208.7	1.186	.390	.563	4.539
TETANU	.521	.046	194.0	318.7	1.066	.088	.429	.612
ATTE	.010	.007	194.0	318.7	.902	.637	-.003	.023
WCARD	.706	.033	24.0	39.4	.411	.046	.641	.771
BCG	1.000	.000	24.0	39.4	.000	.000	1.000	1.000
DPT	.500	.072	24.0	39.4	.677	.144	.356	.644
POL	.500	.072	24.0	39.4	.677	.144	.356	.644
MEASL	.625	.111	24.0	39.4	1.047	.177	.404	.846
FULLIM	.458	.077	24.0	39.4	.733	.169	.304	.613
DIAR	.244	.041	164.0	269.4	1.235	.170	.161	.327
HAGE	.469	.015	164.0	269.4	.367	.032	.439	.498
WAGE	.224	.028	164.0	269.4	.791	.124	.168	.279
WHEIGH	.007	.007	164.0	269.4	.970	.973	-.007	.021

Table B.2.11 Sampling errors for the South West Region, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	R+2SE
EDUC	.540	.022	1619.0	1414.6	1.779	.041	.496	.584
SECED	.049	.011	1619.0	1414.6	1.996	.218	.028	.071
CUNION	.626	.017	1619.0	1414.6	1.390	.027	.593	.660
MBEF18	.446	.021	1619.0	1414.6	1.674	.046	.405	.487
BBEF18	.302	.021	1619.0	1414.6	1.856	.070	.260	.344
CEB	3.419	.111	1619.0	1414.6	1.348	.033	3.197	3.641
CEB40	8.034	.236	212.0	187.2	1.125	.029	7.561	8.507
CSUR	2.822	.088	1619.0	1414.6	1.271	.031	2.646	2.999
PREG	.128	.012	1619.0	1414.6	1.401	.091	.105	.151
KNW	.858	.018	1013.0	886.2	1.615	.021	.823	.894
KNWMOD	.833	.017	1013.0	886.2	1.474	.021	.798	.867
KNWSRC	.799	.021	1013.0	886.2	1.645	.026	.758	.840
KNWOV	.144	.012	1013.0	886.2	1.095	.084	.120	.168
EVUS	.148	.013	1013.0	886.2	1.207	.091	.121	.175
CURUSE	.036	.008	1013.0	886.2	1.397	.227	.020	.052
PILLUS	.005	.002	1013.0	886.2	1.107	.492	.000	.010
TRUSE	.027	.007	1013.0	886.2	1.312	.246	.014	.041
APPRFP	.703	.029	1013.0	886.2	2.015	.041	.645	.761
WANTNM	.197	.014	1013.0	886.2	1.150	.073	.169	.226
WANT2	.378	.018	1013.0	886.2	1.166	.047	.343	.414
BF	19.773	.588	1089.0	964.2	1.280	.030	18.598	20.948
AMEN	13.294	.534	1089.0	964.2	1.133	.040	12.226	14.361
ABST	2.906	.304	1089.0	964.2	1.028	.104	2.299	3.513
TETANU	.459	.026	1697.0	1498.6	1.794	.057	.407	.511
ATTE	.010	.003	1697.0	1498.6	.994	.283	.004	.015
WCARD	.562	.052	189.0	158.8	1.872	.093	.458	.666
BCG	.979	.010	189.0	158.8	.975	.011	.959	.000
DPT	.626	.040	189.0	158.8	1.111	.064	.545	.706
POL	.626	.041	189.0	158.8	1.122	.065	.545	.707
MEASL	.823	.025	189.0	158.8	.883	.030	.772	.873
FULLIM	.569	.041	189.0	158.8	1.094	.071	.488	.650
DIAR	.209	.009	1511.0	1331.1	.831	.042	.192	.227
HAGE	.541	.012	1511.0	1331.1	.878	.023	.517	.566
WAGE	.269	.017	1511.0	1331.1	1.276	.062	.235	.302
WHEIGH	.018	.004	1511.0	1331.1	1.192	.237	.009	.026

Table B.2.12 Sampling errors for Kampala, UDHS, 1988/89

Variable	Value	Standard error	Unweighted number	Weighted number	Design effect	Relative error	Confidence Limits R-2SE	Confidence Limits R+2SE
EDUC	.905	.021	527.0	296.4	1.650	.023	.863	.947
SECED	.446	.032	527.0	296.4	1.483	.072	.382	.510
CUNION	.509	.033	527.0	296.4	1.492	.064	.443	.574
MBEF18	.355	.036	527.0	296.4	1.734	.102	.283	.427
BBEF18	.338	.038	527.0	296.4	1.847	.113	.262	.414
CEB	2.579	.183	527.0	296.4	1.474	.071	2.213	2.944
CEB40	7.778	.466	36.0	20.2	.732	.060	6.846	8.709
CSUR	2.209	.154	527.0	296.4	1.371	.070	1.900	2.517
PREG	.133	.013	527.0	296.4	.884	.098	.107	.159
KNW	.966	.010	268.0	150.7	.891	.010	.947	.986
KNWMOD	.963	.010	268.0	150.7	.865	.010	.943	.983
KNWSRC	.933	.014	268.0	150.7	.899	.015	.905	.960
KNWOV	.216	.029	268.0	150.7	1.140	.133	.159	.274
EVUS	.653	.026	268.0	150.7	.891	.040	.601	.705
CURUSE	.246	.035	268.0	150.7	1.330	.142	.176	.316
PILLUS	.101	.024	268.0	150.7	1.283	.235	.053	.148
TRUSE	.067	.013	268.0	150.7	.817	.186	.042	.092
APPRFP	.821	.017	268.0	150.7	.723	.021	.787	.855
WANTNM	.231	.033	268.0	150.7	1.266	.141	.166	.297
WANT2	.373	.027	268.0	150.7	.915	.073	.319	.427
BF	14.865	.976	310.0	174.4	1.058	.066	12.913	16.816
AMEN	8.826	.918	310.0	174.4	1.100	.104	6.990	10.662
ABST	6.387	.789	310.0	174.4	.984	.124	4.809	7.966
TETANU	.797	.010	474.0	266.6	.473	.013	.777	.818
ATTE	.175	.024	474.0	266.6	1.128	.138	.127	.224
WCARD	.518	.065	44.0	24.7	1.191	.126	.387	.648
BCG	.977	.023	44.0	24.7	1.023	.024	.931	1.023
DPT	.886	.043	44.0	24.7	.900	.049	.800	.973
POL	.886	.043	44.0	24.7	.900	.049	.800	.973
MEASL	.818	.062	44.0	24.7	1.057	.076	.694	.942
FULLIM	.773	.055	44.0	24.7	.856	.071	.664	.882
DIAR	.215	.022	405.0	227.8	.995	.103	.171	.259
HAGE	.220	.022	405.0	227.8	.869	.098	.177	.263
WAGE	.129	.021	405.0	227.8	1.072	.167	.086	.172
WHEIGH	.009	.006	405.0	227.8	1.017	.583	-.002	.020

APPENDIX C

UGANDA DEMOGRAPHIC AND HEALTH SURVEY STAFF

APPENDIX C
UGANDA DEMOGRAPHIC AND HEALTH SURVEY STAFF

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APPENDIX D

QUESTIONNAIRES

UGANDA MINISTRY OF HEALTH
DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD SCHEDULE

ENGLISH VERSION

IDENTIFICATION	
DISTRICT _____	
SUBCOUNTY/TOWN _____	
PARISH/WARD _____	
SUBPARISH/RC2 _____	
CLUSTER NUMBER.....	☐☐☐
HOUSEHOLD NUMBER.....	☐☐☐

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE				MONTH ☐☐ YEAR ☐☐
INTERVIEWER'S NAME				☐☐
RESULT**				☐
NEXT VISIT: DATE / TIME				TOTAL NUMBER OF VISITS ☐

**RESULT CODES:
1 COMPLETED
2 HOUSEHOLD PRESENT BUT NO COMPETENT RESP. AT HOME
3 HOUSEHOLD ABSENT NIGHT BEFORE INTERVIEW
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL IN HOUSEHOLD ☐☐

TOTAL ELIGIBLE WOMEN ☐☐

NAME / DATE	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY
				☐☐

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now.

