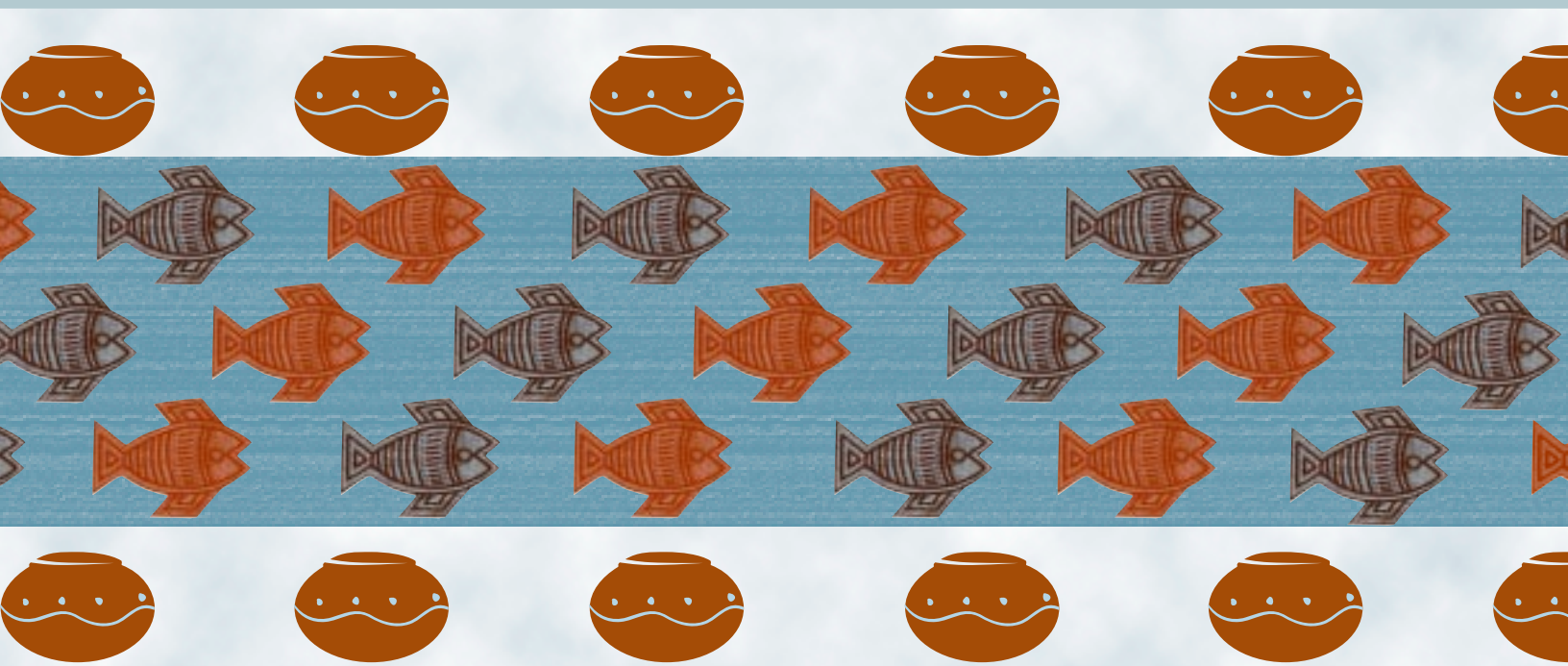
Malawi



Demographic and Health Survey

2000

Malawi Demographic and Health Survey 2000

National Statistical Office
Zomba, Malawi

ORC Macro
Calverton, Maryland, USA

August 2001

This report presents findings from the 2000 Malawi Demographic and Health Survey (2000 MDHS), which was implemented by the National Statistical Office. ORC Macro (DHS) furnished technical assistance in the design and implementation of the survey. Funding for the 2000 MDHS survey was provided by the United States Agency for International Development (USAID/Malawi), the Department for International Development (DfID/Malawi), and the United Nations Children's Fund (UNICEF/Malawi). The 2000 MDHS is part of a worldwide MEASURE Demographic and Health Surveys (*DHS+*) Project, which is designed to collect, analyse, and disseminate data on fertility, family planning, maternal and child health, HIV/AIDS, and other topics in health and population.

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FOREWORD

This final report presents the major findings of the 2000 Malawi Demographic and Health Survey (MDHS). The 2000 MDHS survey is the second survey of its kind to be conducted in Malawi; the first MDHS was in 1992. The fieldwork was carried out by the National Statistical Office (NSO) from July to November 2000. In 1996, a similar survey on Knowledge, Attitudes, and Practices in Health (MKAPH) was conducted. All three surveys were designed to provide information on indicators of maternal and child health in Malawi.

The primary objective of the 2000 MDHS survey was to provide up-to-date information for policymakers, planners, researchers, and programme managers that would allow guidance in the development, monitoring, and evaluation of health programmes in Malawi. Specifically, the 2000 MDHS collected information on fertility levels, nuptiality, fertility preferences, knowledge and use of family planning methods, breastfeeding practices, nutritional status of mothers and children, childhood illnesses and mortality, use of maternal and child health services, malaria, maternal mortality, and HIV/AIDS-related knowledge and behaviours.

The 2000 MDHS results present evidence of a decline in fertility, an increase in the use of family planning methods, a decline in infant and under-five mortality, and an increase in adult and maternal mortality since the 1992 MDHS survey. However, the disparity between knowledge and use of family planning remains high. Some of these are critical issues and need to be addressed without delay.

I would like to acknowledge the efforts of a number of organisations and individuals who contributed immensely to the success of the survey. First, I would like to acknowledge the financial assistance from the United States Agency for International Development (USAID), the Department for International Development (DfID), United Kingdom, and the United Nations Children's Fund (UNICEF/Malawi). I would also like to acknowledge ORC Macro for technical backstopping, and the assistance of the staff of the National Statistical Office and the Ministry of Health and Population. Finally, I am grateful to the survey respondents who generously gave their time to provide the information that forms the basis of this report.

Charles Machinjili
Commissioner for Census and Statistics

SUMMARY OF FINDINGS

The 2000 Malawi Demographic and Health Survey (MDHS) is a nationally representative sample survey covering 14,213 households, 13,220 women age 15-49, and 3,092 men age 15-54. The 2000 MDHS is similar, but much expanded in size and scope, to the 1992 MDHS.

The survey was designed to provide information on fertility trends, family planning knowledge and use, early childhood mortality, various indicators of maternal and child health and nutrition, HIV/AIDS, adult and maternal mortality, and malaria control programme indicators. Unlike earlier surveys in Malawi, the 2000 MDHS sample was sufficiently large to allow for estimates of certain indicators to be produced for 11 districts in addition to estimates for national, regional, and urban-rural domains. Twenty-two mobile survey teams, trained and supervised by the National Statistical Office, conducted the survey from July to November 2000.

Fertility

Fertility Decline. The 2000 MDHS data indicate that there has been a modest decline in fertility since the 1992 MDHS. The total fertility rate has dropped from 6.7 births per woman, in the period 1990-1992 to 6.3 births in the period 1998-2000. The fertility decline is concentrated amongst older women (age 30 and above); no decline was observed in women under age 30.

Large Fertility Differentials. Fertility levels remain high in Malawi, especially in rural parts of the country. The total fertility rate among rural women is 6.7 births per woman compared with 4.5 births in urban areas. Fertility levels are closely related to the socio-economic status of women. For example, women with no formal education give birth to an average of 7.3 children in their lifetime, compared with 3.0 for women who attended secondary school or higher. Among districts oversampled in the survey, fertility ranges from 4.3 births per woman in Blantyre District to 7.0 or more births in Kasungu, Machinga, and Mangochi districts.

Unplanned Fertility. One reason for the persistently high fertility levels is that unplanned pregnancies are still common. Overall, 40 percent of births in the five years prior to the survey were reported to be unplanned; 18 percent were mistimed (wanted later) and 22 percent were unwanted. Unwanted births are disproportionately high among older women who already have several children. If births associated with mistimed and unwanted pregnancies were avoided altogether, the total fertility rate in Malawi would be 5.2 births per woman instead of the actual level of 6.3.

Ideal Family Size. Although a reduction in the number of unplanned births would reduce fertility substantially, the average married Malawian woman age 15-49 or man age 15-54 reports that they would like to have more than five children. Even among those who have yet to start family formation, the reported ideal family size exceeds four children.

Childbearing at Young Ages. One-third of adolescent females (age 15-19) have either already had a child or are currently pregnant. This proportion has not changed significantly since the 1992 MDHS. The median age of women at first birth is 19.1 years, meaning that more than half of women have had a child by the time they reach age 20.

Family Planning

Increasing Use of Contraception. A principle cause of the fertility decline in Malawi is the steady increase in contraceptive use over the last decade. The contraceptive prevalence rate (current use of a modern family planning method) has more than tripled since 1992, from 7 to 26 percent of all married women.

Less effective, traditional methods have become less frequently used during the 1990s.

Changing Method Mix. Currently, the most widely used methods among married women are injectable contraceptives (16 percent), female sterilisation (5 percent), and the pill (3 percent). This method mix represents a shift in contraceptive use among Malawian women. The rapid increase in use of injectables (from 2 percent in 1992) has made it the predominant method. This, combined with small rises in the use of condoms and female sterilisation, have more than offset small drops in pill and IUD use. Thus, acceptance of new methods of contraception, as well as some method switching, have characterised the 1992-2000 intersurvey period.

Differentials in Family Planning Use. Differentials in current use of family planning are large. Urban women are nearly 60 percent more likely than rural women to be using a modern contraceptive method (38 versus 24 percent). Among districts oversampled in the 2000 MDHS, use of modern contraception is highest in Blantyre District (38 percent) and lowest in Salima District (16 percent).

Source of Family Planning Methods. The survey results show that government-run facilities remain the major source for contraceptives in Malawi—providing family planning methods to 68 percent of the current users. This represents an increase from 59 percent based on the 1996 MKAPH survey results. The increase in public-sector participation is due in large part to the rapid increase in use of injectables, which are provided mostly at government health centres. Twenty-eight percent of users get their methods from private medical sources, and 4 percent get their methods from other private sources (mostly shops). Community-based distribution agents are involved in providing contraceptives to 2 percent of current users.

Unmet Need for Family Planning. Women who are exposed to the risk of pregnancy but who say they would like to delay or limit childbearing and are not using contraception are considered to have an unmet need for family planning services. Unmet need for family planning services has declined from 36 to 30 percent of married women since 1992. Fifty-eight percent of the unmet need is composed of women who want to space their next birth, while the remainder is made up of women who do not want any more children. Although much progress has been made in satisfying women's need for family planning, half of the total "demand" for contraception remains unmet.

Child Health and Survival

Progress in Reducing Early Childhood Mortality. The 2000 MDHS data indicate that mortality of children under age 5 has declined since the early 1990s. During the period 1988-1992, the under-five mortality rate was 234 deaths per 1,000 live births, compared with 189 per 1,000 for the period 1996-2000. Although this represents important progress, the rate of the downward trend is modest and childhood mortality remains at a very high level. Factors discussed as potentially associated with the improved child survival picture are better access to clean water sources, malaria control activities, and progress in the education of women (primary caregivers).

The risk of child death is not spread evenly across Malawi's geographic and social landscape. Low educational attainment, young age of mother at birth, and residence in a rural area are factors associated with higher child mortality.

Childhood Vaccination Coverage Declines. The 2000 MDHS results show that 70 percent of children age 12-23 months are fully vaccinated. This represents a decline in coverage from 82 percent based on the 1992 MDHS. More detailed examination of the data indicates that the level of vaccination card retention has fallen from 86 to 81 percent suggesting lower levels of contact with child health care providers generally. Furthermore, dropout rates in the polio and DPT multi-dose schedules have worsened. Last, measles vaccine and BCG coverage have declined slightly from levels in the early 1990s.

Childhood Illnesses. The survey also provides data on some of the more common childhood illnesses and their treatment. A little more than 1 in 4 children under age five had a cough with short, rapid breathing, signs of acute respiratory infection (ARI), in the two weeks before the survey. Of these, 27 percent were taken to a health facility for treatment. In the 1992 MDHS, only 15 percent of children under five were reported to have had ARI in the preceding 2 weeks, and 49 percent of these were taken to health facilities for treatment. One explanation for the rise in reported morbidity and decline in use of health facilities for treatment is that caregivers (mostly mothers) are increasingly recognising and reporting less severe cases of ARI in their young children. Further in-depth study is required.

Eighteen percent of children under age five were reported to have had diarrhoea in the two weeks preceding the survey, and of these, 62 percent received oral rehydration therapy (either solution prepared from oral rehydration salts (ORS) or increased fluids of some other kind). Most mothers (86 percent) know about the use of ORS packets.

Improved Breastfeeding Practices. The 2000 MDHS results show that exclusive breastfeeding of children under 4 months of age has increased to 63 percent from only 3 percent in the 1992 MDHS. Further, the overall median duration of breastfeeding has risen from 21 to 24 months during the same period.

Patterns of Feeding in Early Childhood. After a child is weaned from the breast, which occurs for most children between 18 and 24 months of age, the daily diet tends to stabilize at the following pattern: virtually all children receive grain or cereal-based foods regularly; 80 to 85 percent of children receive some fruits or vegetables; 85 to 90 percent get foods rich in vitamin A; about 50 percent receive meats, poultry, fish or eggs; one-third of children receive beans or other legumes; and 50 to 55 percent get tubers, roots, or plantains. Only 10 to 15 percent of children get some oils or fats added to their daily diet.

Micronutrient Supplements. The importance of adequate intake of vitamin A in mitigating the severity of childhood illnesses, and thereby reducing mortality, is well documented. Supplementing young children and postpartum women with a capsule containing a high dose of vitamin A is an easy way to ensure adequate intake. The 2000 MDHS data show that 65 percent of children under age five received a vitamin A supplement in the six months preceding the survey, and 42 percent of women delivering a baby in the past five years received a vitamin A supplement within two months after the last birth.

The iodine content of salt used in the household was measured in the 2000 MDHS. The results show that 49 percent of children under age five live in households that use salt containing an adequate level of iodine, but this varies from only 22 percent in Machinga District to over 62 percent in Kasungu, Blantyre and Thyolo districts.

Nutritional Status of Children. The results show no appreciable change in the nutritional status of children in Malawi since 1992; still, nearly half (49 percent) of the children under age five are chronically malnourished or stunted in their growth. Malawi's Central Region has especially high levels of stunting. Acute malnutrition or wasting remains at 5 to 6 percent of children under age five in Malawi.

Malaria Control Programme Indicators

Bednets. The use of insecticide-treated bednets (mosquito nets) is a primary health intervention proven to reduce malaria transmission. The 2000 MDHS found that 13 percent of households own at least 1 bednet, and among these households, the average number of bednets owned is 1.6. Bednet possession is more common in the Northern Region and in households of higher socioeconomic status.

The data also show that 8 percent of women age 15-49, 7 percent of pregnant

women, 8 percent of children under age five, and 6 percent of men age 15-54 slept under a bednet on the night before the survey. (Note: Most of the survey was conducted during the dry season, when bednet use was probably lower than average.)

Intermittent Antimalarial Treatment during Pregnancy. In Malawi, as a protective measure against various adverse outcomes of pregnancy, it is recommended that pregnant women receive a dose of sulpha-pyrimethamine (SP or Fansidar) in the second trimester and then again in the third trimester. The 2000 MDHS findings show that among women who recently gave birth, 68 percent received at least one dose of SP and 29 percent received two doses of SP during the last pregnancy.

Treatment of Fever in Children Under Age Five. The survey found that 42 percent of children under age five had a fever in the two weeks preceding the survey. Among febrile children, 35 percent were reported to have been taken to a health facility for treatment and 27 percent of children were given an antimalarial, mostly SP (23 percent). Of those given an antimalarial, 83 percent were given the treatment within zero to one day of the onset of fever.

Women's Health

Maternal Health Care. The survey findings indicate that use of antenatal services remains high in Malawi. Ninety-one percent of mothers with births in the last five years received antenatal care from a health professional (doctor, trained nurse or midwife) at least once. In the 1992 MDHS, the figure was 90 percent. For 56 percent of births, mothers visited antenatal services four or more times. Antenatal care can be more effective in avoiding adverse pregnancy outcomes when it is sought early in pregnancy. By the start of the sixth month of pregnancy, 50 percent of pregnant women have not had a single antenatal care visit. The 2000 MDHS also points to a wide disparity in the quality of antenatal services among Malawi's districts and socioeconomic strata.

Delivery under hygienic conditions and where medical assistance is available decreases the risk of maternal morbidity and mortality. At the national level, 55 percent of births in the five years before the survey were delivered in a health facility. This figure is identical to that reported from the 1992 data. For 7 percent of births occurring outside of a health facility, mothers received a postnatal check on their health.

The survey results indicate that 3 percent of births were delivered by caesarean section (C-section). A C-section rate below 5 percent is generally thought to be a reflection of limited access to maternal health services and potentially life-saving emergency obstetrical care.

Constraints to Use of Health Services. Women in the 2000 MDHS were asked whether certain circumstances constrain their access to and use of health services for themselves. By far, the most serious problems women face regarding use of health services involve transportation and cost.

Nutritional Status of Women. The 2000 MDHS collected information on the height and weight of all women age 15-49, which allows assessment of the body mass index (BMI), a measure of a woman's weight relative to her height. The findings point to two important issues in women's health. First, about 1 in 11 women have a low BMI (too thin), indicating chronic energy (calorie) deficiency, with rural women and women in the Southern Region having the highest prevalence of low BMI. Second, about 1 in 8 women have a very high BMI level, indicating these woman are overweight or obese. Nearly 1 in 4 urban women are overweight or obese, which places them at increased risk of cardiovascular disease, pregnancy-related complications, and other health problems.

Rising Maternal Mortality. The survey collected data allowing measurement of mater-

nal mortality. For the period 1994-2000, the maternal mortality ratio was estimated at 1,120 maternal deaths per 100,000 live births. This represents a rise from 620 maternal deaths per 100,000 estimated from the 1992 MDHS for the period 1986-1992.

HIV/AIDS

Impact of the Epidemic on Adult Mortality. All-cause mortality has risen by 76 percent among men and 74 percent among women age 15-49 during the 1990s. The age patterns of the increase are consistent with causes related to HIV/AIDS.

Improved Knowledge of AIDS Prevention Methods. The 2000 MDHS results indicate that practical AIDS prevention knowledge has improved since the 1996 MKAPH survey. For example, unprompted awareness that use of condoms prevents HIV transmission has risen from 23 to 55 percent among women and from 47 to 71 percent among men. Generally, knowledge of means to prevent HIV/AIDS is lowest in the young, sexually inexperienced, and rural population.

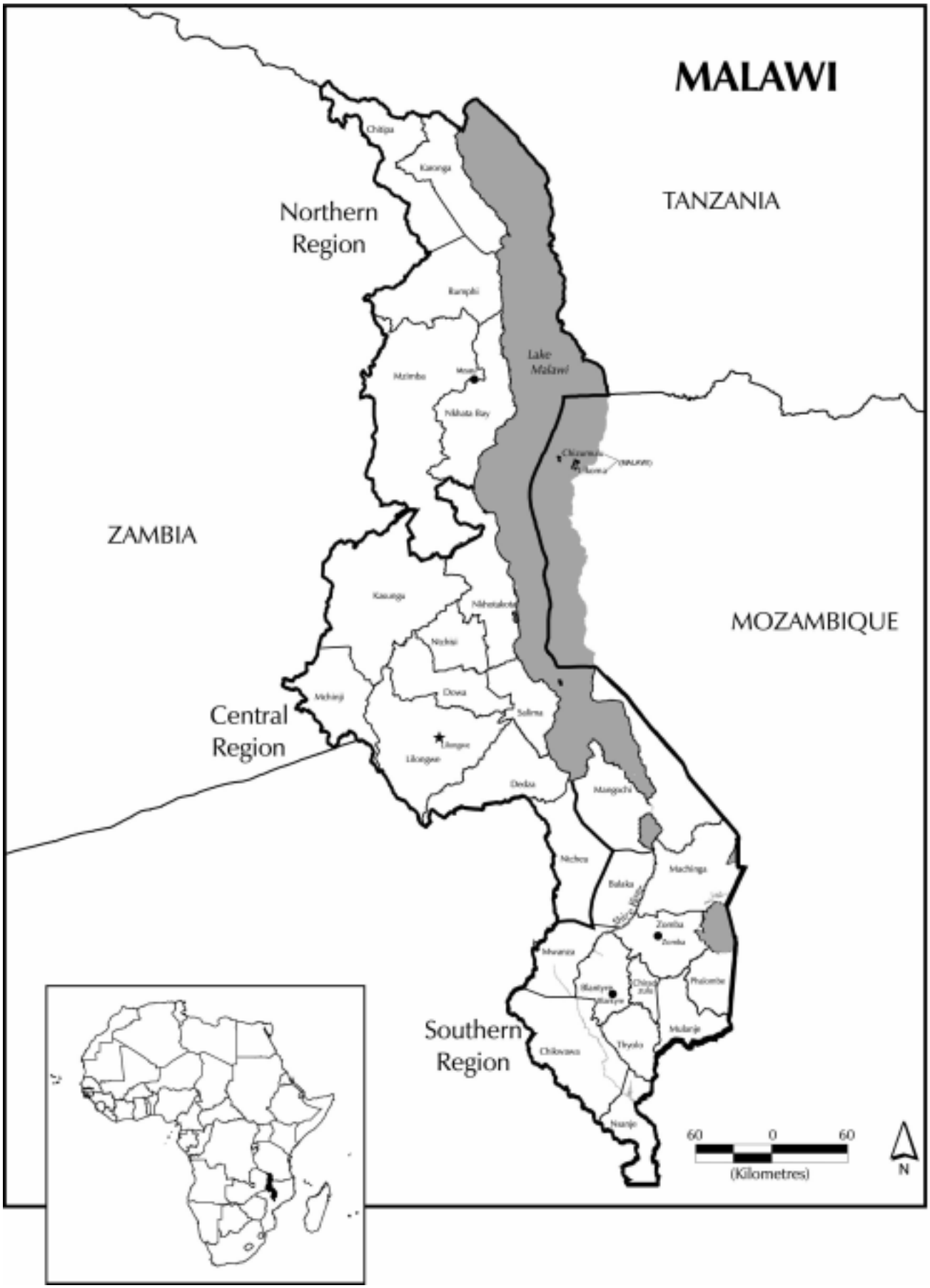
Sexual Activity Outside of Marriage. Among married men, 18 percent reported having had sex with someone other than their wives in the last 12 months. Only 1 percent of married women reported having extramarital sex.

Among unmarried men who have had sex in the last 12 months, about 1 in 4 reported two or more partners. In contrast, only 1 in 20 unmarried women who have had sex in the last 12 months reported more than 1 partner. First sexual activity continues to occur at a young age. The median age of girls at first sex is 17 years; for boys, first sex occurs at 18 years of age. Patterns in the MDHS data suggest that age at first sex is unchanged or slightly rising for girls but falling for boys.

Men in the 2000 MDHS were asked whether they had paid for sex in the last 12 months. The findings indicate that 21 percent of men engage in this high-risk activity, with married men as likely as unmarried men to be involved.

Condom Use. One of the main objectives of the National AIDS Control Programme is to encourage consistent and correct use of condoms, especially in high-risk sexual encounters. The 2000 MDHS data show that condom use with extramarital partners has increased slightly since 1996, but that use within marriage has actually declined by a small margin. Among men reporting having had commercial sex (for cash) in the last 12 months, only 35 percent reported using a condom on the last occasion.

HIV-testing Experience. The 2000 MDHS data show that 9 percent of women and 15 percent of men have been tested for HIV. However, more than 70 percent of both men and women, while not yet tested, said that they would like to be tested. This represents a very large pool of men and women with an unmet need for HIV-testing services. Knowledge of one's own HIV status is considered crucial to the adoption of AIDS prevention behaviours and the appropriate responses to mitigate the impact of the epidemic.


MALAWI
TANZANIA
ZAMBIA
MOZAMBIQUE
Northern Region
Central Region
Southern Region
Lake Malawi
Chitipa
Karonga
Rumphi
Mzimba
Nkhata Bay
Kasungu
Nkhotakota
Ntcheu
Dowa
Mchinji
Salima
Lilongwe
Dedza
Mangochi
Ntcheu
Balaka
Machinga
Zomba
Mwanza
Blantyre
Chiradzulu
Phalombe
Mulanje
Thyolo
Chikwawa
Nsanje
60 0 60
(Kilometres)
N

INTRODUCTION 1

Louis M. Magombo

1.1 Geography, History, and the Economy

Geography

Malawi is a landlocked country south of the equator in sub-Saharan Africa. It is bordered to the north and northeast by the United Republic of Tanzania; to the east, south, and southwest by the People's Republic of Mozambique; and to the west and northwest by the Republic of Zambia.

The country is 901 kilometres long and ranges in width from 80 to 161 kilometres. It has a total area of 118,484 square kilometres of which 94,276 square kilometres is land area. The remaining area is mostly composed of Lake Malawi, which is about 475 kilometres long and runs down Malawi's eastern boundary with Mozambique.

Malawi's most striking topographic feature is the Rift Valley that runs the entire length of the country, passing through Lake Malawi in the Northern and Central regions to the Shire Valley in the south. The Shire River drains the water from Lake Malawi into the Zambezi River in Mozambique. To the west and south of Lake Malawi lie fertile plains and mountain ranges whose peaks range from 1,700 to 3,000 metres above sea level.

The country is divided into three regions: the Northern, Central, and Southern regions. There are 27 districts in the country. Six districts are in the Northern Region, nine are in the Central Region, and 12 are in the Southern Region. Administratively, the districts are subdivided into Traditional Authorities (TAs), presided over by chiefs. Traditional Authorities are composed of villages, which are the smallest administrative units and are presided over by village headmen.

Malawi has a tropical, continental climate with maritime influences. Rainfall and temperature vary depending on altitude and proximity to the lake. From May to August, the weather is cool and dry. From September to November, the weather becomes hot. The rainy season begins in October or November and continues until April.

History

Malawi was under British rule from 1891 until July 1964 under the name of the Nyasaland Protectorate. In 1953, the Federation of Rhodesia and Nyasaland was created, which was composed of three countries, namely, Zimbabwe (then Southern Rhodesia), Zambia (then Northern Rhodesia) and Malawi (then Nyasaland). In July1964, the country became the independent state of Malawi, and it gained republic status in 1966.

In 1994, the country became a multiparty state and adopted a strategy to eradicate poverty. Since then the following have been introduced: free primary school education, a free market economy, a bill of rights, and a parliament with three main parties. Over the past ten years, the country has experienced a considerable increase of migrants from rural to urban areas.

Economy

Malawi has a predominantly agricultural economy. Agricultural produce accounted for 61 percent of Malawi's exports in 1999: tobacco, tea, and sugar being the major export commodities. The country is largely self-sufficient for food.

1.2 Population

The major source of historical demographic data comes from the population censuses. Population censuses have been taken in Malawi during the years 1891, 1901, 1911, 1921, 1926, 1931, 1945, 1956, 1966, 1977, 1987, and 1998. Other sources of population data include nationwide surveys: 1968/69, 1980/81, and 1992/93 National Sample Surveys of Agriculture; the 1970-72 Malawi Population Change Survey; the 1982 Malawi Demographic Survey; the 1983 Malawi Labour Force Survey and Survey of Handicapped Persons; the 1984 Family Formation Survey; the 1992 Malawi Demographic and Health Survey (MDHS); the 1996 Malawi Knowledge, Attitudes, and Practises in Health Survey (MKAPH); and the 1997/98 Integrated Household Survey. Table 1.1 provides some demographic indicators for Malawi based on the previous three censuses.

Table 1.1 Demographic indicators

Selected demographic indicators, Malawi, 1977, 1987 and 1998 national censuses

	Census year		
Index	1977	1987	1998
Population	5,547,460	7,988,507	9,933,868
Intercensal growth rate	2.9	3.2	2.0
Total area (sq km)	118,484	118,484	118,484
Land area (sq km)	94,276	94,276	94,276
Density (population per sq km)	59	85	105
Percentage of urban population	8.5	10.7	14.0
Women of child bearing age as a percentage of female population	45.1	44.2	47.2
Sex ratio	93	94	96
Crude birth rate	48.3	41.2	37.9
Total fertility rate	7.6	7.4	6.2
Crude death rate	25.0	14.1	21.1
Infant mortality rate	165	159	121
Life expectancy:			
Male	39.2	41.4	40.0
Female	42.4	44.6	44.0

The 1998 Population and Housing Census enumerated a total population of 9.9 million. The population grew from 8.0 million in 1987 representing an increase of 24 percent or an intercensal population growth rate of 2.0 percent per year. Along with population growth has come increasing

population density from 85 persons per square kilometre in 1987 to 105 persons per square kilometre in 1998.

To address problems associated with rapid population growth, the Malawi government adopted a National Population Policy in 1994, which was designed to reduce population growth to a level compatible with Malawi's social and economic goals (OPC, 1994). The policy's objectives include the following: to improve family planning and health care programmes, to increase school enrolment with an emphasis on raising the proportion of female students to 50 percent of total enrolment, and to increase employment opportunities—particularly in the private sector.

1.3 Objectives of the Survey

The principal aim of the 2000 MDHS project is to provide up-to-date information on fertility and childhood mortality levels, nuptiality, fertility preferences, awareness and use of family planning methods, use of maternal and child health services, and knowledge and behaviours related to HIV/AIDS and other sexually transmitted infections. It was designed as a follow-on to the 1992 MDHS survey, a national-level survey of similar scope. The 2000 MDHS survey also strived to collect data that would be comparable to those collected under the international Multiple Indicator Cluster Survey (MICS), sponsored by UNICEF. In broad terms, the 2000 MDHS survey aimed to—

- Assess trends in Malawi's demographic indicators—principally, fertility and mortality
- Assist in the evaluation of Malawi's health, population, and nutrition programmes
- Advance survey methodology in Malawi and contribute to national and international databases.

In more specific terms, the 2000 MDHS survey was designed to—

- Provide data on the family planning and fertility behaviour of the Malawian population and to thereby enable policymakers to evaluate and enhance family planning initiatives in the country.

- Measure changes in fertility and contraceptive prevalence and at the same time, study the factors that affect these changes, such as marriage patterns, desire for children, availability of contraception, breastfeeding habits, and important social and economic factors.

- Examine basic indicators of maternal and child health and welfare in Malawi, including nutritional status, use of antenatal and maternity services, treatment of recent episodes of childhood illness, and use of immunisation services. A particular emphasis was placed on the area of malaria programmes, including prevention activities and treatment of episodes of fever.

- Describe levels and patterns of knowledge and behaviour related to the prevention of HIV/AIDS and other sexually transmitted infections.

- Measure the level of adult and maternal mortality at the national level.

- Assess the status of women in the country.

1.4 Organisation of the Survey

The 2000 MDHS survey was a comprehensive survey that involved several agencies. The National Statistical Office (NSO) had the major responsibility for conducting the survey. The Ministry of Health and Population, the National AIDS Secretariat, the National Economic Council, and the Ministry of Gender also contributed to the development of the questionnaires for the survey. Financial support for the survey was provided by the United States Agency for International Development (USAID), the United Kingdom's Department for International Development (DfID), and the United Nations Children's Fund (UNICEF/Malawi). Technical assistance was provided by Macro International Inc., USAID-funded MEASURE *DHS+* project (USA).

1.5 Sample Design

The 2000 MDHS survey was designed to provide estimates of health and demographic indicators at the national and regional levels, for rural and urban areas, and for some districts that were designated for oversampling.

The 2000 MDHS sample points (clusters) were systematically sampled from a list of enumeration areas (EAs) defined in the 1998 Malawi Census of Population and Housing. A total of 560 clusters were drawn from the census sample frame: 449 in rural areas and 111 in urban areas. Eleven districts were oversampled in the 2000 MDHS survey in order to produce reliable estimates for certain variables at the district level. The oversampled districts are: Lilongwe, Blantyre, Zomba, Mzimba, Mangochi, Kasungu, Salima, Machinga, Mulanje, Thyolo, and Karonga.

Upon selecting the 560 clusters, NSO trained teams of personnel in MDHS procedures for the comprehensive listing of households and updating of maps in the selected clusters. Nine listing teams were deployed; each team was composed of ten members including a team leader and driver. Each team was provided with a Global Positioning System (GPS) unit to obtain geographic coordinates for the locality of each selected cluster. The listing of households was conducted from early April until early May 2000.

After the listing operation was complete, households to be included in the MDHS survey were selected, with the number of households selected per cluster being inversely proportional to the size of the cluster. Within each selected household, all women age 15-49 were eligible for interview. Further, a one-in-four systematic subsample of households was drawn, within which all men age 15-54 were eligible for interview.

1.6 Questionnaires

Three types of questionnaires were used in the 2000 MDHS survey: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. The contents of the questionnaires were based on the MEASURE *DHS+* model. A series of meetings were held with policy experts, programme managers, and other professionals in Malawi to review, adapt, and revise the questionnaires. This process culminated in English-version questionnaires that were then translated into Chichewa and Tumbuka.

The Household Questionnaire was used to list all of the usual members and visitors in the selected households[1]. Basic information on each person listed was collected, including age, sex, education, and relationship to the head of the household. The main purpose of the Household Questionnaire was to identify all of the eligible women (age 15-49) and men (age 15-54) for individual interviews. In addition, information was collected about characteristics of the household, such as the source of water, type of toilet facilities, materials used to construct the household's dwelling, and ownership of various consumer goods. Data on child labour practises, use of bednets (mosquito nets), and nutritional status of children and women were also collected in the Household Questionnaire.

The Women's Questionnaire was used to collect information from women age 15-49 and included questions on the following topics:

- Background characteristics (age, education, religion, etc.)
- Reproductive history (to arrive at fertility and childhood mortality rates)
- Knowledge and use of family planning methods
- Antenatal and delivery care
- Infant feeding practises, including patterns of breastfeeding
- Childhood vaccinations
- Recent episodes of childhood illness and responses to illness, especially recent fevers
- Marriage and sexual activity
- Fertility preferences
- Woman's status and decisionmaking
- Mortality of adults, including maternal mortality
- AIDS-related knowledge, attitudes, and behaviour

The Men's Questionnaire covered many of the same topics but excluded the detailed reproductive history and sections dealing with maternal and child health and adult and maternal mortality. The Men's questionnaire is consequently much shorter than the Women's Questionnaire.

The questionnaires were pretested in February 2000 in Mzimba, Ntcheu, and Blantyre City. More than 200 interviews were conducted over a one-week period. The questionnaires were produced in three language versions: Chichewa, Tumbuka, and English. However, interviews could be conducted in any of the languages spoken in Malawi if the respondent was not fluent in one of these three languages. Adjustments in language and content were made to the questionnaires based on the lessons drawn from the pretest interviews.

1.7 Training

Training of field staff for the main survey was conducted over a three-week period in June and July 2000. The training took place at Chilema Ecumenical Lay Training Centre outside Zomba Municipality. A total of 200 field staff were trained.

The training course consisted of instruction in general interviewing techniques, and field procedures, a detailed review of items on the questionnaires, instruction and practise in weighing and measuring children and women, mock interviews between participants, and practical interviews

[1] A household is defined as one or more persons, related or unrelated, who live together, make common provisions for food, regularly take their food from the same pot or same grainstore (Nkhokwe), or pool their income for the purpose of purchasing food.

in surrounding villages. In-depth discussions of the translations were an important part of the training programme. The trainees included 26 medically trained personnel who worked on the survey as health technicians. Of the trainees, 183 who performed satisfactorily in the training programme were selected to form the 22 teams for the fieldwork. The rest, if qualified, were employed as MDHS data entry and registry staff.

1.8 Data Collection and Data Processing

Twenty-two interviewing teams carried out the fieldwork for the MDHS survey, with each team consisting of one team leader, one field editor, four female interviewers, one health technician, one male interviewer, and one driver. On a few teams, an additional male interviewer was added. Additionally, six senior staff from NSO coordinated and supervised field activities. Data collection began on July 12 and was completed in early November 2000.

Complete, field-edited questionnaires were brought to the NSO headquarters in Zomba after collection during supervisory visits by NSO senior staff. Data entry began one week after data collection started and was completed in December 2000. Office editing, coding of open-ended questions, and editing based on computer identified inconsistencies in the data continued into January 2001. The questionnaires were entered, verified, and edited using a new version of ISSA (Integrated System for Survey Analysis) adapted by ORC Macro and the U.S. Bureau of Census for integrated use in censuses and surveys.

Table 1.2 shows the results of household and individual interviews for Malawi as a whole, and for urban and rural areas. A total of 15,421 households were selected in the MDHS sample, of which 14,352 were occupied. Of the occupied households, 14,213 were interviewed, yielding a household response rate of 99 percent. The household response rate was slightly higher in rural areas.

Table 1.2 Results of the household and individual interviews

Number of households, number of interviews and response rates, according to urban-rural residence, Malawi 2000

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households sampled	2,868	12,553	15,421
Households occupied	2,714	11,638	14,352
Households interviewed	2,680	11,533	14,213
Household response rate	98.7	99.1	99.0
Individual interviews: women			
Number of eligible women	2,929	10,609	13,538
Number of eligible women interviewed	2,871	10,349	13,220
Eligible woman response rate	98.0	97.5	97.7
Individual interviews: men			
Number of eligible men	812	2,566	3,377
Number of eligible men interviewed	721	2,371	3,092
Eligible man response rate	88.8	92.4	91.6

Within the interviewed households, 13,538 eligible women age 15-49 were identified, of which 13,220 were interviewed. The individual women's response rate to the 2000 MDHS survey was 98 percent. In the one-in-four subsample of households, 3,377 men age 15-54 were identified, of which 3,092 men were interviewed, giving a response rate of 92 percent. The main reason for nonresponse among both eligible men and women was the failure to find them at home despite repeated visits to the household. It is typical for male response rates to be lower than female response rates because men are more frequently absent from the household. Response rates for women were not influenced by urban-rural residence, but men's response rates were significantly better in rural areas than in urban areas.

In comparing response rates from the 1992 MDHS survey and the 2000 MDHS survey, the more recent survey performed slightly better. The women's response rate rose from 97 to 98 percent, and the men's response rate increased from 89 to 92 percent.

CHARACTERISTICS OF HOUSEHOLDS AND HOUSEHOLD MEMBERS

2

Richmond C. Chinula

The purpose of this chapter is to provide a descriptive summary of some demographic and socioeconomic characteristics of the population in the sampled households. Also examined are environmental conditions, such as housing facilities and physical features of dwelling units. This information on the characteristics of the surveyed population is essential for the interpretation of survey findings and can provide an approximate indication of the representativeness of the MDHS survey.

For the purpose of the 2000 MDHS survey, a household was defined as a person or a group of persons, related or unrelated, who live together in the same dwelling unit, who make common provisions for food and regularly take their food from the same pot or share the same grain store (*nkhokwe*), or who pool their income for the purpose of purchasing food. The Household Questionnaire was used to collect information on all usual residents and visitors who spent the night preceding the survey in the household. This allows the analysis of either de jure (usual residents) or de facto (those who are there at the time of the survey) populations.

2.1 Household Population by Age, Sex, and Residence

The distribution of the household population in the 2000 MDHS survey is shown in Table 2.1 by five-year age groups, according to sex and urban-rural residence. The 2000 MDHS households constitute a population of 61,725 persons. Fifty-one percent of the population is females, and 49 percent is males. Because of relatively high levels of fertility in the past, Malawi has a larger proportion of its population in the younger age groups than in the older age groups for each sex in both rural and urban areas. This pattern mirrors those observed in the 1992 MDHS survey and the 1998 Population and Housing Census.

Figure 2.1 shows that the population structure is much wider at the younger ages than at the older ages. There is no evidence of a tapering at the younger ages, which would be expected in a population with declining fertility rates (see Chapter 4). This indicates that Malawi's fertility decline is very recent and is not yet evident in the population structure.

2.2 Household Composition

Information about the composition of households by sex of the head of the household and size of the household is presented in Table 2.2. The data show that men head 73 percent of households in Malawi, similar to the level observed in the 1992 MDHS survey (75 percent). Female-headed households are more common in rural areas (28 percent) than in urban areas (16 percent). The average household size in Malawi is 4.4 persons. The household size is roughly the same in rural (4.4) and urban (4.5) areas.

Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age group, according to sex and residence, Malawi 2000

	Urban			Rural			Total		
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	16.1	16.5	16.3	18.5	17.8	18.1	18.1	17.6	17.9
5-9	13.8	14.0	13.9	16.3	15.3	15.8	15.9	15.2	15.5
10-14	11.0	14.3	12.6	13.8	13.5	13.6	13.4	13.6	13.5
15-19	11.6	11.7	11.7	10.0	9.0	9.5	10.3	9.3	9.8
20-24	12.4	13.3	12.8	8.2	8.9	8.6	8.8	9.5	9.2
25-29	10.2	9.2	9.7	7.0	7.4	7.2	7.5	7.6	7.5
30-34	7.2	5.7	6.5	5.0	4.8	4.9	5.4	5.0	5.1
35-39	5.8	4.5	5.2	4.6	4.5	4.5	4.7	4.5	4.6
40-44	3.4	2.9	3.2	3.6	3.4	3.5	3.5	3.3	3.4
45-49	3.1	2.5	2.8	2.8	3.0	2.9	2.8	3.0	2.9
50-54	2.2	2.0	2.1	2.7	3.6	3.2	2.6	3.4	3.0
55-59	1.3	1.1	1.2	2.2	2.5	2.4	2.0	2.3	2.2
60-64	0.8	0.7	0.8	1.8	2.2	2.0	1.6	2.0	1.8
65-69	0.4	0.8	0.6	1.5	1.6	1.5	1.3	1.5	1.4
70-74	0.2	0.4	0.3	1.1	1.1	1.1	0.9	1.0	1.0
75-79	0.1	0.1	0.1	0.6	0.6	0.6	0.5	0.6	0.6
80 +	0.2	0.3	0.2	0.6	0.6	0.6	0.5	0.6	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	4,483	4,326	8,809	25,507	27,409	52,917	29,990	31,735	61,725

Note: Table is based on the de facto population; i.e., persons who stayed in the household the night before the interview.

***Figure 2.1* Population Pyramid**

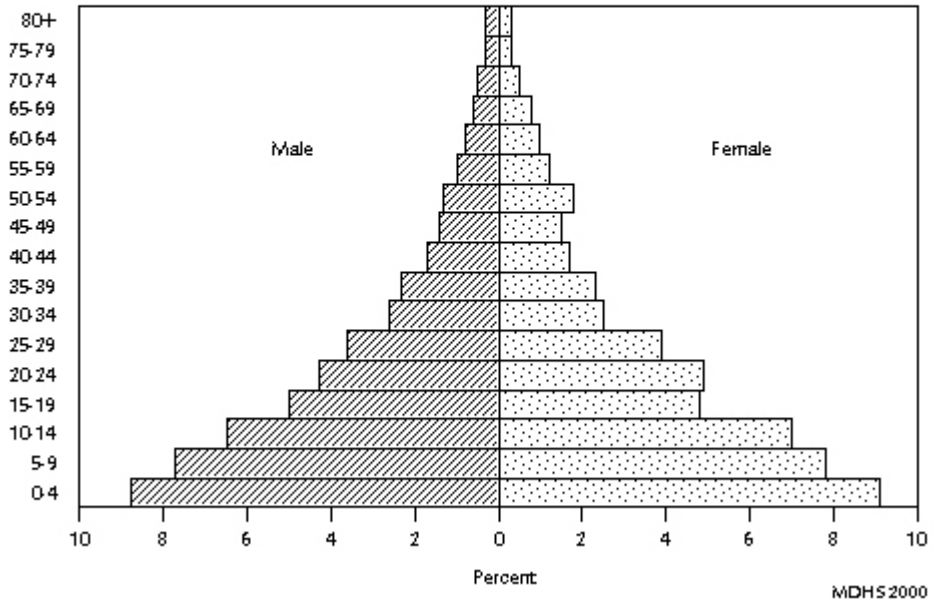


Table 2.2 Household composition

Percent distribution of households by sex of head of household and by household size, according to residence, Malawi 2000

Characteristic	Residence: Urban	Rural	Total
Sex of head of household			
Male	84.1	71.7	73.4
Female	15.9	28.3	26.6
Total	100.0	100.0	100.0
Number of usual members			
1	8.1	8.0	8.0
2	12.6	13.5	13.4
3	18.2	18.7	18.6
4	17.2	17.0	17.0
5	14.2	14.5	14.5
6	10.5	11.4	11.3
7	7.8	7.3	7.4
8	4.6	4.3	4.3
9+	6.7	5.2	5.4
Total	100.0	100.0	100.0
Mean size	4.5	4.4	4.4

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

2.3 Fosterhood and Orphanhood

Information on fosterhood and orphanhood of children under age 15 is presented in Table 2.3. The MDHS survey shows that only 60 percent of children under age 15 currently live with both of their biological parents.

Twenty-one percent of children under 15 are living with their mother (but not with their father), 2 percent are living with their father (but not with their mother), and 16 percent are living with neither of their natural parents.

The table also provides data on the extent of orphanhood, that is, the proportion of children who have lost one or both parents. Of children under 15 years, 8 percent have lost their father and 5 percent have lost their mother. Two percent of children have lost both their natural parents. Eleven percent have lost one or both parents. With the rates of adult illness and mortality related to HIV/AIDS rising in Malawi (see Chapter 12), the percentage of households with orphaned and foster children is expected to rise in the near term.

Table 2.3 Children's living arrangements

Percent distribution of de jure children under age 15 by survival status of parents and children's living arrangements, according to background characteristics, Malawi 2000

Background characteristic	Living with both parents	Living with mother but not father: Father alive	Father dead	Living with father but not mother: Mother alive	Mother dead	Not living with either parent: Both alive	Only father alive	Only mother alive	Both dead	Missing information on father/mother	Total	Number
Age												
<2	75.1	21.6	1.5	0.0	0.0	1.0	0.3	0.0	0.0	0.4	100.0	4,872
2-4	68.4	18.3	2.9	0.6	0.4	7.4	0.6	0.5	0.4	0.5	100.0	6,176
5-9	58.3	15.0	5.2	1.6	0.9	12.1	2.4	2.0	1.7	0.8	100.0	9,650
10-14	48.0	13.3	7.0	2.3	1.5	14.7	4.1	3.7	4.2	1.3	100.0	8,417
Sex												
Male	61.7	16.2	4.8	1.4	0.8	8.8	1.9	1.7	1.8	0.8	100.0	14,308
Female	58.9	16.4	4.4	1.2	0.8	11.2	2.5	1.9	1.9	0.8	100.0	14,806
Residence												
Urban	63.3	9.2	5.4	2.7	1.7	10.1	1.7	2.7	2.4	0.8	100.0	3,763
Rural	59.8	17.4	4.5	1.1	0.7	10.0	2.2	1.7	1.8	0.8	100.0	25,352
Region												
Northern	61.3	12.6	4.0	2.1	1.7	11.7	1.3	2.4	2.0	0.7	100.0	3,349
Central	64.6	15.2	3.7	1.2	0.8	8.9	2.0	1.5	1.3	0.6	100.0	12,524
Southern	55.9	18.3	5.7	1.2	0.6	10.5	2.5	2.0	2.3	1.0	100.0	13,242
Total	60.3	16.3	4.6	1.3	0.8	10.0	2.2	1.8	1.9	0.8	100.0	29,114

Differentials by background characteristics in fosterhood and orphanhood are not large. As expected, older children are more likely than younger children to be fostered and orphaned. A slightly larger proportion of urban children than rural children have lost their father or both parents.

2.4 Educational Level of Household Population

Education is a key determinant of the lifestyle and status an individual enjoys in a society. It affects many aspects of life, including demographic and health behaviour. Studies have consistently shown that educational attainment has strong effects on reproductive behaviour, contraceptive use, fertility, infant and child mortality, morbidity, and attitudes and awareness related to family health and hygiene. In the 2000 MDHS survey, information on educational attainment was collected for every member of the household. Table 2.4 shows the percent distribution of the de facto male and female population age 6 and over, by the highest level of education attained, according to selected background characteristics.

There is a strong differential in educational attainment between the sexes, especially as age increases. Twenty-eight percent of female household members in Malawi have never been to school, compared with 16 percent of males. The proportion with no education increases with age. For example, the proportion of women who have never attended any formal schooling increases from 19 percent at age group 20-24 to 70 percent among those age 65 and over. For men, the proportion increases from 9 percent at age group 20-24 to 38 percent at age group 65 and over. About 6 percent of women and 12 percent of men have attended some secondary school. The median number of years of schooling is 1.4 for women and 2.7 for men.

Overall, educational attainment is higher in urban areas than in rural areas. The proportion of women and men with secondary education is much higher in urban than in rural areas. Conversely, the proportion with no education in urban areas is one-third that in rural areas.

The proportion of the population age 6 and over that has achieved any education varies among Malawi's regions and districts. The Northern Region has the highest proportions with some education for both males (92 percent) and females (85 percent). For females, the proportion is lowest in the Southern Region (68 percent); for males, it is lowest in the Central Region (82 percent). Of the oversampled districts, Blantyre has the highest median years of education at 6.1 years for men and 4.2 years for women. Mzimba and Karonga follow at 4.5 years for men and 3.1 and 2.8, respectively, for women. The lowest educational attainment for both men and women is observed in Mangochi, where the median years of education is 1 year for men and 0 years for women.

Rates of school attendance have improved since the 1992 MDHS survey, especially among females. The percentages of girls and boys age 10-14 who had never been to school were 27 and 22 percent, respectively, based on the 1992 MDHS survey. The 2000 MDHS survey indicates that these figures have improved greatly, to just 7 percent for both girls and boys. This trend can be attributed at least in part to the government's introduction in 1994 of tuition-free primary education.

Table 2.4 Educational attainment of household population

Percent distribution of the de facto female and male household populations age six and over by highest level of education attended, according to background characteristics, Malawi 2000

Background characteristic	Level of education: No education	0-4 years of primary	5-8 years of primary	Secondary	More than secondary	Don't know/ missing	Total	Number	Median number of years
FEMALE									
Age									
6-9	25.7	73.6	0.2	0.0	0.0	0.5	100.0	4,029	0.0
10-14	6.8	76.3	15.9	0.8	0.0	0.3	100.0	4,311	2.1
15-19	8.0	33.7	44.4	13.9	0.0	0.0	100.0	2,961	4.6
20-24	18.8	32.8	30.5	17.7	0.1	0.0	100.0	3,013	3.8
25-29	30.2	28.9	30.4	10.1	0.3	0.1	100.0	2,417	2.7
30-34	34.5	29.0	29.5	7.0	0.1	0.0	100.0	1,572	2.1
35-39	39.5	28.9	25.1	6.4	0.1	0.0	100.0	1,439	1.6
40-44	46.9	27.2	20.9	4.8	0.1	0.0	100.0	1,057	0.4
45-49	48.9	30.5	16.6	3.8	0.1	0.0	100.0	939	0.0
50-54	55.0	30.1	11.5	2.4	0.1	1.0	100.0	1,082	0.0
55-59	60.4	30.7	6.6	1.3	0.0	0.9	100.0	742	0.0
60-64	65.0	31.5	2.9	0.3	0.0	0.4	100.0	644	0.0
65+	70.0	25.8	3.5	0.2	0.0	0.5	100.0	1,158	0.0
Residence									
Urban	11.7	33.3	31.1	23.3	0.4	0.2	100.0	3,519	4.7
Rural	31.1	47.0	18.3	3.3	0.0	0.2	100.0	21,843	1.0
Region									
Northern	14.9	39.9	36.7	8.1	0.0	0.3	100.0	2,843	3.4
Central	27.7	48.8	18.3	5.0	0.1	0.2	100.0	10,368	1.3
Southern	32.2	43.2	17.7	6.6	0.1	0.2	100.0	12,152	1.1
Districts									
Blantyre	11.2	37.5	28.6	22.3	0.4	0.1	100.0	2,169	4.2
Karonga	18.0	42.7	33.2	5.7	0.0	0.3	100.0	500	2.8
Kasungu	19.8	49.0	25.9	5.2	0.1	0.0	100.0	928	2.1
Lilongwe	25.5	48.5	18.3	7.3	0.1	0.2	100.0	3,595	1.4
Machinga	41.8	43.6	11.8	2.3	0.0	0.3	100.0	952	0.3
Mangochi	48.0	39.5	9.6	2.6	0.0	0.3	100.0	1,335	0.0
Mulanje	29.2	52.2	15.3	2.7	0.0	0.6	100.0	1,201	1.0
Mzimba	16.1	40.9	35.9	6.8	0.1	0.3	100.0	1,190	3.1
Salima	37.9	43.1	14.3	4.5	0.1	0.1	100.0	607	0.6
Thyolo	31.0	47.7	18.2	3.1	0.0	0.1	100.0	1,340	1.0
Zomba	31.8	44.7	19.7	3.6	0.0	0.2	100.0	1,547	1.3
Other districts	30.5	45.7	19.2	4.3	0.0	0.2	100.0	9,999	1.2
Total	28.4	45.1	20.1	6.1	0.1	0.2	100.0	25,363	1.4
MALE									
Age									
6-9	28.5	70.8	0.2	0.0	0.0	0.5	100.0	3,952	0.0
10-14	7.4	78.5	13.4	0.6	0.0	0.2	100.0	4,011	1.8
15-19	5.4	35.0	46.9	12.6	0.0	0.1	100.0	3,080	4.7
20-24	9.4	23.7	34.3	32.0	0.5	0.1	100.0	2,645	6.3
25-29	12.4	24.5	35.9	26.3	0.7	0.1	100.0	2,242	5.6
30-34	16.5	22.3	40.5	19.5	1.0	0.1	100.0	1,606	5.5
35-39	18.3	22.3	40.9	17.3	1.0	0.3	100.0	1,424	5.4
40-44	17.9	22.3	43.3	14.5	1.2	0.8	100.0	1,064	5.0
45-49	20.3	27.8	38.8	11.6	1.0	0.3	100.0	849	4.2
50-54	22.1	33.2	34.0	9.5	0.7	0.4	100.0	782	3.4
55-59	27.1	32.8	30.6	7.3	1.0	1.2	100.0	609	2.6
60-64	34.6	41.7	17.6	5.0	0.5	0.6	100.0	486	1.6
65+	38.3	42.6	16.1	2.3	0.2	0.6	100.0	998	1.2
Residence									
Urban	5.5	27.8	31.8	32.8	2.0	0.2	100.0	3,642	6.8
Rural	18.4	46.9	26.2	8.1	0.1	0.3	100.0	20,104	2.3
Region									
Northern	8.0	36.7	37.9	16.7	0.6	0.1	100.0	2,656	4.7
Central	18.2	45.9	25.2	10.2	0.2	0.3	100.0	10,143	2.4
Southern	16.8	43.9	26.1	12.3	0.5	0.4	100.0	10,947	2.6
Districts									
Blantyre	5.9	30.4	30.2	31.1	2.2	0.1	100.0	2,181	6.1
Karonga	8.2	38.1	38.6	14.6	0.1	0.5	100.0	475	4.5
Kasungu	13.1	42.7	32.3	11.5	0.2	0.1	100.0	957	3.3
Lilongwe	16.4	44.5	24.6	13.9	0.4	0.2	100.0	3,705	2.7
Machinga	24.7	47.2	20.8	6.6	0.3	0.5	100.0	792	1.8
Mangochi	29.3	45.3	18.8	5.9	0.1	0.6	100.0	1,172	1.0
Mulanje	15.5	50.4	26.9	6.3	0.2	0.6	100.0	991	2.3
Mzimba	8.4	37.4	39.4	14.1	0.7	0.1	100.0	1,076	4.5
Salima	25.2	41.6	22.4	10.4	0.1	0.3	100.0	540	1.8
Thyolo	15.4	47.0	28.9	8.4	0.1	0.3	100.0	1,089	2.6
Zomba	16.5	44.6	29.0	9.5	0.1	0.3	100.0	1,396	2.6
Other districts	17.9	46.6	26.1	9.0	0.2	0.3	100.0	9,372	2.3
Total	16.4	44.0	27.0	11.9	0.4	0.3	100.0	23,747	2.7

Note: Totals include 3 women and 6 men for whom information on age is not available.

2.5 School Attendance

The 2000 MDHS collected information that allows calculation of net attendance ratios (NARs) and gross attendance ratios (GARs). The NAR for primary school is the percentage of the primary-school-age (6-13 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school-age (14-17 years) population that is attending secondary school. By definition, the NAR cannot exceed 100 percent. The GAR for primary school is the total number of primary school students, of any age, expressed as the percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students up to an age limit of 24 years, expressed as the percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.

Table 2.5 presents the NARs and GARs by urban-rural residence and region, according to sex for primary school and secondary school. Findings indicate that among children within the official age range for primary school, slightly more girls are attending school than boys (79 versus

Table 2.5 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de jure household population by level of schooling and sex, according to background characteristics, Malawi 2000

Background characteristic	Net attendance ratio (NAR)[1]			Gross attendance ratio (GAR)[2]		
	Male	Female	Total	Male	Female	Total
PRIMARY SCHOOL						
Residence						
Urban	90.1	87.5	88.7	123.9	107.8	115.4
Rural	75.2	77.9	76.6	109.6	101.5	105.5
Region						
Northern	86.3	89.9	88.2	128.5	116.4	122.2
Central	74.7	78.5	76.6	107.0	100.9	103.9
Southern	77.0	77.2	77.1	111.3	100.1	105.6
Total	77.0	79.2	78.2	111.4	102.4	106.8
SECONDARY SCHOOL						
Residence						
Urban	23.4	30.0	26.6	75.5	61.8	69.0
Rural	3.7	5.0	4.3	24.9	13.0	19.2
Region						
Northern	8.0	15.0	11.6	46.1	25.3	35.5
Central	5.8	7.0	6.4	30.8	17.4	24.5
Southern	7.3	8.5	7.8	30.9	21.6	26.4
Total	6.7	8.8	7.7	32.6	20.4	26.8

[1] The NAR for primary school is the percentage of the primary-school-age (6-13 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school-age (14-17 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.

[2] The GAR for primary school is the total number of primary school students, among those of any age, expressed as the percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students (up to age 24), expressed as the percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.

77 percent). However the GAR shows that, overall, more boys are attending than girls. It is also shown that the primary net attendance ratio is highest for children in the Northern Region (88 percent), followed by the Central and Southern regions (both 77 percent). The NAR for primary school is also higher in urban areas (89 percent) than in rural areas (77 percent).

Secondary school attendance ratios are much lower and differ substantially by background characteristics. The NAR in urban areas is six times higher than the NAR in rural areas. The same regional patterns exist for secondary school attendance ratios as for educational attainment: the Northern Region has the highest attendance ratios with the Central and Southern regions being slightly lower. Overall, the net attendance ratio is 8, indicating only 8 percent of secondary-school-age children are attending school at roughly the correct ages. The gross attendance ratio of 27 percent (secondary school) indicates that a substantial proportion of secondary school students are outside the official age range.

By asking about the grade or standard that children were attending during the previous school year, it is possible to calculate dropout rates and repetition rates. Table 2.6 indicates that repetition rates are high in Standard 1 (45 percent), which may be related to the teachers' decision

Table 2.6 Grade repetition and dropout rates

Repetition and dropout rates for the de jure household population age 5-24 years by school standard, sex, residence, and region, Malawi 2000

	Primary school standard							
Characteristic	1	2	3	4	5	6	7	8
	REPETITION RATE[1]							
Sex								
Male	43.9	23.6	28.5	17.8	16.1	14.3	11.3	40.2
Female	46.7	24.9	25.7	16.5	14.2	10.4	11.4	35.9
Residence								
Urban	29.1	16.4	24.7	9.2	12.4	12.0	12.4	27.2
Rural	47.1	25.3	27.6	18.5	15.8	12.6	11.0	43.3
Region								
Northern	42.7	17.2	22.4	19.7	14.3	12.4	18.1	49.8
Central	46.7	24.5	28.3	15.2	12.9	10.9	8.0	34.9
Southern	44.6	25.9	27.5	18.0	17.4	13.8	10.7	35.5
Total	45.3	24.2	27.2	17.2	15.2	12.5	11.4	38.6
	DROPOUT RATE[2]							
Sex								
Male	3.3	3.1	4.7	4.8	6.9	4.9	6.2	9.9
Female	2.2	3.5	4.0	6.2	6.5	9.0	9.7	14.1
Residence								
Urban	1.0	0.6	1.7	1.1	2.5	4.6	2.7	5.4
Rural	2.9	3.7	4.8	6.3	7.6	7.4	9.5	14.0
Region								
Northern	1.1	1.1	1.5	1.8	3.0	4.7	8.3	11.4
Central	2.0	2.3	4.3	4.0	6.5	6.6	6.9	10.5
Southern	3.9	4.8	5.1	7.8	8.2	7.8	7.9	12.4
Total	2.7	3.3	4.3	5.5	6.7	6.9	7.7	11.5

[1] The repetition rate is the percentage of students in a given standard who are repeating that standard.
[2] The dropout rate is the percentage of students in a given standard in the previous school year who are not currently attending school.

to ensure a more uniform preparedness before promoting children to Standard 2. Repetition rates decline at higher standards, but increase at Standard 8, due to failed attempts at getting into a secondary school.

The second panel of Table 2.6 shows a pattern of increasing dropout rates with increasing year in school. Only 3 percent of children drop out of school after having attended Standard 1 compared with a dropout rate of 12 percent at Standard 8. Notable is that the dropout rate at Standard 8 is higher for girls than for boys, while the repetition rate at Standard 8 is higher for boys than for girls (first panel of Table 2.6). This suggests that, despite initiatives to promote continuation of girls' schooling, boys are still able (to a greater extent than girls) to persist in moving on past a primary education. Boys are more likely to repeat Standard 8, which allows repeat attempts at entry to secondary schools, while girls are more likely to leave school.

Rural children are more likely to drop out at all standards than their urban counterparts. Children from the Southern Region are more likely to dropout than children in the Northern or Central regions, except in Standards 7 and 8.

2.6 Child Labour

In the 2000 MDHS survey, information was collected on the work activities of children age 5-14. Working children have less opportunity to attend school and are more susceptible than adults to unfair working environments, including low or no pay, poor working conditions, and physical abuse. Despite policies and laws designed to curtail exploitative child labour, the practise continues in many settings. The 2000 MDHS survey asked a series of questions about whether children age 5-14 were doing any kind of work for pay, whether children regularly did unpaid family work on the farm or in a family business, and whether and to what extent (number of hours) children helped with household chores.

Table 2.7 shows that 9 percent of children age 5-14 are doing work for nonrelatives, about two-thirds of these without pay. Sixty-two percent are working in the family business or on the family farm, and 19 percent of children are doing four or more hours of domestic work per day. Overall, 27 percent of children are either working for a nonrelative (paid or unpaid) or spending four or more hours a day doing household chores. Older children are much more likely to be working than younger children. Although boys are more likely to be involved in four or more hours of domestic work per day, there is little difference in the overall percentage engaged in work (26 to 28 percent). Urban children are much less likely to be involved in work than urban children.

Children in the Northern Region (13 percent) are more likely than those in the Central Region (5 percent) and Southern Region (4 percent) to be working without pay for nonrelatives. Children in the Northern Region are also more likely to be employed on the family farm or in the family business.

Table 2.7 Child labour

Percentage of children age 5-14 years who are currently working, by type of work and background characteristics, Malawi 2000

Background characteristic	Working for non-relatives		Currently doing work on family farm or family business	Currently doing domestic work for:		Currently working[1]	Number of children
	Paid	Unpaid		Less than 4 hours per day	4 or more hours per day		
Age							
5-9	1.3	4.2	49.2	1.7	8.1	13.8	9,573
10-14	5.1	7.3	76.6	6.3	30.6	42.1	8,321
Gender							
Male	3.2	4.4	53.8	2.6	21.1	27.6	8,775
Female	3.0	6.8	69.7	5.1	16.1	26.4	9,120
Residence							
Urban	1.6	3.7	63.2	4.4	10.6	17.7	2,334
Rural	3.3	6.0	61.8	3.8	19.8	28.4	15,560
Region							
Northern	2.2	12.9	70.8	4.0	20.2	31.8	2,099
Central	3.7	5.3	61.6	3.8	16.8	25.4	7,686
Southern	2.8	4.1	60.0	3.9	19.9	27.2	8,110
Total	3.1	5.7	61.9	3.9	18.6	27.0	17,894

[1]Working means doing paid or unpaid work or doing domestic work for four or more hours a day.

2.7 HOUSING CHARACTERISTICS

MDHS respondents were asked about their household environment, including questions on access to electricity, sources of drinking water, time to water sources, type of toilet facilities and floor materials, and possession of various durable goods. This information is summarised in Table 2.8. About 5 percent of households in Malawi have electricity. Electricity is much more common in urban areas (29 percent) than in rural areas (1 percent).

A household's source of drinking water is important because potentially fatal diseases, including typhoid, cholera, and dysentery, are prevalent in unprotected sources. Sources of water expected to be relatively free of these diseases are piped water and water drawn from protected wells and deep boreholes. Other sources, like unprotected wells and surface water (rivers, streams, ponds, and lakes), are more likely to carry disease-causing agents. Table 2.8 shows that overall, 65 percent of Malawian households have access to clean water sources (23 percent from piped water plus 42 percent from protected wells or boreholes). This represents a substantial increase since the 1992 MDHS survey when just 47 percent of households had access to similar water sources. Most of this gain is the result of a doubling in the percentage of rural households that now have access to water from protected wells or boreholes from 24 percent in 1992 to 47 percent in 2000. These findings describe one of the most important public health advances in Malawi during the 1990s and may be an important reason for the declines in mortality among young children (see Chapter 8).

As expected, a far greater proportion of urban than rural households have access to piped water (84 versus 14 percent). In urban areas, 65 percent of the households have access to water within 15 minutes, compared with 28 percent of rural households.

Modern sanitation facilities are not yet available to large proportions of Malawian households. The use of traditional pit latrines is still common in both urban and rural areas, accounting for 79 percent of all households. Overall, about 19 percent of the households in Malawi have no toilet facilities. This problem is more common in rural areas, where 21 percent of the households have no toilet facilities, compared with 2 percent of households in urban areas.

The type of material used for flooring is an indicator of the economic standing of the household as well as an indicator of potential exposure to disease-causing agents. Overall, 81 percent of all households in Malawi live in residences with floors made of earth, sand, or dung, while 19 percent live in houses with finished floors like those made of cement or wooden panels. Earth flooring is almost universal in rural areas (89 percent).

Table 2.8 Housing characteristics

Percent distribution of households by housing characteristics, according to residence, Malawi 2000

Housing characteristic	Residence		
	Urban	Rural	Total
Electricity			
Yes	28.7	1.0	4.8
No	71.2	98.8	95.0
Missing	0.1	0.2	0.2
Total	100.0	100.0	100.0
Source of drinking water			
Piped into dwelling	17.1	0.6	2.8
Piped into yard/plot	24.6	1.1	4.3
Community stand pipe	41.8	12.1	16.2
Protected well	3.0	6.6	6.1
Borehole	8.3	40.1	35.8
Unprotected well	3.9	27.0	23.8
Surface water	1.3	12.5	10.9
Total	100.0	100.0	100.0
Time to water source (in minutes)			
Percentage <15 minutes	65.4	28.3	33.4
Median time to source	4.8	19.9	19.6
Sanitation facility			
Own flush toilet	16.4	0.7	2.9
Pit latrine	81.8	78.0	78.5
No facility/bush	1.8	21.2	18.5
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Main floor material			
Earth/sand/dung	31.5	89.1	81.2
Cement or other modern material	68.5	10.9	18.8
Total	100.0	100.0	100.0
Number	1,949	12,264	14,213

Respondents were also asked about their household's ownership of particular durable goods. In addition to providing an indicator of economic status, ownership of these goods provides measures of other aspects of life. Ownership of a radio and a television is a measure of access to mass media; ownership of a refrigerator indicates a capacity for more hygienic food storage; and ownership of a bicycle, motorcycle, or car reflects means of transport and thus employment opportunities available to households. Information on ownership of these items is presented in Table 2.9.

Possession of the specific durable goods referenced in the MDHS survey is not common in Malawi, since many households simply cannot afford them. Nationally, 55 percent of households own a radio and only 2 percent of households own a television. Bicycles are the most common type of vehicle owned by households; 43 percent of households have a bicycle. Ownership of motorised transport is rare. Only 2 percent of households have cars and even fewer (only 1 percent) have motorcycles. As expected, urban households are more likely than rural households to own the items listed, except for bicycles, which are more commonly owned in rural areas. For example, 80 percent of urban households have radios, compared with 51 percent of rural households. Most households (91 percent) own a paraffin lamp.

Ownership of radios, televisions, and bicycles has increased substantially since 1992. For example, the proportion of households with radios has increased from 33 to 55 percent and the proportion with bicycles has increased from 21 to 43 percent.

Table 2.9 Household durable goods

Percentage of households possessing various durable consumer goods and means of transport, by residence, Malawi 2000

Durable consumer goods	Residence		
	Urban	Rural	Total
Household possessions			
Radio	79.5	50.8	54.8
Television	13.7	0.5	2.3
Paraffin lamp	83.6	91.9	90.7
Means of transport			
Bicycle	28.4	45.8	43.4
Motorcycle/scooter	1.3	0.9	1.0
Car/truck	6.4	0.8	1.6
None of the above	1.8	5.9	5.3
Number of households	1,949	12,264	14,213

CHARACTERISTICS OF RESPONDENTS AND WOMEN'S STATUS

3

Sophie Kang'oma

This chapter provides a demographic and socioeconomic profile of the 2000 Malawi DHS sample of individual female and male respondents. The chapter begins by describing basic background characteristics of men and women, including age, martial status, educational level, and residential characteristics. Next, more detailed information on education, literacy, and exposure to mass media among men and women are provided. Last, data on the employment and earnings of women, decisionmaking in the household, and attitudes on women's position in relation to others in the household are presented.

3.1 Characteristics of Survey Respondents

Background characteristics of women age 15-49 and men age 15-54 interviewed in the 2000 MDHS survey are presented in Table 3.1. Generally, the proportion of respondents in each age group declines as age increases. Seventy percent of women and 59 percent of men were currently married as of the survey date. An additional 1 percent of women and nearly 3 percent of men reported being in an informal marriage or living together. For purposes of the 2000 MDHS survey and in presentation of findings throughout later chapters of this report, informal marriages are typically grouped together with formalised marriages to form the group "currently married" or "in union". Because men get married later in life than women, more than one-third (35 percent) of the surveyed men have never married, compared with just 17 percent of women. Women were three times more likely than men to be divorced, widowed, or separated.

As expected, most of the interviewed women and men reside in rural areas (82 percent of males and 84 percent of females). The largest proportion of the male and female respondents live in the Southern Region (47 and 49 percent, respectively), while 42 and 40 percent of men and women live in the Central Region. Only 11 percent of both men and women live in the Northern Region.