NO.	USUAL RESIDENTS AND VISITORS	RESIDENCE		SEX	AGE	FOSTERING	ELIGIBILITY
(1)	Please give me the names of the persons who usually live in your household or are staying with you now, starting with the head of the household. (2)	Does (NAME) usually live here? (3)	Did (NAME) sleep here last night? (4)	Is (NAME) male or female? (5)	How old is he/she? (6)	ONLY FOR CHILDREN UNDER 15 YEARS OLD: Do any of his/her parents usually live in this household? (7)	CIRCLE LINE NUMBER OF WOMEN ELIGIBLE FOR INDIVIDUAL INTERVIEW (8)
		YES NO	YES NO	M F	IN YEARS	YES NO	
01		1 2	1 2	1 2		1 2	01
02		1 2	1 2	1 2		1 2	02
03		1 2	1 2	1 2		1 2	03
04		1 2	1 2	1 2		1 2	04
05		1 2	1 2	1 2		1 2	05
06		1 2	1 2	1 2		1 2	06
07		1 2	1 2	1 2		1 2	07
08		1 2	1 2	1 2		1 2	08
09		1 2	1 2	1 2		1 2	09
10		1 2	1 2	1 2		1 2	10
11		1 2	1 2	1 2		1 2	11
12		1 2	1 2	1 2		1 2	12

Just to make sure that I have a complete listing:

1) Are there any other persons such as small children or infants that we have not listed? YES ☐ → ENTER EACH IN TABLE NO ☐

2) In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here? YES ☐ → ENTER EACH IN TABLE NO ☐

3) Do you have any guests or temporary visitors staying here, or anyone else who slept here last night? YES ☐ → ENTER EACH IN TABLE NO ☐

TICK HERE IF CONTINUATION SHEET USED ☐

TOTAL NUMBER OF ELIGIBLE WOMEN ON THIS SHEET ☐☐

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now.

NO.	USUAL RESIDENTS AND VISITORS	RESIDENCE		SEX	AGE	FOSTERING	ELIGIBILITY
(1)	Please give me the names of the persons who usually live in your household or are staying with you now, starting with the head of the household. (2)	Does (NAME) usually live here? (3)	Did (NAME) sleep here last night? (4)	Is (NAME) male or female? (5)	How old is he/she? (6)	ONLY FOR CHILDREN UNDER 15 YEARS OLD: Do any of his/her parents usually live in this household? (7)	CIRCLE LINE NUMBER OF WOMEN ELIGIBLE FOR INDIVIDUAL INTERVIEW (8)
		YES NO	YES NO	M F	IN YEARS	YES NO	
13		1 2	1 2	1 2		1 2	13
14		1 2	1 2	1 2		1 2	14
15		1 2	1 2	1 2		1 2	15
16		1 2	1 2	1 2		1 2	16
17		1 2	1 2	1 2		1 2	17
18		1 2	1 2	1 2		1 2	18
19		1 2	1 2	1 2		1 2	19
20		1 2	1 2	1 2		1 2	20
21		1 2	1 2	1 2		1 2	21
22		1 2	1 2	1 2		1 2	22
23		1 2	1 2	1 2		1 2	23
24		1 2	1 2	1 2		1 2	24

Just to make sure that I have a complete listing:

1) Are there any other persons such as small children or infants that we have not listed? YES ☐ → ENTER EACH IN TABLE NO ☐

2) In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here? YES ☐ → ENTER EACH IN TABLE NO ☐

3) Do you have any guests or temporary visitors staying here, or anyone else who slept here last night? YES ☐ → ENTER EACH IN TABLE NO ☐

TICK HERE IF CONTINUATION SHEET USED ☐

TOTAL NUMBER OF ELIGIBLE WOMEN ON THIS SHEET ☐☐

TOTAL NUMBER OE ELIGIBLE WOMEN ON BOTH SHEETS ☐☐

UGANDA MINISTRY OF HEALTH
DEMOGRAPHIC AND HEALTH SURVEY QUESTIONNAIRE
WOMAN'S QUESTIONNAIRE

IDENTIFICATION	ENGLISH VERSION
DISTRICT _____	
SUBCOUNTY/TOWN _____	
PARISH/WARD _____	
SUBPARISH/RC2 _____	
CLUSTER NUMBER.....	☐☐☐
HOUSEHOLD NUMBER.....	☐☐☐
LINE NUMBER OF WOMAN.....	☐☐

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				MONTH ☐☐ YEAR ☐☐
INTERVIEWER'S NAME				☐☐
RESULT**				☐
NEXT VISIT: DATE / TIME				TOTAL NUMBER OF VISITS ☐

**RESULT CODES:
1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 OTHER _____ (SPECIFY)

NAME / DATE	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY
				☐☐

1

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
101	RECORD THE NUMBER OF PEOPLE LISTED IN THE HOUSEHOLD SCHEDULE.	NUMBER OF PEOPLE..... [ ][ ]	
102	RECORD THE NUMBER OF CHILDREN AGED 5 AND UNDER LISTED IN THE HOUSEHOLD SCHEDULE WHO NORMALLY LIVE IN THE HOUSEHOLD.	NUMBER OF CHILDREN AGED 5 AND UNDER..... [ ][ ]	
103	RECORD THE TIME.	HOUR..... [ ][ ] MINUTES..... [ ][ ]	
104	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in the village, in a town, or in a city?	VILLAGE.....1 TOWN.....2 CITY.....3	
105	How long have you been living continuously in (NAME OF VILLAGE, TOWN, CITY)?	ALWAYS.....95 VISITOR.....96 →>107 YEARS..... [ ][ ]	
106	Just before you moved here, did you live in a village, in a town, or in a city?	VILLAGE.....1 TOWN.....2 CITY.....3	
107	In What month and year were you born? COMPARE AND CORRECT 107 AND/OR 108 IF INCONSISTENT.	MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ] DK YEAR.....98	
108	How old were you at your last birthday?	AGE IN COMPLETED YEARS [ ][ ]	
109	Have you ever attended school?	YES.....1 NO.....2 →>113	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	TO
110	What was the highest level and grade of formal education you completed? CIRCLE CODE FOR BOTH LEVEL AND GRADE	LEVEL / GRADE PRIMARY 1 — 1 2 3 4 5 6 7 JUNIOR 2 — 1 2 3 SECONDARY 3 — 1 2 3 4 5 6 UNIV. 4 — 1 2 3 4 5 6	
111	How many years did you spend in vocational training? IF NONE, ENTER "0".	YEARS..... ☐☐	
112	CHECK 110: PRIMARY ☐ ↓ JUNIOR OR HIGHER ☐		>114
113	Would you please read this sentence? SHOW SENTENCE TO RESPONDENT AND CIRCLE CORRECT CODE.	READ EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	
114	Do you usually listen to a radio at least once a week?	YES.....1 NO.....2	
115	What is the major source of drinking water for members of your household?	PIPED INTO RESIDENCE.....01 PIPED INTO YARD OR PLOT.....02 PUBLIC TAP.....03 BOREHOLE.....04 WELL.....05 RIVER, LAKE, UNPROTECTED SPRING, SURFACE WATER.....06 PROTECTED SPRING.....07 TANKER TRUCK, OTHER VENDOR.....08 RAINWATER.....09 OTHER _____ (SPECIFY) 10	
115A	How far do you have to walk to your major source of drinking water in the dry season?	< 1/4 MILE.....1 1/4 - 1/2 MILE.....2 1/2 - 1 MILE.....3 1 - 3 MILE.....4	
116	What is the major source of water for household use other than drinking (e.g., handwashing, cooking) for members of your household?	PIPED INTO RESIDENCE.....01 PIPED INTO YARD OR PLOT.....02 PUBLIC TAP.....03 BOREHOLE.....04 WELL.....05 RIVER, LAKE, UNPROTECTED SPRING, SURFACE WATER.....06 PROTECTED SPRING.....07 TANKER TRUCK, OTHER VENDOR.....08 RAINWATER.....09 OTHER _____ (SPECIFY) 10	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	TO
117	What kind of toilet does your household have?	FLUSH TOILET.....1 LATRINE, PIT.....2 OTHER _____ 3 (SPECIFY) NO FACILITIES.....8	
119	Do you have, right now, soap in your house?	YES.....1 NO.....2	
120	Does your house have: Electricity? A radio? A hot plate/cooker? A charcoal iron? A television? A refrigerator? A charcoal stove?	YES NO ELECTRICITY.....1 2 RADIO.....1 2 HOT PLATE/COOKER.....1 2 CHARCOAL IRON.....1 2 TELEVISION.....1 2 REFRIGERATOR.....1 2 CHARCOAL STOVE.....1 2	
121	Does any member of your household own: A bicycle? A motorcycle? A motor vehicle (CAR, BUS, LORRY, TRACTOR) A canoe? A motor boat?	YES NO BICYCLE.....1 2 MOTORCYCLE.....1 2 MOTOR VEHICLE.....1 2 CANOE.....1 2 MOTOR BOAT.....1 2	
122	MAIN MATERIAL OF THE FLOOR. (RECORD OBSERVATION.)	PARQUET OR POLISHED WOOD.....1 CERAMIC TILES.....2 CEMENT.....3 COW DUNG.....4 EARTH/SAND.....5 OTHER _____ 6 (SPECIFY)	
130	What is your religion?	CATHOLIC.....1 PROTESTANT.....2 MUSLIM.....3 SEVENTH DAY ADVENTIST.....4 OTHER _____ 5 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
140	What is your tribe?	ACHOLI.....01 MUKIGA.....10 ALUR.....02 MUKONJO.....11 ATESO.....03 MUNYANKOLE...12 KARIMOJONG...04 MUNYORO.....13 LANGI.....05 MUSOGA.....14 LUGBARA.....06 MUTORO.....15 MADI.....07 MWAMBA.....16 MUGANDA.....08 SAMIA.....17 MUGISU.....09 SEBEI.....18 OTHER_____19 (SPECIFY)	
150	Are you a member of any of the following organizations?	YES NO	
	Mother's Union?	MOTHER'S UNION.....1 2	
	YWCA?	YWCA.....1 2	
	A cooperative?	COOPERATIVE.....1 2	
	The Family Planning Association?	FPA.....1 2	
	The RC?	RC.....1 2	
	Any other?	OTHER_____1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES.....1 NO.....2	>206
202	Do you have any sons or daughters you have given birth to who are now living with you?	YES.....1 NO.....2	>204
203	How many sons live with you? And how many daughters live with you? IF NONE ENTER '00'.	SONS AT HOME..... DAUGHTERS AT HOME.....	
204	Do you have any sons or daughters you have given birth to who are alive but do not live with you?	YES.....1 NO.....2	>206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE ENTER '00'.	SONS ELSEWHERE..... DAUGHTERS ELSEWHERE.....	
206	Have you ever given birth to a boy or a girl who was born alive but later died? IF NO, PROBE: Any (other) boy or girl who cried or showed any sign of life but only survived a few hours or days?	YES.....1 NO.....2	>208
207	How many boys have died? And how many girls have died? IF NONE ENTER '00'.	BOYS DEAD..... GIRLS DEAD.....	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE ENTER '00'.	TOTAL.....	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL ____ live births during your life. Is that correct? YES ☐ v NO ☐ > PROBE AND CORRECT 201-209 AS NECESSARY		
210	CHECK 208: ONE OR MORE BIRTHS ☐ v NO BIRTHS ☐		>220