Table 3.1 also shows the distribution of men and women by district, including those districts that were oversampled to allow for the estimation of certain indicators presented later in the report. Notable is the large difference between the weighted number of men and women and the unweighted number in some districts. The unweighted number represents the number that were actually interviewed in the 2000 MDHS survey; whereas the weighted number represents that district's proportional representation in the population based on the 1998 census population distribution. For instance, Karonga District has only 2 percent of the national population of women age 15-49 (as represented by 266 weighted cases), but 941 women were actually interviewed (or 7 percent of the total number of interviewed women). This is mentioned so that the reader will understand that while weighted numbers are presented throughout the report, the district estimates may be based on a significantly large number of unweighted male or female individual interviews.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men by background characteristics, Malawi 2000

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Un-weighted number	Weighted percent	Weighted number	Un-weighted number
Age						
15-19	21.7	2,867	2,914	21.4	660	674
20-24	22.4	2,957	2,998	19.4	598	584
25-29	18.2	2,401	2,358	17.4	539	544
30-34	11.8	1,566	1,574	10.7	330	335
35-39	10.8	1,424	1,410	11.0	340	333
40-44	8.0	1,053	1,052	7.8	240	240
45-49	7.2	951	914	6.7	207	209
50-54	na	na	na	5.7	177	173
Marital status						
Never married	17.0	2,243	2,284	34.7	1,073	1,064
Married	70.2	9,282	9,155	59.2	1,830	1,807
Living together	1.3	170	206	2.5	76	96
Divorced/separated/widowed	11.5	1,525	1,575	3.7	113	125
Residence						
Urban	15.9	2,106	2,871	18.2	564	721
Rural	84.1	11,114	10,349	81.8	2,528	2,371
Region						
Northern	11.0	1,453	2,187	11.3	351	544
Central	40.3	5,321	4,508	41.9	1,296	1,116
Southern	48.8	6,446	6,525	46.8	1,446	1,432
Education						
No education	27.0	3,574	3,372	10.4	322	301
Primary 1-4	30.4	4,025	3,829	29.0	898	822
Primary 5-8	31.4	4,152	4,390	40.2	1,243	1,269
Secondary	11.0	1,452	1,608	19.9	614	682
Higher	0.1	16	21	0.5	15	18
District						
Blantyre	10.0	1,324	1,023	10.4	321	252
Karonga	2.0	266	941	2.1	64	245
Kasungu	3.7	484	728	4.6	142	215
Lilongwe	14.1	1,864	871	15.7	487	217
Machinga	3.6	481	798	3.8	119	173
Mangochi	4.8	637	654	5.0	154	154
Mulanje	4.7	624	905	3.8	117	171
Mzimba	4.6	603	781	4.6	142	199
Salima	2.3	301	784	2.1	65	174
Thyolo	5.2	687	882	4.5	141	179
Zomba	6.4	846	899	5.7	177	213
Other districts	38.6	5,103	3,954	37.6	1,163	900
Total	100.0	13,220	13,220	100.0	3,092	3,092

Note: Education refers to the highest level ever attended whether or not that level was completed.
na = Not applicable

3.2 EDUCATIONAL ATTAINMENT

Table 3.2 shows the percent distribution of respondents by highest level of schooling attained according to their age and place of residence. Young women and men are more likely to have attended school than the older generation. The distribution of respondents who have never attended school rises with increasing age. For example, 8 percent of women and 3 percent of men age 15-19 have no formal education, compared with 50 percent of women and 22 percent of men

Table 3.2 Educational attainment by background characteristics

Percent distribution of women and men by highest level of schooling attended, and median number of years of schooling completed, according to background characteristics, Malawi 2000

Background characteristic	Highest level of schooling attended						Number	Median years of schooling completed
	No education	Primary 1-4	Primary 5-8	Secondary	More than secondary	Total		
WOMEN								
Age								
15-19	7.7	32.9	45.2	14.2	0.0	100.0	2,867	4.7
20-24	18.5	32.5	31.1	17.7	0.1	100.0	2,957	3.9
25-29	30.0	29.1	30.6	9.9	0.3	100.0	2,401	2.8
30-34	34.9	28.3	29.8	6.9	0.1	100.0	1,566	2.2
35-39	40.1	28.7	24.8	6.3	0.1	100.0	1,424	1.5
40-44	47.0	26.8	21.2	4.9	0.1	100.0	1,053	0.4
45-49	49.6	30.3	16.4	3.6	0.1	100.0	951	0.0
Residence								
Urban	10.3	14.2	39.1	35.7	0.6	100.0	2,106	7.0
Rural	30.2	33.5	29.9	6.3	0.0	100.0	11,114	2.5
Region								
Northern	11.1	18.0	56.4	14.4	0.0	100.0	1,453	5.6
Central	26.9	34.0	29.7	9.2	0.1	100.0	5,321	2.8
Southern	30.7	30.3	27.2	11.7	0.1	100.0	6,446	2.7
Total	27.0	30.4	31.4	11.0	0.1	100.0	13,220	3.1
MEN								
Age								
15-19	3.3	32.9	51.6	12.1	0.0	100.0	660	5.0
20-24	5.4	26.8	35.6	32.1	0.1	100.0	598	6.4
25-29	7.5	31.6	33.9	26.1	0.9	100.0	539	5.6
30-34	15.9	23.3	37.4	22.9	0.5	100.0	330	5.8
35-39	15.9	27.6	40.0	15.1	1.4	100.0	340	4.8
40-44	17.2	24.5	44.0	14.0	0.3	100.0	240	4.9
45-49	21.7	30.2	36.9	11.1	0.1	100.0	207	3.8
50-54	19.0	32.6	36.7	10.2	1.5	100.0	177	3.8
Residence								
Urban	3.4	10.4	39.3	45.0	1.9	100.0	564	7.7
Rural	12.0	33.2	40.4	14.3	0.2	100.0	2,528	4.5
Region								
Northern	2.7	12.6	58.8	25.5	0.3	100.0	351	7.2
Central	11.8	32.0	39.1	16.5	0.7	100.0	1,296	4.6
Southern	11.1	30.4	36.7	21.5	0.4	100.0	1,446	4.9
Total	10.4	29.0	40.2	19.9	0.5	100.0	3,092	5.1

age 45-49. Similarly, 18 percent of women age 20-24 attended secondary school, compared with only 4 percent of women age 45-49. For the male respondents, 32 percent of men age 20-24 attended secondary school, compared with just 10 percent of men age 50-54.

The MDHS data indicate that educational opportunities vary among the respondents according to their areas of residence. Urban women and men are more likely to go to school than their rural counterparts. Only 10 percent of urban women and 3 percent of urban men have not attended school, compared with 30 percent and 12 percent in rural areas, respectively. Comparing the median completed years of education shows a similar differential, with urban women having a median of seven years of schooling and rural respondents having only three years.

At the regional level, the proportion of women who have no formal education is lower in the Northern Region (11 percent), compared with to the Central Region (27 percent) and the Southern Region (31 percent). Secondary education (or higher) is most common for men (26 percent) and women (14 percent) who reside in the Northern Region and is least common for men (17 percent) and women (9 percent) residing in the Central Region.

3.3 Literacy

The ability to read is an important personal asset allowing women and men increased opportunities in life. In the 2000 MDHS survey, persons were defined as literate based on the UNICEF definition: persons who are able to read a complete sentence or those with some secondary education. Knowing the distribution of the literate population can help planners, especially for health and family planning, know how to reach women and men with their messages. Table 3.3 shows that especially for women, there has been a marked increase in the percent literate over time. Only 25 percent of women age 45-49 are literate compared with 67 percent of women age 15-19. The level of literacy is higher among men (72 percent) than women (49 percent).

Urban respondents have a higher level of literacy (75 percent for women and 88 percent for men) than rural respondents (44 and 69 percent, respectively). For both women and men, the Northern Region has the highest literacy rate: almost 15 percentage points higher than the other two regions.

3.4 Access to Mass Media

The 2000 MDHS survey collected information on the exposure of respondents to the various common print and electronic media. Respondents were asked how often they read a newspaper, listened to the radio, or watched television in a week. This information is useful to family planning and health programmers to enable them to know how to reach targeted groups.

Although more than one-half of the women and men listen to the radio at least once a week, a much smaller proportion read newspapers or watch television. Data in Table 3.4 show that 52 percent of interviewed women and 70 percent of interviewed men listen to the radio at least once a week. Only 4 percent of women and 9 percent of men watch television at least once a week. About one in five men and one in ten women read a newspaper at least once a week. Less than half of the interviewed women (46 percent) and one-quarter of men (26 percent) have no access to any type of mass media.

Table 3.3 Literacy

Percent distribution of women and men by level of schooling attended, level of literacy, and percent literate, according to background characteristics, Malawi 2000

Background characteristic	No schooling or primary school: Cannot read at all	Can read part of a sentence	Can read a whole sentence	No card in respondent's language[1]	Secondary school or higher	Total	Number	Percent literate
WOMEN								
Age								
15-19	24.2	8.4	52.9	0.2	14.2	100.0	2,867	67.2
20-24	36.5	7.8	37.8	0.1	17.8	100.0	2,957	55.7
25-29	46.4	7.7	35.6	0.1	10.2	100.0	2,401	45.8
30-34	49.8	8.9	34.2	0.2	6.9	100.0	1,566	41.1
35-39	53.1	7.7	32.8	0.0	6.4	100.0	1,424	39.2
40-44	63.3	6.4	25.2	0.1	5.0	100.0	1,053	30.2
45-49	68.1	7.1	21.0	0.1	3.7	100.0	951	24.5
Residence								
Urban	17.5	7.1	38.8	0.2	36.4	100.0	2,106	75.1
Rural	48.3	8.0	37.3	0.1	6.3	100.0	11,114	43.6
Region								
Northern	28.7	8.5	47.8	0.5	14.5	100.0	1,453	62.5
Central	43.5	7.9	39.1	0.1	9.4	100.0	5,321	48.5
Southern	46.6	7.7	33.9	0.0	11.8	100.0	6,446	45.7
Total	43.4	7.9	37.5	0.1	11.1	100.0	13,220	48.6
MEN								
Age								
15-19	17.2	8.5	61.6	0.6	12.1	100.0	660	73.5
20-24	15.9	7.5	44.3	0.1	32.2	100.0	598	76.5
25-29	20.5	5.5	46.9	0.2	26.9	100.0	539	74.0
30-34	21.8	5.1	49.7	0.0	23.4	100.0	330	73.1
35-39	25.9	4.4	53.3	0.0	16.5	100.0	340	69.7
40-44	23.9	11.6	50.1	0.1	14.3	100.0	240	64.5
45-49	28.3	5.6	54.1	0.7	11.2	100.0	207	65.5
50-54	22.8	8.4	57.2	0.0	11.7	100.0	177	68.9
Residence								
Urban	5.4	6.3	40.9	0.4	46.9	100.0	564	87.6
Rural	23.9	7.1	54.3	0.2	14.4	100.0	2,528	68.6
Region								
Northern	9.5	3.6	60.5	0.5	25.8	100.0	351	86.5
Central	24.4	6.5	51.7	0.3	17.2	100.0	1,296	68.6
Southern	19.7	8.3	49.9	0.1	21.9	100.0	1,446	71.7
Total	20.5	7.0	51.9	0.2	20.4	100.0	3,092	72.1

Note: Percent literate includes those who have attended secondary school and those who can read a whole sentence.

[1] Literacy cards for reading a sentence were available only in the major languages.

Urban residents and in general younger respondents have more access to all three types of media than their rural or older counterparts. In the Northern Region, where the literacy rate is high, both women and men are more likely to read a newspaper weekly than in the Central or Southern regions. Respondents of both sexes in the Southern Region and urban areas have greater exposure to televisions and radios. Accessibility to all mass media is lower among the Central Region residents.

Table 3.4 Exposure to mass media

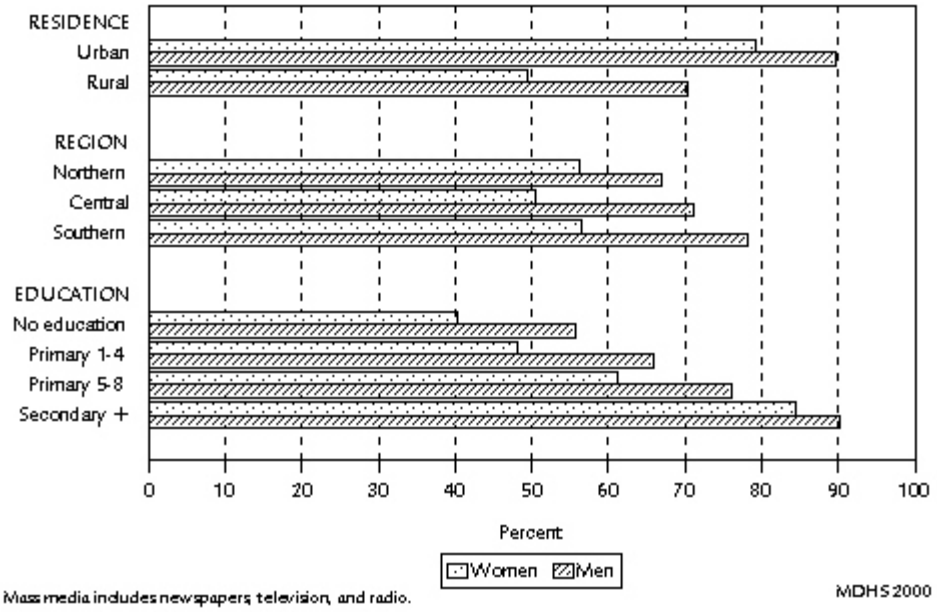
Percentage of women and men who usually read a newspaper at least once a week, watch television at least once a week, and listen to the radio at least once a week, by background characteristics, Malawi 2000

Background characteristic	No mass media	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media	Number
			WOMEN			
Age						
15-19	44.1	14.6	4.7	52.4	2.5	2,867
20-24	43.6	10.8	4.2	54.3	2.7	2,957
25-29	45.5	9.6	3.5	53.6	2.3	2,401
30-34	46.4	8.1	3.5	52.3	2.0	1,566
35-39	45.9	6.8	3.2	53.2	2.0	1,424
40-44	51.6	5.2	3.1	47.3	1.2	1,053
45-49	52.4	4.6	2.4	46.5	1.0	951
Residence						
Urban	20.7	28.4	18.0	76.2	11.2	2,106
Rural	50.7	6.2	1.1	47.8	0.5	11,114
Region						
Northern	43.7	23.4	3.6	50.7	2.6	1,453
Central	49.5	7.6	2.7	49.0	1.3	5,321
Southern	43.4	8.5	4.7	55.4	2.8	6,446
Education						
No education	59.7	0.2	0.5	40.1	0.0	3,574
Primary 1-4	52.0	2.7	0.9	47.1	0.1	4,025
Primary 5-8	38.8	12.7	2.8	58.2	1.1	4,152
Secondary+	15.7	44.4	22.2	79.9	16.4	1,468
Total	45.9	9.8	3.8	52.3	2.2	13,220
			MEN			
Age						
15-19	24.8	22.2	10.9	69.0	3.8	660
20-24	28.2	24.0	13.1	66.8	7.2	598
25-29	26.4	21.9	10.3	70.5	5.8	539
30-34	20.4	26.3	6.5	75.2	3.9	330
35-39	31.2	18.2	5.8	65.4	3.5	340
40-44	23.7	18.5	2.4	74.6	2.0	240
45-49	25.4	20.6	3.6	72.9	2.2	207
50-54	29.2	11.2	1.4	67.3	0.6	177
Residence						
Urban	10.4	53.8	25.6	82.8	17.2	564
Rural	29.7	14.3	4.7	66.7	1.5	2,528
Region						
Northern	33.2	34.7	6.4	54.5	3.3	351
Central	29.0	16.1	6.1	67.8	2.3	1,296
Southern	21.9	23.1	11.1	75.0	6.5	1,446
Education						
No education	44.4	1.6	1.8	53.1	0.0	322
Primary 1-4	34.2	5.6	3.4	64.3	0.9	898
Primary 5-8	23.9	21.7	6.8	70.3	1.9	1,243
Secondary+	9.9	54.0	22.4	84.6	16.5	629
Total	26.2	21.5	8.5	69.7	4.4	3,092

Education is strongly associated with mass media exposure. For instance, about 16 percent of women and men with secondary or more education were likely to have access to all three types of media versus less than 2 percent for the other education categories.

Men have greater exposure to the mass media than women. As Figure 3.1 presents, this differential applies within every population subgroup.

Figure 3.1 **Percentage of Men and Women Who Have Had Any Exposure to Mass Media, by Background Characteristics**



Note: Mass media includes newspapers, television, and radio.

3.5 Women's Employment

Respondents were asked a number of questions to elicit their employment status at the time of the survey and the continuity of their employment in the 12 months prior to the survey. The measurement of women's employment is difficult because some of the activities that women do, especially work on family farms, family businesses, or in the informal sector are often not perceived by women themselves as employment and hence are not reported as such. To avoid underestimating women's employment, the MDHS survey asked women several questions to ascertain their employment status. First women were asked, "Aside from your own housework, are you currently working?" Women who answered "no" to this question were then asked, "As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business, or work on the family farm or in the family business. Are your currently doing any of these things or any other work?" Women who answered "no" to this question were asked,"Have you done any work in the last 12 months?" Women are currently employed if they answered "yes" to either of the first two questions. Women who answered "yes" to the third question are not currently employed but have worked in the past 12 months. All employed women were asked their occupation; whether they were paid in cash, in kind, or not at all; and for whom they worked.

Table 3.5 shows the percent distribution of female respondents by employment status and continuity of employment, according to background characteristics. Fifty-six percent of women reported being currently employed: 19 percent all year, 33 percent seasonally, and 5 percent occasionally. Forty-four percent of women are not currently working, but 5 percent did work at some time during the past 12 months.

Table 3.5 Employment of women

Percent distribution of women by employment status and continuity of employment, according to background characteristics, Malawi 2000

Background characteristic	Not currently employed: Did not work in the 12 mos. preceding the survey	Not currently employed: Worked in the 12 mos. preceding the survey	Currently employed: All year	Currently employed: Seasonally	Currently employed: Occasionally	Total	Number
Age							
15-19	54.7	5.5	10.7	24.6	4.4	100.0	2,867
20-24	42.0	4.4	16.7	31.8	5.1	100.0	2,957
25-29	37.0	3.7	20.8	33.6	4.8	100.0	2,401
30-34	31.0	4.4	23.7	34.8	6.2	100.0	1,566
35-39	28.8	4.6	23.7	38.0	4.8	100.0	1,424
40-44	28.2	4.4	24.4	38.2	4.9	100.0	1,053
45-49	27.8	5.3	21.4	40.0	5.6	100.0	951
Current marital status							
Never married	58.2	4.9	12.7	19.8	4.4	100.0	2,243
Currently married/ living together	36.7	4.5	18.8	35.4	4.6	100.0	9,452
Divorced, separated, widowed	25.2	5.1	26.9	34.6	8.2	100.0	1,525
Number of living children							
0	52.7	4.7	14.0	24.0	4.6	100.0	3,216
1-2	38.4	4.6	19.4	32.7	4.9	100.0	4,628
3-4	33.4	3.8	20.7	36.7	5.2	100.0	2,877
5+	28.9	5.3	21.0	39.3	5.6	100.0	2,499
Residence							
Urban	55.1	2.3	27.3	10.5	4.8	100.0	2,106
Rural	35.9	5.0	17.0	36.9	5.1	100.0	11,114
Region							
Northern	27.1	8.1	20.5	38.4	5.7	100.0	1,453
Central	39.1	5.3	19.1	31.8	4.7	100.0	5,321
Southern	41.6	3.2	17.9	32.1	5.1	100.0	6,446
Education							
No education	36.3	4.0	16.7	38.6	4.4	100.0	3,574
Primary 1-4	35.9	4.7	17.1	37.0	5.3	100.0	4,025
Primary 5-8	41.5	5.2	17.2	30.4	5.6	100.0	4,152
Secondary+	47.0	4.1	32.1	13.0	3.9	100.0	1,468
Total	39.0	4.6	18.7	32.7	5.0	100.0	13,220

All-year current employment is highest in the urban, more educated population, whereas seasonal work is more prevalent among the rural, less educated women. Women who have more children are more likely to be currently employed. Respondents from the Northern Region were more likely to be currently employed than those from Southern and Central regions.

3.6 Form of Women's Earnings

Table 3.6 shows the percent distribution of employed women by type of employer and the type of earnings according to background characteristics. Sixty-seven percent of the employed women are self-employed, 23 percent work for a family member, and only 10 percent work for a nonrelative. The majority of the working women in rural areas are either self-employed or work for a family member. Similarly, less educated women and women engaged in agricultural work are more likely to be self-employed or to work for a family member. Self-employment and work for family members in these less advantaged settings usually involves work without cash payment.

Table 3.6 Employer and form of earnings

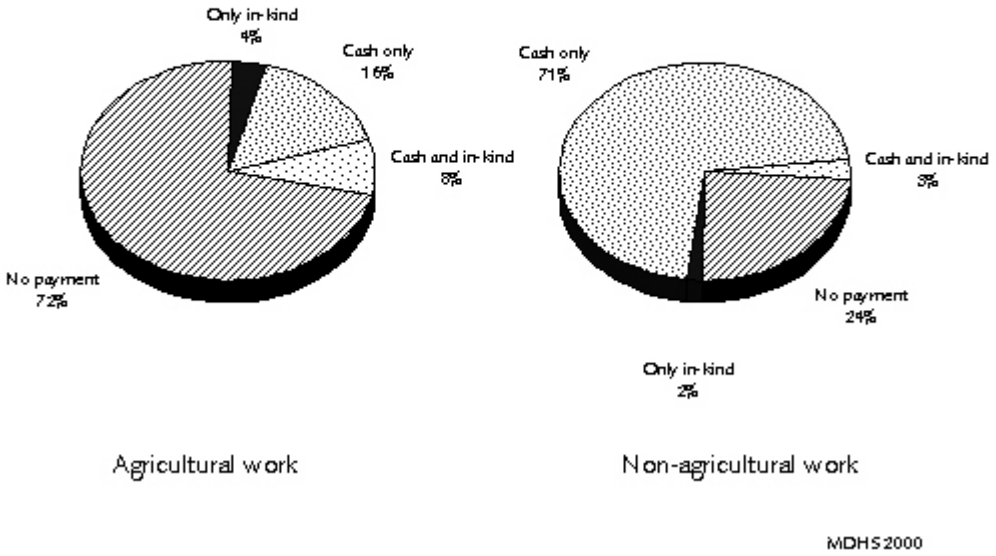
Percent distribution of currently employed women by employer and type of earnings (cash, in kind, no payment), according to background characteristics, Malawi 2000

Background characteristic	Self-employed		Employed by a non-family member		Employed by a family member		Missing[3]	Total	Number
	Earns cash[1]	Does not earn cash[2]	Earns cash[1]	Does not earn cash[2]	Earns cash[1]	Does not earn cash[2]			
Age									
15-19	18.0	32.9	6.2	2.9	7.7	32.0	0.3	100.0	1,139
20-24	27.0	43.1	8.1	0.6	5.6	15.2	0.4	100.0	1,585
25-29	25.7	40.8	10.3	0.5	8.0	14.3	0.4	100.0	1,424
30-34	30.7	39.3	12.8	0.3	4.8	11.8	0.3	100.0	1,012
35-39	25.5	43.2	10.3	0.9	5.6	14.4	0.0	100.0	948
40-44	27.1	46.2	9.6	0.2	4.4	12.3	0.3	100.0	710
45-49	28.6	47.1	4.9	0.4	3.3	15.6	0.0	100.0	636
Residence									
Urban	38.1	16.1	35.3	0.3	4.8	5.3	0.1	100.0	898
Rural	24.2	44.7	5.4	1.0	6.1	18.4	0.3	100.0	6,557
Region									
Northern	30.6	38.0	6.6	0.5	9.3	14.8	0.1	100.0	940
Central	26.9	38.6	7.4	1.1	9.4	16.4	0.2	100.0	2,958
Southern	23.7	44.3	11.0	0.8	2.2	17.7	0.4	100.0	3,558
Education									
No education	23.2	49.5	4.9	0.5	4.6	17.1	0.3	100.0	2,133
Primary 1-4	23.9	45.4	5.0	0.8	6.5	18.1	0.3	100.0	2,390
Primary 5-8	29.2	37.6	6.1	1.5	7.2	18.2	0.2	100.0	2,215
Secondary+	29.7	14.1	43.7	0.6	4.4	7.1	0.4	100.0	718
Occupation									
Agriculture	15.1	52.1	3.3	0.9	5.9	22.6	0.1	100.0	4,962
Non-agriculture	47.1	19.6	20.5	0.9	6.1	5.2	0.6	100.0	2,494
Total	25.8	41.2	9.0	0.9	6.0	16.8	0.3	100.0	7,455

[1] Includes both women who receive only cash and those who receive cash and in-kind payment.
[2] Includes both women who receive only in-kind payment and those who receive no payment.
[3] Missing information on employer or type of earnings.

Figure 3.2 presents data on the type of earnings for employed women in the agricultural sector versus the non-agricultural sector. The majority of agricultural workers (72 percent) reported they receive no pay. For those women in non-agricultural professions, only 24 percent reported no pay.

Figure 3.2 **Percent Distribution of Women Age 15-49 Employed in Agricultural Work and in Non-agricultural Work by Type of Earnings**



3.7 Control over Women's Earnings and Women's Contribution to Household Expenditures

To assess women's autonomy, MDHS respondents were asked who decided how their earnings were used. Further, the survey asked employed women who earned cash, "On average, how much of your household's expenditure do your earnings pay for: Almost none, less than half, about half, more than half, or all?" This information not only allows an evaluation of the relative importance of women's earnings in the household economy but also has implications for the empowerment of women. It is expected that employment and earnings are more likely to empower women if they perceive their earnings as important for meeting the needs of their household.

Table 3.7 shows that 51 percent of women report that they alone decide how their earnings are used, while 32 percent do not take part in household expenditure decisions, and 18 percent decide jointly with someone else (mostly husbands). The data also indicate that 75 percent of women report that one-half to all of their household's expenditures are covered by their earnings. Although women with more education are more likely to report having a role in deciding how their earnings are spent, these same women are not more likely to contribute in a major way to the household expenditures. As a woman ages and has more children, her decisionmaking influence and contribution to meeting household expenditures increase.

Table 3.7 Decision on use of earnings and contribution of earnings to household expenditures

Percent distribution of women receiving cash earnings by person who decides how earnings are used, and by proportion of household expenditures met by earnings, according to background characteristics, Malawi 2000

Background characteristic	Person who decides how earnings are used					Proportion of household expenditures met by earnings						
	Self only	Jointly[1]	Some-one else[2]	Missing	Total	Almost none	Less than half	Half/ more than half	All	Missing	Total	Number
Age												
15-19	45.4	13.2	41.4	0.0	100.0	12.6	24.8	41.1	21.1	0.4	100.0	365
20-24	48.2	14.7	37.1	0.0	100.0	4.5	24.8	48.2	22.5	0.0	100.0	649
25-29	43.8	23.9	32.2	0.0	100.0	2.5	20.9	43.5	33.1	0.0	100.0	629
30-34	55.4	17.5	26.6	0.6	100.0	2.3	18.6	45.4	33.3	0.3	100.0	489
35-39	52.9	18.4	28.7	0.0	100.0	1.0	18.4	49.9	30.7	0.0	100.0	393
40-44	56.5	19.1	24.2	0.3	100.0	2.4	18.2	43.8	35.4	0.3	100.0	292
45-49	62.7	13.8	23.5	0.0	100.0	3.0	14.5	44.5	37.9	0.0	100.0	234
Current marital status												
Never married	62.3	6.4	31.3	0.0	100.0	15.9	26.2	37.9	19.5	0.5	100.0	312
Currently married/ living together	37.5	23.5	38.8	0.1	100.0	2.3	22.0	49.4	26.3	0.0	100.0	2,186
Divorced, separated, widowed	95.7	1.0	3.1	0.3	100.0	3.7	12.7	34.3	49.1	0.3	100.0	554
Number of living children												
0	49.8	13.9	36.3	0.0	100.0	11.7	23.1	41.1	23.8	0.3	100.0	503
1-2	50.1	18.5	31.4	0.1	100.0	3.3	22.0	46.1	28.5	0.1	100.0	1,132
3-4	50.3	18.6	30.9	0.2	100.0	1.7	17.4	48.0	32.7	0.2	100.0	739
5+	52.5	18.2	29.1	0.2	100.0	1.7	20.7	44.7	32.9	0.0	100.0	678
Residence												
Urban	69.1	20.1	10.9	0.0	100.0	9.0	18.5	46.1	26.5	0.0	100.0	703
Rural	45.1	17.0	37.8	0.2	100.0	2.4	21.5	45.3	30.7	0.2	100.0	2,349
Region												
Northern	45.3	16.3	38.1	0.3	100.0	5.3	29.0	49.4	16.2	0.0	100.0	439
Central	42.3	16.2	41.4	0.0	100.0	2.1	19.7	50.5	27.8	0.0	100.0	1,293
Southern	60.5	19.6	19.7	0.2	100.0	5.2	19.1	39.2	36.2	0.3	100.0	1,320
Education												
No education	44.6	18.1	37.3	0.0	100.0	2.2	18.2	42.6	36.9	0.0	100.0	697
Primary 1-4	46.6	14.9	38.4	0.1	100.0	3.5	20.0	44.6	31.7	0.3	100.0	851
Primary 5-8	50.0	18.1	31.5	0.3	100.0	4.7	22.5	46.4	26.2	0.2	100.0	945
Secondary+	65.3	20.7	14.0	0.0	100.0	5.5	22.0	48.7	23.8	0.0	100.0	558
Total	50.6	17.7	31.6	0.1	100.0	3.9	20.8	45.4	29.7	0.1	100.0	3,052

[1] With husband or someone else
[2] Includes predominantly the husband

The proportion of women who make decisions on their own is higher among those who are divorced, separated, or widowed (96 percent); never-married women (62 percent); urban residents (69 percent); women with a secondary education (65 percent); and Southern Region residents (61 percent).

3.8 Measures of Women's Empowerment

In addition to information on women's education, employment status, and earnings control, the 2000 MDHS survey also obtained information on some other measures of women's status and empowerment. In particular, questions were asked on women's participation in specific household decisions, on their degree of acceptance of wife beating, and on their opinions about when a wife should be able to refuse sex with her husband. These data provide insight into women's control over their lives and their environment and their attitudes toward traditional gender roles, which are important aspects of women's empowerment relevant for understanding demographic and health behaviours.

These questions are used to define three different indicators of women's empowerment: women's participation in decisionmaking, women's degree of acceptance of wife beating, and their degree of acceptance of a wife's right to refuse sex with her husband. The first measure requires little explanation since the ability to make decisions about one's own life is of obvious importance to practical empowerment. The other two measures derive from the notion that gender equity is essential to empowerment. Responses that indicate a view that the beating of wives by husbands is justified reflect a sanction in favour of lower women's status, both absolutely and relative to men. Although such attitudes do not necessarily signify approval of men beating their wives, they do signify women's acceptance of norms that give men the right, in this case, to discipline women with force. Similarly, beliefs about whether and when a woman can refuse sex with her husband, reflect issues of gender equity regarding sexual rights and bodily integrity. Besides yielding an important measure of empowerment, the information about women's attitudes toward sexual rights will be useful for improving and monitoring reproductive health programmes that depend on women's willingness and ability to control their own sexual lives.

Table 3.8 shows the percent distribution of women by the person who makes specific decisions, according to current marital status. The data show that more than 65 percent of currently married women reported that they have no say in their own health care, large household purchases, and daily household purchases. The majority of unmarried women make these decisions jointly with someone else.

Table 3.9 displays the percentage of women who report that they, alone or jointly, have the final say in specific household decisions according to background characteristics. Women who are urban residents; have secondary or higher education; earn cash; or are divorced, separated, or widowed are more likely to have a final say in all given decisions.

To assess women's degree of acceptance of wife beating, the MDHS survey asked ever-married women, "Sometimes a husband is annoyed or angered by things which his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations?" The five situations presented to women for their opinion were: if she burns the food, if she argues with him, if she goes out without telling him, if she neglects the children, and if she refuses to have sex with him. The first five columns in Table 3.10 show how acceptance of wife beating varies for each reason. The last column gives the percentages of women who feel that a husband beating his wife is justified for at least one of the given reasons. Note that empowerment decreases as the value of this indicator increases. That is to say, the more reasons with which a respondent agrees, the more "disempowered" she is according to this indicator.

Table 3.8 Women's participation in decisionmaking

Percent distribution of women by person who makes specific household decisions, according to marital status and type of decision, Malawi 2000

Household decision	Self only	Jointly with husband	Jointly with some-one else	Husband only	Some-one else only	Nobody	Total
CURRENTLY MARRIED OR LIVING WITH A MAN							
Own health care	20.5	7.1	1.6	70.6	0.2	0.1	100.0
Large household purchases	6.1	10.8	1.5	81.3	0.2	0.0	100.0
Daily household purchases	20.3	12.1	1.6	65.7	0.3	0.0	100.0
Visits to family or relatives	17.7	44.4	1.2	36.2	0.3	0.1	100.0
What food to cook each day	44.9	10.9	1.6	42.2	0.2	0.0	100.0
Number of children to bear	8.3	45.1	0.2	42.4	0.4	3.6	100.0
NOT CURRENTLY MARRIED							
Own health care	38.4	na	53.6	na	6.4	1.6	100.0
Large household purchases	31.6	na	60.2	na	5.2	3.0	100.0
Daily household purchases	32.1	na	60.1	na	5.5	2.2	100.0
Visits to family or relatives	40.1	na	48.8	na	9.0	2.1	100.0
What food to cook each day	33.8	na	58.1	na	6.1	2.0	100.0
Number of children to bear	42.0	na	4.2	na	17.6	36.0	100.0

Note: Not currently married refers to never-married, divorced, separated, or widowed women.
na = Not applicable

Thirty-six percent of women agree with at least one of the selected reasons for wife beating. Differentials across respondents' background characteristics are small although rural women, women with less than secondary education, and younger women tend to be more likely to accept justifications for beating wives. Thirty-eight percent of rural women agree with at least one reason for justifying wife beating, compared with only 22 percent of urban women.

The extent of control women have over when and with whom they have sex has important implications for demographic and health outcomes. To measure women's agreement with the idea that a woman has the right to refuse to have sex with her husband, the MDHS survey asked respondents whether a wife is justified in refusing to have sex with her husband under four circumstances: she is tired or not in the mood, she has recently given birth, she knows her husband has had sex with other women, and she knows her husband has a sexually transmitted disease.

Table 3.11 shows the percentage of ever-married women who say that women are justified in refusing to have sex with their husband for specific reasons, by background characteristics. The table also shows how this indicator of women's empowerment varies with the other two indicators, namely with women's participation in decisionmaking and women's attitudes toward wife beating. It is worth noting that, unlike the previous indicator of empowerment, this indicator is positively related to empowerment: the more reasons women agree with, the higher is their empowerment in terms of the belief in women's sexual rights.

Table 3.9 Women's participation in decisionmaking by background characteristics

Percentage of women who say that they alone or jointly have the final say in specific household decisions, by background characteristics, Malawi 2000

Background characteristic	Alone or jointly have final say in: Own health care	Making large purchases	Making daily purchases	Visits to family relatives/ friends	What food to cook daily	Number of children to bear	Has final say in all specified decisions	Has no final say in all specified decisions	Number
Age									
15-19	70.2	65.6	71.4	77.1	78.7	32.1	16.0	9.6	2,867
20-24	42.7	32.9	44.4	69.3	61.8	54.1	16.0	14.8	2,957
25-29	35.3	26.0	39.2	65.1	60.4	55.8	15.3	16.6	2,401
30-34	40.3	31.1	45.1	72.1	67.3	58.8	19.1	13.4	1,566
35-39	39.2	33.1	46.7	68.0	66.4	61.0	21.3	13.4	1,424
40-44	45.1	36.7	50.3	70.3	66.5	55.9	23.7	15.3	1,053
45-49	46.0	40.1	51.1	71.6	69.5	59.4	26.5	13.6	951
Current marital status									
Never married	89.8	90.2	91.0	85.6	90.1	27.2	22.1	4.2	2,243
Currently married/ living together	29.2	18.5	34.0	63.4	57.5	53.5	9.2	17.9	9,452
Divorced, separated, widowed	95.2	94.1	94.0	93.7	94.4	74.3	68.1	1.1	1,525
Number of living children									
0	70.7	67.6	72.9	78.2	79.5	34.3	17.9	8.8	3,216
1-2	41.4	31.5	43.6	68.9	62.3	56.4	18.2	15.3	4,628
3-4	37.5	28.4	42.4	66.6	63.5	57.3	18.4	15.6	2,877
5+	38.2	30.2	44.3	68.7	65.2	57.7	18.3	14.5	2,499
Residence									
Urban	57.4	51.8	65.9	81.9	75.2	63.1	24.1	5.4	2,106
Rural	45.1	37.0	47.7	68.5	65.8	49.2	17.1	15.2	11,114
Region									
Northern	51.0	35.3	55.5	75.4	87.7	53.8	16.4	4.9	1,453
Central	42.0	36.9	46.6	70.4	66.4	50.7	15.1	14.2	5,321
Southern	50.4	42.3	52.9	69.8	63.4	51.6	21.1	15.1	6,446
Education									
No education	37.6	28.4	37.7	62.0	56.8	51.0	16.3	19.4	3,574
Primary 1-4	43.6	35.7	47.5	68.9	64.9	49.0	15.9	15.4	4,025
Primary 5-8	50.9	42.5	55.4	74.5	72.8	51.7	17.7	10.4	4,152
Secondary+	69.0	67.0	77.0	85.5	84.1	58.6	30.5	3.8	1,468
Current employment									
Work for cash	53.9	47.5	60.6	77.3	75.5	60.0	27.9	9.2	3,052
Not work for cash	42.5	32.8	45.0	65.1	64.5	51.2	15.5	15.5	4,401
Not employed	46.9	40.0	49.5	71.4	65.1	47.2	15.1	14.6	5,762
Total	47.1	39.4	50.6	70.7	67.3	51.5	18.2	13.6	13,220

Note: Six respondents had missing values for current employment status.