6

211 Now I would like to talk to you about all of your births, whether still alive or not, starting with the first one you had. (RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS ON SEPARATE LINES AND MARK WITH A BRACKET.)

212 What name was given to your (first, next) baby?	213 Is (NAME) a boy or a girl?	214 In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season?	215 Is (NAME) still alive?	216 IF DEAD: How old was (NAME) when he/she died? RECORD DAYS IF LESS THAN ONE MONTH, MONTHS IF LESS THAN TWO YEARS, OR YEARS.	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is he/she living with you?
01 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
02 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
03 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
04 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
05 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → MONTHS...2 (GO TO 217)	DAYS.....1 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
06 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → MONTHS...2 (GO TO 217)	DAYS.....1 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
07 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → MONTHS...2 (GO TO 217)	DAYS.....1 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2

212 What name was given to your next baby?	213 Is (NAME) a boy or a girl?	214 In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season?	215 Is (NAME) still alive?	216 IF DEAD: How old was (NAME) when he/she died? RECORD DAYS IF LESS THAN ONE MONTH, MONTHS IF LESS THAN TWO YEARS, OR YEARS.	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is he/she living with you?
08 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 →(GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
09 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 →(GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
10 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 →(GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
11 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 →(GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
12 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 →(GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
13 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 →(GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO 219)	AGE IN YEARS..	YES 1 NO 2

219 COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:

NUMBERS ARE SAME ↓ NUMBERS ARE DIFFERENT → (PROBE AND RECONCILE)

INTERVIEWER: FOR EACH LIVE BIRTH: YEAR OF BIRTH IS RECORDED
FOR EACH LIVE CHILD: CURRENT AGE IS RECORDED
FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
220	Are you pregnant now?	YES.....1 NO.....2 UNSURE.....8	>225
221	For how many months have you been pregnant?	MONTHS..... ☐☐	
222	Did you see anyone for a check on this pregnancy?	YES.....1 NO.....2	>226
223	Whom did you see? PROBE FOR TYPE OF PERSON AND RECORD MOST QUALIFIED.	DOCTOR.....1 TRAINED NURSE/MIDWIFE.....2 TRADITIONAL BIRTH ATTENDANT.....3 OTHER _____ (SPECIFY) .4	
224A	Since you have been pregnant, have you been given any injection in your arm?	YES.....1 NO.....2	>226
224B	Did you receive a card when you were given an injection? IF YES: May I see it please?	YES, SEEN.....1 YES, NOT SEEN.....2 NO CARD.....3	>224D
224C	RECORD DATES OF TETANUS INJECTIONS IF ONLY ONE, WRITE "97" FOR SECOND. IF MORE THAN TWO, WRITE THE LAST TWO.	MONTH.. ☐☐ YEAR... ☐☐ MONTH.. ☐☐ YEAR... ☐☐	
224D	Where did you go to get the (last) injection?	GOVERNMENT HOSPITAL.....01 GOVERNMENT HEALTH CENTER.....02 FIELD WORKER.....03 PRIVATE DOCTOR.....04 PRIVATE HOSPITAL OR CLINIC.....05 PHARMACY.....06 SCHOOL.....07 SHOP.....08 OTHER _____ (SPECIFY) 09 DK.....98	>226

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
225	How long ago did your last menstrual period start?	DAYS AGO.....1 [ ][ ] WEEKS AGO.....2 [ ][ ] MONTHS AGO.....3 [ ][ ] YEARS AGO.....4 [ ][ ] BEFORE LAST BIRTH.....995 NEVER MENSTRUATED.....996	
226	When during her monthly cycle do you think a woman has the greatest chance of becoming pregnant? PROBE: What are the days during the month when a woman has to be careful to avoid becoming pregnant?	DURING HER PERIOD.....1 RIGHT AFTER HER PERIOD HAS ENDED.....2 IN THE MIDDLE OF THE CYCLE.....3 JUST BEFORE HER PERIOD BEGINS...4 AT ANY TIME.....5 OTHER _____ (SPECIFY) .6 DK.....8	
227	PRESENCE OF OTHERS AT THIS POINT.	YES NO CHILDREN UNDER 10.....1 2 HUSBAND.....1 2 OTHER MALES.....1 2 OTHER FEMALES.....1 2	

301 Now I would like to talk about a different topic. There are various ways or methods that a couple can use to delay or avoid a pregnancy. Which of these ways or methods have you heard about? CIRCLE CODE 1 IN 302 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN THE COLUMN, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 2 IF METHOD IS RECOGNIZED, AND CODE 3 IF NOT RECOGNIZED. FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN 302, ASK 303-305 BEFORE PROCEEDING TO THE NEXT METHOD.

		302 Have you ever heard of (METHOD)? READ DESCRIPTION.	303 Have you ever used (METHOD)?	304 Where would you go to obtain (METHOD) if you wanted to use it? (CODES BELOW)	305 In your opinion, what is the main problem, if any, with using (METHOD)? (CODES BELOW)
01	PILL Women can take a pill every day.	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	OTHER _____	OTHER _____
02	IUD Women can have a loop or coil placed inside their womb by a doctor or a nurse.	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	OTHER _____	OTHER _____
03	INJECTIONS Women can have an injection by a doctor or nurse which stops them from becoming pregnant for a few months.	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	OTHER _____	OTHER _____
04	DIAPHRAGM/FOAM/JELLY Women can place jelly, cream, tablets, or a diaphragm around the neck of the womb before intercourse.	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	OTHER _____	OTHER _____
05	CONDOM Men can wear a rubber sheath during sexual intercourse.	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	OTHER _____	OTHER _____
06	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	OTHER _____	OTHER _____
07	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	OTHER _____	OTHER _____
08	PERIODIC ABSTINENCE Couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant.	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	Where would you go to obtain advice on periodic abstinence? OTHER _____	OTHER _____
09	WITHDRAWAL Men can be careful and pull out before climax.	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2		OTHER _____
10	ANY OTHER METHODS? Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES/SPONT.....1→ NO.....3 ASK 303-305 FOR EACH METHOD AS APPROPRIATE	YES.....1 NO.....2	CODES FOR 304 01 GOVERNMENT HOSPITAL 02 GOVERNMENT HEALTH CNTR 03 FPAU CLINIC 04 MOBILE CLINIC 05 FIELD WORKER 06 PRIVATE DOCTOR 07 PRIVATE HOSP OR CLINIC 08 PHARMACY/SHOP 09 CHURCH 10 FRIENDS/RELATIVES 11 TRADITIONAL HEALER 12 OTHER (SPECIFY) 13 NOWHERE 98 DK	CODES FOR 305 02 NOT EFFECTIVE 03 HUSBAND DISAPPROVES 04 HEALTH CONCERNS 05 ACCESS/AVAILABILITY 06 COSTS TOO MUCH 07 INCONVENIENT TO USE 09 METHOD PERMANENT 11 OTHER (SPECIFY) 12 NONE 98 DK