Table 3.10 Women's attitude toward wife beating

Percentage of women who agree with specific reasons justifying a husband hitting or beating his wife and percentage who agree with at least one of the reasons, by background characteristics, Malawi 2000

Background characteristic	Reasons justifying a husband hitting or beating his wife					Agrees with at least one specified reason	Number
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses sexual relations		
Age							
15-19	18.9	20.7	19.2	25.2	16.9	38.5	2,867
20-24	18.9	20.9	17.1	23.9	19.0	38.4	2,957
25-29	15.3	17.1	15.9	20.4	17.7	33.7	2,401
30-34	14.5	17.7	15.8	21.0	18.1	36.1	1,566
35-39	12.9	14.9	12.8	18.0	16.6	29.7	1,424
40-44	15.8	17.7	16.1	19.7	17.6	34.4	1,053
45-49	14.9	17.1	15.9	17.5	19.3	33.1	951
Current marital status							
Never married	17.5	18.6	16.2	23.5	15.1	35.3	2,243
Married or living together	16.6	18.8	16.8	21.6	18.2	36.0	9,452
Divorced, separated, widowed	15.0	17.2	15.4	19.9	19.6	34.2	1,525
Number of living children							
0	18.1	19.6	17.9	23.5	16.8	37.0	3,216
1-2	17.2	19.6	16.8	22.7	19.2	37.2	4,628
3-4	15.5	17.6	16.2	20.9	17.9	34.5	2,877
5+	14.5	16.7	14.8	18.6	16.5	32.4	2,499
Residence							
Urban	7.9	10.8	11.4	13.7	11.0	22.4	2,106
Rural	18.2	20.1	17.5	23.3	19.1	38.2	11,114
Region							
Northern	19.3	25.8	22.9	28.9	23.2	43.7	1,453
Central	18.5	18.9	16.5	22.4	20.6	37.9	5,321
Southern	14.3	16.8	15.2	19.6	14.4	32.0	6,446
Education							
No education	15.7	17.2	15.3	19.3	18.9	34.3	3,574
Primary 1-4	19.7	20.5	17.5	23.7	19.3	38.9	4,025
Primary 5-8	16.8	20.4	18.8	23.8	18.2	37.5	4,152
Secondary+	9.2	11.7	10.5	16.4	10.3	25.0	1,468
Employment[1]							
Employed for cash	17.0	19.2	15.6	22.6	19.7	36.8	3,052
Employed not for cash	17.1	19.6	19.3	23.3	18.5	38.1	4,401
Not employed	15.9	17.6	15.0	20.1	16.3	33.1	5,762
Number of decisions in which woman has final say[2]							
0-1	18.2	18.7	16.7	21.9	18.5	34.6	3,271
2-3	17.3	20.5	17.7	22.6	19.4	39.2	3,596
4-5	15.8	18.0	16.5	22.5	16.8	35.6	3,949
6	14.3	16.8	14.7	19.1	16.3	32.0	2,405
All women	16.5	18.6	16.6	21.8	17.8	35.7	13,220

[1] Six respondents had missing values for employment status.
[2] Refers to decisions made by the woman alone or jointly with others (Table 3.9).

Table 3.11 Women's attitude toward refusing sexual relations with husband

Percentage of women who have ever been in union who agree with specific reasons justifying a wife refusing to have sexual relations with her husband and percentage who agree with all and with none of the reasons, by background characteristics, Malawi 2000

	Reasons justifying a wife refusing sex with husband						
Background characteristic	Tired, not in mood	Gave birth recently	Knows husband has sexual relations with other women	Knows husband has STI[1]	Agrees with all specified reasons	Agrees with no specified reason	Number
Age							
15-19	61.5	74.4	66.8	70.9	50.2	18.8	1,054
20-24	60.3	76.7	68.6	73.7	50.1	16.8	2,594
25-29	62.9	79.3	71.2	73.8	53.0	15.4	2,357
30-34	61.0	78.8	68.1	73.4	48.9	15.6	1,551
35-39	59.4	78.9	68.9	74.0	49.9	16.3	1,420
40-44	56.8	77.8	65.3	73.9	45.9	16.8	1,049
45-49	58.8	75.8	64.1	72.3	45.2	18.1	951
Current marital status							
Married or living together	62.5	80.0	70.2	75.3	51.0	13.9	9,452
Divorced, separated, widowed	47.9	63.3	56.3	61.3	41.7	33.2	1,525
Number of living children							
0	57.1	71.8	64.3	69.9	45.2	19.6	1,173
1-2	61.7	77.0	68.2	73.1	50.7	17.1	4,431
3-4	59.5	78.0	68.1	72.8	49.2	16.6	2,875
5+	61.2	81.2	70.3	76.0	50.6	14.1	2,497
Residence							
Urban	55.3	74.0	65.8	72.5	47.2	21.0	1,585
Rural	61.4	78.3	68.6	73.5	50.1	15.8	9,392
Region							
Northern	73.4	89.5	77.8	84.0	60.1	6.1	1,228
Central	56.2	78.7	67.6	72.6	45.8	16.0	4,373
Southern	61.0	74.1	66.5	71.5	50.5	19.4	5,376
Education							
No education	58.2	76.5	65.5	70.9	47.3	18.1	3,468
Primary 1-4	58.3	77.1	67.9	71.6	47.7	16.6	3,434
Primary 5-8	64.6	79.7	71.0	77.0	53.0	14.2	3,200
Secondary+	62.8	77.0	70.4	76.3	54.8	18.9	876
Employment							
Employed for cash	63.8	80.1	72.5	77.1	54.9	15.4	2,740
Employed not for cash	59.2	80.2	69.6	75.6	48.0	13.8	3,885
Not employed	59.6	73.9	64.3	68.9	47.9	19.8	4,347
Number of decisions in which women have final say[2]							
0-1	65.6	79.5	69.3	72.6	53.0	14.1	3,128
2-3	63.2	82.2	72.3	78.5	52.5	12.1	3,487
4-5	57.1	77.7	67.5	74.6	46.3	17.0	2,453
6	51.5	66.4	60.0	63.5	43.5	28.1	1,908
Number of reasons for which wife beating is justified							
0	60.1	75.9	67.5	71.9	50.8	19.2	7,055
1-3	59.1	79.6	68.0	75.3	45.7	12.4	2,826
4-5	66.7	84.1	74.0	77.6	53.1	10.1	1,095
Total	60.5	77.7	68.2	73.3	49.7	16.6	10,977

[1] Sexually transmitted infection
[2] Refers to decisions made by the woman alone or jointly with others (Table 3.9).

Fifty percent of women agree with all selected reasons and only 17 percent agree with no selected reasons. Women are most likely to agree with the right of women to refuse sex if the woman recently gave birth (78 percent). It is a cultural taboo in Malawi to have sex right after birth so this finding may not be so much a sign of empowerment as a sign of adherence to an important traditional belief. Women are least likely to agree with the right to refuse sex if the woman is tired or not in the mood (61 percent).

There is little variation in this index by background characteristics. Married women are slightly more likely to agree with reasons to refuse sex than women who are divorced, separated, or widowed. Sixty percent of the women in the Northern Region agree with all reasons for a woman to refuse to have sex with her husband. This is higher than the national average of 50 percent.

There is evidence for a small negative correlation between the number of decisions in which a woman has a final say and her likelihood of agreeing with the reasons for refusing sex. (i.e., women with the most decisionmaking influence are less likely to agree with justifications for refusing sex). If a woman believes in none of the mentioned justifications for wife beating, she is more likely to respond that there is no reason to refuse sex. These findings are contrary to expectations and suggest that the particular dimensions of sexual empowerment captured in the MDHS survey may not be suitable in the Malawian context. More in-depth, qualitative research would perhaps be more illuminating.

3.9 Use of Tobacco

The use of tobacco in the household adversely affects the health status of all household members, including individuals who are not smoking. In the 2000 MDHS survey, questions were asked on whether the respondent smoked regularly and how much he or she smoked in the last 24 hours. The results revealed that the number of Malawian women age 15-49 who smoke is small, just 2 percent of those surveyed, one-half of whom are cigarette smokers. On the other hand, smoking is common among men. Table 3.12 shows that nearly one in five men age 15-54 are tobacco smokers; 19 percent smoke (pre-rolled) cigarettes and 6 percent smoke “other” types of tobacco including locally grown and rolled tobacco “cigarettes” and pipe tobacco. Smoking of pre-rolled cigarettes does not vary much by region or urban-rural residence, but smoking of “other” forms of tobacco is limited largely to rural areas of the country. Smoking is much more prevalent among men with less education.

Among cigarette smokers, 31 percent smoke six or more cigarettes per day, 41 percent smoke three to five per day, 23 percent smoke one or two, and 5 percent had not smoked any cigarettes in the last 24 hours.

Table 3.12 Use of smoking tobacco

Percentage of men who smoke tobacco and percent distribution of cigarette smokers by number of cigarettes in preceding 24 hours, according to background characteristics, Malawi 2000

Background characteristic	Does not use tobacco	Cigar-ettes	Other tobacco	Number of men	Number of cigarettes				Don't know/ missing	Total	Number of cigarette smokers
					0	1-2	3-5	6+			
Residence											
Urban	80.6	18.5	0.9	564	7.4	18.6	42.1	31.6	0.3	100.0	104
Rural	75.0	18.8	6.8	2,528	3.9	24.2	41.0	30.6	0.3	100.0	475
Region											
Northern	78.8	19.0	2.6	351	3.7	17.9	51.2	27.2	0.0	100.0	67
Central	73.5	20.3	6.3	1,296	1.6	22.0	46.0	29.9	0.5	100.0	263
Southern	77.6	17.3	5.9	1,446	7.8	25.8	33.5	32.7	0.1	100.0	250
Education											
No education	54.4	31.8	14.8	322	6.4	23.2	36.1	34.3	0.0	100.0	102
Primary 1-4	68.7	23.4	8.4	897	3.7	24.0	46.2	25.6	0.6	100.0	210
Primary 5-8	80.6	15.7	4.0	1,243	3.4	20.6	43.7	32.3	0.0	100.0	196
Secondary+	88.3	11.4	0.5	629	7.2	28.1	27.4	36.8	0.4	100.0	72
Total	76.0	18.7	5.6	3,092	4.5	23.2	41.2	30.8	0.3	100.0	580

3.10 Birth Registration

The Malawian government has recently launched a birth registration programme, whereby parents are urged to register all live births and obtain a birth certificate for their children. This is an important step in ensuring health care and education for all of Malawi's children. Men and women in the MDHS survey were asked whether they knew that a child's birth could be registered. As shown in Table 3.13, 19 percent of women and 32 percent of men know of the birth registration programme. There are slight regional differences in knowledge of the birth registration programme. Urban respondents and Northern respondents are more likely to know about the programme than other respondents. Similarly women and men with more education are more likely to know that a child's birth can be registered.

Table 3.13 Knowledge of birth registration

Percentage of women age 15-49 and men age 15-54 who have heard that when a child is born they can register that child with the government and receive a birth certificate, by background characteristics, Malawi 2000

Background characteristic	Heard that a child may be registered and receive a birth certificate	
	Women	Men
Residence		
Urban	27.3	42.5
Rural	17.4	29.6
Region		
Northern	27.3	39.3
Central	16.5	28.8
Southern	19.0	33.0
Education		
No education	13.2	28.0
Primary 1-4	16.2	31.4
Primary 5-8	18.8	32.6
Secondary+	40.9	41.0
Total	18.9	32.0

FERTILITY LEVELS AND TRENDS 4

Ladislas R. S. Mpando

The assessment of the levels, trends, and differentials in fertility in Malawi is especially relevant at this time for two reasons. First, the national population policy is currently being reviewed and reevaluated for the first time since its adoption in 1994. Second, the last time a DHS survey was conducted was in 1992 and the demographic profile of the nation can no longer rely on outdated data. The 2000 Malawi Demographic and Health Survey findings will facilitate evaluation of the demographic impact of successes in the uptake of family planning in the country over the last decade.

This chapter presents the 2000 MDHS results on levels, trends, and differentials in fertility based on the analysis of the reported birth histories of women age 15-49 who were interviewed during the survey. This information was collected by asking each woman to report the number of her own children living with her, the number living elsewhere, and the number who had died. She was then asked a complete history of each of her live births. The detailed information collected on each of her children included sex; year and month of birth; and if dead, age at death, or if alive, whether the child was living with the respondent. Current fertility (age-specific and total fertility) and completed fertility (number of children ever born alive to the woman) are examined in relation to various background characteristics such as urban-rural residence, educational level of the woman, and region and district of residence.

4.1 CURRENT FERTILITY LEVELS AND TRENDS

The most widely used measures of current fertility are the total fertility rate (TFR) and its component age-specific fertility rates (ASFRs). The TFR is defined as the total number of births a woman would have by the end of her childbearing period if she were to pass through those years bearing children at the currently observed rates of age-specific fertility. To obtain the most recent estimates of fertility without compromising the statistical precision of estimates and also as an attempt to avoid possible displacement of births from five to six years before the survey, the three-year period just prior to the survey is used, which roughly corresponds to the calendar period 1998-2000.

Current total fertility and age-specific fertility rates for Malawi, by urban and rural area are presented in Table 4.1. The results indicate that if fertility were to remain constant at the current age-specific rates measured in the survey (within 36 months before the survey), a woman in Malawi would, on average, bear 6.3 children in her lifetime. The corresponding total fertility rates for urban and rural areas are 4.5 and 6.7 children per woman, respectively. The TFR measured in the 2000 MDHS survey is lower than the corresponding rate of 6.7 obtained in the 1992 MDHS survey (for the 1989-1992 period). The current TFR indicates that fertility in Malawi has declined by 6 percent during the past decade or so. Fertility has declined more rapidly in urban areas (18 percent) than in rural areas (3 percent) during this period.

Table 4.1 Current fertility

Age-specific and cumulative fertility rates and the crude birth rate for the three years preceding the survey, by residence, Malawi 2000

	Residence		
Age group	Urban	Rural	Total
15-19	134	180	172
20-24	243	319	305
25-29	223	282	272
30-34	145	232	219
35-39	104	176	167
40-44	51	100	94
45-49	1	45	41
TFR 15-49	4.5	6.7	6.3
TFR 15-44	4.5	6.4	6.1
GFR	173	233	223
CBR	40.8	46.2	45.5

Note: Rates are for the period 1-36 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation.
TFR: Total fertility rate for ages 15-49 expressed per woman
GFR: General fertility rate (births ÷ no. of women 15-44) expressed per 1,000 women
CBR: Crude birth rate expressed per 1,000 population

A further examination of the patterns of fertility in urban and rural areas reveals that rural fertility is higher than urban fertility at every age. The peak of childbearing among women in both urban and rural areas is 20-24 as was also observed in past censuses and demographic surveys. However, elevated childbearing in urban areas is rather limited to the peak at age 20-24, unlike in the rural areas where childbearing is elevated over the age range 20-34. Urban women thus tend to start limiting their family size (or spacing births) at an earlier age than rural women.

Table 4.2 and Figure 4.1 show fertility differentials by background characteristics. In addition to the urban-rural difference, there exist notable geographic and education-related variations in the TFR. Women with no formal education have a TFR of 7.3 children per woman, compared with 6.7 for those with one to four years of primary education, 6.0 for those with five to eight years of primary education, and 3.0 for those with secondary education or higher.

Fertility variations across regions are not very large: women in the Southern Region have a TFR of 6.0 children per woman, about one child less than women from the Central Region who have the highest total fertility rate of 6.8. Women in the Northern Region have a TFR of 6.2 children per woman. District variation is more substantial, with TFRs ranging from 4.3 children per woman in Blantyre District to more than 7 children per woman in Mangochi, Machinga, and Kasungu districts.

At the time of the survey, about 12 percent of the women interviewed reported that they were pregnant. This proportion is probably an underestimate because some women who are early in their pregnancy do not yet know that they are pregnant, and some women may not want to declare that they are pregnant. The proportions of pregnant women in urban areas (10 percent) and those with secondary education or higher (8 percent) are lower than those for the other populations subgroups. As expected, levels of current pregnancy prevalence correlate with the levels of current fertility in population subgroups.

Table 4.2 also allows a crude assessment of differential trends in fertility over time among population subgroups. The mean number of children ever born alive to a women age 40-49 years is a measure of past completed fertility. A comparison of current fertility (total fertility rate) with past fertility (completed) shows, for example, that there has been a substantial decline (40 percent) in fertility in Malawi among women with secondary education or higher. There have been modest declines in fertility among women with five to eight years of primary education (9 percent), urban women (24 percent), and women in the Southern Region (8 percent). Fertility in the Northern Region and in rural areas has remained virtually constant, but fertility for women with no formal education may have actually increased by about 6 percent. Differential trends among districts are

Table 4.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Malawi 2000

Background characteristic	Total fertility rate[1]	Percentage currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	4.5	9.8	5.9
Rural	6.7	12.3	6.9
Region			
Northern	6.2	11.8	6.4
Central	6.8	12.8	7.3
Southern	6.0	11.1	6.5
Education			
No education	7.3	11.9	6.9
Primary 1-4	6.7	12.9	7.0
Primary 5-8	6.0	12.4	6.6
Secondary and higher	3.0	7.5	5.0
Districts			
Blantyre	4.3	9.6	6.3
Karonga	5.6	11.7	6.1
Kasungu	7.0	14.1	7.6
Lilongwe	6.5	13.3	6.8
Machinga	7.0	14.6	6.7
Mangochi	7.4	10.8	6.9
Mulanje	5.5	9.0	6.3
Mzimba	6.7	10.9	6.7
Salima	6.7	14.0	7.1
Thyolo	5.3	10.2	6.0
Zomba	6.2	11.2	6.1
Other districts	6.8	12.3	7.2
Total	6.3	11.9	6.8

[1] Rate for women age 15-49 years.

notable. In Blantyre, fertility has declined by about 2 children per woman and in Thyolo and Mulanje, declines of 0.7 to 0.8 children per women occurred. On the other hand, the data indicates that little decrease in fertility has taken place in Zomba, Lilongwe, Salima, and Mzimba. In the districts of Mangochi and Machinga, fertility levels may have risen slightly.

More direct evidence of the declining trend in fertility is obtained by looking at changes in age-specific fertility rates across three surveys that were conducted in Malawi since the early 1980s: the 1984 Family Formation Survey, the 1992 MDHS survey, and the 2000 MDHS survey (Table 4.3 and Figure 4.2). The results show that fertility declined in all groups between the 1984 and 1992 surveys. Between the 1992 and 2000 surveys, fairly dramatic downturns in fertility were seen at age 30 and above, but under age 25, fertility may have slightly increased. Over the whole period covered by the surveys (early 1980s to late 1990s), the TFR decreased by 17 percent.

Figure 4.1 Total Fertility Rates by Background Characteristics

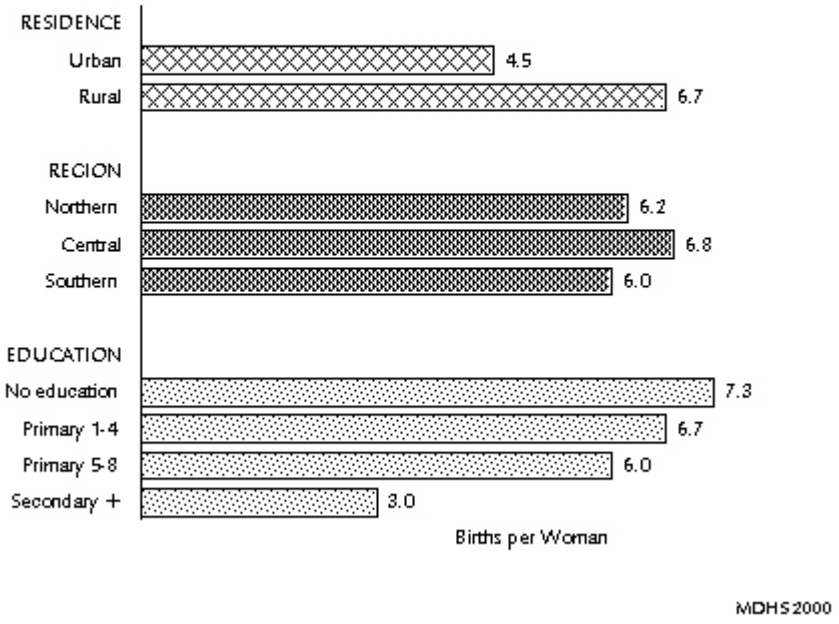


Table 4.3 Trends in fertility

Age-specific fertility rates (per 1,000 women) and total fertility rates for the three years preceding the survey, Malawi 1984, 1992, and 2000

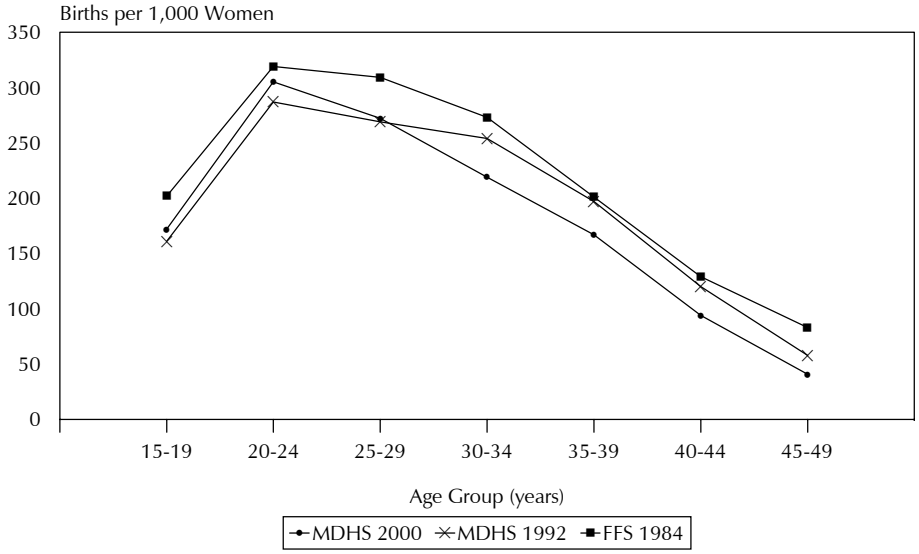
Age group	1984 FFS[1]	1992 MDHS	2000 MDHS
15-19	202	161	172
20-24	319	287	305
25-29	309	269	272
30-34	273	254	219
35-39	201	197	167
40-44	129	120	94
45-49	83	58	41
Total fertility rate	7.6	6.7	6.3

[1] Family Formation Survey. Based on four years prior to survey.

Further evidence of a recent modest decline in fertility in Malawi comes from analysis of the fertility of age cohorts of women in the 2000 MDHS survey (i.e., by examining trends within age groups). Table 4.4 shows age-specific fertility rates for four-year periods preceding the survey. Because women age 50 and above were not interviewed in the survey, the rates for calendar periods preceding the survey will be increasingly truncated by the exclusion of the fertility experience of older women. The table shows that, again, the reduction in total fertility rates is due principally to declines in the older age groups. There has been little or no change in fertility among women age 20-24, and a small recent rise in women age15-19.

The rise in contraceptive use occurring over the last decade (see next chapter) is likely to explain, at least in part, the fertility trends documented here.

Figure 4.2 Trends in Age-Specific Fertility Rates 1984 FFS, 1992 MDHS, and 2000 MDHS



Note: FFS is the Family Formation Survey

Table 4.4 Trends in age-specific fertility rates

Age-specific fertility rates for four-year periods preceding the survey, by mother's age at the time of the birth, Malawi 2000

Mother's age at birth	Number of years preceding survey				
	0-3	4-7	8-11	12-15	16-19
15-19	167	151	161	180	188
20-24	307	304	305	308	302
25-29	276	275	286	308	[294]
30-34	219	237	264	[272]	-
35-39	169	179	[209]	-	-
40-44	99	[116]	-	-	-
45-49	[50]	-	-	-	-

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated.

4.2 CHILDREN EVER BORN

The distribution of women by number of children ever born is presented in Table 4.5 for all women and currently married women. The table also shows the mean number of children ever born (CEB) to women in each five-year age group. On average, women have given birth to three children by their late twenties, six children by their late thirties, and seven children by age 45-49. Of the 7 children ever born to women age 45-49, only 4.9, or about 70 percent, have survived.

The distribution of women by children ever born indicates that about one-quarter of the women age 15-19 have already given birth to at least one child, and about one fifth of the women age 45-49 have had ten or more children.

The results for younger women who are currently married differ from those for the sample as a whole because of the large number of young unmarried women with minimal fertility. Differences at older ages, though modest, generally reflect the impact of marital dissolution althrough divorce or widowhood. The desire for children is nearly universal in Malawi and so the proportion of married women at 45-49 years who are still childless is a rough indicator of *primary infertility,* or the inability to bear children. The survey results suggest that primary infertility is low in Malawi, with only 2 percent of Malawian women unable to bear children. It should be pointed out here that this estimate of primary infertility does not include women who may have had one or more births but who are unable to have more children, or *secondary infertility*.

Table 4.5 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born (CEB), and mean number of children ever born and mean number of living children, according to age group, Malawi 2000

	Number of children ever born														
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	Number	Mean number of CEB	Mean number of living children
								ALL WOMEN							
15-19	74.6	20.9	4.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,867	0.30	0.26
20-24	16.7	33.3	31.8	14.5	3.2	0.4	0.1	0.0	0.0	0.0	0.0	100.0	2,957	1.56	1.29
25-29	4.0	9.9	19.1	30.0	20.5	11.5	4.0	0.7	0.1	0.1	0.0	100.0	2,401	3.09	2.46
30-34	3.0	5.5	7.5	11.5	21.1	21.9	15.8	9.6	2.7	0.8	0.5	100.0	1,566	4.46	3.56
35-39	2.2	4.4	6.3	7.6	10.3	12.4	19.9	15.5	12.9	5.6	2.9	100.0	1,424	5.55	4.30
40-44	1.8	3.0	3.8	7.2	8.2	7.6	12.7	14.8	14.9	11.3	14.9	100.0	1,053	6.63	4.97
45-49	2.0	3.2	4.3	5.7	5.5	9.6	12.1	11.3	13.5	12.0	20.8	100.0	951	6.99	4.89
Total	21.5	15.4	13.6	11.9	9.1	7.4	6.6	4.9	3.9	2.5	3.1	100.0	13,220	3.13	2.42
								CURRENTLY MARRIED WOMEN							
15-19	39.8	48.3	10.7	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	934	0.74	0.62
20-24	8.8	34.0	35.6	17.3	3.7	0.5	0.1	0.0	0.0	0.0	0.0	100.0	2,324	1.75	1.44
25-29	2.4	9.0	18.7	31.0	21.1	12.3	4.3	0.8	0.2	0.1	0.0	100.0	2,102	3.19	2.56
30-34	2.8	4.5	6.1	10.0	21.4	23.2	17.0	10.7	2.8	0.9	0.5	100.0	1,312	4.62	3.69
35-39	2.2	3.8	5.6	7.1	9.9	12.4	20.1	15.7	13.5	6.5	3.3	100.0	1,192	5.69	4.42
40-44	1.6	2.7	3.2	6.9	8.0	6.4	12.0	14.8	15.2	12.8	16.5	100.0	848	6.84	5.16
45-49	2.0	3.6	3.5	6.0	5.5	8.6	10.4	10.5	14.5	13.0	22.4	100.0	739	7.11	4.98
Total	7.6	16.8	16.1	14.6	11.0	8.9	7.8	5.8	4.6	3.1	3.7	100.0	9,452	3.74	2.91

4.3 BIRTH INTERVALS

Information on the length of birth intervals provides insight into birth spacing patterns. Research has shown that children born too soon after a previous birth are at an increased risk of poor health and consequently an increased risk of dying, particularly when the interval between births is less than 24 months. Maternal health is also jeopardised when births are closely spaced. Table 4.6 shows the distribution of births in the five-year period preceding the survey by the number of months since the previous birth, according to various selected demographic and socioeconomic variables. First births are excluded from the table. The survey results indicate that about one in every six births (17 percent) in Malawi occurs less than 24 months after the birth of the previous child. The overall median birth interval length is 33.8 months, which is about one month longer than it was in the 1992 MDHS survey.

Table 4.6 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, according to demographic and background characteristics, Malawi 2000

Background characteristic	Months since preceding birth					Total	Median number of months since preceding birth	Number
	7-17	18-23	24-35	36-47	48+			
Age								
15-19	13.9	26.6	44.4	12.1	3.0	100.0	25.7	128
20-29	6.3	13.6	45.2	21.5	13.4	100.0	31.6	5,047
30-39	3.8	9.6	33.5	25.9	27.2	100.0	36.8	3,188
40-49	5.5	6.7	29.0	23.9	35.0	100.0	39.7	967
Birth order								
2-3	5.7	13.3	43.6	21.1	16.3	100.0	32.1	4,247
4-6	4.9	10.6	37.2	25.3	22.1	100.0	35.2	3,401
7 +	6.0	9.8	33.8	24.0	26.4	100.0	36.1	1,681
Sex of preceding birth								
Male	5.1	11.8	39.5	23.5	20.1	100.0	34.0	4,633
Female	5.9	11.6	39.5	22.7	20.3	100.0	33.7	4,697
Survival of preceding birth								
Living	3.0	9.8	41.1	24.8	21.3	100.0	34.8	7,468
Dead	15.3	19.2	33.1	16.4	16.0	100.0	28.2	1,862
Residence								
Urban	3.5	10.1	35.8	24.8	25.9	100.0	36.2	1,018
Rural	5.7	11.9	40.0	22.9	19.5	100.0	33.6	8,312
Region								
Northern	3.6	8.7	38.6	26.2	22.8	100.0	35.7	1,050
Central	6.1	11.8	40.4	23.1	18.6	100.0	33.3	4,140
Southern	5.4	12.3	38.8	22.4	21.2	100.0	33.7	4,141
Education								
No education	5.5	12.0	38.0	22.9	21.5	100.0	34.3	3,408
Primary 1-4	6.0	12.4	40.5	21.9	19.2	100.0	32.9	2,943
Primary 5-8	4.9	10.9	41.0	24.3	18.9	100.0	33.8	2,614
Secondary+	4.7	8.2	34.6	26.4	26.1	100.0	36.9	365
Total	5.5	11.7	39.5	23.1	20.2	100.0	33.8	9,330

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

In Malawi, birth intervals tend to be shorter for younger mothers and for births occurring after the preceding sibling has died. The latter relationship is the result largely of *replacement fertility,* whereby a mother will get pregnant again soon after the death of a child. The median birth interval length is shortened by about seven months when the preceding sibling dies.

The results also show that only 13 percent of the births to women with secondary education or higher were born after less than 24 months, compared to 18 percent of the births to women with less than 5 years of primary education.

4.4 Age of Mothers at First Birth

One of the factors that determines the level of current fertility in a population is the average age at first birth. Early childbearing generally leads to a large family size and is often associated with increased health risks for the mother and potential health hazards for the children. A rise in the median age at first birth is typically a sign of transition to lower fertility levels.

Table 4.7 presents the percentage of women who have given birth by specified ages and the median age at first birth, according to current age. The results show that the median age at first birth for the youngest cohort of women is 19.3 years, a modest increase of 0.4 years over the median age measured in the 1992 MDHS survey. However, there is also evidence of a modest increase in the median age at first birth for all the women age 20-49. In the 1992 MDHS survey, the median age at first birth was 18.9 years, 0.2 years lower than the median age of 19.1 observed in 2000 MDHS survey. This interpretation is supported by the decrease in the percentage of births that occurred at a very young age (less than 15 years) from 8 percent among women currently age 30-34 to only 1 percent among the women now age 15-19. Further, the percentage of births occurring at very young ages has declined from about 3 percent as observed in the 1992 MDHS survey to the current level of 1 percent.

Table 4.7 Age at first birth

Percentage of women who had their first birth by specific exact ages and median age at first birth, by current age, Malawi 2000

	Percentage who had first birth by exact age:					Percentage who have never given		Median age at first
Current age	15	18	20	22	25	birth	Number	birth
15-19	1.3	na	na	na	na	74.6	2,867	a
20-24	4.2	30.3	61.7	na	na	16.7	2,957	19.3
25-29	5.8	32.7	60.9	82.0	92.9	4.0	2,401	19.2
30-34	7.8	38.5	65.3	83.2	92.7	3.0	1,566	18.8
35-39	7.4	36.5	62.4	78.1	90.1	2.2	1,424	19.0
40-44	10.6	39.6	62.6	79.8	91.6	1.8	1,053	19.0
45-49	7.0	33.6	60.0	73.2	85.1	2.0	951	19.2

na = Not applicable
[a] Omitted in populations where less than 50 percent of the women in the age group $\times$ to $\times + 4$ have had a birth by age $\times$

Table 4.8 shows the median age at first birth for different age cohorts of women across urban-rural residence, regional, and educational subgroups. There is a small difference in the median age at first birth between urban women (19.7 years) and rural women (19.0 years). At the regional level, first births occur later, on average, in the Central Region than in the Northern and Southern regions. Age at first birth varies significantly with a woman's level of education, ranging from 19 years for women with no education or primary education to 22 years among women with secondary education or higher.

Table 4.8 Median age at first birth by background characteristics

Median age at first birth among women age 20-49 years, by current age and background characteristics, Malawi 2000

Background characteristic	Current age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	20.1	19.8	19.0	19.5	19.3	18.9	19.7	19.4
Rural	19.1	19.2	18.8	18.9	18.9	19.3	19.0	19.0
Region								
Northern	19.0	18.6	18.9	18.4	18.6	18.4	18.7	18.6
Central	19.6	19.4	19.0	19.3	19.4	19.4	19.4	19.3
Southern	19.0	19.2	18.6	18.9	18.7	19.3	19.0	18.9
Education								
No education	18.4	18.9	18.3	19.3	18.8	19.6	18.8	18.9
Primary 1-4	18.9	19.1	18.7	18.3	18.3	19.1	18.8	18.8
Primary 5-8	19.1	19.1	19.1	19.1	19.3	18.5	19.1	19.1
Secondary+	20+[a]	22.3	21.3	21.1	21.3	19.6	20+[a]	21.6
All women	19.3	19.2	18.8	19.0	19.0	19.2	19.1	19.1

[a] Less than 50 percent of respondents have had a birth by age 20; median is at least 20 years.

4.4.1 ADOLESCENT FERTILITY

The issue of adolescent fertility is important for both health and social reasons. Children born to very young mothers face an increased risk of illness and death. Adolescent mothers themselves are more likely to experience adverse pregnancy outcomes and maternity-related mortality than more mature women, and they are more constrained in their ability to pursue educational opportunities than their counterparts who delay childbearing.