306 CHECK 303: NOT A SINGLE "YES" (NEVER USED) ☐ → ; AT LEAST ONE "YES" (EVER USED) ☐ → SKIP TO 309

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
307	Have you ever used anything or tried in any way to delay or avoid getting pregnant? MARK APPROPRIATE BOX WITH AN 'X'.	YES..... ☐ NO..... ☐	>316
308	What have you used or done? CORRECT 302-303 AND OBTAIN INFORMATION FOR 304 TO 306 AS NECESSARY.		
309	CHECK 303: EVER USED PERIODIC ABSTINENCE ☐ NEVER USED PERIODIC ABSTINENCE ☐		>311
310	The last time you used periodic abstinence, how did you determine on which days you had to abstain?	BASED ON CALENDAR.....1 BASED ON BODY TEMPERATURE.....2 BASED ON CERVICAL MUCUS (BILLINGS) METHOD.....3 BASED ON BODY TEMPERATURE AND MUCUS.....4 OTHER _____ (SPECIFY) .5 NO SPECIFIC SYSTEM.....6	
311	How many living children, if any, did you have when you first used a method to avoid getting pregnant? IF NONE ENTER '00'.	NUMBER OF CHILDREN..... ☐☐	
312	CHECK 220: NOT PREGNANT OR NOT SURE ☐ PREGNANT ☐		>316
313	Are you currently using any method to avoid getting pregnant?	YES.....1 NO.....2	>316
314	Which method are you using?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 PERIODIC ABSTINENCE.....08 WITHDRAWAL.....09 OTHER _____ (SPECIFY) .10	>315A >315B >319 >319

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
315	Where did you obtain (METHOD) the last time?	GOVERNMENT HOSPITAL.....01 GOVERNMENT HEALTH CENTER.....02 FPAU CLINIC.....03 MOBILE CLINIC.....04 FIELD WORKER.....05 PRIVATE DOCTOR.....06 PRIVATE HOSPITAL OR CLINIC.....07 PHARMACY/SHOP.....08 CHURCH.....09 FREINDS/RELATIVES.....10 TRADITIONAL HEALER.....11 OTHER _____ 12 OTHER (SPECIFY) NOWHERE.....13 DK.....98	>319
316	Do you intend to use a method to avoid pregnancy at any time in the future?	YES.....1 NO.....2 DK.....8	>319
317	Which method would you prefer to use?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 PERIODIC ABSTINENCE.....08 WITHDRAWAL.....09 OTHER_____.10 (SPECIFY) UNSURE.....98	
318	Do you intend to use (PREFERRED METHOD) in the next 12 months?	YES.....1 NO.....2 DK.....8	
319	Is it acceptable or not acceptable to you that family planning information is provided on radio or in newspapers?	ACCEPTABLE.....1 NOT ACCEPTABLE.....2 DK.....8	
319A	Is it acceptable or not acceptable to you that family planning be taught in schools?	ACCEPTABLE.....1 NOT ACCEPABLE.....2 DK.....8	

401 CHECK 214:
ONE OR MORE LIVE BIRTHS SINCE JAN. 1983 [ ] (continue with 402)
NO LIVE BIRTHS SINCE JAN. 1983 [ ] → (SKIP TO 501)

402 ENTER THE NAME, LINE NUMBER, AND SURVIVAL STATUS OF EACH BIRTH SINCE JAN. 1983 IN THE TABLE. BEGIN WITH THE LAST BIRTH. ASK THE QUESTIONS ABOUT ALL OF THE BIRTHS.

LINE NUMBER FROM Q. 212	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
	LAST BIRTH NAME ________ ALIVE [ ] DEAD [ ]	NEXT-TO-LAST BIRTH NAME ________ ALIVE [ ] DEAD [ ]	SECOND-FROM-LAST NAME ________ ALIVE [ ] DEAD [ ]	THIRD-FROM-LAST NAME ________ ALIVE [ ] DEAD [ ]
403 When you were pregnant with (NAME) were you given any injection to prevent the baby from getting tetanus, that is, convulsions after birth?	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
404 When you were pregnant with (NAME), did you see anyone for a check on this pregnancy? IF YES: Whom did you see? PROBE FOR THE TYPE OF PERSON AND RECORD THE MOST QUALIFIED.	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 OTHER ____ (SPECIFY) .4 NO ONE 5	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 OTHER ____ (SPECIFY) .4 NO ONE 5	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 OTHER ____ (SPECIFY) .4 NO ONE 5	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 OTHER ____ (SPECIFY) .4 NO ONE 5
405 Who assisted with the delivery of (NAME)? PROBE FOR THE TYPE OF PERSON AND RECORD THE MOST QUALIFIED.	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 RELATIVE....4 OTHER ____ (SPECIFY) .5 NO ONE....6	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 RELATIVE....4 OTHER ____ (SPECIFY) .5 NO ONE....6	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 RELATIVE....4 OTHER ____ (SPECIFY) .5 NO ONE....6	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 RELATIVE....4 OTHER ____ (SPECIFY) .5 NO ONE....6
406 Did you ever breastfeed (NAME)?	YES....1 (SKIP TO 407) NO....2	YES....1 (SKIP TO 408) NO....2	YES....1 (SKIP TO 408) NO....2	YES....1 (SKIP TO 408) NO....2
406A Why did you never feed (NAME) at the breast?	INCONVENIENT....01 HAD TO WORK....02 INSUFFICNT MILK..03 BABY REFUSED....04 CHILD DIED....05 CHILD SICK....06 OTHER ____ (SPECIFY) .07 (ALL SKIP TO 409)	INCONVENIENT....01 HAD TO WORK....02 INSUFFICNT MILK..03 BABY REFUSED....04 CHILD DIED....05 CHILD SICK....06 OTHER ____ (SPECIFY) .07 (ALL SKIP TO 409)	INCONVENIENT....01 HAD TO WORK....02 INSUFFICNT MILK..03 BABY REFUSED....04 CHILD DIED....05 CHILD SICK....06 OTHER ____ (SPECIFY) .07 (ALL SKIP TO 409)	INCONVENIENT....01 HAD TO WORK....02 INSUFFICNT MILK..03 BABY REFUSED....04 CHILD DIED....05 CHILD SICK....06 OTHER ____ (SPECIFY) .07 (ALL SKIP TO 409)
407 Are you still breast-feeding (NAME)? (IF DEAD, CIRCLE '2')	YES....1 (SKIP TO 409) NO (OR DEAD)....2			
408 How many months did you breastfeed (NAME)?	MONTHS.... [ ][ ] UNTIL DEATH....96 (SKIP TO 409)	MONTHS.... [ ][ ] UNTIL DEATH....96 (SKIP TO 409)	MONTHS.... [ ][ ] UNTIL DEATH....96 (SKIP TO 409)	MONTHS.... [ ][ ] UNTIL DEATH....96 (SKIP TO 409)

14

408A Why did you stop breastfeeding (NAME)?	INCONVENIENT.....01 HAD TO WORK......02 INSUFFICNT MILK..03 BABY REFUSED.....04 CHILD DIED.......05 CHILD SICK.......06 CH HAD DIARRHEA..07 CH WEANING AGE...08 BECAME PREGNANT..09 OTHER__________.10 (SPECIFY)	INCONVENIENT.....01 HAD TO WORK......02 INSUFFICNT MILK..03 BABY REFUSED.....04 CHILD DIED.......05 CHILD SICK.......06 CH HAD DIARRHEA..07 CH WEANING AGE...08 BECAME PREGNANT..09 OTHER__________.10 (SPECIFY)	INCONVENIENT.....01 HAD TO WORK......02 INSUFFICNT MILK..03 BABY REFUSED.....04 CHILD DIED.......05 CHILD SICK.......06 CH HAD DIARRHEA..07 CH WEANING AGE...08 BECAME PREGNANT..09 OTHER__________.10 (SPECIFY)	INCONVENIENT.....01 HAD TO WORK......02 INSUFFICNT MILK..03 BABY REFUSED.....04 CHILD DIED.......05 CHILD SICK.......06 CH HAD DIARRHEA..07 CH WEANING AGE...08 BECAME PREGNANT..09 OTHER__________.10 (SPECIFY)
409 How many months after the birth of (NAME) did your period return?	MONTHS....... [ ][ ] NOT RETURNED.....96	MONTHS....... [ ][ ] NEVER RETURNED...96	MONTHS....... [ ][ ] NEVER RETURNED...96	MONTHS....... [ ][ ] NEVER RETURNED...96
410 Have you resumed sexual relations since the birth of (NAME)?	YES (OR PREGN.)...1 NO...............2 (GO TO NEXT COL)<			
411 How many months after the birth of (NAME) did you resume sexual relations?	MONTHS....... [ ][ ] (GO TO NEXT COLUMN)	MONTHS....... [ ][ ] (GO TO NEXT COLUMN)	MONTHS....... [ ][ ] (GO TO NEXT COLUMN)	MONTHS....... [ ][ ] (GO TO 412)

412 CHECK 407 FOR LAST BIRTH:
LAST CHILD STILL BREASTFED [ ] ALL OTHERS [ ] → 418

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
413	How many times did you breastfeed last night between sundown and sunrise?	NUMBER OF TIMES............ [ ][ ] AS OFTEN AS CHILD WANTED.......96	
414	How many times did you breastfeed yesterday during the daylight hours?	NUMBER OF TIMES............ [ ][ ] AS OFTEN AS CHILD WANTED.......96	
415	At any time yesterday or last night, was (NAME OF LAST CHILD) given any of the following: Plain water? Juice? Powdered milk? Cow's milk? Any other liquid, mushy food or solid?	YES NO PLAIN WATER................1 2 JUICE......................1 2 POWDERED MILK..............1 2 COW'S MILK.................1 2 ANY OTHER LIQUID, MUSHY FOOD OR SOLID..............1 2 ____________________ (SPECIFY)	

416 CHECK 415:
WAS GIVEN FOOD OR LIQUID ☐ NO FOODS OR LIQUID GIVEN ☐ ——>418

417 Were any of these given in a bottle with a nipple?
YES.....1
NO.....2 ——>418

417A Why did you use a bottle with a nipple instead of breastfeeding the child?
CONVENIENT.....1
HAD TO WORK.....2
INSUFFICIENT BREASTMILK.....3
BOTTLE BETTER THAN BREAST.....4
OTHER _____ (SPECIFY) .5

418 At the time you became pregnant with (NAME OF LAST BIRTH), did you want to have that child then, did you want to wait until later, or did you want no (more) children at all?
THEN.....1
LATER.....2
NO MORE.....3

419 ENTER THE NAME, LINE NUMBER, AND SURVIVAL STATUS OF EACH BIRTH SINCE JAN. 1983 BELOW. BEGIN WITH THE LAST BIRTH. THE HEADINGS IN THE TABLE SHOULD BE EXACTLY THE SAME AS THOSE AFTER Q. 402. ASK THE QUESTIONS ONLY FOR LIVING CHILDREN.