Table 4.9 shows the percentage of adolescent women (age 15-19) who were mothers or pregnant with their first child by selected background characteristics. About one-quarter of adolescent women in Malawi are already mothers with at least one child, and a further 8 percent are currently pregnant. The proportion of teenagers already on the family formation pathway rises very rapidly with age. Only about 4 percent of women age 15 have started childbearing, but by age 19, about two-thirds are pregnant or have had a baby. Overall, 33 percent of adolescents have begun childbearing, compared with 35 percent based on the 1992 MDHS survey.

In rural areas, 34 percent of the adolescents have already begun childbearing, compared with 27 percent in urban areas. Regional variations also exist: 36 percent of the adolescents in the Southern Region are either mothers or are pregnant with their first child, compared with 33 percent and 30 percent of their counterparts in the Northern and Central regions, respectively.

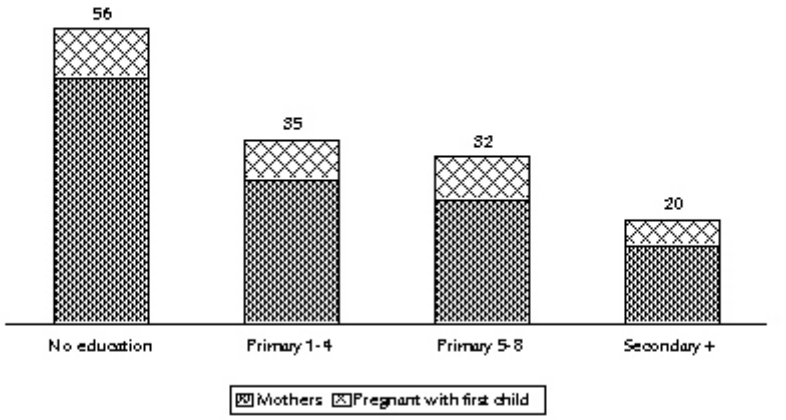
Table 4.9 Teenage pregnancy and motherhood

Percentage of women age 15-19 who are mothers or pregnant with their first child, by background characteristics, Malawi 2000

Background characteristic	Percentage who are: Mothers	Percentage who are: Pregnant with first child	Percentage who have begun child-bearing	Number
Age				
15	2.0	2.3	4.2	541
16	7.6	5.6	13.2	577
17	21.5	8.0	29.5	501
18	37.0	11.5	48.5	723
19	56.6	9.8	66.4	524
Residence				
Urban	20.1	7.0	27.1	490
Rural	26.4	7.8	34.2	2,377
Region				
Northern	23.8	9.0	32.8	332
Central	22.3	7.4	29.7	1,122
Southern	28.1	7.5	35.7	1,413
Education				
No education	46.6	9.4	56.1	219
Primary 1-4	27.5	7.6	35.1	943
Primary 5-8	23.5	8.2	31.7	1,297
Secondary+	14.8	4.9	19.7	408
Total	25.4	7.6	33.0	2,867

A strong link between continuing education and early motherhood is clear from the survey results (Figure 4.3). Whereas 56 percent of adolescents with no formal education have started childbearing, only 20 percent of their counterparts with secondary education or higher have done so.

Figure 4.3 Percentage of Women Age 15-49 Who Are Mothers or Pregnant with Their First Child, by Level of Education



MDHS 2000

FERTILITY REGULATION 5

George J. Mandere

This chapter presents the 2000 MDHS results on contraceptive knowledge, attitudes, and behaviour. Although the focus is on women, some results from the male survey will also be presented since men play an important role in the realisation of reproductive goals. Comparisons are also made, where feasible, with findings from previous surveys in order to evaluate trends occurring in Malawi over the last decade.

5.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Acquiring knowledge about fertility control is an important step toward gaining access to and then using a suitable contraceptive method in a timely and effective manner. Information on knowledge of contraception was collected by asking the respondent to name ways or methods by which a couple could delay or avoid pregnancy. If the respondent failed to mention a particular method spontaneously, the interviewer described the method and asked whether the respondent recognised it. Modern family planning methods—the pill, the IUD, injectables, vaginal methods (jelly, sponge, and diaphragm), male and female condoms, female and male sterilisation, the lactational amenorrhoea method (LAM), implants, and emergency contraception—were described, as well as two methods categorised as traditional (periodic abstinence and withdrawal). All other traditional or "folk" methods mentioned by the respondent, such as using herbs and tying strings around the waist, were recorded as well.

In Table 5.1, knowledge of contraceptive methods is presented for all women and men, for currently married women and men, for sexually active unmarried women and men, for sexually inactive unmarried women and men, and for women and men with no sexual experience, by specific method. The 2000 MDHS survey finds that 97 percent of all women age 15-49 know at least one method of family planning. Knowledge of a modern method is higher for currently married women and sexually active unmarried women than among women with no sexual experience. The most widely known modern contraceptive methods among all women are injection (92 percent), pill (91 percent), male condom (90 percent), and female sterilisation (83 percent).

Nearly all currently married men and sexually actively unmarried men know about fertility regulation. Even among men with no sexual experience, knowledge of any method is high (88 percent). The male condom (96 percent), female sterilisation (88 percent), injectables (87 percent), the pill (87 percent), and male sterilisation (68 percent) were the most widely known modern contraceptive methods among men.

It is important to note that both unmarried male and female respondents who have never had sex possess a much more limited base of contraceptive knowledge than their sexually active counterparts. Programmes aimed at reducing adolescent pregnancy may see this as a challenge to improve educational interventions on knowledge and appropriate use of family planning methods.

Table 5.1 Knowledge of contraceptive methods

Percentage of all women and men, of currently married women and men, of sexually active unmarried women and men, of sexually inactive unmarried women and men, and of women and men with no sexual experience who know any contraceptive method, by specific method, Malawi 2000

	Women					Men				
			Unmarried women: ever had sex					Unmarried men: ever had sex		
Contraceptive method	All women	Currently married women	Sexually active[1]	Not sexually active[2]	Unmarried women: never had sex	All men	Currently married men	Sexually active[1]	Not sexually active[2]	Unmarried men: never had sex
Any method	96.8	98.6	98.2	97.2	82.9	98.3	99.7	99.0	98.7	88.2
Any modern method	96.5	98.4	98.2	96.7	82.7	98.2	99.5	99.0	98.7	88.2
Pill	91.0	94.9	91.2	90.7	65.1	86.8	93.0	82.6	81.8	61.7
IUD	64.7	70.4	64.2	61.7	30.3	49.9	60.4	38.7	37.7	18.9
Injectables	92.2	95.5	93.0	91.6	69.6	86.6	93.0	84.2	80.5	61.2
Diaphragm/Foam/Jelly	35.8	39.9	34.3	34.7	9.8	26.7	31.2	24.2	21.9	10.5
Female condom	47.7	51.6	53.1	48.0	19.7	52.3	57.2	49.8	47.6	33.3
Male condom	89.8	92.2	94.3	89.7	71.9	96.3	97.7	96.9	96.2	86.5
Female sterilisation	82.8	87.5	78.7	82.2	52.6	87.7	92.5	88.0	85.7	61.5
Male sterilisation	55.4	60.2	54.4	51.7	28.2	67.8	72.9	64.0	65.7	43.8
Implants	48.0	52.4	48.4	45.8	20.9	27.8	32.9	22.9	21.3	13.1
Emergency contraception	20.4	22.2	28.9	20.4	6.1	19.8	22.7	16.8	17.9	7.9
Lactational amenorrhoea (LAM)	38.7	43.2	37.8	35.7	11.9	37.3	45.4	31.2	28.2	10.1
Any traditional method	65.5	73.0	65.2	63.0	17.3	74.2	86.8	67.5	60.9	27.7
Periodic abstinence	42.0	46.4	48.1	41.0	12.3	57.3	68.7	50.6	45.3	15.7
Withdrawal	40.4	46.0	42.2	37.5	6.2	51.8	61.1	48.4	41.5	17.4
Other methods[3]	35.2	39.9	37.4	33.2	4.6	23.1	32.3	11.2	9.8	2.7
Mean no. of methods known	8.4	9.0	8.6	8.1	4.2	8.0	9.0	7.3	7.0	4.5
Number	13,220	9,452	317	2,076	1,375	3,092	1,906	281	599	306

[1] Unmarried women/men who have had sexual intercourse in the month preceding the survey
[2] Unmarried women/men who have ever had sexual intercourse but have *not* had sexual intercourse in the month preceding the survey
[3] Includes mostly folk methods such as tying strings around waist and taking herbs.

5.2 KNOWLEDGE OF CONTRACEPTIVE METHODS BY BACKGROUND CHARACTERISTICS

Table 5.2 shows that knowledge of at least one modern family planning method is universally high (95 percent or more) among all subgroups of the currently married women and men in Malawi. Women age 15-19 and 45-49 and women with no education had slightly lower awareness levels. Also, women from Salima, Karonga, and Machinga were less likely to know of modern methods than women from other districts.

The pattern of results for men is similar, with knowledge of contraceptive methods being uniformly high in all population subgroups. The youngest married men, however, do possess a more limited knowledge of contraception than both older men and their same-age female counterparts.

Table 5.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women and men who know at least one contraceptive method and who know at least one modern method, by background characteristics, Malawi 2000

Background characteristic	Women				Men			
	Knows any method	Knows any modern method[1]	Knows three or more modern methods[1]	Number	Knows any method	Knows any modern method[1]	Knows three or more modern methods[1]	Number
Age								
15-19	96.4	96.3	89.7	934	(100.0)	(94.9)	(74.8)	23
20-24	99.1	98.9	95.9	2,324	100.0	99.9	94.2	236
25-29	98.9	98.7	96.3	2,102	99.7	99.7	98.9	441
30-34	99.1	99.1	97.2	1,312	100.0	100.0	98.7	308
35-39	99.3	99.2	95.4	1,192	100.0	100.0	98.2	314
40-44	98.6	98.3	95.5	848	99.0	99.0	96.1	228
45-49	97.4	96.8	93.1	739	98.8	98.8	97.1	195
50-54	na	na	na	na	100.0	99.1	94.3	161
Residence								
Urban	99.9	99.8	99.2	1,362	100.0	99.9	99.0	307
Rural	98.4	98.2	94.6	8,089	99.6	99.5	96.6	1,599
Region								
Northern	98.1	97.7	95.2	1,075	100.0	99.9	94.4	217
Central	98.5	98.3	94.7	3,919	99.8	99.8	97.3	775
Southern	98.9	98.7	95.7	4,458	99.5	99.2	97.3	914
Districts								
Blantyre	100.0	100.0	98.0	837	100.0	100.0	99.4	184
Karonga	95.1	94.8	90.0	191	100.0	99.3	92.9	40
Kasungu	99.3	99.1	96.4	367	100.0	100.0	98.1	84
Lilongwe	99.7	99.7	97.2	1,402	100.0	100.0	97.3	279
Machinga	96.4	96.2	91.1	374	98.9	98.9	97.7	75
Mangochi	98.6	98.3	93.9	467	98.6	98.6	97.2	92
Mulanje	100.0	100.0	99.1	429	100.0	100.0	99.0	75
Mzimba	98.8	98.6	96.3	458	100.0	100.0	94.3	95
Salima	95.4	95.2	89.0	223	100.0	100.0	94.1	43
Thyolo	100.0	99.8	97.2	456	100.0	100.0	99.1	94
Zomba	98.9	98.5	95.8	564	100.0	99.7	98.3	105
Other districts	98.1	97.8	94.1	3,683	99.5	99.2	96.1	739
Education								
No education	97.7	97.4	92.6	2,975	99.2	99.2	94.5	265
Primary 1-4	98.7	98.4	95.0	2,980	99.5	99.2	96.0	565
Primary 5-8	99.2	99.2	97.2	2,784	99.8	99.6	97.4	737
Secondary+	100.0	100.0	99.7	713	100.0	100.0	99.7	338
Total	98.6	98.4	95.2	9,452.0	99.7	99.5	97.0	1,906

na = Not applicable

[1] Pill, IUD, injectables, diaphragm/foam/jelly, condom, female sterilisation, male sterilisation, implants, LAM or emergency contraception.

( ) Estimate based on 25-49 unweighted cases.

5.3 Ever Use of Contraception

All women and men interviewed in the survey who said they had heard of a method of family planning were asked whether they had ever used that method. Tables 5.3.1 and 5.3.2 show the percent distribution of women and men who have ever used family planning by specific method and age. Forty-five percent of women and 65 percent of men reported having used a method at some time. Thirty-nine percent of women and 56 percent of men reported having used a modern method at some time. Of those currently married, 52 percent of women and 79 percent of men had used a method in the past; 45 percent of women and 66 percent of men used a modern method. Among currently married women, the most commonly used modern methods were injectables (30 percent), the pill (11 percent), male condoms (8 percent), and LAM (6 percent). For currently married men, use of the male condom (35 percent) was highest, followed by injectables (28 percent), the pill (20 percent), LAM (18 percent), and female sterilisation (6 percent). The large difference between men and women in ever use of contraception is due to the greater use of the male condom among men.

For the sexually active unmarried population, ever use of any contraceptive method was 49 percent for women and 62 percent for men; modern method use was 44 percent for women and 59 percent for men. The most commonly used methods among women were the male condom (22 percent) and injectables (16 percent); among men, the male condom (57 percent) was by far the predominant method, with much lower use of the pill (5 percent) and injectables (3 percent).

5.4 Current Use of Contraceptive Methods

In the 2000 MDHS, women and men were asked about the contraceptive method they were currently using. For women, current use was elicited from the question, "Are you currently doing something or using any method to delay or avoid getting pregnant?" However, for men the question was asked slightly differently. Men were first asked, "When was the last time you had sex?"—then they were asked, "On that occasion, did you or your partner do something to avoid pregnancy?" This means that for men, the *current* contraceptive method refers to the method employed at last sexual encounter.

Table 5.4 shows the percent distribution of women and men who are currently using specific family planning methods by age. The 2000 MDHS indicates that 31 percent of currently married women are using a method of family planning. The 26 percent using a modern method represents a dramatic increase in the use of modern methods from 7 percent in the 1992 MDHS and 14 percent in the 1996 MKAPH—an approximate doubling of use every four years (see Figure 5.1).

The increase in the use of modern contraceptive methods is due to a sharp rise in use of injectables and a small increase in female sterilisation. The use of injectables has more than doubled in four years, from 6 percent in 1996 to 16 percent in 2000, while the percentage of currently married women who have been sterilised grew from 3 to 5 percent. Use of other modern methods is lower: the pill (3 percent), the condom (2 percent), and the IUD, male sterilisation, implants, and LAM (each less than 0.5 percent).

Contraceptive use varies by age. Current use of a modern contraceptive method is 13 percent for married women age 15-19, rises to 32 percent among women age 35-44, and then drops sharply to 20 percent at age 45-49. Most of the women who are sterilised are age 35 and over; injectables are predominant in the peak childbearing ages (20-39); and under age 20, condoms are favoured (i.e., especially among the unmarried).

Table 5.3.1 Ever use of contraception: women

Percentage of all women, of currently married women, and of sexually active unmarried women who have ever used a contraceptive method, by specific method and age, Malawi 2000

			Modern method											Traditional method				
Age	Any method	Any modern method	Pill	IUD	Inject-ables	Diaphragm/ Foam/ Jelly	Female condom	Male condom	Female sterili-sation	Male sterili-sation	Im-plant	Emergency contra-ception	LAM	Any tradi-tional method	Periodic absti-nence	With-drawal	Other[1]	Number
ALL WOMEN																		
15-19	15.1	13.5	1.7	0.0	4.5	0.1	0.1	7.2	0.0	0.0	0.0	0.3	1.5	3.9	2.5	1.7	0.6	2,867
20-24	45.4	39.4	7.7	0.2	24.9	0.4	0.2	11.4	0.5	0.0	0.2	0.7	5.5	14.5	6.2	6.7	4.8	2,957
25-29	59.1	52.3	12.1	0.9	35.4	0.4	0.1	11.5	1.9	0.1	0.3	0.4	7.3	19.6	7.6	8.4	7.6	2,401
30-34	59.4	51.0	16.7	1.1	36.2	0.3	0.2	8.1	4.6	0.3	0.6	0.4	6.5	22.6	7.4	10.5	9.9	1,566
35-39	56.2	49.4	15.0	1.3	31.1	0.8	0.1	6.0	10.0	0.0	0.4	0.2	6.1	19.1	6.0	8.4	8.4	1,424
40-44	55.4	45.5	13.8	1.2	28.6	0.7	0.3	5.2	13.0	0.0	0.2	0.2	5.3	21.6	7.5	7.8	12.2	1,053
45-49	44.7	32.5	9.2	1.4	17.2	0.4	0.0	2.6	9.6	0.3	0.2	0.9	4.7	22.0	6.7	6.4	13.5	951
All ages	44.9	38.6	9.7	0.7	24.1	0.4	0.2	8.4	3.8	0.1	0.2	0.4	5.1	15.7	5.9	6.6	6.6	13,220
CURRENTLY MARRIED WOMEN																		
15-19	28.1	24.1	2.8	0.0	11.6	0.2	0.3	8.7	0.0	0.0	0.2	0.6	3.6	8.8	5.7	3.9	1.5	934
20-24	47.9	41.3	8.0	0.2	27.4	0.5	0.3	10.7	0.6	0.0	0.2	0.8	6.2	16.3	7.1	7.5	5.5	2,324
25-29	59.6	52.8	12.1	1.0	36.2	0.5	0.1	10.8	2.0	0.1	0.3	0.4	7.5	19.4	7.6	8.3	7.8	2,102
30-34	60.6	52.2	16.9	1.2	37.8	0.1	0.1	7.5	5.1	0.2	0.7	0.4	6.8	23.6	7.3	11.1	10.4	1,312
35-39	57.8	50.9	15.7	1.4	32.5	0.9	0.2	5.5	10.7	0.0	0.4	0.2	6.6	19.7	6.1	9.0	8.6	1,192
40-44	57.3	47.6	13.8	1.3	30.7	0.4	0.2	5.8	13.9	0.0	0.0	0.3	5.5	22.9	7.1	8.2	13.2	848
45-49	47.3	35.1	9.9	1.5	18.7	0.4	0.0	2.8	10.8	0.4	0.2	1.2	4.1	21.7	5.3	6.4	14.4	739
All ages	52.4	45.0	11.3	0.8	29.5	0.4	0.2	8.4	4.7	0.1	0.3	0.5	6.1	18.7	6.8	8.0	8.1	9,452
SEXUALLY ACTIVE UNMARRIED WOMEN[2]																		
15-29	44.3	41.0	4.0	0.1	6.2	0.0	0.0	13.3	0.3	0.0	0.0	0.0	0.6	10.4	0.4	0.0	0.8	250
30-49	67.7	53.1	0.0	0.0	13.1	0.0	0.0	1.7	13.2	0.0	2.2	0.0	0.0	31.5	0.0	0.0	1.3	67
All ages	49.2	43.6	11.4	1.0	16.3	0.1	0.0	22.3	3.0	0.0	0.5	0.4	4.8	14.8	5.9	7.3	5.3	317

[1] Includes mostly folk methods such as tying string around waist and taking herbs.
[2] Sexually active unmarried women are those who have had sexual intercourse in the one month preceding the survey.

Table 5.3.2 Ever use of contraception: men

Percentage of all men, of currently married men, and of sexually active unmarried men who have ever used a contraceptive method, by specific method and age, Malawi 2000

			Modern method											Traditional method				
Age	Any method	Any modern method	Pill	IUD	Inject-ables	Diaphragm/ Foam/ Jelly	Female condom	Male condom	Female sterili-sation	Male sterili-sation	Im-plant	Emergency contra-ception	LAM	Any tradi-tional method	Periodic absti-nence	With-drawal	Other[1]	Number
ALL MEN																		
15-19	26.5	23.6	1.5	0.1	0.7	0.1	0.2	23.1	0.0	0.0	0.0	0.1	0.6	8.2	3.6	5.5	0.9	660
20-24	62.7	56.7	7.3	0.2	7.2	0.2	0.8	49.2	0.3	0.0	0.0	1.2	7.5	29.3	21.3	16.3	1.1	598
25-29	76.7	64.9	13.3	0.1	24.4	0.3	0.6	45.6	1.0	0.2	0.7	1.9	14.0	43.9	29.8	17.9	9.6	539
30-34	84.2	70.4	24.0	0.9	34.3	0.6	0.9	42.1	3.1	0.0	0.7	2.4	14.7	53.3	38.3	26.6	9.5	330
35-39	79.5	70.2	25.4	2.3	31.4	0.9	0.2	34.4	7.1	0.0	0.1	1.5	18.7	49.1	35.2	22.5	11.2	340
40-44	80.3	68.9	23.5	1.2	26.6	1.6	0.0	31.6	15.8	0.0	0.1	0.0	16.7	52.5	36.0	21.6	14.5	240
45-49	76.1	58.0	19.1	2.2	25.8	1.3	0.5	22.8	10.6	0.0	1.4	0.8	20.0	60.5	40.8	25.0	18.9	207
50-54	79.0	63.9	16.4	0.8	18.1	0.9	0.5	14.1	11.3	0.6	0.0	1.2	28.7	57.3	43.0	25.5	20.0	177
All ages	64.7	55.5	13.4	0.7	17.7	0.5	0.5	35.4	3.9	0.1	0.3	1.1	11.9	37.6	26.0	17.6	7.9	3,092
CURRENTLY MARRIED MEN																		
15-19	47.0	41.9	11.5	0.0	10.0	0.0	0.0	41.9	0.0	0.0	0.0	0.0	6.2	38.5	15.8	29.1	0.0	23
20-24	68.6	57.6	9.1	0.4	16.8	0.5	0.5	41.3	0.6	0.0	0.0	2.3	18.0	42.0	34.1	21.9	2.1	236
25-29	78.7	64.6	14.9	0.1	28.2	0.2	0.2	41.7	0.9	0.1	0.5	2.0	16.7	50.2	34.6	19.7	11.7	441
30-34	85.6	70.9	25.4	1.0	36.4	0.7	0.8	40.9	3.3	0.0	0.8	2.4	15.4	54.3	38.4	27.7	10.2	308
35-39	79.8	69.9	26.4	2.1	32.5	0.9	0.3	32.7	7.4	0.0	0.1	1.6	20.0	50.5	36.3	23.2	12.2	314
40-44	81.5	70.9	24.5	1.3	28.0	1.6	0.0	32.5	16.7	0.0	0.1	0.0	16.6	52.8	35.4	22.7	15.3	228
45-49	76.7	58.7	19.0	2.4	26.3	1.3	0.6	22.4	10.9	0.0	1.5	0.9	21.1	61.1	40.8	25.7	19.0	195
50-54	81.3	64.8	17.3	0.9	19.2	1.0	0.5	13.5	11.9	0.7	0.0	1.3	27.3	58.6	43.2	27.1	20.0	161
All ages	78.7	65.5	19.5	1.0	27.6	0.8	0.4	34.6	6.2	0.1	0.4	1.6	18.4	51.9	36.7	23.6	12.1	1,906
SEXUALLY ACTIVE UNMARRIED MEN[2]																		
All ages	62.4	59.1	4.9	0.0	2.5	0.1	1.0	56.5	0.8	0.0	0.0	1.0	0.9	20.1	8.7	13.5	2.4	281

[1] Includes mostly folk methods such as tying string around waist and taking herbs.
[2] Sexually active unmarried men are those who have had sexual intercourse in the one month preceding the survey.

Table 5.4.1 Current use of contraception: women

Percent distribution of all women, currently married women, and sexually active unmarried women by contraceptive method currently used, according to age, Malawi 2000

			Modern method								Traditional method						
Age	Any method	Any modern method	Pill	IUD	Inject-ables	Condom	Female sterili-sation	Male sterili-sation	Im-plant	LAM	Any tradi-tional method	Periodic absti-nence	With-drawal	Other[1]	Not currently using	Total	Number
ALL WOMEN																	
15-19	7.9	6.9	0.8	0.0	3.0	2.8	0.0	0.0	0.0	0.3	1.0	0.5	0.2	0.2	92.1	100.0	2,867
20-24	24.5	21.5	2.3	0.0	15.3	2.9	0.5	0.0	0.0	0.4	3.0	0.5	1.1	1.4	75.5	100.0	2,957
25-29	32.9	28.5	3.6	0.3	20.3	1.8	1.9	0.0	0.1	0.5	4.5	0.9	1.5	2.1	67.1	100.0	2,401
30-34	32.9	28.1	3.2	0.1	18.6	0.9	4.6	0.2	0.3	0.3	4.7	0.8	1.9	2.0	67.1	100.0	1,566
35-39	34.0	29.6	3.0	0.3	14.6	0.9	10.0	0.0	0.1	0.5	4.4	1.0	1.7	1.6	66.0	100.0	1,424
40-44	33.4	28.5	2.4	0.0	12.5	0.6	13.0	0.0	0.0	0.1	4.9	0.8	0.8	3.3	66.6	100.0	1,053
45-49	21.9	17.3	0.7	0.0	6.5	0.3	9.6	0.2	0.0	0.0	4.6	0.9	0.9	2.8	78.1	100.0	951
All ages	25.0	21.5	2.3	0.1	13.0	1.9	3.8	0.0	0.1	0.3	3.4	0.7	1.1	1.6	75.0	100.0	13,220
CURRENTLY MARRIED WOMEN																	
15-19	15.2	12.9	1.2	0.0	8.1	2.8	0.0	0.0	0.0	0.8	2.3	1.0	0.7	0.6	84.8	100.0	934
20-24	26.3	22.7	2.3	0.0	17.2	2.3	0.6	0.0	0.0	0.3	3.6	0.6	1.4	1.6	73.7	100.0	2,324
25-29	34.6	29.9	3.8	0.3	21.3	1.9	2.0	0.0	0.0	0.6	4.7	0.9	1.6	2.2	65.4	100.0	2,102
30-34	35.8	30.2	3.5	0.1	19.8	0.8	5.1	0.2	0.4	0.3	5.5	1.0	2.2	2.3	64.2	100.0	1,312
35-39	36.7	31.5	3.2	0.3	15.7	0.9	10.7	0.0	0.0	0.5	5.2	1.2	2.1	1.9	63.3	100.0	1,192
40-44	37.7	31.6	2.7	0.0	14.2	0.7	13.9	0.0	0.0	0.1	6.0	1.0	1.0	4.1	62.3	100.0	848
45-49	25.7	20.4	0.9	0.0	8.1	0.3	10.8	0.2	0.0	0.0	5.3	1.2	1.2	2.9	74.3	100.0	739
All ages	30.6	26.1	2.7	0.1	16.4	1.6	4.7	0.1	0.1	0.4	4.5	0.9	1.5	2.1	69.4	100.0	9,452
SEXUALLY ACTIVE UNMARRIED WOMEN[2]																	
15-29	25.6	24.4	4.0	0.1	6.2	13.3	0.3	0.0	0.0	0.6	1.2	0.4	0.0	0.8	74.4	100.0	250
30-49	31.5	30.2	0.0	0.0	13.1	1.7	13.2	0.0	2.2	0.0	1.3	0.0	0.0	1.3	68.5	100.0	67
All ages	26.9	25.6	3.1	0.0	7.7	10.8	3.0	0.0	0.5	0.5	1.2	0.3	0.0	0.9	73.1	100.0	317

Note: If more than one method is used, only the most effective method is considered in this table.
[1] Includes mostly folk methods such as tying string around waist and taking herbs.
[2] Sexually active unmarried women are those who have had sexual intercourse in the one month preceding the survey.

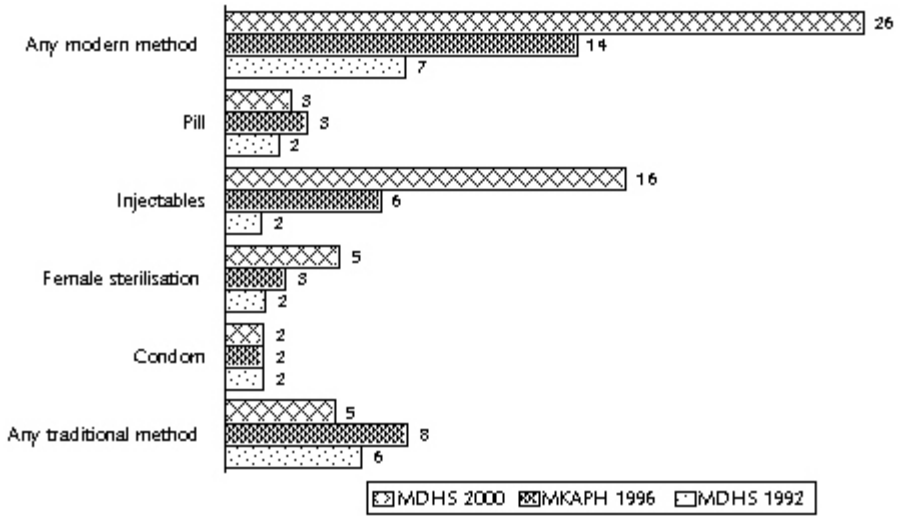
Table 5.4.2 Current use of contraception: men

Percent distribution of all women, currently married men, and sexually active unmarried men who are currently using a contraceptive method, by specific method and for men, by age, Malawi 2000

			Modern method								Traditional method						
Age	Any method	Any modern method	Pill	IUD	Inject-ables	Condom	Female sterili-sation	Male sterili-sation	Im-plant	LAM	Any tradi-tional method	Periodic absti-nence	With-drawal	Other[1]	Not currently using	Total	Number
ALL MEN																	
15-19	14.1	13.4	0.5	0.0	0.0	12.8	0.0	0.0	0.0	0.0	0.7	0.0	0.3	0.3	85.9	100.0	660
20-24	28.5	25.7	1.7	0.0	2.3	21.2	0.0	0.0	0.0	0.5	2.8	1.2	1.4	0.2	71.5	100.0	598
25-29	30.7	27.5	2.4	0.0	11.6	12.7	0.5	0.2	0.0	0.1	3.2	0.3	1.4	1.4	69.3	100.0	539
30-34	34.7	32.2	5.1	0.0	15.0	10.4	1.5	0.0	0.2	0.0	2.4	0.4	0.8	1.3	65.3	100.0	330
35-39	32.1	26.2	5.5	0.0	11.6	4.8	4.4	0.0	0.0	0.0	5.9	1.6	1.9	2.4	67.9	100.0	340
40-44	37.1	31.6	2.4	0.4	10.0	5.9	13.0	0.0	0.0	0.0	5.6	2.1	1.1	2.3	62.9	100.0	240
45-49	28.1	25.1	3.8	0.2	9.9	2.3	8.8	0.0	0.1	0.0	3.0	0.0	0.3	2.8	71.9	100.0	207
50-54	26.9	20.1	2.2	0.0	5.8	1.5	9.9	0.6	0.0	0.0	6.8	0.6	4.3	1.9	73.1	100.0	177
All ages	27.4	24.2	2.6	0.0	7.1	11.4	2.9	0.1	0.0	0.1	3.2	0.7	1.2	1.2	72.6	100.0	3,092
CURRENTLY MARRIED MEN																	
15-19	27.8	27.8	0.0	0.0	0.0	27.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72.2	100.0	23
20-24	22.8	19.5	2.5	0.0	5.5	10.2	0.0	0.0	0.0	1.3	3.3	0.4	2.4	0.6	77.2	100.0	236
25-29	29.2	25.3	2.7	0.0	13.9	8.0	0.6	0.1	0.0	0.1	3.9	0.4	1.7	1.8	70.8	100.0	441
30-34	35.0	32.4	5.4	0.0	15.8	9.3	1.6	0.0	0.3	0.0	2.6	0.4	0.9	1.3	65.0	100.0	308
35-39	33.9	27.9	5.9	0.0	12.5	4.7	4.8	0.0	0.0	0.0	6.0	1.8	1.7	2.6	66.1	100.0	314
40-44	39.1	33.3	2.5	0.4	10.6	6.2	13.7	0.0	0.0	0.0	5.9	2.2	1.2	2.4	60.9	100.0	228
45-49	28.7	25.5	3.3	0.2	10.5	2.1	9.4	0.0	0.1	0.0	3.2	0.0	0.3	2.9	71.3	100.0	195
50-54	29.1	21.6	2.5	0.0	6.4	1.2	10.9	0.7	0.0	0.0	7.4	0.6	4.7	2.1	70.9	100.0	161
All ages	31.2	26.8	3.6	0.1	11.4	6.8	4.7	0.1	0.1	0.2	4.4	0.8	1.7	1.9	68.8	100.0	1,906
SEXUALLY ACTIVE UNMARRIED MEN[2]																	
All ages	35.6	33.6	1.2	0.0	0.0	32.4	0.0	0.0	0.0	0.0	2.0	0.1	1.2	0.8	64.4	100.0	281

Note: If more than one method is used, only the most effective method is considered in this table.
[1] Includes mostly folk methods such as tying string around waist and taking herbs.
[2] Sexually active unmarried men are those who have had sexual intercourse in the one month preceding the survey.

Figure 5.1 **Percentage of Currently Married Women Using Contraception, by Method Type 1992 MDHS, 1996 MKAPH, and 2000 MDHS**



Among currently married men, current use of modern methods fluctuates from one age group to another. Among currently married men, the pattern of current use by age for male condoms, female sterilisation, and injectables is similar to that of currently married women. Condom use is concentrated in the youngest age groups and among the sexually active, unmarried individuals.

5.5 Current Use of Contraception by Background Characteristics

Table 5.5 presents the percent distribution of currently married women and men by their current use of family planning methods, according to background characteristics. There are substantial differences in the use of contraceptive methods among subgroups of currently married women and men. Women in urban areas are more likely to use a family planning method than their rural counterparts. Use of any method is 41 percent in urban areas, compared with 29 percent in rural areas. The difference is largely due to more women in the urban areas using modern contraception (38 percent) than in the rural areas (24 percent). Traditional methods are, on the other hand, more likely to be used in the rural areas (5 percent) than in urban areas (3 percent).

Contraceptive use varies minimally by region of residence, but greatly by district of residence. At the regional level, use of a modern method among married women is slightly higher in the Central Region (27 percent) than in the Northern and Southern regions (25 percent each). As in previous surveys, the 2000 MDHS survey finds that among both men and women, withdrawal (a traditional method) is commonly used in the Northern Region but not much elsewhere. This causes use of any method (as opposed to modern methods) to be highest in the Northern Region. Among currently married men, current use of any method and any modern method is highest in the Northern Region, followed by the Central Region and the Southern Region.

Table 5.5.1 Current use of contraception by background characteristics: women

Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Malawi 2000

			Modern method								Traditional method						
Background characteristic	Any method	Any modern method	Pill	IUD	Inject-ables	Condom	Female sterili-sation	Male sterili-sation	Im-plant	LAM	Any tradi-tional method	Periodic absti-nence	With-drawal	Other[1]	Not currently using	Total	Number
Residence																	
Urban	41.2	38.2	4.2	0.3	22.9	2.6	7.6	0.1	0.3	0.2	3.0	0.7	1.0	1.3	58.8	100.0	1,362
Rural	28.9	24.1	2.5	0.1	15.3	1.4	4.3	0.0	0.0	0.4	4.8	1.0	1.6	2.2	71.1	100.0	8,089
Region																	
Northern	35.4	25.4	4.4	0.0	10.9	4.7	4.9	0.1	0.0	0.3	10.0	0.7	7.7	1.6	64.6	100.0	1,075
Central	31.4	27.2	2.1	0.1	18.2	1.1	5.2	0.0	0.1	0.5	4.2	1.2	0.9	2.1	68.6	100.0	3,919
Southern	28.8	25.3	2.9	0.2	16.1	1.2	4.3	0.1	0.1	0.4	3.5	0.7	0.5	2.2	71.2	100.0	4,458
Districts																	
Blantyre	40.8	38.4	3.8	0.5	22.6	2.0	8.3	0.2	0.4	0.5	2.4	0.5	0.7	1.2	59.2	100.0	837
Karonga	28.5	16.8	1.8	0.2	6.4	3.7	4.5	0.0	0.0	0.2	11.7	0.6	9.1	2.0	71.5	100.0	191
Kasungu	36.1	26.3	4.2	0.0	14.2	3.3	3.2	0.0	0.3	1.2	9.8	2.7	2.9	4.2	63.9	100.0	367
Lilongwe	36.1	32.8	2.4	0.0	22.1	1.2	6.6	0.0	0.0	0.4	3.3	0.7	0.6	2.0	63.9	100.0	1,402
Machinga	26.6	22.6	2.5	0.0	16.0	1.5	2.0	0.2	0.0	0.2	4.0	0.4	0.4	3.2	73.4	100.0	374
Mangochi	21.6	16.7	3.0	0.3	8.0	1.1	3.4	0.0	0.0	0.9	4.9	0.0	0.5	4.3	78.4	100.0	467
Mulanje	30.6	26.3	3.8	0.0	16.7	0.6	5.1	0.0	0.0	0.0	4.3	0.5	0.4	3.4	69.4	100.0	429
Mzimba	34.5	21.6	4.3	0.0	8.8	3.2	4.6	0.2	0.1	0.4	12.8	0.9	10.2	1.8	65.5	100.0	458
Salima	18.5	15.5	1.3	0.0	9.6	0.4	4.1	0.0	0.0	0.0	3.0	0.5	0.7	1.9	81.5	100.0	223
Thyolo	25.9	24.4	1.5	0.2	16.3	1.1	4.9	0.2	0.0	0.2	1.5	0.1	0.2	1.2	74.1	100.0	456
Zomba	26.3	22.0	1.4	0.0	16.8	1.1	2.6	0.0	0.1	0.0	4.3	1.0	0.4	2.9	73.7	100.0	564
Other districts	28.9	24.9	2.7	0.1	15.9	1.5	4.2	0.0	0.0	0.4	4.1	1.3	1.2	1.7	71.1	100.0	3,683
Education																	
No education	26.0	21.7	1.4	0.1	14.5	0.9	4.2	0.1	0.0	0.5	4.2	0.8	0.8	2.6	74.0	100.0	2,975
Primary 1-4	28.1	23.6	2.1	0.0	15.6	0.7	4.6	0.0	0.0	0.4	4.5	1.2	1.3	1.9	71.9	100.0	2,980
Primary 5-8	34.7	29.5	4.1	0.0	17.7	2.4	4.7	0.1	0.0	0.3	5.2	0.6	2.4	2.1	65.3	100.0	2,784
Secondary and higher	45.1	41.6	5.3	0.9	22.1	4.6	7.6	0.0	0.6	0.2	3.5	1.2	1.5	0.7	54.9	100.0	713
No. of living children																	
0	3.6	2.6	0.4	0.0	0.6	0.4	1.2	0.0	0.0	0.0	1.1	0.4	0.4	0.3	96.4	100.0	1,005
1	22.8	20.1	2.2	0.1	12.9	3.4	0.8	0.0	0.0	0.6	2.7	0.8	0.8	1.0	77.2	100.0	1,984
2	28.6	24.3	3.3	0.2	17.1	1.7	1.4	0.1	0.0	0.5	4.3	0.9	1.5	1.9	71.4	100.0	1,822
3	34.4	30.1	3.1	0.4	20.9	1.3	3.2	0.1	0.3	0.6	4.3	0.8	1.6	1.9	65.6	100.0	1,379
4+	43.3	36.4	3.3	0.0	21.0	0.8	10.7	0.1	0.0	0.3	6.9	1.2	2.2	3.6	56.7	100.0	3,262
Total	30.6	26.1	2.7	0.1	16.4	1.6	4.7	0.1	0.1	0.4	4.5	0.9	1.5	2.1	69.4	100.0	9,452

Note: If more than one method is used, only the most effective method is considered in this table.
[1] Includes mostly folk methods such as tying string around waist and taking herbs.

Table 5.5.2 Current use of contraception by background characteristics: men

Percent distribution of currently married men by contraceptive method currently used, according to background characteristics, Malawi 2000

			Modern method								Traditional method						
Background characteristic	Any method	Any modern method	Pill	IUD	Inject-ables	Condom	Female sterili-sation	Male sterili-sation	Im-plant	LAM	Any tradi-tional method	Periodic absti-nence	With-drawal	Other[1]	Not currently using	Total	Number
Residence																	
Urban	37.9	35.2	6.9	0.1	13.5	7.6	6.9	0.1	0.0	0.0	2.7	0.5	2.0	0.2	62.1	100.0	307
Rural	29.9	25.2	3.0	0.1	11.0	6.6	4.3	0.1	0.1	0.2	4.7	0.9	1.6	2.2	70.1	100.0	1,599
Region																	
Northern	38.5	29.1	8.0	0.0	4.9	11.1	4.5	0.5	0.1	0.0	9.4	0.0	8.0	1.4	61.5	100.0	217
Central	33.6	28.2	2.4	0.0	12.7	7.2	5.3	0.0	0.1	0.4	5.4	1.3	1.3	2.7	66.4	100.0	775
Southern	27.5	25.2	3.6	0.1	11.8	5.4	4.2	0.0	0.0	0.0	2.3	0.5	0.5	1.3	72.5	100.0	914
Districts																	
Blantyre	36.1	33.1	5.3	0.0	14.9	5.2	7.6	0.0	0.0	0.0	3.0	0.0	1.3	1.7	63.9	100.0	184
Karonga	43.7	28.0	2.5	0.0	5.7	13.5	5.7	0.0	0.7	0.0	15.7	0.0	12.5	3.2	56.3	100.0	40
Kasungu	33.1	29.7	4.3	0.0	7.0	15.7	1.8	0.0	1.0	0.0	3.5	0.0	3.3	0.2	66.9	100.0	84
Lilongwe	33.6	28.8	2.7	0.0	13.5	6.6	4.9	0.0	0.0	1.1	4.9	1.6	1.1	2.1	66.4	100.0	279
Machinga	30.9	26.1	4.5	0.0	8.3	7.4	5.9	0.0	0.0	0.0	4.7	0.0	0.0	4.7	69.1	100.0	75
Mangochi	17.2	14.4	3.1	0.0	4.5	4.8	1.7	0.3	0.0	0.0	2.8	0.0	1.4	1.4	82.8	100.0	92
Mulanje	31.2	30.2	4.9	0.0	15.3	2.9	7.1	0.0	0.0	0.0	1.0	0.0	1.0	0.0	68.8	100.0	75
Mzimba	34.3	24.5	2.6	0.0	4.9	11.3	4.5	1.1	0.0	0.0	9.8	0.0	8.7	1.1	65.7	100.0	95
Salima	22.0	19.6	0.4	0.0	8.7	3.5	5.9	0.0	0.0	1.0	2.4	0.0	0.4	2.1	78.0	100.0	43
Thyolo	21.6	19.8	2.7	0.9	8.6	4.1	3.6	0.0	0.0	0.0	1.8	0.9	0.0	0.9	78.4	100.0	94
Zomba	33.5	32.4	2.5	0.3	22.9	5.7	1.1	0.0	0.0	0.0	1.1	1.1	0.0	0.0	66.5	100.0	105
Other districts	31.0	26.3	4.0	0.0	11.0	6.6	4.7	0.0	0.0	0.0	4.7	1.2	1.1	2.4	69.0	100.0	739
Education																	
No education	24.3	21.2	3.5	0.0	8.3	4.8	4.7	0.0	0.0	0.0	3.0	0.4	0.8	1.9	75.7	100.0	265
Primary 1-4	25.8	20.3	2.3	0.0	9.5	4.9	3.6	0.0	0.0	0.0	5.4	1.4	1.1	2.9	74.2	100.0	565
Primary 5-8	31.6	27.3	2.4	0.0	12.1	7.5	5.0	0.2	0.0	0.0	4.3	0.5	2.3	1.6	68.4	100.0	737
Secondary and higher	45.0	41.2	8.6	0.3	15.4	9.8	5.8	0.0	0.2	1.0	3.8	0.8	2.1	1.0	55.0	100.0	338
No. of living children																	
0	7.5	6.8	0.8	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.7	0.7	0.0	0.0	92.5	100.0	170
1	30.6	26.9	3.8	0.0	8.9	13.1	0.3	0.0	0.0	0.8	3.7	0.7	1.9	1.1	69.4	100.0	351
2	29.5	24.6	4.0	0.0	11.1	5.0	4.1	0.3	0.0	0.0	4.9	0.7	1.8	2.4	70.5	100.0	310
3	39.0	35.4	5.7	0.3	17.8	7.5	3.5	0.0	0.3	0.2	3.6	1.1	2.0	0.5	61.0	100.0	260
4+	34.6	29.2	3.3	0.0	12.9	4.7	8.1	0.0	0.0	0.0	5.5	0.8	1.8	2.8	65.4	100.0	816
Total	31.2	26.8	3.6	0.1	11.4	6.8	4.7	0.1	0.1	0.2	4.4	0.8	1.7	1.9	68.8	100.0	1,906

Note: If more than one method is used, only the most effective method is considered in this table.
[1] Includes mostly folk methods such as tying string around waist and taking herbs.

The highest level of modern method use (married women) is found in the Blantyre (38 percent) and Lilongwe (33 percent) districts, and the lowest is found in the Salima (16 percent), Mangochi (17 percent), and Karonga (17 percent) districts. Differentials among the districts are driven in large part by differences in the use of injectables and, to a lesser extent, female sterilisation. For example, the use of modern methods is almost twice as high in Lilongwe District as in Mangochi District; use of contraceptive injectables is just 8 percent in Mangochi District, compared with 22 percent in Lilongwe District.

Higher educational attainment is positively correlated with current use of family planning. Use of modern methods increases from 22 percent among currently married women with no education to 42 percent among women with secondary education or above. A similar pattern of results was obtained when looking at information collected from men.

There is a direct association between use of modern family planning and number of living children for women. Only 3 percent of women with no living children use modern contraception; the percentage increases to 36 percent among women with four or more children. For men, this relationship is similar but less pronounced. Use of sterilisation to end childbearing altogether rises expectedly with the number of living children a woman has. One in nine married women with four or more living children has chosen this option.

5.6 Current Use of Contraceptives by Women's Status

A woman's desire and ability to control her fertility and her choice of contraceptive method are in part affected by her status and self-image. A woman who feels that she is unable to control her life may be less likely to feel she can make and carry out decisions about her fertility. Table 5.6 shows the distribution of currently married women by contraceptive use, according to women's status indicators. Use of modern methods was reported by 23 percent of women who had a final say in 0-1 decisions, 25 percent of women with final say in 2-3 decisions, and 30 percent of women with final say in more than 4 decisions. There were no significant differences in the percentages of women using modern methods relative to the number of reported reasons to refuse sexual relations with their husband or reported reasons to justify wife beating. In sum, the dimensions of women's status used here are not important factors in determining contraceptive use in Malawi.

5.7 Number of Children at First Use of Contraception

Family planning may be used to either limit family size or delay the next birth. Couples using family planning as a means to control family size (i.e., to stop having children) adopt contraception when they have already had the desired number of children they want. When contraception is used to space births, couples may start to use family planning earlier with an intention to delay a possible pregnancy. This may be done even before a couple has had their desired number of children. In a culture where smaller family size is becoming a norm, young women adopt family planning at an earlier age than their older counterparts.

Women interviewed in the 2000 MDHS survey were asked how many children they had at the time they first used a method of family planning. The results (Table 5.7) indicate that 9 percent of young women (15-19 years) started to use contraception before they had their first birth, compared with 1 percent of older women (35 years and over). The table also shows that the median number of children at first use has declined rapidly from more than four children among the cohort age 40-49 to less than one child among the cohort age 15-24. This trend is consistent with the rapid rise in contraceptive use and the decline in fertility levels over the past decade or so.

Table 5.6 Current use of contraception by women's status

Percent distribution of currently married women by contraceptive method currently used, according to selected indicators of women's status, Malawi, 2000

Women's status	Any method	Type of method: Any modern method	Any traditional method	Not using any method	Total	Number
Number of decisions with woman having final say						
0-1	27.2	23.2	4.0	72.8	100.0	3,087
2-3	29.9	25.1	4.8	70.1	100.0	3,440
4-5	35.3	30.4	4.9	64.7	100.0	2,055
6	34.8	30.5	4.3	65.2	100.0	870
Number of reasons to refuse sexual relations						
0	30.0	26.4	3.6	70.0	100.0	1,311
1-2	28.9	25.1	3.7	71.1	100.0	1,447
3-4	31.2	26.3	4.9	68.8	100.0	6,694
Number of reasons to justify wife beating						
0	31.6	27.1	4.5	68.4	100.0	6,051
1-3	28.6	24.2	4.4	71.4	100.0	2,443
4-5	30.0	24.6	5.4	70.0	100.0	958
Total	30.6	26.1	4.5	69.4	100.0	9,452

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

Table 5.7 Number of children at first use of contraception

Percent distribution of ever-married women by number of living children at the time of first use of contraception and median number of children at first use, according to current age, Malawi 2000

Current age	Never used contra-ception	Number of living children at time of first use of contraception: 0	1	2	3	4+	Total	Median number of children at first use of contra-ception	Number
15-19	71.7	9.0	16.9	2.2	0.0	0.0	100.0	0.3	1,054
20-24	51.9	3.8	29.8	11.3	2.9	0.2	100.0	0.7	2,594
25-29	40.4	2.0	20.4	20.1	11.1	5.8	100.0	1.4	2,357
30-34	40.2	1.6	11.2	13.1	12.1	21.6	100.0	2.3	1,551
35-39	43.9	0.6	6.7	6.9	10.0	31.9	100.0	3.4	1,420
40-44	44.5	0.2	5.4	6.4	6.4	36.9	100.0	4.2	1,049
45-49	55.2	1.3	5.1	3.9	5.6	28.9	100.0	4.1	951
Total	48.3	2.6	16.5	10.9	7.2	14.5	100.0	1.6	10,977

5.8 TIMING OF FEMALE STERILISATION

Table 5.8 shows the distribution of sterilised women by the age at which they had the procedure, according to the number of years since the operation was done. The results indicate that most women (68 percent) who were sterilised had the operation at age 30-44. Seven percent of women reported to have been sterilised before reaching age 25. The median age at sterilisation (for women sterilised before age 40) is 33 years, which has remained roughly constant over the last 10 years.

Table 5.8 Timing of sterilisation

Percent distribution of sterilised women by age at the time of sterilisation, according to the number of years since the operation, Malawi 2000

Years since operation	Age at time of sterilisation						Total	Number	Median age[1]
	<25	25-29	30-34	35-39	40-44	45-49			
<2	6.4	17.8	21.2	27.9	15.0	11.6	100.0	230	33.5
2-3	1.9	11.3	27.2	34.2	18.8	6.6	100.0	102	34.8
4-5	4.9	17.2	23.3	33.2	18.7	2.7	100.0	46	33.9
6-7	11.8	15.6	39.3	28.0	5.2	0.0	100.0	39	32.4
8-9	3.3	28.7	29.1	31.3	7.5	0.0	100.0	32	33.4
10+	19.8	29.7	34.4	16.0	0.0	0.0	100.0	54	a
Total	7.0	18.2	25.9	28.6	13.3	6.9	100.0	504	33.2

[1] Median ages are calculated only for women sterilised at less than 40 years of age to avoid problems of censoring
[a] Not calculated due to censoring.

5.9 SOURCE OF SUPPLY

Information on where women obtain their contraceptive methods is important for family planning programme managers. All current users of modern contraceptive methods were asked the most recent source of their methods. The results in Table 5.9 indicate that the public sector remains the major source of contraceptive methods in Malawi—providing methods to 68 percent of the current users, representing an increase from 59 percent in 1996. The increase in public-sector participation is due in large part to the rapid increase in the use of injectables, which are being provided predominantly at government health centres. Twenty-eight percent of users get their methods from the private medical sector, and 4 percent from other private sources, mostly shops.

In the public sector, 23 percent of the users obtain their contraceptive methods from government hospitals, and 39 percent from government health centres. Community-based distribution agents (CBDAs) are the source for only 2 percent of current users. In the private medical sector, Banja La Mtsogola (BLM) is the most commonly used source, providing contraceptive methods to 12 percent of all users of modern methods. One in ten current users obtain their family planning methods at mission hospitals and clinics.

Injectables were supplied primarily in government health centres (54 percent) and government hospitals (20 percent). Female sterilisations were conducted mostly in government hospitals (41 percent) and BLM centres (40 percent). Male condoms were obtained primarily from

shops (42 percent), government health centres (23 percent), and government hospitals (11 percent). Pills were obtained primarily from government health centres (37 percent), government hospitals (17 percent), and BLM centres (13 percent). These findings point up the reliance on government facilities along with the important complementary services of BLM.

Table 5.9 Source of contraception

Percent distribution of women currently using modern contraceptive methods by most recent source of supply, according to specific method, Malawi, 2000

Source of supply	Pill	Inject-ables	Condom	Female sterili-sation	Total[1]
Public sector	67.3	79.7	42.4	42.5	68.0
Government hospital	17.4	19.6	10.8	41.2	22.7
Government health centre	37.4	53.8	22.5	1.3	39.3
Family planning clinic	1.1	0.5	0.4	0.0	0.5
Mobile clinic	3.4	4.9	5.2	0.0	3.8
CBDA/Field worker	8.0	0.8	3.5	0.0	1.6
Private medical sector	31.7	20.0	12.8	57.2	27.6
Private clinic/hospital	7.3	5.3	1.4	0.8	4.3
Private mobile clinic	0.4	0.4	0.5	0.0	0.3
CBDA/Field worker	2.6	0.2	1.0	0.0	0.5
Mission hospital	2.8	4.5	1.5	16.4	6.3
Mission health clinic	5.1	4.3	1.3	0.0	3.3
Mission mobile clinic	0.9	0.7	0.0	0.0	0.5
BLM (Banja la Mtsogolo)	12.5	4.6	7.0	40.1	12.3
Other private	1.0	0.0	43.8	0.0	4.0
Shop	0.0	0.0	41.8	0.0	3.7
Church	0.0	0.0	0.7	0.0	0.1
Friends/relatives	1.0	0.0	1.3	0.0	0.2
Other	0.0	0.0	0.1	0.3	0.1
Don't know/Missing	0.0	0.3	0.9	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0
Number	303	1,717	247	504	2,799

[1] Includes 3 users of diaphragm/foam/jelly, 9 users of implants, 5 users of male sterilisation, and 12 users of IUDs who are not shown separately.

5.10 Informed Choice

Informed choice is an important aspect of the delivery of family planning services. All providers of sterilisation must inform potential users that the operation is a permanent, irreversible method; potential users must also be informed of other methods that could be used. Family planning providers should also inform all method users of potential side effects and what they should do if they encounter signs of a problem. This information assists users in coping with side effects and decreases unnecessary discontinuation of temporary methods.

Table 5.10 Informed choice

Among women currently using a modern contraceptive method, percentage who were informed that sterilisation is permanent, percentage who were informed at first use about the side effects of the method used, percentage who were informed at first use what to do if side effects were experienced, and percentage who were informed at first use of other methods that could be used for contraception, by specific method and background characteristics, Malawi 2000

Method/ background characteristic	Informed that sterilisation is permanent[1]	Informed about side effects of method used[2]	Informed what to do if experience side effects[2]	Informed of other methods that could be used[3]
Method				
Pill	na	81.9	79.6	84.7
IUD	na	89.4	89.4	87.3
Injectables	na	85.7	83.4	86.2
Female sterilisation	90.1	52.0	49.2	45.2
Other	na	na	na	60.0
Residence				
Urban	96.9	80.3	77.1	78.4
Rural	87.4	78.1	76.0	77.3
Region				
Northern	94.3	80.1	78.0	83.9
Central	84.8	77.2	74.8	74.3
Southern	93.2	79.4	77.2	79.2
Education				
No education	87.1	77.6	74.2	74.8
Primary 1-4	86.1	78.6	76.5	75.8
Primary 5-8	92.4	79.5	77.5	81.1
Secondary+	97.2	78.0	76.5	78.2
Total	89.6[4]	78.6	76.2	77.5
Number of women	509	2,544	2,544	2,591

na = Not applicable
[1] Among users of female or male sterilisation
[2] Among users of female sterilisation, pill, IUD, injectables, and implants
[3] Among users of female sterilisation, pill, IUD, injectables, implants, diaphragm, foam, jelly, and LAM.
[4] Total includes 5 users of male sterilisation.

Table 5.10 presents the percentage of users of modern contraceptives who were informed that sterilisation is an irreversible method, that there are other family planning method options, that there are potential side effects of their current method, and what to do if they experience any of the side effects. The results indicate that 90 percent of sterilisation users were informed that sterilisation is permanent. Of women using female sterilisation, the pill, the IUD, injectables, and implants, 79 percent reported that they were informed of side effects of the method they use, and 76 percent reported that they were told what they should do in case of a side effect. Of women using female sterilisation, the pill, the IUD, injectables, implants, LAM, and vaginal methods, 78 percent said that they were told about other contraceptive options.

5.11 Future Use of Contraception

Intention to use family planning is an important indicator of the potential demand for services. Currently married women who were not using contraceptives at the time of the survey were asked about their intention to use family planning in the future. The results are shown in Table 5.11. Among married women who are not using contraception, 74 percent reported that they intend to adopt a family planning method in the future, 23 percent said that they did not intend to use a method, and 3 percent were unsure of their intention. There are no major differences in the percentage of women who intend to use family planning according to the number of living children.

Table 5.11 Future use of contraception

Percent distribution of currently married women who are not using a contraceptive method by intention to use in the future, according to number of living children, Malawi 2000

	Number of living children[1]					
Intention	0	1	2	3	4+	Total
Intends to use	70.3	78.2	75.2	74.3	70.6	73.9
Does not intend to use	24.1	18.8	22.1	23.3	27.1	23.3
Unsure	5.6	2.9	2.5	2.3	2.3	2.8
Missing	0.0	0.1	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	617	1,489	1,449	952	2,048	6,555

[1] Includes current pregnancy

5.12 Reasons for Not Intending to Use Contraception

Table 5.12 presents the main reasons for not intending to use contraception given by noncontracepting, married women who do not intend to use a contraceptive method in the future. Among women under 30 years, side effects and health concerns (26 percent), women's own opposition to family planning (15 percent), spouse's opposition (14 percent), and difficulties with getting pregnant (11 percent) are the main reasons reported for not intending to use a contraceptive method. For women age 30 and over, the main reasons for not intending to adopt family planning are difficulties in getting pregnant (27 percent), side effects and health concerns (24 percent), menopause/hysterectomy (13 percent), and the woman's own opposition to family planning (9 percent).

5.13 Preferred Method of Contraception for Future Use

Currently married women who reported that they intend to adopt family planning methods, were asked about contraceptive methods they intend to use in the future. The results in Table 5.13 indicate that most women intend to use injectables (59 percent), followed by the pill (18 percent) and female sterilisation (10 percent), to limit or space births in the future. This represents a major change in method preference from the 1992 MDHS survey, in which most women said they intended to use the pill (51 percent) and injectables (16 percent).

Table 5.12 Reason for not intending to use contraception

Percent distribution of currently married women who are not using a contraceptive method and who do not intend to use in the future by main reason for not intending to use, according to age, Malawi 2000

Reason	Age 15-29	Age 30-49	All ages
Wants children	9.4	7.1	7.9
Side effects	17.2	9.2	12.1
Health concerns	8.8	14.4	12.4
Lack of knowledge	4.5	1.9	2.8
Access/availability	2.9	0.7	1.5
Cost	0.3	0.3	0.3
Religious prohibition	7.3	4.3	5.4
Opposed to family planning	14.9	9.2	11.3
Husband opposed	14.2	5.1	8.3
Others opposed	3.1	0.3	1.3
Infrequent sex/no sex	4.1	7.0	5.9
Difficult to get pregnant	10.8	27.2	21.3
Menopausal/hysterectomy	0.2	12.7	8.2
Inconvenient	0.4	0.1	0.2
Other reasons	0.1	0.1	0.1
Don't know	1.8	0.5	1.0
Total	100.0	100.0	100.0
Number	548	978	1,526

Table 5.13 Preferred method of contraception for future use

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, Malawi 2000

Preferred method	Intend to use later
Pill	17.9
IUD	1.4
Injectables	59.2
Condom	4.9
Female sterilisation	9.9
Male sterilisation	0.1
Periodic abstinence	0.6
Withdrawal	0.5
Implants	1.4
Lactational amenorrhoea	0.2
Female condom	0.1
Other	2.6
Missing	1.3
Total	100
Number of women	4,841

5.14 Exposure to Family Planning Messages on Radio and Television

Radio and television are potential media for disseminating family planning messages, although televisions are still relatively rare in Malawi. To assess the extent to which these media serve as sources of family planning messages, respondents were asked whether they heard or saw a message about family planning on the radio or television "in the last few months". The results are shown in Table 5.14.

The majority of women (69 percent) and men (82 percent) had heard a family planning message recently on the radio. Only 5 percent of women and 6 percent of men were reached by both radio and television sources. Women and men in the youngest (15-19) and oldest (45 and older) age groups were least likely to have heard a family planning messages on radio and television.

As expected, women in rural areas are much more likely to have *not* been exposed to family planning messages through the electronic media (35 percent) than their urban counterparts (12 percent). Regional differentials are minimal, but large variations exist between districts. Just 12 percent of women in Blantyre District have had no exposure to family planning promotion in the electronic media, compared with 44 percent in Salima and Thyolo districts and 52 percent in

Karonga District. A woman's level of education is positively related to her exposure to family planning messages on the radio or television. For example, 43 percent of the women with no education had no exposure to family planning information on radio or television versus 8 percent of women with secondary or higher education.

Among men, the same patterns of differentials in exposure to family planning messages exist but are less pronounced.

Table 5.14.1 Exposure to family planning messages on radio and television: women

Percent distribution of women by whether they had heard a radio or television message about family planning in the few months preceding the survey, according to background characteristics, Malawi 2000

Background characteristic	Heard family planning message on radio/television: Both	Radio only	Tele-vision only	Neither	Total	Number
Age						
15-19	5.8	59.3	0.2	34.8	100.0	2,867
20-24	5.6	66.5	0.1	27.8	100.0	2,957
25-29	5.3	66.9	0.1	27.7	100.0	2,401
30-34	4.9	65.0	0.3	29.8	100.0	1,566
35-39	5.3	63.3	0.0	31.4	100.0	1,424
40-44	4.4	61.1	0.1	34.4	100.0	1,053
45-49	5.2	57.1	0.2	37.5	100.0	951
Residence						
Urban	16.2	71.2	0.5	12.1	100.0	2,106
Rural	3.3	61.9	0.1	34.7	100.0	11,114
Region						
Northern	5.9	62.0	0.2	31.8	100.0	1,453
Central	4.3	60.9	0.1	34.6	100.0	5,321
Southern	6.0	65.7	0.2	28.1	100.0	6,446
Districts						
Blantyre	13.0	74.3	0.3	12.4	100.0	1,324
Karonga	3.1	44.7	0.0	52.2	100.0	266
Kasungu	2.1	72.9	0.2	24.9	100.0	484
Lilongwe	7.4	61.1	0.2	31.2	100.0	1,864
Machinga	4.1	62.7	0.2	33.1	100.0	481
Mangochi	2.7	63.4	0.0	33.9	100.0	637
Mulanje	3.0	72.9	0.0	24.1	100.0	624
Mzimba	8.2	63.7	0.4	27.6	100.0	603
Salima	3.4	52.5	0.2	44.0	100.0	301
Thyolo	1.8	53.8	0.2	44.2	100.0	687
Zomba	10.2	67.2	0.2	22.4	100.0	846
Other districts	3.2	61.6	0.1	35.1	100.0	5,103
Education						
No education	2.1	55.1	0.0	42.8	100.0	3,574
Primary 1-4	3.0	60.6	0.1	36.3	100.0	4,025
Primary 5-8	4.9	70.8	0.1	24.2	100.0	4,152
Secondary+	20.9	70.3	0.8	8.0	100.0	1,468
Total	5.3	63.4	0.2	31.1	100.0	13,220

Table 5.14.2 Exposure to family planning messages on radio and television: men

Percent distribution of men by whether they had heard a radio or television message about family planning in the few months preceding the survey, according to background characteristics, Malawi 2000

Background characteristic	Heard family planning message on radio/television: Both	Radio only	Tele-vision only	Neither	Total	Number
Age						
15-19	5.7	66.5	0.6	27.2	100.0	660
20-24	9.1	72.0	0.2	18.6	100.0	598
25-29	6.5	79.3	0.5	13.7	100.0	539
30-34	7.6	78.8	0.6	13.0	100.0	330
35-39	4.3	82.5	0.0	13.2	100.0	340
40-44	6.4	78.6	0.5	14.5	100.0	240
45-49	3.0	82.4	0.0	14.6	100.0	207
50-54	4.1	79.5	0.0	16.3	100.0	177
Residence						
Urban	15.9	73.4	0.9	9.8	100.0	564
Rural	4.2	76.1	0.3	19.4	100.0	2,528
Region						
Northern	6.5	74.0	0.6	18.8	100.0	351
Central	6.0	76.1	0.4	17.6	100.0	1,296
Southern	6.6	75.5	0.3	17.5	100.0	1,446
Districts						
Blantyre	14.2	75.4	0.4	10.0	100.0	321
Karonga	5.8	69.2	0.8	24.2	100.0	64
Kasungu	2.0	84.2	0.0	13.8	100.0	142
Lilongwe	7.3	77.8	0.6	14.2	100.0	487
Machinga	8.4	68.3	0.7	22.6	100.0	119
Mangochi	6.0	78.1	0.0	15.8	100.0	154
Mulanje	3.3	79.8	0.0	16.8	100.0	117
Mzimba	10.8	79.3	0.3	9.6	100.0	142
Salima	6.1	62.8	0.7	30.4	100.0	65
Thyolo	7.6	77.6	0.1	14.7	100.0	141
Zomba	4.8	80.8	1.3	13.1	100.0	177
Other districts	4.0	73.2	0.2	22.5	100.0	1,163
Education						
No education	3.5	68.2	0.0	28.4	100.0	322
Primary 1-4	3.4	72.7	0.7	23.3	100.0	898
Primary 5-8	4.9	79.3	0.0	15.8	100.0	1,243
Secondary+	14.9	76.3	0.9	7.9	100.0	629
Total	6.3	75.6	0.4	17.7	100.0	3,092

5.15 Exposure to Family Planning Messages in Print Media or Drama

Aside from radio and television, other channels can assist in disseminating family planning messages, including the print media and drama. In the 2000 MDHS survey, women were asked whether they saw a family planning message in the newspaper, on a poster, on clothing, or in a drama during the few months before the interview.

Table 5.15 shows that 37 percent of women saw a family planning message on a poster, 36 percent saw a message in a drama, 31 percent on clothing, and 18 percent saw a family planning message in a newspaper. Women in urban areas were much more likely than their rural counterparts to have these types of exposure to family planning messages. A smaller proportion of women in the Central and Southern regions saw family planning messages in newspapers, on posters, on clothing, and in dramas than women in the Northern Region. Exposure to family planning messages in all of these media types, but especially in newspapers, increases sharply with a woman's level of education.

5.16 Exposure to Specific Health and Family Planning Radio Programmes

The 2000 MDHS survey collected information from women and men about whether they had listened to specific radio programmes that promote health and family planning in the last few months. Table 5.16 shows that the overall level of listening to the cited radio programmes is higher among men than women, which is consistent with the more widespread access among men to radios. The most popular programmes, among both men and women, are "Tinkanena" and "Kulera," both reaching more than two-thirds of women and 85 percent or more of men. Overall, the English-language programmes were much less likely to have been heard (approximately 20 percent of women and 30 percent of men), compared with the programmes in local languages (about 50 to 65 percent of women and 75 to 85 percent of men).

5.17 Contact of Nonusers with Family Planning Providers

In the 2000 MDHS survey, women who were not using contraception were asked whether a family planning worker had visited them in the last 12 months. They were also asked whether they had attended a health facility in the last year and, if so, whether a staff person at that facility spoke to them about family planning methods. This information is important for determining whether family planning initiatives in Malawi are reaching nonusers of family planning. Table 5.17 indicates that 66 percent of women who were not using family planning reported that they were neither visited by a family planning worker nor discussed family planning at a health facility with staff personnel in the past year. Most of these women (45 percent of the total) neither received a visit from a family planning worker nor visited a health facility where family planning information or services could potentially have been provided. The remaining 21 percent of women were not visited by a family planning worker, did attend a health facility, but did not speak with a staff member about family planning. This is a missed opportunity and may indicate that family planning has not been fully integrated into the health services delivery system for women. It should be noted that, in this regard, it is among adolescent women (age 15-19) that both community-level and facility-level access to family planning information and services are most limited. Not only are these young women less likely to attend a health facility but when they do attend a facility they are less likely to have family planning discussed with them.

Table 5.15 Exposure to family planning messages in print media

Percentage of women who saw a message about family planning in various print and artistic media in the few months preceding the survey, by background characteristics, Malawi 2000

Background characteristic	Saw family planning message in:				Number
	Newspaper	Poster	Clothing	Drama	
Age					
15-19	21.4	37.0	33.5	39.9	2,867
20-24	19.7	40.4	34.3	40.4	2,957
25-29	20.1	40.0	32.6	36.9	2,401
30-34	16.1	38.4	29.2	32.5	1,566
35-39	15.9	36.7	29.6	31.8	1,424
40-44	13.2	33.0	24.8	30.0	1,053
45-49	12.3	27.8	22.1	28.2	951
Residence					
Urban	41.0	59.0	57.6	67.0	2,106
Rural	14.0	33.4	26.1	30.2	11,114
Region					
Northern	32.1	48.4	42.0	40.0	1,453
Central	16.1	40.2	28.6	34.3	5,321
Southern	17.0	32.7	30.7	36.7	6,446
Education					
No education	4.8	21.8	14.9	19.5	3,574
Primary 1-4	9.8	32.7	24.4	30.2	4,025
Primary 5-8	23.4	44.4	38.6	43.7	4,152
Secondary+	59.9	69.0	67.3	71.1	1,468
Total	18.3	37.4	31.1	36.1	13,220

Differentials across Malawi's districts in contact with family planning providers are substantial. In Salima and Lilongwe districts, more than 70 percent of noncontracepting women were *not* contacted by a family planning provider, compared with 48 percent in Mulanje District.

The results also show that 12 percent of noncontracepting women were visited by a family planning worker in the last 12 months. Women living in rural areas are more likely to have contact with a community-based family planning worker (12 percent) than urban women (8 percent). Contact with a family planning worker was highest in the Southern Region (14 percent) and lowest in the Northern Region (8 percent). Women in Mulanje District were three times more likely (24 percent) to be visited by a family planning worker than their counterparts in Lilongwe District (7 percent) and Mzimba District (8 percent).