	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
LINE NUMBER FROM Q. 212	☐☐	☐☐	☐☐	☐☐
	NAME _____	NAME _____	NAME _____	NAME _____
	ALIVE ☐ DEAD ☐ ——>ALIVE	☐ DEAD ☐ ——>ALIVE	☐ DEAD ☐ ——>ALIVE	☐ DEAD ☐ (GO TO 428)
420 Do you have a health card for (NAME)? IF YES: May I see it, please?	YES, SEEN.....1 YES, NOT SEEN.....2 (SKIP TO 422) NO CARD.....3	YES, SEEN.....1 YES, NOT SEEN.....2 (SKIP TO 422) NO CARD.....3	YES, SEEN.....1 YES, NOT SEEN.....2 (SKIP TO 422) NO CARD.....3	YES, SEEN.....1 YES, NOT SEEN.....2 (SKIP TO 422) NO CARD.....3
421 RECORD DATES OF IMMUNIZATIONS FROM HEALTH CARD.	NOT GIVEN / DA / MO / YR	NOT GIVEN / DA / MO / YR	NOT GIVEN / DA / MO / YR	NOT GIVEN / DA / MO / YR
BCG	1	1	1	1
POLIO 1	1	1	1	1
DPT 1	1	1	1	1
MEASLES	1	1	1	1
POLIO 2	1	1	1	1
DPT 2	1	1	1	1
POLIO 3	1	1	1	1
DPT 3	1	1	1	1
	(SKIP TO 422A)	(SKIP TO 422A)	(SKIP TO 422A)	(SKIP TO 422A)

422 Has (NAME) ever had a vaccination to prevent him/her from getting diseases?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
422A CHECK ON CHILD'S ARM FOR A BCG SCAR AND MARK IF PRESENT OR ABSENT	SCAR PRESENT.....1 SCAR ABSENT.....2 CHILD NOT SEEN.....9	SCAR PRESENT.....1 SCAR ABSENT.....2 CHILD NOT SEEN.....9 (SKIP TO 423)	SCAR PRESENT.....1 SCAR ABSENT.....2 CHILD NOT SEEN.....9 (SKIP TO 423)	SCAR PRESENT.....1 SCAR ABSENT.....2 CHILD NOT SEEN.....0 (SKIP TO 423)
422B Where can you go if you want to get a vaccination for your child?	GOVT HOSPITAL.....01 GOVT HEALTH CENTER.02 FIELD WORKER.....03 PRIVATE DOCTOR.....04 PRIVATE HOSP/CLIN..05 PHARMACY.....06 SCHOOL.....07 SPECIAL CAMP.....08 TRADITIONAL DOCTOR.09 OTHER_____.10 (SPECIFY) DK.....98			
423 Now I have some questions about (NAME'S) last episode of diarrhea. Has (NAME) had diarrhea in the last 24 hours?	YES.....1 (SKIP TO 424A) NO.....2 DK.....8 (GO TO NEXT COL)	YES.....1 (SKIP TO 424A) NO.....2 DK.....8 (GO TO NEXT COL)	YES.....1 (SKIP TO 424A) NO.....2 DK.....8 (GO TO NEXT COL)	YES.....1 (SKIP TO 424A) NO.....2 DK.....8 (GO TO NEXT COL)
424 Has (NAME) had diarrhea in the last two weeks?	YES.....1 NO.....2 (GO TO NEXT COL) DK.....8	YES.....1 NO.....2 (GO TO NEXT COL) DK.....8	YES.....1 NO.....2 (GO TO NEXT COL) DK.....8	YES.....1 NO.....2 (SKIP TO 428) DK.....8
424A How many days ago did the diarrhea start?	DAYS..... ☐☐ DK.....98	DAYS..... ☐☐ DK.....98	DAYS..... ☐☐ DK.....98	DAYS..... ☐☐ DK.....98
424B Was the episode of diarrhea mild moderate or severe?	MILD.....1 MODERATE.....2 SEVERE.....3	MILD.....1 MODERATE.....2 SEVERE.....3 (SKIP TO 424E)	MILD.....1 MODERATE.....2 SEVERE.....3 (SKIP TO 424E)	MILD.....1 MODERATE.....2 SEVERE.....3 (SKIP TO 424E)
424C CHECK 412: LAST CHILD STILL BREASTFED?	YES ☐ NO ☐ (SKIP TO 424E)			
424D Did you breastfeed (NAME) when he/she had diarrhea then?	YES.....1 NO.....2			
424E When (NAME) had diarrhea, did you give more, fewer, or the same amount of fluids?	MORE.....1 FEWER.....2 SAME.....3 DK..... 8	MORE.....1 FEWER.....2 SAME.....3 DK..... 8	MORE.....1 FEWER.....2 SAME.....3 DK..... 8	MORE.....1 FEWER.....2 SAME.....3 DK..... 8
424F Did you give (NAME) any special fluids when he/she had diarrhea?	YES.....1 NO.....2 (SKIP TO 424L)	YES.....1 NO.....2 (SKIP TO 424L)	YES.....1 NO.....2 (SKIP TO 424L)	YES.....1 NO.....2 (SKIP TO 424L)

424G What fluids did you give?	HOME SOLUTION OF SALT, SUGAR, WATER.1 ORS PACKET SOLUTION.2 (SKIP TO 424I) FRUIT JUICE.........3 TEA OR SOUP.........4 SYRUPS..............5 OTHER______________6 (SPECIFY) (SKIP TO 424M)	HOME SOLUTION OF SALT, SUGAR, WATER.1 ORS PACKET SOLUTION.2 (SKIP TO 424I) FRUIT JUICE.........3 TEA OR SOUP.........4 SYRUPS..............5 OTHER______________6 (SPECIFY) (SKIP TO 424M)	HOME SOLUTION OF SALT, SUGAR, WATER.1 ORS PACKET SOLUTION.2 (SKIP TO 424I) FRUIT JUICE.........3 TEA OR SOUP.........4 SYRUPS..............5 OTHER______________6 (SPECIFY) (SKIP TO 424M)	HOME SOLUTION OF SALT, SUGAR, WATER.1 ORS PACKET SOLUTION.2 (SKIP TO 424I) FRUIT JUICE.........3 TEA OR SOUP.........4 SYRUPS..............5 OTHER______________6 (SPECIFY) (SKIP TO 424M)
424H Where did you learn how to prepare the salt, sugar, and water solution?	GOVT HOSPITAL......01 GOVT HEALTH CENTER.02 FIELD WORKER.......03 PRIVATE DOCTOR.....04 PRIVATE HOSP/CLIN..05 PHARMACY...........06 TRADITIONAL DOCTOR.07 OTHER__________.08 (SPECIFY) DK.................98	GOVT HOSPITAL......01 GOVT HEALTH CENTER.02 FIELD WORKER.......03 PRIVATE DOCTOR.....04 PRIVATE HOSP/CLIN..05 PHARMACY...........06 TRADITIONAL DOCTOR.07 OTHER__________.08 (SPECIFY) DK.................98	GOVT HOSPITAL......01 GOVT HEALTH CENTER.02 FIELD WORKER.......03 PRIVATE DOCTOR.....04 PRIVATE HOSP/CLIN..05 PHARMACY...........06 TRADITIONAL DOCTOR.07 OTHER__________.08 (SPECIFY) DK.................98	GOVT HOSPITAL......01 GOVT HEALTH CENTER.02 FIELD WORKER.......03 PRIVATE DOCTOR.....04 PRIVATE HOSP/CLIN..05 PHARMACY...........06 TRADITIONAL DOCTOR.07 OTHER__________.08 (SPECIFY) DK.................98
424I When you gave (ORS OR HOME SOLUTION) to (NAME), did he/she get better, worse, or was there no change?	BETTER.............01 WORSE..............02 NO CHANGE..........03	BETTER.............01 WORSE..............02 NO CHANGE..........03	BETTER.............01 WORSE..............02 NO CHANGE..........03	BETTER.............01 WORSE..............02 NO CHANGE..........03
424J How much of the (ORS OR HOME SOLUTION) did you give (NAME) each day when he/she had diarrhea?	ONE LITRE EVERY 24 HOURS.........01 OTHER__________.02 (SPECIFY)	ONE LITRE EVERY 24 HOURS.........01 OTHER__________.02 (SPECIFY)	ONE LITRE EVERY 24 HOURS.........01 OTHER__________.02 (SPECIFY)	ONE LITRE EVERY 24 HOURS.........01 OTHER__________.02 (SPECIFY)
424K For how many days did you give (NAME) (ORS OR HOME SOLUtion)?	DAYS........... [ ][ ] DK.................98	DAYS........... [ ][ ] DK.................98	DAYS........... [ ][ ] DK.................98	DAYS........... [ ][ ] DK.................98
424L How would you prepare a home solution of ORS? **	ANSWER CORRECT......1 ANSWER WRONG........2 DK..................8	ANSWER CORRECT......1 ANSWER WRONG........2 DK..................8	ANSWER CORRECT......1 ANSWER WRONG........2 DK..................8	ANSWER CORRECT......1 ANSWER WRONG........2 DK..................8
424M When (NAME) had diarrhea, did you give more, fewer, or the same amount of foods you gave before he/she had diarrhea?	MORE................1 FEWER...............2 SAME................3 SOLID FOODS NOT YET GIVEN............4 DK..................8	MORE................1 FEWER...............2 SAME................3 DK..................8	MORE................1 FEWER...............2 SAME................3 DK..................8	MORE................1 FEWER...............2 SAME................3 DK..................8
425 Was (NAME) taken to a private doctor, a hospital or clinic, a traditional doctor, or any other place during the last episode of diarrhea? IF YES: Where was he/she taken?	PRIVATE DOCTOR......1 HOSPITAL/CLINIC.....2 TRADITIONAL DOCTOR..3 OTHER____________.4 (SPECIFY) CHILD NOT TAKEN.....5 (SKIP TO 427)	PRIVATE DOCTOR......1 HOSPITAL/CLINIC.....2 TRADITIONAL DOCTOR..3 OTHER____________.4 (SPECIFY) CHILD NOT TAKEN.....5 (SKIP TO 427)	PRIVATE DOCTOR......1 HOSPITAL/CLINIC.....2 TRADITIONAL DOCTOR..3 OTHER____________.4 (SPECIFY) CHILD NOT TAKEN.....5 (SKIP TO 427)	PRIVATE DOCTOR......1 HOSPITAL/CLINIC.....2 TRADITIONAL DOCTOR..3 OTHER____________.4 (SPECIFY) CHILD NOT TAKEN.....5 (SKIP TO 427)

** CORRECT RECIPE FOR SALT AND SUGAR SOLUTION IS: ONE LITRE OF BOILED WATER, ONE LEVEL TEASPOON OF SALT, AND 8 LEVEL TEASPOONS OF SUGAR. FRUIT JUICE'S SUCH AS ORANGE OR PINEAPPLE MAY BE ADDED TO THE BASIC INGREDIENTS.

NO.				
426 What treatment did (NAME) receive there? (CIRCLE ALL TREATMENTS MENTIONED.)	INJECTION...........1 IV (INTRA VENOUS)...1 TABLETS OR PILLS....1 SYRUPS..............1 ORS.................1 OTHER_______________.1 (SPECIFY) NOTHING GIVEN.......1 (ALL GO TO NEXT COL)<	INJECTION...........1 IV (INTRA VENOUS)...1 TABLETS OR PILLS....1 SYRUPS..............1 ORS.................1 OTHER_______________.1 (SPECIFY) NOTHING GIVEN.......1 (ALL GO TO NEXT COL)<	INJECTION...........1 IV (INTRA VENOUS)...1 TABLETS OR PILLS....1 SYRUPS..............1 ORS.................1 OTHER_______________.1 (SPECIFY) NOTHING GIVEN.......1 (ALL GO TO NEXT COL)<	INJECTION...........1 IV (INTRA VENOUS)...1 TABLETS OR PILLS....1 SYRUPS..............1 ORS.................1 OTHER_______________.1 (SPECIFY) NOTHING GIVEN.......1 (ALL GO TO 428)<
427 Why was child not taken somewhere for treatment during the last episode of diarrhea?	ILLNESS WAS MILD....1 MOTHER TOO BUSY.....2 MOTHER WORKING......3 NO FACILITIES AVAILABLE..........4 HOME TREATMENT SUFFICIENT.........5 OTHER_______________.6 (SPECIFY) (ALL GO TO NEXT COL)<	ILLNESS WAS MILD....1 MOTHER TOO BUSY.....2 MOTHER WORKING......3 NO FACILITIES AVAILABLE..........4 HOME TREATMENT SUFFICIENT.........5 OTHER_______________.6 (SPECIFY) (ALL GO TO NEXT COL)<	ILLNESS WAS MILD....1 MOTHER TOO BUSY.....2 MOTHER WORKING......3 NO FACILITIES AVAILABLE..........4 HOME TREATMENT SUFFICIENT.........5 OTHER_______________.6 (SPECIFY) (ALL GO TO NEXT COL)<	ILLNESS WAS MILD....1 MOTHER TOO BUSY.....2 MOTHER WORKING......3 NO FACILITIES AVAILABLE..........4 HOME TREATMENT SUFFICIENT.........5 OTHER_______________.6 (SPECIFY) (ALL GO TO 428)<

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	TO
428	Have you ever heard of a special product called (DALOZI) you can get for the treatment of diarrhea?	YES.............................1 NO..............................2	
428A	Have you ever seen a packet like this before? (SHOW PACKET.)	YES.............................1 NO..............................2	NO →429
428B	Do you think this packet is used to cure the diarrhea, or that it is used to prevent the child from drying out?	CURE DIARRHEA...................1 PREVENT DRYING OUT..............2 BOTH............................3 OTHER___________________________.4 (SPECIFY) DK..............................8	
428C	Have you ever used one of these packets for yourself or someone else?	YES.............................1 NO..............................2	NO →428F
428D	How do you prepare the medicine in the packet? (CIRCLE ALL CODES MENTIONED.)	USE ONE LITRE OF WATER..........1 USE CLEAN CONTAINER.............1 USE CLEANEST WATER..............1 ADD PACKET TO WATER.............1 USE WITHIN ONE DAY THEN DISCARD LEFTOVER SOLUTION.....1 OTHER___________________________.1 (SPECIFY) DK..............................1	
428E	How much water do you use to prepare the packet?	ONE LITRE.......................1 OTHER___________________________.2 (SPECIFY) DK..............................8	
428F	Where can you get these packets? PROBE: Anywhere else CIRCLE ALL PLACES MENTIONED	GOVERNMENT HOSPITAL.............1 GOVERNMENT HEALTH CENTER........1 FIELD WORKER....................1 PRIVATE DOCTOR..................1 PRIVATE HOSPITAL/CLINIC.........1 PHARMACY........................1 SHOP............................1 TRADITIONAL DOCTOR..............1 OTHER__________________________..1 (SPECIFY) DK..............................8	

428G	How much do (you think) the packets cost?	COST .... [ ][ ] FREE .... 96 DK 98	
428H	Do you have one of these packets in your house now?	YES .... 1 NO 2	>429
428I	Can I see the packet?	SHOWS PACKET .... 1 DOES NOT SHOW PACKET 2	

429 ENTER THE NAME, LINE NUMBER, AND SURVIVAL STATUS OF EACH BIRTH SINCE JAN. 1983 BELOW. BEGIN WITH THE LAST BIRTH. THE HEADINGS IN THE TABLE SHOULD BE EXACTLY THE SAME AS THOSE AFTER Q. 419. ASK THE QUESTIONS ONLY FOR LIVING CHILDREN.