Table 5.16.1 Exposure to radio programs on health and family planning: women

Percentage of women who reported having listened to specific health and family planning radio programmes in the few months preceding the survey, by background characteristics, Malawi 2000

Background characteristic	Uchembere Wabwino	Phukusi la Moyo	Pa Mtondo	Women's Talking Point	Window Through Health	Umoyo M'Malawi	Tinka-nena	Radio Doctor	Chitukuku M'Malawi	Women's Forum	Tichitenji	Kulera	Number
Age													
15-19	54.1	52.6	53.9	19.9	18.7	52.1	70.4	41.7	57.6	21.8	44.7	64.2	2,867
20-24	63.0	62.2	63.8	24.6	22.2	58.9	71.0	48.9	62.4	26.3	48.3	71.9	2,957
25-29	63.7	62.4	64.9	23.1	20.9	56.3	69.4	46.7	60.3	25.6	49.8	71.0	2,401
30-34	60.6	59.6	60.4	21.1	20.3	55.2	67.5	45.4	59.3	23.3	49.1	68.9	1,566
35-39	60.0	58.6	58.6	22.1	20.2	55.3	65.4	44.3	60.1	25.3	48.3	67.2	1,424
40-44	55.0	55.2	58.6	21.4	18.2	50.0	61.0	41.3	54.5	23.2	44.9	64.2	1,053
45-49	50.8	48.4	55.6	14.1	14.5	50.9	57.0	36.5	54.1	18.3	44.7	61.3	951
Residence													
Urban	75.2	76.4	76.1	38.7	35.1	71.0	85.7	64.8	74.1	42.8	61.0	83.7	2,106
Rural	56.0	54.4	56.8	18.4	17.0	51.8	64.4	40.7	56.3	20.3	44.8	64.9	11,114
Region													
Northern	57.2	54.3	56.5	24.0	23.2	53.9	63.8	45.8	57.8	24.0	43.2	69.4	1,453
Central	56.1	55.2	57.8	19.1	17.5	51.0	65.4	42.9	55.6	21.2	43.7	64.7	5,321
Southern	61.9	60.9	62.4	23.1	21.1	58.2	70.6	45.6	62.3	26.1	51.3	70.1	6,446
Education													
No education	47.0	44.5	48.5	10.2	9.7	42.0	54.2	29.4	46.4	13.5	38.1	56.0	3,574
Primary 1-4	53.9	52.5	55.0	14.3	13.4	49.1	63.3	37.8	55.2	16.3	42.9	63.5	4,025
Primary 5-8	66.4	65.5	67.0	25.2	23.1	62.3	75.7	51.5	65.8	26.2	53.0	74.9	4,152
Secondary+	81.9	83.7	81.2	59.6	53.7	80.8	90.4	80.2	81.9	63.4	66.1	88.5	1,468
Total	59.0	57.9	59.9	21.6	19.9	54.8	67.8	44.5	59.1	23.9	47.3	67.8	13,220

Table 5.16.2 Exposure to radio programs on health and family planning: men

Percentage of men who reported having listened to specific health and family planning radio programmes in the few months preceding the survey, by background characteristics, Malawi 2000

Background characteristic	Uchembere Wabwino	Phukusi la Moyo	Pa Mtondo	Women's Talking Point	Window Through Health	Umoyo M'Malawi	Tinka-nena	Radio Doctor	Chitukuku M'Malawi	Women's Forum	Tichitenji	Kulera	Number
Age													
15-19	66.2	70.0	66.2	20.5	18.6	73.3	86.0	52.9	76.2	24.3	54.2	76.3	660
20-24	75.9	79.7	76.1	29.7	31.1	79.6	91.8	68.8	79.6	35.1	55.0	83.8	598
25-29	78.3	84.1	78.3	34.6	31.0	82.3	92.5	68.4	82.0	42.0	61.9	88.9	539
30-34	79.4	85.2	80.2	40.4	39.2	82.7	90.2	74.8	86.3	44.4	61.3	91.5	330
35-39	78.6	83.4	80.7	34.2	31.8	81.8	88.5	68.1	79.8	38.8	63.2	89.0	340
40-44	77.0	83.0	76.8	37.0	30.0	81.3	87.5	72.5	83.8	42.9	68.7	87.4	240
45-49	78.5	80.7	79.5	39.0	33.2	81.7	85.6	66.9	82.1	42.3	70.2	85.0	207
50-54	80.8	80.2	81.8	37.1	34.0	81.8	86.3	68.4	86.6	39.6	74.8	86.1	177
Residence													
Urban	73.4	83.0	74.6	38.0	34.5	77.8	94.4	82.0	75.7	49.1	53.8	87.6	564
Rural	75.9	79.0	76.2	30.5	28.5	80.1	87.9	62.5	82.1	34.0	62.4	84.4	2,528
Region													
Northern	74.3	76.7	75.5	42.7	46.3	80.2	82.3	69.2	84.4	41.4	66.8	84.5	351
Central	74.9	80.9	77.5	28.1	25.5	81.3	90.0	66.3	81.2	33.3	56.7	85.9	1,296
Southern	76.3	79.4	74.6	32.6	29.2	78.1	89.9	65.0	79.7	38.7	63.0	84.3	1,446
Education													
No education	69.7	75.3	75.3	12.8	9.8	76.3	83.3	52.2	72.8	15.9	59.2	78.7	322
Primary 1-4	68.4	72.6	71.9	16.8	15.8	74.0	84.4	54.1	76.5	20.9	58.0	80.3	898
Primary 5-8	78.9	83.2	80.0	36.3	32.4	83.1	91.4	69.4	86.1	38.0	63.5	88.3	1,243
Secondary+	81.6	85.4	73.9	54.3	53.8	83.0	94.3	83.4	81.2	67.5	60.4	88.3	629
Total	75.5	79.8	75.9	31.8	29.6	79.7	89.1	66.0	80.9	36.7	60.8	85.0	3,092

Table 5.17 Contact of nonusers with family planning providers

Percent distribution of women who are not using contraception by whether they were visited by a family planning (FP) worker or spoke to a health facility (HF) staff person about family planning methods in the 12 months preceding the survey, according to background characteristics, Malawi 2000

	Visited by FP worker			Not visited by a FP worker					
Background characteristic	Attended HF and discussed FP[1]	Attended HF but did not discuss FP[1]	Did not attend health facility	Attended HF and discussed FP[1]	Attended HF but did not discuss FP[1]	Did not attend health facility	Total	Neither visited by FP worker nor discussed FP at HF	Number of women
Age									
15-19	2.2	1.7	3.2	9.6	21.6	61.7	100.0	83.3	2,642
20-24	5.9	2.3	3.5	29.2	22.4	36.6	100.0	58.9	2,233
25-29	10.2	2.6	3.2	31.6	20.5	31.9	100.0	52.4	1,610
30-34	8.3	2.9	4.4	32.6	18.6	33.1	100.0	51.7	1,051
35-39	6.5	1.6	3.9	25.1	21.3	41.6	100.0	62.9	941
40-44	5.3	2.7	5.7	17.6	18.9	49.8	100.0	68.7	702
45-49	4.0	2.3	5.7	12.3	21.4	54.3	100.0	75.7	743
Residence									
Urban	3.7	1.8	2.6	24.3	22.2	45.5	100.0	67.7	1,430
Rural	6.1	2.3	4.0	21.9	20.9	44.8	100.0	65.6	8,491
Region									
Northern	4.0	0.9	2.7	27.7	17.6	47.1	100.0	64.7	1,046
Central	4.7	2.2	3.1	19.9	22.3	47.8	100.0	70.1	3,963
Southern	7.0	2.5	4.6	23.0	20.8	42.0	100.0	62.8	4,913
Districts									
Blantyre	4.5	3.1	1.7	24.5	26.8	39.3	100.0	66.1	913
Karonga	4.4	1.7	2.8	22.6	19.7	48.8	100.0	68.5	206
Kasungu	7.6	2.9	4.0	28.5	22.5	34.6	100.0	57.1	337
Lilongwe	2.9	1.4	3.0	19.9	19.1	53.8	100.0	72.8	1,304
Machinga	6.8	1.4	4.8	17.1	19.8	50.1	100.0	69.9	371
Mangochi	7.5	2.4	6.6	21.9	17.5	44.2	100.0	61.7	531
Mulanje	10.9	5.0	7.8	28.1	16.0	32.3	100.0	48.3	461
Mzimba	3.7	0.7	3.8	27.2	19.0	45.7	100.0	64.7	432
Salima	3.7	1.6	3.8	14.5	24.0	52.4	100.0	76.4	252
Thyolo	6.5	4.0	4.2	24.8	22.1	38.5	100.0	60.6	522
Zomba	7.3	2.1	5.5	24.6	19.6	40.6	100.0	60.2	670
Other districts	6.0	2.0	3.4	21.0	21.7	46.0	100.0	67.6	3,923
Education									
No education	5.7	1.9	4.9	19.2	21.4	46.9	100.0	68.2	2,736
Primary 1-4	6.0	2.5	3.7	21.8	19.9	46.1	100.0	66.0	3,100
Primary 5-8	6.1	1.8	3.6	25.0	20.4	43.0	100.0	63.5	3,066
Secondary+	4.3	3.3	1.9	23.8	25.4	41.3	100.0	66.7	1,019
Total	5.7	2.2	3.8	22.3	21.1	44.9	100.0	65.9	9,921

Note: The total includes 3 respondents who were missing information on whether they were visited by a family planning provider.
[1] Spoke with health facility staff about family planning methods

5.18 Discussion about Family Planning with Husband

Although discussion between husband and wife about contraceptive use is not a precondition for adoption of contraception, its absence may be an impediment to use. Interspousal communication is thus an important intermediate step along the path to eventual adoption and especially continuation of contraceptive use. Lack of discussion may reflect a lack of personal interest, hostility to the subject, or customary reticence in talking about sex-related matters. To explore this subject, women interviewed in the 2000 MDHS survey were asked about the number of times family planning was discussed with their husband in the 12 months preceding the survey.

Table 5.18 shows the percent distribution of married women who know about family planning by the number of times they reported having discussed family planning with their husband in the 12 months before the survey. The results indicate that 29 percent of the women did not discuss family planning at all with their husband in the past year, while 36 percent and 35 percent had discussed family planning once or twice or three or more times, respectively. Interspousal communication was more frequent among younger women (except age 15-19), compared with older women. These results represent an improved environment for communication between spouses since the 1992 MDHS survey, when 43 percent of women reported that they had not spoken to their husband about family planning in the past year.

Table 5.18 Discussion of family planning with husband

Percent distribution of currently married women who know a contraceptive method by the number of times family planning was discussed with their husband in the past year, according to current age, Malawi 2000

	Number of times family planning was discussed with husband					
Age	Never	Once or twice	Three or more times	Missing	Total	Number
15-19	31.1	43.3	25.2	0.4	100.0	900
20-24	23.5	40.7	35.6	0.1	100.0	2,304
25-29	23.7	37.9	38.4	0.1	100.0	2,079
30-34	27.4	35.7	36.8	0.1	100.0	1,301
35-39	29.3	32.1	38.6	0.0	100.0	1,183
40-44	37.5	27.6	34.9	0.0	100.0	836
45-49	44.6	28.7	26.7	0.0	100.0	720
Total	28.5	36.4	35.0	0.1	100.0	9,323

5.19 Attitudes of Couples toward Family Planning

When couples have a positive attitude toward family planning, they are more likely to adopt a family planning method. In the 2000 MDHS survey, married women were asked whether they approved of couples using family planning and what they perceived as their husband's attitude toward family planning. This information is important in the formulation of family planning policies since it indicates the extent to which further education and publicity are needed to increase acceptance of family planning.

Table 5.19 shows that 93 percent of currently married, nonsterilised women who know a contraceptive method approve of couples using contraception. There are small differences in approval in the use of family planning between women in the three regions of the country and women in the rural and urban areas. Women from the Northern Region were slightly less likely to approve of family planning than women from other regions. Age appears not to have a big influence on a woman's attitude toward family planning. The results suggest that better educated women are more receptive to the idea of family planning than less educated women.

Seventy-four percent of women reported that both they and their husband approved of family planning; only 4 percent reported that both they and their husband disapproved. Eight percent of women did not know whether their husband disapproved of family planning or not. When the wife perceived a conflicting opinion between herself and her husband, it was more likely that the husband disapproved and the wife approved (12 percent) than that the wife disapproved and the husband approved (1 percent). Among subgroups of the population, discrepancies between the woman's and man's view of family planning as well as uncertainty about the man's view were most common when the respondent had never been to school.

Table 5.19 Attitudes of couples toward family planning

Percent distribution of currently married women who know of a method of family planning (FP) by approval of family planning and their perception of their husband's attitude toward family planning, according to background characteristics, Malawi 2000

		Respondent approves of family planning		Respondent disapproves of family planning							
Background characteristic	Both approve	Husband dis-approves	Husband's attitude unknown	Husband approves	Husband's attitude unknown	Both disap-prove	Respon-dent unsure	Total	Percentage of respon-dents who approve of FP	Percent-age of husbands who approve of FP	Number
Age											
15-19	71.2	10.1	10.1	1.7	0.9	4.4	1.6	100.0	91.4	73.1	900
20-24	75.7	11.3	7.0	0.9	0.7	3.5	0.8	100.0	94.1	76.7	2,304
25-29	74.6	13.1	6.5	0.7	0.8	3.7	0.4	100.0	94.3	75.4	2,079
30-34	77.2	11.8	6.4	0.1	0.6	3.4	0.4	100.0	95.4	77.5	1,301
35-39	70.3	15.8	7.3	1.5	0.8	3.7	0.7	100.0	93.3	71.7	1,183
40-44	72.1	12.5	7.1	2.0	0.7	4.8	0.8	100.0	91.7	74.2	836
45-49	66.5	11.6	11.8	2.3	0.7	5.7	1.4	100.0	89.9	69.0	720
Residence											
Urban	81.0	9.6	6.0	0.6	0.7	1.7	0.5	100.0	96.6	81.7	1,360
Rural	72.2	12.8	7.8	1.2	0.8	4.3	0.8	100.0	92.9	73.5	7,963
Region											
Northern	71.3	11.8	7.3	1.5	2.2	4.4	1.7	100.0	90.4	72.9	1,055
Central	74.3	12.1	6.3	1.8	0.6	4.5	0.4	100.0	92.7	76.1	3,859
Southern	73.3	12.8	8.7	0.5	0.5	3.3	0.9	100.0	94.8	74.0	4,409
Education											
No education	65.9	14.3	10.3	1.7	0.8	5.7	1.2	100.0	90.5	67.7	2,907
Primary 1-4	72.6	13.3	8.0	0.8	0.8	3.8	0.8	100.0	93.9	73.4	2,942
Primary 5-8	78.8	10.7	5.3	1.0	0.8	2.9	0.4	100.0	94.9	79.9	2,762
Secondary+	87.8	6.9	3.2	0.7	0.0	1.2	0.2	100.0	97.9	88.7	713
Total	73.5	12.4	7.5	1.1	0.8	3.9	0.8	100.0	93.4	74.7	9,323

OTHER PROXIMATE DETERMINANTS OF FERTILITY 6

Martin Palamuleni

This chapter focuses on the principal factors, other than contraception, that affect a woman's risk of becoming pregnant. These factors include nuptiality and sexual intercourse, postpartum amenorrhoea, abstinence from sexual relations, and onset of menopause. Sexual initiation and marriage signal the onset of women's exposure to the risk of childbearing, postpartum amenorrhoea and abstinence affect the length of intervals between births, and the onset of menopause marks the end of a woman's reproductive life. Collectively, these factors determine the length and pace of reproductive activity and are therefore important for understanding fertility levels and trends.

6.1 Marital Status

The demographic significance of marriage patterns derives from the fact that formal or informal unions are primary indicators of exposure to the risk of pregnancy. The percentage distribution of women and men by marital status is shown in Table 6.1. The data indicate that 17 percent of women of reproductive age in Malawi have never married; 70 percent are currently married; 1 percent are living with a man; and 12 percent are widowed, divorced, or no longer living with a man.

Table 6.1 Current marital status

Percent distribution of women and men by current marital status, according to age, Malawi 2000

	Marital status							
Age	Never married	Married	Living together	Widowed	Divorced	Not living together	Total	Number
				WOMEN				
15-19	63.2	31.1	1.4	0.1	1.6	2.5	100.0	2,867
20-24	12.3	77.3	1.3	1.0	3.9	4.2	100.0	2,957
25-29	1.8	86.2	1.4	2.3	4.8	3.4	100.0	2,401
30-34	0.9	82.6	1.3	5.1	5.2	5.0	100.0	1,566
35-39	0.3	82.7	1.0	6.5	5.9	3.6	100.0	1,424
40-44	0.4	79.6	0.9	8.9	7.3	2.9	100.0	1,053
45-49	0.0	76.2	1.5	11.4	7.0	3.9	100.0	951
All ages	17.0	70.2	1.3	3.5	4.4	3.6	100.0	13,220
				MEN				
15-19	96.0	3.3	0.2	0.0	0.4	0.1	100.0	660
20-24	58.2	37.4	2.0	0.0	1.1	1.2	100.0	598
25-29	13.6	79.3	2.4	0.5	2.0	2.2	100.0	539
30-34	3.0	90.7	2.7	0.5	2.1	0.9	100.0	330
35-39	1.3	88.4	4.0	2.3	2.6	1.5	100.0	340
40-44	0.6	90.8	4.1	0.8	3.7	0.1	100.0	240
45-49	0.0	89.6	4.7	1.0	2.9	1.8	100.0	207
50-54	0.9	86.8	4.1	1.4	3.2	3.6	100.0	177
All ages	34.7	59.2	2.5	0.6	1.8	1.2	100.0	3,092

There has been a slight increase in the percentage of women currently in a union (married or living together) over the past eight years, from 72 percent based on the 1992 MDHS survey to 75 percent in 2000. The proportion of women age 15-49 who have never married declines sharply from 63 percent for women age 15-19 to less than 1 percent for women age 30 and over. This confirms that marriage is essentially universal in Malawi. As expected, most of the single (never married) women are under 25 years old. The proportion of women who are currently married increases to a peak at age 25-29 (86 percent) and then declines slowly because of increasing levels of widowhood and divorce with age.

Thirty-five percent of the men interviewed have never been married; 59 percent are currently married; 3 percent are living with a woman; and 4 percent are widowed, divorced, or no longer living with a woman. Compared with women, a much greater proportion of men (twice as many as women) have never been married. This is, as we will see in later sections, due to later age at marriage among men. Widowhood is rare among men, indicating that they are more likely than women to die before their spouse and more likely to remarry upon the death of a spouse.

6.2 Polygyny

The extent of polygyny in Malawi was measured in the 2000 MDHS survey by asking married women whether their husband has other wives and, if so, how many. Married men were asked whether they have more than one wife and, if so, how many other wives. Table 6.2 shows the percentage of currently married women by the number of co-wives they have, according to background characteristics. Overall, 17 percent of currently married women in Malawi are in a polygynous union (that is, one or more co-wives). Older women are more likely to be in polygynous unions than younger women. Polygyny is more common in rural areas (19 percent) than in urban areas (9 percent). Polygyny exists in all regions of the country but is most prevalent in the Northern Region, followed by the Central and Southern regions (26, 18, and 14 percent, respectively). Nearly 21 percent of women with no education are in polygynous unions, compared with 8 percent of those with secondary and higher education.

Based on comparisons with previous surveys, polygyny is on the decline in Malawi. The proportion of married women in polygynous unions has fallen from 21 percent in the 1992 MDHS survey to 17 percent in the 2000 MDHS survey.

Data on polygynous unions among currently married men are also given in Table 6.2. Nine percent of married men report being in a polygynous union, but this varies greatly by age, place of residence, region, and level of education. Whereas only 11 percent of married men age 30-34 are in a polygynous union, the corresponding proportion for those age 50-54 is 21 percent. Differentials in urban-rural residence, region, and level of education for men parallel those observed for women (Figure 6.1).

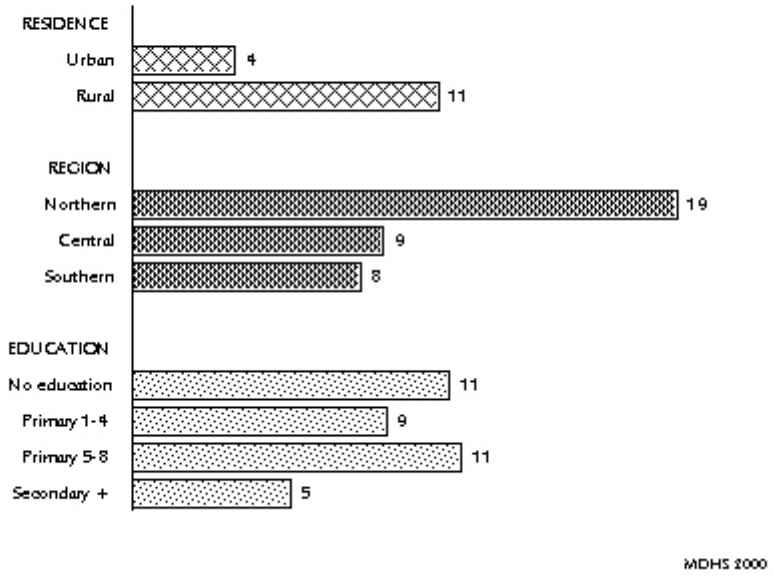
Table 6.2 Number of co-wives and wives

Percent distribution of currently married women by number of co-wives and percent distribution of currently married men by number of wives, according to background characteristics, Malawi 2000

	WOMEN						MEN			
	Number of co-wives						Number of wives			
Background characteristic	0	1	2+	Don't know	Total	Number	1	2+	Total	Number
Age										
15-19	92.5	7.1	0.2	0.2	100.0	934	100.0	0.0	100.0	23
20-24	88.7	9.5	1.6	0.2	100.0	2,324	96.9	3.1	100.0	236
25-29	81.9	16.1	1.8	0.1	100.0	2,102	95.0	5.0	100.0	441
30-34	77.8	19.4	2.8	0.0	100.0	1,312	89.4	10.6	100.0	308
35-39	78.3	17.3	4.0	0.4	100.0	1,192	91.4	8.6	100.0	314
40-44	78.5	16.6	4.9	0.0	100.0	848	90.5	9.5	100.0	228
45-49	75.7	20.5	3.8	0.0	100.0	739	82.8	17.2	100.0	195
50-54	na	na	na	na	na	na	78.6	21.4	100.0	161
Residence										
Urban	91.3	7.7	0.8	0.2	100.0	1,362	96.5	3.5	100.0	307
Rural	81.4	15.8	2.7	0.1	100.0	8,089	89.5	10.5	100.0	1,599
Region										
Northern	74.0	20.7	5.2	0.2	100.0	1,075	81.3	18.7	100.0	217
Central	81.6	15.2	2.9	0.2	100.0	3,919	91.4	8.6	100.0	775
Southern	86.0	12.6	1.4	0.1	100.0	4,458	92.2	7.8	100.0	914
Education										
No education	79.1	18.2	2.7	0.1	100.0	2,975	89.1	10.9	100.0	265
Primary 1-4	83.0	14.5	2.2	0.2	100.0	2,980	91.3	8.7	100.0	565
Primary 5-8	84.4	12.6	2.9	0.1	100.0	2,784	88.7	11.3	100.0	737
Secondary+	91.2	7.6	0.8	0.4	100.0	713	94.6	5.4	100.0	338
Total	82.8	14.6	2.4	0.2	100.0	9,452	90.6	9.4	100.0	1,906

na = Not applicable

Figure 6.1 Percentage of Currently Married Men in a Polygynous Marriage, by Background Characteristics



6.3 Age at First Marriage

For most societies, marriage marks the point in a woman's life when childbearing first becomes socially acceptable. Women who marry early will have, on average, longer exposure to the risk of pregnancy; therefore, early age at first marriage usually implies higher fertility levels for a society. In the 2000 MDHS survey, information on age at first marriage was obtained by asking all ever-married respondents for the month and year that they started living together with their first husband.

Table 6.3 shows that the median age at first marriage for women age 20-49 is about 18 years. The median age at first marriage has risen slowly over the last generation, from around 17.5 years among women age 40-44 to around 18.2 years for women age 20-24 years[1]. This is consistent with a rise of about the same magnitude between the 1992 MDHS and 2000 MDHS estimates in the 20-24 age group from 17.7 years and 18.2 years.

Table 6.3 Age at first marriage

Percentage of women and men who were first married by specific exact ages and median age at first marriage, according to current age, Malawi 2000

WOMEN

Current age	Percentage who were first married by exact age: 15	18	20	22	25	Percentage who had never married	Number	Median age at first marriage
15-19	5.6	na	na	na	na	63.2	2,867	a
20-24	10.2	46.9	72.9	na	na	12.3	2,957	18.2
25-29	12.9	48.5	76.0	88.7	96.1	1.8	2,401	18.1
30-34	17.0	53.9	75.8	87.9	94.7	0.9	1,566	17.7
35-39	15.2	54.3	74.4	86.0	93.1	0.3	1,424	17.7
40-44	18.9	55.7	77.0	86.9	93.7	0.4	1,053	17.5
45-49	15.4	51.9	72.4	81.9	91.7	0.0	951	17.9
Women 20-49	13.9	50.7	74.6	86.3	92.5	4.2	10,353	17.9

MEN

Current age	Percentage who were first married by exact age: 20	22	25	28	30	Percentage who had never married	Number	Median age at first marriage
25-29	19.0	40.1	72.9	na	na	13.6	539	22.7
30-34	23.3	42.3	69.1	86.0	94.1	3.0	330	22.9
35-39	23.1	41.8	70.2	82.2	89.0	1.3	340	22.9
40-44	26.7	47.4	72.6	87.8	93.5	0.6	240	22.3
45-49	16.9	40.2	70.9	87.4	91.1	0.0	207	22.7
50-54	17.5	37.3	66.5	84.5	89.9	0.9	177	23.3
Men 25-54	21.2	41.5	70.8	85.2	90.1	4.9	1,833	22.8

na = Not applicable
[a] Less than 50 percent of respondents in the age group *x* to *x+4* have married by age *x*.

[1] The median for the age group 45-49 years is probably overestimated, since previous survey research indicates that older women tend to (retrospectively) overestimate their age at first marriage. Hence, this estimate is not considered in looking at the trend in median age at first marriage.

There is further evidence of increasing age at marriage observed in the proportion of women married before age 15. For example, the proportion of women married by age 15 has dropped from about 15 percent among women age 30 and over to 6 percent among women age 15-19.

The male data suggest that men enter into first union about 5 years later than women; the median age at first marriage for men age 25-54 is 23 years. Only 21 percent of men were married by age 20, compared with 75 percent of women.

Table 6.4 examines the median age at first marriage for women age 20-49 by background characteristics. The overall median age at first marriage observed for women age 20-49 is 17.9 years. Urban women marry, on average, nearly one year later than rural women. Regional variations indicate that women in the Central Region marry at a slightly older age than women in

Table 6.4 Median age at first marriage

Median age at first marriage among women age 20-49 years and men age 25-54, by current age and background characteristics, Malawi 2000

Background characteristic	Current age						Women age 20-49
	20-24	25-29	30-34	35-39	40-44	45-49	
	WOMEN						
Residence							
Urban	19.6	18.8	18.0	18.0	18.0	18.4	18.7
Rural	18.0	18.0	17.7	17.6	17.5	17.8	17.8
Region							
Northern	17.8	17.6	17.9	17.4	17.6	17.5	17.7
Central	18.7	18.4	18.1	17.9	17.8	18.1	18.3
Southern	17.9	17.8	17.4	17.6	17.1	17.8	17.7
Education							
No education	17.0	17.6	17.0	17.8	17.3	18.1	17.4
Primary 1-4	17.6	17.8	17.6	17.1	16.8	17.8	17.5
Primary 5-8	18.2	18.0	18.0	17.9	17.9	17.4	18.0
Secondary+	20+[a]	21.9	20.9	20.1	20.2	18.9	20+[a]
All women	18.2	18.1	17.7	17.7	17.5	17.9	17.9

Background characteristic	Current age						Men age 25-54
	25-29	30-34	35-39	40-44	45-49	50-54	
	MEN						
Residence							
Urban	24.4	25.1	24.6	23.8	22.8	24.7	24.4
Rural	22.4	22.3	22.5	21.9	22.7	23.0	22.4
Region							
Northern	22.3	22.7	23.8	23.9	22.8	24.1	23.0
Central	22.8	23.2	23.0	21.6	22.9	22.8	22.7
Southern	22.7	22.4	22.7	22.5	22.6	23.3	22.7
Education							
No education	23.1	22.4	24.5	21.9	23.0	24.0	23.2
Primary 1-4	22.2	21.6	22.5	20.0	22.2	21.6	21.9
Primary 5-8	22.0	22.2	22.0	23.0	22.7	22.9	22.4
Secondary+	24.8	25.8	25.0	24.5	24.0	25.5	25.0
All men	22.7	22.9	22.9	22.3	22.7	23.3	22.8

[a] Less than 50 percent of respondents have been married by age 20. Median is at least 20 years.

the Southern and Northern regions. The median age at first marriage for women with no formal education is 17.4 years, compared with 17.5 for women with one to four years of primary school and 18.0 for women with five to eight years of primary school. Women with secondary or higher education have a median age of marriage of over 20 years.

6.4 Age at First Sexual Intercourse

Age at first marriage is often used as a proxy for exposure to sexual intercourse and hence the onset of a woman's exposure to the risk of pregnancy. However, since some women are sexually active before marriage, the age at which women initiate sexual intercourse more directly marks the beginning of exposure to the risk of pregnancy.

Table 6.5 presents the percentage of women and men who have ever had intercourse by specific ages. The findings indicate that the median age at first sex is, on average, about one year earlier than the median age at first marriage. Looking at age cohorts, the median age at first intercourse has remained roughly constant at just under 17 years. Virtually all women initiate sexual activity before their early twenties. More than one-half of adolescents (age 15-19) have already started sexual activity.

Table 6.5 Age at first sexual intercourse

Percentage of women and men who had first sexual intercourse by specified exact ages and median age at first intercourse, according to current age, Malawi 2000

Current age	Percentage who had first sexual intercourse by exact age: 15	18	20	22	25	Percentage never having intercourse	Number	Median age at first intercourse
				WOMEN				
15-19	16.5	na	na	na	na	42.7	2,867	a
20-24	17.8	62.1	83.2	na	na	4.3	2,957	17.1
25-29	21.8	62.9	83.7	91.6	95.2	0.8	2,401	16.9
30-34	21.7	66.0	83.4	91.2	94.2	0.2	1,566	16.7
35-39	20.4	65.4	82.4	90.3	94.5	0.0	1,424	16.8
40-44	23.4	64.4	83.0	88.6	93.0	0.3	1,053	16.7
45-49	21.4	63.2	80.8	87.2	92.7	0.0	951	16.9
20-49	20.6	63.7	83.0	na	na	1.5	10,353	16.9
25-49	21.7	64.3	82.9	90.3	94.2	0.3	7,396	16.8
				MEN				
15-19	29.1	na	na	na	na	38.9	660	a
20-24	19.5	53.1	77.1	na	na	6.8	598	17.7
25-29	14.5	47.0	68.7	83.4	95.9	1.0	539	18.2
30-34	13.8	44.8	69.5	83.0	92.4	0.4	330	18.3
35-39	15.2	49.3	69.7	83.1	95.0	0.1	340	18.1
40-44	9.2	44.4	64.9	78.9	91.3	0.6	240	18.5
45-49	6.2	36.7	56.0	75.0	91.2	0.0	207	19.5
50-54	10.9	32.9	52.2	68.1	90.8	0.0	177	19.6
20-54	14.2	46.4	68.4	na	na	2.0	2,432	18.3
25-54	12.5	44.2	65.5	80.3	93.5	0.5	1,833	18.4

na = Not applicable
[a] Less than 50 percent of respondents in age group *x* to *x + 4* have had intercourse by age x.

The data from male respondents show a different picture. Whereas for women, average age at first sex precedes first marriage by just a year, men start having sex about five years before first marriage. Moreover, this gap may be lengthening because age at first sex seems to be declining in men, from about 19.6 years for the cohort currently age 50-54 to about 17.7 years for the cohort age 20-24. The median age at first sex for men (20-54) is 18.3 years, compared with 16.9 years for women.

Table 6.6 shows differentials in the median age at first sexual intercourse by background characteristics for women age 20-49. Overall, there are limited geographical differences in the age at which women become sexually active. On average, rural women start sexual relations earlier than urban women. At the regional level, sexual activity begins earliest in the Southern Region (16.5 years), followed by the Northern Region (17.0 years), and latest in the Central Region (17.4 years). Women with at least some secondary education initiate sexual relations, on average, almost three years later than those with no education or one to four years of primary education.

Table 6.6 Median age at first sexual intercourse

Median age at first sexual intercourse among women age 20-49 years, by current age and background characteristics, Malawi 2000

Background characteristic	Current age						Women age 20-49
	20-24	25-29	30-34	35-39	40-44	45-49	
Residence							
Urban	17.8	17.6	17.3	17.2	16.9	17.8	17.5
Rural	17.0	16.7	16.6	16.8	16.6	16.8	16.8
Region							
Northern	17.1	17.1	17.2	16.7	17.1	17.0	17.0
Central	17.7	17.4	17.2	17.3	17.1	17.4	17.4
Southern	16.7	16.4	16.1	16.4	16.3	16.6	16.5
Education							
No education	16.1	16.3	16.0	16.5	16.2	16.6	16.3
Primary 1-4	16.6	16.5	16.3	16.5	16.4	17.0	16.5
Primary 5-8	17.3	17.2	17.5	17.0	17.6	17.2	17.3
Secondary+	18.9	19.7	19.8	19.5	18.5	18.9	19.2
All women	17.1	16.9	16.7	16.8	16.7	16.9	16.9

6.5 Recent Sexual Activity

Although few women age 20-49 have never had sexual intercourse, not all those who have ever had sex are currently sexually active. In the absence of effective contraception, the probability of becoming pregnant is related to the frequency of intercourse. Information on recent sexual activity, therefore, can be used to refine measures of exposure to pregnancy. Women who had ever had sex were asked how long ago their last sexual activity occurred; this allows assessment of whether they had a recent sexual encounter. Table 6.7 shows the percent distribution of women, according to their sexual activity and background characteristics. Women are considered to be sexually active if they had sexual intercourse at least once in the four weeks prior to the survey. Women who are not sexually active may be abstaining for various reasons, such as having recently given birth (i.e., postpartum abstinence).

Table 6.7 Recent sexual activity

Percent distribution of women by sexual activity in the four weeks preceding the survey, and among those not sexually active, the duration of abstinence and whether postpartum or not postpartum abstaining, according to background characteristics, Malawi 2000

Background characteristic/ contraceptive method	Sexually active in last 4 weeks	Not sexually active in last four weeks: Postpartum abstaining 0-1 years	Postpartum abstaining 2+ years	Not postpartum abstaining 0-1 years	Not postpartum abstaining 2+ years	Missing	Never had sexual inter-course	Total	Number
Current age									
15-19	28.0	10.0	0.5	15.7	2.6	0.5	42.7	100.0	2,867
20-24	58.2	18.7	1.8	14.0	1.6	1.4	4.3	100.0	2,957
25-29	66.8	15.6	1.7	12.5	1.6	1.1	0.8	100.0	2,401
30-34	63.9	13.0	1.7	15.9	3.9	1.4	0.2	100.0	1,566
35-39	67.4	9.6	2.6	13.4	5.5	1.5	0.0	100.0	1,424
40-44	64.9	6.3	2.0	15.6	9.4	1.5	0.3	100.0	1,053
45-49	61.8	2.3	1.6	16.8	16.1	1.3	0.0	100.0	951
Marriage duration (years)									
Never married	7.7	5.2	1.0	19.6	4.8	0.4	61.3	100.0	2,243
0-4	64.7	20.0	1.3	12.5	0.5	0.9	0.0	100.0	2,837
5-9	66.2	17.1	1.7	11.8	1.7	1.7	0.0	100.0	2,351
10-14	65.6	13.8	1.4	14.6	3.2	1.5	0.0	100.0	1,835
15-19	66.0	11.7	2.8	14.2	4.0	1.3	0.0	100.0	1,428
20-24	67.7	8.1	1.7	13.8	7.2	1.6	0.0	100.0	1,150
25+	63.4	2.8	1.9	16.7	14.0	1.2	0.0	100.0	1,375
Residence									
Urban	55.0	9.5	1.3	14.9	5.2	1.2	13.0	100.0	2,106
Rural	55.8	13.0	1.6	14.5	4.0	1.2	9.9	100.0	11,114
Region									
Northern	49.5	16.7	2.8	12.9	5.2	1.2	11.7	100.0	1,453
Central	61.3	8.7	1.6	12.3	3.6	0.9	11.6	100.0	5,321
Southern	52.5	14.5	1.2	16.9	4.4	1.4	9.2	100.0	6,446
Education									
No education	62.1	13.9	2.0	14.6	4.0	1.4	1.9	100.0	3,574
Primary 1-4	58.5	12.0	1.3	13.3	3.7	1.1	10.2	100.0	4,025
Primary 5-8	52.9	12.3	1.5	13.6	3.7	1.2	14.9	100.0	4,152
Secondary+	40.1	10.3	1.8	20.8	7.1	0.9	19.0	100.0	1,468
Current contraceptive method									
No method	49.1	14.0	1.8	15.0	5.2	1.1	13.9	100.0	9,921
Pill	71.3	11.5	1.8	14.4	0.5	0.5	0.0	100.0	303
Female sterilisation	78.2	5.2	1.4	11.0	2.8	1.4	0.0	100.0	504
Injectables	78.6	7.3	0.5	10.8	1.2	1.7	0.0	100.0	1,717
Condom	63.4	5.5	0.0	29.9	0.1	1.2	0.0	100.0	247
Other	71.2	10.1	1.4	15.7	0.8	0.9	0.0	100.0	528
Total	55.7	12.4	1.6	14.6	4.2	1.2	10.4	100.0	13,220

Fifty-six percent of women were sexually active in the four weeks preceding the survey, 14 percent were in postpartum abstinence, 19 percent were abstaining for reasons other than recent childbirth, and 10 percent had never had sex. With the exception of lower levels of sexual activity among women age 15-19, the proportion of women who are sexually active varies little by age of the woman and marital duration.