LINE NUMBER FROM Q. 212	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
	LAST BIRTH NAME ______ ALIVE [ ] DEAD [ ]	NEXT-TO-LAST BIRTH NAME ______ >ALIVE [ ] DEAD [ ]	SECOND-FROM-LAST NAME ______ >ALIVE [ ] DEAD [ ]	THIRD-FROM-LAST NAME ______ >ALIVE [ ] DEAD [ ] (GO TO 501)
430 Has (NAME) had fever in the last four weeks?	YES .... 1 NO .... 2 (SKIP TO 433) DK 8	YES .... 1 NO .... 2 (SKIP TO 433) DK 8	YES .... 1 NO .... 2 (SKIP TO 433) DK 8	YES .... 1 NO .... 2 (SKIP TO 433) DK 8
431 Did you take (NAME) to a private doctor or to a hospital or clinic, traditional doctor or any other place to treat the fever. IF YES: Where taken?	DOCTOR .... 1 HOSPITAL/CLINIC ..... 2 TRADITIONAL DOCTOR .. 3 OTHER ______ .. 4 (SPECIFY) CHILD NOT TAKEN 5	DOCTOR .... 1 HOSPITAL/CLINIC ..... 2 TRADITIONAL DOCTOR .. 3 OTHER ______ .. 4 (SPECIFY) CHILD NOT TAKEN 5	DOCTOR .... 1 HOSPITAL/CLINIC ..... 2 TRADITIONAL DOCTOR .. 3 OTHER ______ .. 4 (SPECIFY) CHILD NOT TAKEN 5	DOCTOR .... 1 HOSPITAL/CLINIC ..... 2 TRADITIONAL DOCTOR .. 3 OTHER ______ .. 4 (SPECIFY) CHILD NOT TAKEN 5
432 Was there anything (else) you or somebody did to treat the fever? IF YES: What was done? CIRCLE CODE 1 FOR ALL MENTIONED.**	ANTIMALARIAL .... 1 ANTIBIOTICS .... 1 LIQUID OR SYRUP ..... 1 ASPIRIN .... 1 INJECTION .... 1 OTHER ______ .1 (SPECIFY) NOTHING 1	ANTIMALARIAL .... 1 ANTIBIOTICS .... 1 LIQUID OR SYRUP ..... 1 ASPIRIN .... 1 INJECTION .... 1 OTHER ______ .1 (SPECIFY) NOTHING 1	ANTIMALARIAL .... 1 ANTIBIOTICS .... 1 LIQUID OR SYRUP ..... 1 ASPIRIN .... 1 INJECTION .... 1 OTHER ______ .1 (SPECIFY) NOTHING 1	ANTIMALARIAL .... 1 ANTIBIOTICS .... 1 LIQUID OR SYRUP ..... 1 ASPIRIN .... 1 INJECTION .... 1 OTHER ______ .1 (SPECIFY) NOTHING 1
433 Has (NAME) suffered from severe cough or difficult or rapid breathing in the last four weeks?	YES .... 1 NO .... 2 (GO TO NEXT COL) DK 8	YES .... 1 NO .... 2 (GO TO NEXT COL) DK 8	YES .... 1 NO .... 2 (GO TO NEXT COL) DK 8	YES .... 1 NO .... 2 (SKIP TO 501) DK 8
434 Did you take (NAME) to a private doctor, a hospital or clinic, a traditional doctor, or any other place to treat the problem? IF YES: Where was he/she taken?	DOCTOR .... 1 HOSPITAL/CLINIC ..... 2 TRADITIONAL DOCTOR .. 3 OTHER ______ .. 4 (SPECIFY) CHILD NOT TAKEN 5	DOCTOR .... 1 HOSPITAL/CLINIC ..... 2 TRADITIONAL DOCTOR .. 3 OTHER ______ .. 4 (SPECIFY) CHILD NOT TAKEN 5	DOCTOR .... 1 HOSPITAL/CLINIC ..... 2 TRADITIONAL DOCTOR .. 3 OTHER ______ .. 4 (SPECIFY) CHILD NOT TAKEN 5	DOCTOR .... 1 HOSPITAL/CLINIC ..... 2 TRADITIONAL DOCTOR .. 3 OTHER ______ .. 4 (SPECIFY) CHILD NOT TAKEN 5
435 Was there anything (else) you or somebody did to treat the problem? IF YES: What was done? CIRCLE CODE 1 FOR ALL MENTIONED.	ANTIBIOTICS .... 1 LIQUID OR SYRUP ..... 1 ASPIRIN .... 1 INJECTION .... 1 OTHER ______ .1 (SPECIFY) NOTHING .... 1 (ALL GO TO NEXT COL)	ANTIBIOTICS .... 1 LIQUID OR SYRUP ..... 1 ASPIRIN .... 1 INJECTION .... 1 OTHER ______ .1 (SPECIFY) NOTHING .... 1 (ALL GO TO NEXT COL)	ANTIBIOTICS .... 1 LIQUID OR SYRUP ..... 1 ASPIRIN .... 1 INJECTION .... 1 OTHER ______ .1 (SPECIFY) NOTHING .... 1 (ALL GO TO NEXT COL)	ANTIBIOTICS .... 1 LIQUID OR SYRUP ..... 1 ASPIRIN .... 1 INJECTION .... 1 OTHER ______ .1 (SPECIFY) NOTHING .... 1 (ALL GO 501)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
501	Have you ever been married or lived with a man?	YES.....1 NO.....2	>519
502	Are you now married or living with a man, or are you widowed, divorced or not now living together?	MARRIED.....1 LIVING TOGETHER.....2 WIDOWED.....3 DIVORCED.....4 NOT NOW LIVING TOGETHER.....5	>507
503	Does your husband/partner live with you or is he now staying elsewhere?	LIVING WITH HER.....1 STAYING ELSEWHERE.....2	
504	Does your husband/partner have any other wives besides yourself?	YES.....1 NO.....2	>507
505	How many other wives does he have?	NUMBER..... DK.....98	>507
506	Are you the first, second,...wife?	RANK.....	
507	Have you been married or lived with a man only once, or more than once?	ONCE.....1 MORE THAN ONCE.....2	
508	In what month and year did you start living with your (first) husband or partner?	MONTH..... DK.....98 YEAR..... DK YEAR.....98	>510
509	How old were you when you started living with him?	AGE.....	
510	Are your mother and father still alive?	YES NO DK WOMAN'S MOTHER.....1 2 8 WOMAN'S FATHER.....1 2 8	
511	Are your (first) husband's/partner's mother and father still alive?	YES NO DK FIRST HUSBAND'S MOTHER.....1 2 8 FIRST HUSBAND'S FATHER.....1 2 8	
512	CHECK 510 AND 511: AT LEAST ONE PARENT NOT LIVING OR DK ☐ ↓ ALL ALIVE ☐		>515

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
513	Was (MENTION PARENTS NOT ALIVE NOW OR DK) alive at the time you began living together with your (first) husband or partner?	YES NO DK WOMAN'S MOTHER.....1 2 8 WOMAN'S FATHER.....1 2 8 FIRST HUSBAND'S MOTHER.....1 2 8 FIRST HUSBAND'S FATHER.....1 2 8	
514	CHECK 513: SOME PARENT ALIVE AT MARRIAGE ☐ ↓ NO PARENT ALIVE AT MARRIAGE ☐		→518
515	At the time you began living together, did you and your (first) husband/partner live with any of these parents for at least six months?	YES.....1 NO.....2	→517
516	For about how many years did you live together with a parent at that time?	YEARS.....☐☐ UP TO THE PRESENT.....96	→518
517	Are you now living either with your parents or your husband's parents?	YES.....1 NO.....2	
518	In how many localities have you lived for six months or more since you were first married (started living together) including this place?	NUMBER OF LOCALITIES.....☐☐	→520
519	Have you ever had sexual intercourse? IF SHE HAS HAD CHILDREN, CIRCLE YES WITHOUT ASKING 519 AND PROCEED TO 520	YES.....1 NO.....2	→528
520	Now we need some details about your sexual activity in order to get a better understanding of contraception and fertility. How old were you when you first had sexual intercourse?	AGE.....☐☐	
521	Have you had sexual intercourse in the last four weeks?	YES.....1 NO.....2	→523
522	How many times?	TIMES.....☐☐	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
523	When was the last time you had sexual intercourse? IF THE ANSWER TO 521 IS YES 523 IS ONE MONTH AGO CORRECT AND MAKE CONSISTENT	DAYS AGO.....1 [ ][ ] WEEKS AGO.....2 [ ][ ] MONTHS AGO.....3 [ ][ ] YEARS AGO.....4 [ ][ ] BEFORE LAST BIRTH.....996	>528
524	CHECK 220: NOT PREGNANT OR NOT SURE ☐	PREGNANT ☐	>528
525	CHECK 313: NOT USING ☐	USING ☐	>528
526	If you become pregnant in the next few weeks, would you feel happy, unhappy, or would it not matter very much?	HAPPY.....1 UNHAPPY.....2 WOULD NOT MATTER.....3	>528
527	What is the main reason that you are not using a method to avoid pregnancy?	LACK OF KNOWLEDGE.....01 OPPOSED TO FAMILY PLANNING.....02 HUSBAND DISAPPROVES.....03 OTHERS DISAPPROVE.....04 HEALTH CONCERNS.....05 ACCESS/AVAILABILITY.....06 COSTS TOO MUCH.....07 INCONVENIENT TO USE.....08 INFREQUENT SEX.....09 FATALISTIC.....10 RELIGION.....11 POSTPARTUM/BREASTFEEDING.....12 MENOPAUSAL/SUBFECUND.....13 OTHER _____ (SPECIFY).....14 DK.....98	
528	PRESENCE OF OTHERS AT THIS POINT.	YES NO CHILDREN UNDER 10.....1 2 HUSBAND.....1 2 OTHER MALES.....1 2 OTHER FEMALES.....1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
601	CHECK 502: CURRENTLY MARRIED OR LIVING TOGETHER ☐ ↓ ALL OTHERS ☐		→609
602	CHECK 220 AND MARK BOX. Now I have some questions about the future. NOT PREGNANT OR UNSURE ☐ Would you like to have a (another) child or would you prefer not to have any (more) children? PREGNANT ☐ After the child you are expecting, would you like to have another child or would you prefer not to have any (more) children?	HAVE ANOTHER.....1 NO MORE.....2 SAYS SHE CAN'T GET PREGNANT.....3 UNDECIDED OR DK.....8	→605
603	How long would you want to wait from now before the birth of a (another) child?	DURATION: MONTHS.....1 ☐☐ YEARS.....2 ☐☐ DK.....998	→605
604	CHECK 215: How old would your youngest child be? IF NO LIVING CHILDREN, CIRCLE '96'.	AGE OF YOUNGEST YEARS..... ☐☐ NO LIVING CHILDREN.....96 DK.....98	
605	For how long should a couple wait before starting sexual intercourse after the birth of a baby?	MONTHS.....1 ☐☐ YEARS.....2 ☐☐ OTHER_____.996 (SPECIFY)	
606	Should a mother wait until she has completely stopped breastfeeding before starting to have sexual relations again, or doesn't it matter?	WAIT.....1 DOESN'T MATTER.....2	
607	Do you think that your husband/partner approves or disapproves of couples using a method to avoid pregnancy?	APPROVES.....1 DISAPPROVES.....2 DK.....8	
608	How often have you talked to your husband/partner about this subject in the past year?	NEVER.....1 ONCE OR TWICE.....2 MORE OFTEN.....3	
609	In general, do you approve or disapprove of couples using a method to avoid pregnancy?	APPROVE.....1 DISAPPROVE.....2	
610	CHECK 202 AND 204: NO LIVING CHILDREN ☐ If you could choose exactly the number of children to have in your whole life, how many would that be? HAS LIVING CHILDREN ☐ If you could go back to the time 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? RECORD SINGLE NUMBER OR OTHER ANSWER.	NUMBER..... ☐☐ OTHER ANSWER _____ (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
701	CHECK 501: EVER MARRIED OR LIVED WITH A MAN ☐ → ASK QUESTIONS ABOUT CURRENT OR MOST RECENT HUSBAND/PARTNER. ALL OTHERS ☐		>714
702	Now I have some questions about your (most recent) husband/partner. Did your husband/partner ever attend school?	YES.....1 NO.....2	>706
703	What was the highest level and grade of formal education your husband completed? CIRCLE CODE FOR BOTH LEVEL AND GRADE	LEVEL / GRADE PRIMARY 1 — 1 2 3 4 5 6 7 JUNIOR 2 — 1 2 3 SECONDARY 3 — 1 2 3 4 5 6 UNIV. 4 — 1 2 3 4 5 6 DK.....98	
705	CHECK 703: PRIMARY ☐ → SECONDARY OR HIGHER ☐		>707
706	Can (could) he read a letter or newspaper easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	
707	What kind of work does (did) your husband/partner mainly do?	FARMING .....01 FISHING .....02 MANUFACTURING .....03 BUILDING & CONSTRUCTION .....04 RETAILING .....05 SERVICES.....06 UNPAID FAMILY WORKER IN FARMING.....07 OTHER UNPAID FAMILY WORKERS....08 GOVT./PARASTATAL EMPLOYEE.....09 HOME MAKER.....10 STUDENT.....11 ECONOMICALLY NON-ACTIVE (AGED, SICK, DEFORMED ETC).....12	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
708	CHECK 707: DOES (DID) NOT WORK ON THE LAND ☐ ↓ WORKS (WORKED) ON THE LAND ☐		→710
709	Does (did) he earn a regular wage or salary?	YES.....1 NO.....2 DK.....8	→712
710	Does (did) your husband/partner work mainly on his family land, or on someone else's land?	HIS/FAMILY LAND.....1 SOMEONE ELSE'S LAND.....2	→712
711	Does (did) he work mainly for money or does (did) he work for a share of the crops?	MONEY.....1 A SHARE OF CROPS.....2	
712	Before you married your (first) husband, did you yourself ever work regularly to earn money, other than on a farm or in a business run by your family?	YES.....1 NO.....2	
713	Since you were first married, have you ever worked regularly to earn money other than on a farm or in a business run by your family?	YES.....1 NO.....2	→715
714	Have you ever worked regularly to earn money, other than on a farm or in a business run by your family?	YES.....1 NO.....2	→716
715	Are you now working to earn money on a farm or in a business run by your family?	YES.....1 NO.....2	
716	RECORD THE TIME.	HOUR..... ☐☐ MINUTES..... ☐☐	
717	MAIN MATERIAL OF THE ROOF (RECORD OBSERVATION)	THATCH.....1 PAPYRUS.....2 TINS.....3 IRON SHEETS.....4 ASBESTOS.....5 TILES.....6 CONCRETE.....7 OTHERS.....8	
718	MAIN MATERIAL OF THE WALLS (RECORD OBSERVATION OR ASK)	THATCH.....1 MUD AND POLES.....2 EARTH BRICKS.....3 CLAY BRICKS.....4 CEMENT BLOCKS.....5 CONCRETE.....6 STONES.....7 OTHER.....8	

SECTION 8. WEIGHT AND LENGTH

INTERVIEWER: IN 801-803, RECORD THE LINE NUMBERS, NAMES, AND BIRTH DATES OF ALL LIVING CHILDREN BORN SINCE JANUARY 1, 1983 STARTING WITH THE YOUNGEST CHILD. CHECK AGE IN 804 TO IDENTIFY CHILDREN 0-60 MONTHS OF AGE. RECORD WEIGHT AND LENGTH IN 805 AND 806.

	1 YOUNGEST LIVING CHILD	2 NEXT-TO-YOUNGEST LIVING CHILD	3 SECOND-TO-YOUNGEST LIVING CHILD	4 THIRD-TO-YOUNGEST LIVING CHILD
801 LINE NO. FROM Q.212				
802 NAME FROM Q.212	(NAME) _____	(NAME) _____	(NAME) _____	(NAME) _____
803 DATE OF BIRTH FROM Q.214	MONTH.... YEAR.....	MONTH.... YEAR.....	MONTH.... YEAR.....	MONTH.... YEAR.....
804 CHECK AGE: 0-60 MONTHS ***	YES ☐ NO ☐ →	YES ☐ NO ☐ →	YES ☐ NO ☐ →	YES ☐ NO ☐ ↓ GO TO NEXT PAGE
805 WEIGHT (in kgs)	.	.	.	.
806 LENGTH (in cms)	.	.	.	.
807 STATE REASON IF UNABLE TO RECORD				

808 NAME OF MEASURER: _____ NAME OF ASSISTANT: _____

CODES FOR 807

1. CHILD AT HOME BUT VERY SICK
2. CHILD PRESENT DURING PRECEEDING NIGHT BUT NOW ELSEWHERE WITH RELATIVE
3. CHILD IN DISTANT HOSPITAL
4. PARENT/RELATIVE REFUSED
5. MEASURING BOARD SPOILT
6. SCALE SPOILT
7. OTHER (SPECIFY)

*** If unable to determine due to missing information, measure child.

INTERVIEWER'S OBSERVATIONS
(To be filled in after completing interview.)

Person Interviewed: _____

_____

Specific questions: _____

_____

Language of interview: _____

Native language of respondent: _____

Translator used ? (tick correct answer): YES ☐ NO ☐

Other aspects: _____

Name of Interviewer: _____ Date: _____

SUPERVISOR'S OBSERVATIONS

_____

_____

_____

_____

Name of Supervisor: _____ Date: _____

EDITOR'S OBSERVATIONS

_____

_____

_____

_____

Name of Field Editor: _____ Date: _____

Name of Keyer: _____ Date: _____

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REFERENCES

Uganda Protectorate. 1953. *Report on the 1948 Census of the Non-native Population of Uganda.* Nairobi: Boyd and Company.

Uganda Protectorate. 1960a. *General African Census 1957.* Vol. 1, *Population by Sex and Age-groups to Parish Level.* Nairobi.

Uganda Protectorate. 1960b. *General African Census 1959.* Vol. 2, Parts 1-5, *Population by Tribe, Age, and Sex.* Nairobi.

Uganda Protectorate. 1960c. *Uganda Census 1959: Non-African Population.* Nairobi.

Uganda Protectorate. 1961. *Uganda Census 1959: African Population.* Nairobi.

Uganda, Republic of, 1971. *Report of the 1969 Population Census.* Vol. 1, *The Population of Administrative Areas.* Nairobi.

Uganda, Republic of, 1973. *Report of the 1969 Population Census.* Vol. 3, *Additional Tables.* Nairobi.

Uganda, Republic of, 1974. *Report of the 1969 Population Census.* Vol. 2, *The Administrative Report.* Nairobi.

Uganda, Republic of, 1976. *Report of the 1969 Population Census.* Vol. 4, *The Analytical Report.* Nairobi.

Uganda, Republic of, 1988a. *Report on the 1980 Population and Housing Census.* Vol. 1, *The Provisional Results by Administrative Areas.* Nairobi.

Uganda, Republic of, 1988b. *Background to the Budget, 1988/89.* Entebbe: Government Printer.

Uganda, Republic of, 1989a. *Background to the Budget, 1989/90.* Entebbe: Government Printer.

Uganda, Republic of, 1989b. *Baseline Survey for the South-West Integrated Project Mbarara, March-April 1988.* Kampala: UNICEF.

Uganda, Republic of, 1989c. *Health Policy.* Nairobi: Ministry of Health.