Urban-rural residence is not closely associated with recent sexual activity in women. Women in the Central Region are more likely to be sexually active (61 percent) than counterparts in the Southern Region (53 percent) and the Northern Region (50 percent). The proportion sexually active decreases with increasing education. Women with secondary or higher education had markedly higher levels of abstinence for reasons other than giving birth. This may be due to the fact that the better educated women are likely to be younger and unmarried.

Women who are using contraception are more likely to be sexually active than those who are not using a family planning method. This is not surprising, since many women do not use a method because they are having little or no sex. Among users of a family planning method, the proportion of women who are sexually active varies according to the method used: the highest level of sexual activity was found among users of injectables and female sterilisation, followed by the pill, other methods, and condoms.

The proportion of women abstaining postpartum for less than two years declines with increasing age and with increasing marital duration. Women in rural areas and those who are not using any form of contraception are more likely to be postpartum abstaining. Long-term abstinence (more than two years) unrelated to childbirth rises with increasing age and duration of marriage.

6.6 Postpartum Amenorrhoea, Abstinence, and Insusceptibility

Postpartum amenorrhoea refers to the interval between childbirth and the return of menstruation. During this time without menses, a woman is unlikely to ovulate, and the risk of pregnancy is much reduced. How long after childbirth this protection from conception lasts depends on the length and intensity of breastfeeding and on how long it takes the woman to resume sexual intercourse. Postpartum abstinence refers to the period of voluntary sexual inactivity after childbirth. Women are considered insusceptible if they are not exposed to the risk of pregnancy, either because they are amenorrhoeic or because they are abstaining from sexual intercourse after a birth.

Table 6.8 shows the percentage of recent births for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible at the time of the survey, by number of months since birth. The period of postpartum amenorrhoea is considerably longer than the period of postpartum abstinence and is therefore the principal determinant of the length of postpartum insusceptibility to pregnancy in Malawi. The median duration of amenorrhea is 13 months, the median duration of abstinence is 6 months, and the median duration of the period of insusceptibility is 15 months. Virtually all women are insusceptible to pregnancy within the first two months after a birth and both amenorrhea and abstinence are important factors in their insusceptibility. However, starting from the second month after birth, the contribution of abstinence to the insusceptible period is greatly reduced as more and more women resume sexual relations. At about 12-13 months postpartum, one-half of mothers are still amenorrheic, while only 16 percent are still abstaining. From 14-23 months postpartum, however, the proportion of mothers who are amenorrhoeic also drops sharply so that by 24 months after a birth, less than 12 percent of mothers are still insusceptible to the risk of pregnancy.

Table 6.8 Postpartum amenorrhoea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Malawi 2000

Months since birth	Percentage of births for which the mother is: Amenor-rhoeic	Abstaining	Insus-ceptible	Number
<2	91.6	94.1	98.8	371
2-3	90.0	80.6	96.0	477
4-5	82.7	56.2	89.8	487
6-7	76.9	44.4	84.3	445
8-9	69.8	32.0	77.9	434
10-11	59.2	20.9	64.4	469
12-13	47.9	16.3	54.0	479
14-15	44.2	19.1	52.4	405
16-17	34.4	13.6	41.7	374
18-19	29.3	10.8	35.1	426
20-21	17.3	9.8	23.3	407
22-23	13.2	7.4	18.8	400
24-25	7.5	5.5	11.3	420
26-27	8.1	6.7	13.5	416
28-29	7.0	6.1	11.6	398
30-31	6.3	4.0	9.5	390
32-33	3.0	3.5	5.9	386
34-35	1.8	3.8	4.3	407
Total	39.7	24.8	45.5	7,590
Median	12.7	5.8	14.5	-
Mean	14.1	9.0	16.1	-

Table 6.9 shows the median durations of postpartum amenorrhoea, abstinence, and insusceptibility by various background characteristics of the mother. Young mothers (less than 30 years) tend to have a shorter duration of postpartum insusceptibility than older mothers (more than 30 years) due to their shorter period of amenorrhoea. This is associated with shorter breastfeeding durations in younger women (who are more likely to be employed in the formal sector). Urban women also have shorter periods of amenorrhoea and insusceptibility than rural women for the same reason.

Regional differences, although small, are worth highlighting. Women in the Central Region have the longest duration of amenorrhoea (14 months), followed by women in the Southern Region (12 months) and the Northern Region (11 months). Women from the Central Region abstain from sex after birth for a considerably shorter duration (3 months) than women in the Southern Region (7 months) and Northern Region (8 months).

There is an inverse relationship between education and women's insusceptibility to the risk of pregnancy. Insusceptibility lasts for about 17 months postpartum among women with no education, 14 months among those with a primary education, and 13 months among women with at least some secondary education. These differentials are due to sharp education-related differences in the duration of amenorrhoea.

Table 6.9 Median duration of postpartum insusceptibility by background characteristics

Median number of months of postpartum amenorrhoea, postpartum abstinence, and postpartum insusceptibility, by background characteristics, Malawi 2000

Background characteristic	Median duration of postpartum: Amenorrhoea	Abstinence	Insusceptibility	Number
Age				
15-29	11.9	5.8	13.8	5,284
30-49	14.4	6.0	16.0	2,306
Residence				
Urban	10.4	5.8	12.1	951
Rural	13.0	5.8	14.9	6,640
Region				
Northern	11.2	7.9	14.1	836
Central	13.7	3.3	15.3	3,270
Southern	12.4	7.4	13.7	3,484
Education				
No education	14.4	6.3	16.7	2,323
Primary 1-4	12.7	4.9	14.4	2,432
Primary 5-8	11.5	6.2	13.9	2,310
Secondary+	9.1	6.2	13.1	525
Total	12.7	5.8	14.5	7,590

Note: Medians are based on current status.

FERTILITY PREFERENCES AND UNMET NEED FOR FAMILY PLANNING

7

A.J. Claudio-Jeke

Information on the fertility preferences of men and women provides family planning programs with an assessment of trends in ideals about family size, the prevailing need for contraception, and the extent of unwanted and mistimed pregnancies. Data on fertility preferences can also be useful as an indicator of future fertility trends.

In the 2000 MDHS survey, women and men were asked a series of questions to ascertain their fertility preferences including their desire to have another child, the length of time they would like to wait before having another child, and what they consider to be the ideal number of children. These data make it possible to quantify fertility preferences and, in combination with data on contraceptive use, allow estimation of the unmet need for family planning, both for spacing and limiting births.

Interpretation of results on fertility preferences is the subject of controversy since it is understood that respondents' reported preferences are, in most cases, hypothetical and thus subject to change and rationalisation.

7.1 Desire for More Children

Men and women in the MDHS survey were asked, "Would you like to have (a/another) child or would you prefer not to have any (more) children?" Women who said they wanted to have another child were then asked how long they would like to wait before the birth of the next child. Table 7.1 shows fertility desires among women by the number of living children. Although more than one-half (53 percent) of women wanted another child, only 16 percent wanted a child soon. Forty-two percent of the women indicated either that they wanted no more children or that they had already been sterilised and therefore want to limit the family size at its current level. The majority of women (79 percent) want to space their next birth or end childbearing altogether. These women are potentially in need of either a reversible or permanent method of family planning.

As expected, the desire to end childbearing increases with the number of living children, from about 5 percent among married women with no children to 84 percent among women with six or more children. A comparison of these results with data from the 1992 MDHS survey indicates that there has been a decline in the proportion of women who desire more children and an increase in the proportion of women who want to limit childbearing. The proportion of married women who want to end childbearing has risen from 25 percent in 1992 to 42 percent in 2000.

The proportion of women desiring a large family has also changed over the last decade. Among married women with six or more children, the proportion who want to have another child declined from 20 percent in 1992 to 10 percent in 2000.

Table 7.1 Fertility preferences by number of living children

Percent distribution of currently married women by desire for more children, according to number of living children, Malawi 2000

Desire for children	Number of living children[1] 0	1	2	3	4	5	6+	Total
Have another soon[2]	80.5	22.0	12.8	10.4	6.8	4.4	1.1	15.7
Have another later[3]	9.4	59.5	53.6	41.8	28.5	19.2	9.3	37.1
Have another, undecided when	1.8	0.7	0.8	0.3	0.3	0.2	0.4	0.6
Undecided	1.1	0.8	2.0	1.4	2.6	1.4	1.2	1.5
Want no more	3.2	15.0	26.8	40.0	51.8	62.9	69.4	37.5
Sterilised[4]	1.8	0.9	1.4	3.2	7.1	7.4	14.5	4.8
Declared infecund[5]	2.3	1.1	2.7	2.8	2.9	4.6	4.1	2.8
Missing	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	654	1,941	1,970	1,426	1,192	853	1,415	9,452

[1] Includes current pregnancy
[2] Wants next birth within two years
[3] Wants to delay next birth for two or more years
[4] Includes both male and female sterilisation
[5] Woman reports that she is infecund.

7.2 Desire to Limit Childbearing by Background Characteristics

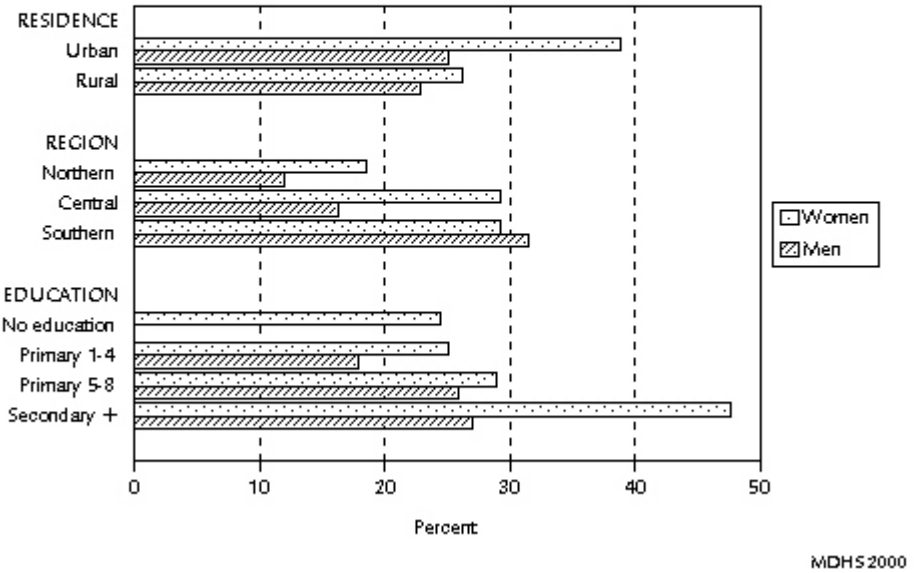
Table 7.2 shows the percentage of currently married men and women who want no more children by number of living children and background characteristics. Larger proportions of urban women want to stop childbearing (47 percent) than rural women (42 percent). This pattern is most pronounced for women at higher parity levels. Regional differentials are also notable. Among currently married women, women from the Central Region (irrespective of parity) are more likely to want to stop childbearing (49 percent) than women from the Northern or Southern regions (41 and 37 percent, respectively).

The desire to limit childbearing appears to decrease as the respondent's education increases; this is because more educated women have, on average, much lower fertility (i.e., lower average parity). As such, interpretation of the relationship between education level and fertility preferences needs to be based on comparisons *within* parity categories. For example, for women with no or one child, there are minimal educational differentials, but at higher parity, women with more education are much more likely to want to limit their family size.

No clear patterns emerge when looking at the data for men except that at higher numbers of living children, urban men are more likely than rural men to want to have no more children.

Figure 7.1 shows the percentage of women and men with two living children who want no additional children, according to urban-rural residence, region, and education level. Education and urban-rural differentials are smaller among men than among women. Women and men who never went to school have the same level of preference for limiting their family size at two children (about 20 percent). Women with secondary education, on the other hand, are nearly twice as likely to want to stop having children as men with the same level of education.

Figure 7.1 **Percentage of Currently Married Men and Women Who Have Had Two Children Who Want to End Childbearing**



7.3 Unmet Need for Family Planning

Women who say either that they do not want any more children or that they want to wait two or more years before having another child, but are not using contraception, are considered to have an *unmet need* for family planning.[1] Women who are using family planning methods are said to have a *met need* for family planning. Women with unmet need and met need together constitute the *total demand* for family planning, which can be categorised based on whether the need is for spacing or limiting births.

Table 7.3 presents estimates of currently married women with unmet need, met need, and total demand for family planning services by background characteristics, according to intention to space or limit births. Based on the 2000 MDHS survey, 30 percent of married women have an unmet need for family planning services, 17 percent for spacing and 13 percent for limiting. Combined with the 31 percent of married women who are currently using a contraceptive method, the total demand for family planning comprises 60 percent of married women. At present, 51 percent of the potential demand for family planning is being met (i.e., satisfied demand). Although much remains to be accomplished to meet the need for family planning in Malawi, the survey findings point to considerable progress since the 1992 MDHS survey, when unmet need was estimated at 36 percent and the percentage of demand satisfied was just 26 percent.

[1] For an exact description of the calculation, see footnote 1, Table 7.3

Table 7.2 Desire to limit childbearing by background characteristics

Percentage of currently married women and men who want no more children, by number of living children and background characteristics, Malawi 2000

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
WOMEN								
Residence								
Urban	3.3	15.9	38.8	59.9	71.0	85.8	95.9	46.6
Rural	5.3	15.8	26.2	40.2	57.2	68.2	82.6	41.6
Region								
Northern	5.9	9.4	18.5	40.8	49.5	72.2	89.2	41.2
Central	8.2	17.4	29.2	48.4	67.5	74.7	89.5	48.5
Southern	3.2	15.9	29.2	38.7	52.4	64.6	76.7	37.2
Education								
No education	8.7	18.4	24.5	36.6	54.1	65.3	80.7	45.8
Primary 1-4	2.8	14.7	25.1	42.7	58.4	70.6	85.3	40.1
Primary 5-8	4.2	15.3	28.9	47.6	62.8	74.1	86.4	41.5
Secondary+	6.2	16.0	47.6	63.3	79.7	95.6	100.0	40.2
Total	5.0	15.8	28.2	43.2	58.9	70.2	84.0	42.3
MEN								
Residence								
Urban	6.5	10.2	25.1	42.4	65.7	71.9	71.0	36.6
Rural	7.9	7.7	22.9	36.8	44.3	56.7	70.2	37.4
Region								
Northern	8.2	2.8	11.9	38.6	37.7	45.9	56.2	31.2
Central	6.0	6.2	16.3	38.0	53.9	64.2	77.8	39.9
Southern	8.7	11.1	31.4	37.4	44.4	56.2	67.5	36.5
Education								
No education	*	*	*	*	*	*	*	37.7
Primary 1-4	1.5	6.2	17.8	39.2	39.5	64.0	65.4	33.5
Primary 5-8	8.9	11.7	25.8	32.6	55.3	62.5	70.5	41.1
Secondary+	5.9	8.5	27.0	50.8	34.5	76.3	78.3	34.8
Total	7.7	8.3	23.2	37.8	47.5	58.5	70.3	37.3

Note: Women and men who have been sterilised are considered to want no more children.
[1] Includes current pregnancy
* Based on fewer than 25 cases; estimate has been suppressed

As expected, unmet need for spacing is higher among younger women, while unmet need for limiting is higher among older women. Although the overall demand for contraception is lowest among adolescent women, the percentage of demand that is satisfied is also lowest in this age group (just 35 percent). This shows that young women are relatively underserved in Malawi. Total unmet need is greater among rural women (31 percent) than among urban women (23 percent) and is higher in the Central Region (33 percent) than in the Northern and Southern regions (28 percent).

Unmet need is lower among women with some secondary education than among women with less education, despite greater overall demand among the more educated women. This is primarily because a larger proportion of women with secondary or higher education is currently using family planning, leading to a larger proportion being satisfied (i.e., met need). Two-thirds of demand is satisfied among women with secondary education, compared with just 46 percent among women who have never been to school.

Table 7.3 Need for family planning

Percentage of currently married women with unmet need for family planning, and with met need for family planning, and the total demand for family planning, by background characteristics, Malawi 2000

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning[3]			Percentage of demand satis-fied	Number
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	24.3	4.5	28.8	12.8	2.4	15.2	37.1	6.9	43.9	34.5	934
20-24	25.1	6.4	31.6	19.8	6.5	26.3	44.9	13.0	57.9	45.5	2,324
25-29	19.8	10.4	30.2	18.9	15.7	34.6	38.7	26.1	64.9	53.4	2,102
30-34	16.1	16.6	32.7	9.8	25.9	35.8	25.9	42.5	68.4	52.3	1,312
35-39	10.8	20.2	31.0	5.0	31.7	36.7	15.8	51.9	67.7	54.2	1,192
40-44	5.1	20.9	26.0	2.9	34.8	37.7	7.9	55.7	63.7	59.1	848
45-49	2.3	17.5	19.8	1.5	24.2	25.7	3.7	41.8	45.5	56.5	739
Residence											
Urban	13.5	9.7	23.2	16.4	24.8	41.2	29.9	34.6	64.4	64.0	1,362
Rural	17.8	12.9	30.7	12.1	16.8	28.9	29.9	29.7	59.6	48.4	8,089
Region											
Northern	16.6	11.4	28.1	17.0	18.4	35.4	33.6	29.8	63.4	55.8	1,075
Central	17.7	14.9	32.6	11.0	20.5	31.4	28.7	35.4	64.0	49.1	3,919
Southern	16.9	10.6	27.5	13.2	15.6	28.8	30.1	26.2	56.3	51.2	4,458
Education											
No education	16.8	14.0	30.8	9.3	16.7	26.0	26.1	30.7	56.8	45.7	2,975
Primary 1-4	17.1	12.8	30.0	11.9	16.2	28.1	29.0	29.1	58.1	48.4	2,980
Primary 5-8	18.1	11.3	29.5	14.7	20.0	34.7	32.8	31.4	64.1	54.0	2,784
Secondary+	15.4	8.9	24.3	22.8	22.3	45.1	38.2	31.2	69.4	64.9	713
Districts											
Blantyre	13.9	8.3	22.2	17.4	23.4	40.8	31.2	31.7	62.9	64.8	837
Karonga	17.2	10.0	27.2	18.2	10.3	28.5	35.4	20.3	55.7	51.2	191
Kasungu	17.4	14.7	32.1	16.2	19.9	36.1	33.6	34.6	68.2	53.0	367
Lilongwe	14.6	13.7	28.2	11.4	24.7	36.1	25.9	38.4	64.3	56.1	1,402
Machinga	15.8	11.0	26.8	12.9	13.7	26.6	28.7	24.7	53.4	49.8	374
Mangochi	18.0	5.8	23.8	9.4	12.2	21.6	27.4	18.0	45.4	47.5	467
Mulanje	18.8	9.4	28.2	13.7	16.8	30.6	32.6	26.3	58.8	52.0	429
Mzimba	17.8	13.7	31.5	16.2	18.2	34.5	34.1	31.9	66.0	52.2	458
Salima	17.6	17.1	34.7	6.2	12.3	18.5	23.8	29.4	53.2	34.8	223
Thyolo	20.1	8.7	28.8	11.7	14.2	25.9	31.8	22.8	54.7	47.3	456
Zomba	16.5	13.2	29.7	10.4	15.9	26.3	26.9	29.1	56.0	47.0	564
Other districts	18.4	14.1	32.6	12.2	16.7	28.9	30.7	30.8	61.5	47.1	3,683
Currently married women	17.2	12.5	29.7	12.7	17.9	30.6	29.9	30.4	60.3	50.8	9,452
Unmarried women	2.9	1.0	3.9	5.4	5.3	10.7	8.3	6.3	14.6	73.2	3,768

[1] Unmet need for spacing includes pregnant women whose pregnancy was mistimed, amenorrhoeic women whose last birth was mistimed, and women who are neither pregnant nor amenorrhoeic and who are not using any method of family planning and say they want to wait two or more years for their next birth. Also included in unmet need for spacing are women who are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for *limiting* refers to pregnant women whose pregnancy was unwanted, amenorrhoeic women whose last child was unwanted, and women who are neither pregnant nor amenorrhoeic and who are not using any method of family planning and who want no more children.

[2] Using for *spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. Using for *limiting* is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

[3] Pregnant and amenorrhoeic women whose pregnancy was the result of a contraceptive failure are not included in the category of unmet need (they need a better method of contraception), but are included in total demand for contraception (since they would have been using had their method not failed).

Amongst the districts, Salima has the highest rate of unmet need (35 percent) and the lowest percentage of demand that has been satisfied through contraceptive use (35 percent). On the other hand, Blantyre has the lowest level of unmet need (22 percent) and the highest level of demand satisfied (65 percent).

Unmarried women have much lower rates of unmet need (4 percent), met need (11 percent), and total need or demand (15 percent) for family planning services than married women. Among the unmarried, 73 percent of the total demand for contraception is being satisfied.

7.4 Ideal Family Size

Information on what men and women believe to be their ideal family size was elicited through two questions. Respondents who had no children were asked, "If you could choose exactly the number of children to have in your whole life, how many would that be?" For respondents who had children, the question was rephrased as follows: "If you could go back to the time when you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?" Some respondents, especially those for whom fertility control is an unfamiliar concept, would have some difficulty in answering this hypothetical question.

The results in Table 7.4 indicate that nearly all respondents were able to give a numeric response to this question; less than 1 percent of men and women responded "up to God" or "any number". This is in itself a rather large and important change in the way individuals think about family size since the 1992 MDHS survey when 13 percent of women and 8 percent of men gave non-numeric responses to the same question.

The 2000 MDHS findings indicate that about one-third of both men and women (33 percent) said they would choose to have four children, with an average response of about five children. Sixty-four percent of women and 69 percent of men in Malawi want four or fewer children.

The findings show that women's actual and ideal number of children are correlated. The average ideal family size is 3.8 among women with 1 child, compared with an ideal of 7.5 children among women with 6 or more children. There are two principal reasons for this pattern. First, to the extent that women are able to implement their fertility desires, women who want smaller families will tend to achieve smaller families. Second, some women may have difficulty admitting that they would have had fewer children if they could begin childbearing again. Such women are likely to report their actual number of children as their preferred number. Despite this tendency to rationalise, the data do provide evidence of unwanted fertility: close to half (46 percent) of the women with six or more children said that ideally they would have liked fewer than six children.

In general, men and women want families of a similar size. Currently married women want on average 5.3 children, while currently married men want 5.4 children. Married men prefer larger families (5.4 children) than all men (4.8 children). For both men and women, there was a small change in the ideal family size between the 1992 MDHS survey and the 2000 MDHS survey. The average ideal family size for women in 1992 was 5.1 children, decreasing to 5.0 in 2000. For men, a more important change occurred: from an ideal family size of 5.2 in 1992 to 4.8 in 2000.

Table 7.4 Ideal and actual number of children

Percent distribution of all women and men by ideal number of children and mean ideal number of children for all women and men and for currently married women and men, according to number of living children, Malawi 2000

Ideal number of children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
WOMEN								
0	0.4	0.1	0.0	0.0	0.2	0.0	0.0	0.1
1	3.4	3.9	0.6	0.4	0.7	0.4	0.7	1.8
2	27.2	19.9	13.0	4.5	6.2	3.8	4.0	13.8
3	19.7	24.0	17.4	15.2	7.6	6.1	6.5	15.7
4	30.8	33.8	42.1	37.4	36.1	20.8	22.7	32.9
5	9.5	10.3	14.8	21.9	18.3	24.8	12.5	14.5
6+	7.8	7.8	12.1	20.4	30.5	43.6	52.7	20.6
Non-numeric response	1.1	0.2	0.1	0.3	0.3	0.4	0.9	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,814	2,481	2,296	1,645	1,365	1,006	1,612	13,220
Mean ideal number for:[2]								
All women	3.9	3.8	4.5	5.2	5.7	6.8	7.5	5.0
Number	2,782	2,476	2,293	1,641	1,360	1,002	1,597	13,152
Currently married women	4.4	3.9	4.5	5.1	5.6	6.7	7.5	5.3
Number	652	1,940	1,967	1,421	1,189	851	1,402	9,422
MEN								
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	1.6	0.1	0.0	0.0	0.0	2.2	0.0	0.8
2	19.6	16.4	9.9	7.3	5.9	3.9	5.8	13.2
3	30.2	31.9	21.2	13.4	7.3	7.6	10.5	22.2
4	32.1	37.0	39.7	38.2	34.0	19.4	25.8	32.6
5	9.3	8.9	17.1	19.7	21.6	23.1	8.4	12.7
6+	5.9	5.8	11.8	21.4	31.2	43.4	49.1	17.8
Non-numeric response	1.3	0.0	0.3	0.0	0.0	0.4	0.3	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	1,240	414	329	270	245	190	405	3,092
Mean ideal number for:[2]								
All men	3.8	3.9	4.2	5.3	5.6	7.0	7.4	4.8
Number	1,224	414	328	270	245	189	403	3,073
Mean ideal number for:								
Currently married men	4.3	3.9	4.2	5.2	5.6	7.0	7.5	5.4
Number	167	351	309	260	237	179	397	1,901

[1] Includes current pregnancy
[2] Means are calculated excluding the women and men giving non-numeric responses.

Table 7.5 shows the mean ideal number of children for all women by age according to background characteristics. The mean ideal family size increases with age of the respondents from 3.7 children for women age 15-19 to 7.6 children for women age 45-49. At every age, rural women have larger family size norms than urban women, with the average ideal number of children being a full child more in the rural areas (5.2 children) than in urban areas (4.1 children). Few regional variations are observed in ideal family size. However, ideal family size is strongly related to level of education attained: as the level of education of a woman increases, her desired family size sharply decreases.

Table 7.5 Mean ideal number of children by background characteristics

Mean ideal number of children for all women, by age and background characteristics, Malawi 2000

Background characteristic	Current age							Total women
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Urban	3.4	3.3	4.2	4.8	5.5	5.9	5.6	4.1
Rural	3.8	4.1	5.0	5.5	6.3	7.5	7.8	5.2
Region								
Northern	3.7	4.5	4.9	5.5	5.8	7.6	7.4	5.1
Central	3.7	3.9	5.0	5.3	6.4	7.9	8.1	5.1
Southern	3.8	3.9	4.7	5.4	6.1	6.8	7.3	4.9
Education								
No education	4.2	4.6	5.2	5.8	6.7	7.8	7.7	6.1
Primary 1-4	3.9	4.2	5.4	5.4	6.5	7.6	8.5	5.3
Primary 5-8	3.7	3.8	4.5	5.1	5.3	6.4	6.0	4.4
Secondary+	3.1	3.1	3.4	3.9	4.8	4.6	5.2	3.4
All women	3.7	3.9	4.8	5.4	6.2	7.3	7.6	5.0

7.5 Wanted and Unwanted Fertility

There are two main ways of looking at the issue of unwanted fertility. In the first approach, responses to a question about children born in the five years preceding the survey (and any current pregnancy) are used to determine whether the pregnancy was planned (wanted then), wanted but at a later time (mistimed), or unwanted (not wanted at all). The answers to these questions provide some insight into the degree to which couples are able to control fertility.

Table 7.6 shows the percent distribution of births (including current pregnancy) in the five years preceding the survey by fertility planning status, according to birth order and mother's age at birth. Sixty percent of the births in the five years preceding the survey were wanted at the time

Table 7.6 Fertility planning status

Percent distribution of births (including current pregnancy) in the five years preceding the survey by fertility planning status, according to birth order and mother's age at birth, Malawi 2000

Birth order and mother's age at birth	Planning status of birth				Total	Number
	Wanted then	Wanted later	Not wanted	Missing		
Birth order						
1	70.9	11.6	17.2	0.4	100.0	3,157
2	65.8	20.6	13.3	0.2	100.0	2,722
3	62.3	20.9	16.4	0.4	100.0	2,150
4+	49.5	19.9	30.3	0.3	100.0	5,739
Age at birth						
<20	65.8	15.2	18.8	0.2	100.0	2,705
20-24	66.0	19.2	14.5	0.3	100.0	4,525
25-29	58.2	22.1	19.2	0.4	100.0	2,995
30-34	51.6	17.5	30.6	0.3	100.0	1,773
35-39	45.1	15.4	39.0	0.5	100.0	1,135
40-44	44.0	15.9	39.9	0.2	100.0	493
45-49	38.0	12.2	49.2	0.5	100.0	143
Total	59.6	18.3	21.7	0.3	100.0	13,769

of conception, while 18 percent were not wanted then (wanted later) and 22 percent were not wanted at all. The percentage of births that were unwanted or mistimed increases from 29 percent for first order births to 50 percent of fourth or higher order births. The proportion of births that were not wanted at all tends to increase with increasing age of women. Given that contraceptive use has increased dramatically since 1992 from 7 to 26 percent, it might be assumed that the number and percentage of unwanted births would be reduced. This is not the case: the percentage of recent births that were not wanted has risen from 14 percent based on the 1992 MDHS data to 22 percent based on the 2000 MDHS data.

Table 7.7 shows the total wanted fertility rates and total actual fertility rates for the three years preceding the survey, by selected background characteristics. The wanted fertility is calculated in the same manner as the total fertility rate, but unwanted births are excluded from the numerator. For this purpose, unwanted births are defined as those that exceed the number considered ideal by the respondent. (Women who did not report a numeric ideal family size were assumed to want all their births). The rate represents the level of fertility that would have prevailed in the three years preceding the survey if all unwanted births were prevented. A comparison of the total wanted fertility and actual total fertility rate suggests the potential demographic impact of the elimination of unwanted births.

The total wanted fertility rate is 5.2 for Malawi as a whole, more than 1 child lower than the actual total fertility rate (6.3). The difference between wanted and actual total fertility is greatest among those subgroups of women who, as we saw earlier, have the greatest unmet need for fertility control: rural women, less educated women, and women in the Central Region. In the Salima and Lilongwe districts, the gap between wanted and actual total fertility is 1.4 and 1.3 children, respectively.

Table 7.7 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Malawi 2000

Background characteristic	Total wanted fertility rates	Total fertility rates
Residence		
Urban	3.5	4.5
Rural	5.5	6.7
Region		
Northern	5.3	6.2
Central	5.5	6.8
Southern	5.0	6.0
Mother's education		
No education	6.1	7.3
Primary 1-4	5.5	6.7
Primary 5-8	4.8	6.0
Secondary+	2.8	3.0
Districts		
Blantyre	3.3	4.3
Karonga	4.9	5.6
Kasungu	5.8	7.0
Lilongwe	5.2	6.5
Machinga	5.9	7.0
Mangochi	6.7	7.4
Mulanje	4.7	5.5
Mzimba	5.6	6.7
Salima	5.4	6.7
Thyolo	4.6	5.3
Zomba	5.0	6.2
Other districts	5.5	6.8
Total	5.2	6.3

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 4.2.

INFANT AND CHILD MORTALITY 8

Jameson S. Ndawala

This chapter presents levels, trends, and differentials in mortality among children under five years of age in Malawi. This information is relevant both for the demographic assessment of the population and for assessing the impact of child-survival-related programmes. Understanding patterns in mortality during early childhood also assists in the design of health interventions by identifying sectors of the population that are at high risk. The information is thus essential for planning and evaluating current policies. Unlike earlier demographic surveys in Malawi, the 2000 MDHS survey also collected information that allows assessment of perinatal mortality, which includes stillbirths (late foetal deaths) and early neonatal deaths.

8.1 Definitions, Methodology, and Assessment of Data Quality

Estimates of childhood mortality are based on information from the birth history section of the questionnaire administered to individual women. The section begins with questions about the aggregate childbearing experience of respondents (i.e., the number of sons and daughters who live with the mother, the number who live elsewhere, and the number who have died). For each of these births, more detailed information was then collected on the sex, the month and year of birth, survivorship status, and current age, or if the child had died, the age at death.

In this report, mortality in early childhood is measured using the following five rates:

Neonatal mortality: the probability of dying within the first month of life

Postneonatal mortality: the difference between infant and neonatal mortality

Infant mortality: the probability of dying before the first birthday

Child mortality: the probability of dying between the first and fifth birthday

Under-five mortality: the probability of dying between birth and fifth birthday.

All rates are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving to 12 months of age.

In developing countries like Malawi, population censuses and demographic surveys are the major sources of mortality data. Vital registration is another potential source of mortality data, but in Malawi unfortunately, the information is incomplete in coverage and unrepresentative of the population. Mortality information from the Health Management Information System (HMIS) does not provide a suitable basis for calculation of mortality rates from a population perspective because the system is facility-based and thus does not include data on deaths that occur outside the facilities. Given this prevailing reality, birth history data from surveys continue to provide for the most robust estimates of infant and child mortality.

The quality of mortality estimates calculated from retrospective birth histories depends upon the completeness with which births and deaths are reported and recorded. The most potentially serious data quality problem is the selective omission from the birth histories of births that did not survive, which will lead to underestimation of mortality rates. Other potential problems include displacement of birth dates, which may cause a distortion of mortality trends, and misreporting of the age at death, which may distort the age pattern of mortality. When selective omission of childhood deaths occurs, it is usually most severe for deaths that occur very early in infancy. If early neonatal deaths were selectively underreported, the result would be an unusually low ratio of deaths under seven days to all neonatal deaths and an unusually low ratio of neonatal to infant mortality. Underreporting of early infant deaths is more commonly observed for births that occurred longer before the survey; hence, it is useful to examine the ratios over time. Inspection of these ratios (shown in Appendix Tables C.5 and C.6) indicates that significant numbers of early infant deaths have not been omitted in the 2000 MDHS survey. First, the proportion of neonatal deaths that occur in the first week of life is high (67 percent) and is roughly constant over the 20 years before the survey (between 66 and 71 percent). Second, the proportion of infant deaths that occur during the first month of life is entirely plausible in level (42 percent) and is stable over the 20 years before the survey (varying between 38 and 44 percent). This inspection of the mortality data reveals no evidence of selective underreporting or age at death misreporting that would significantly compromise the quality of the MDHS rates of childhood mortality.

It is important to recognize that any method of measuring childhood mortality that relies on mothers' reports (e.g., full or abbreviated birth histories like those used in censuses and sample surveys) rests on the assumption that adult female mortality is not high or if it is high, that there is little or no correlation between the mortality risks of mothers and their children. In countries with high rates of adult female mortality, these assumptions will seldom hold, and the resulting childhood mortality rates will be underestimated to some degree.

8.2 Early Childhood Mortality Rates: Levels and Trends

Neonatal, postneonatal, infant, child, and under-five mortality rates, by five-year periods preceding the survey, are shown in Table 8.1. Examining the most recent five-year period (0-4 years preceding the survey, or mid-1996 to mid-2000), under-five mortality is estimated at 189 per 1,000 live births, and infant mortality is estimated at 104 per 1,000 live births. This means that one in five children born in Malawi dies before reaching the fifth birthday. The age pattern of mortality shows that 22 percent of deaths under five occur during the neonatal period, while 33 percent occur during the postneonatal period, and 45 percent of deaths occur at age 1-4 years.

Table 8.1 Early childhood mortality rates

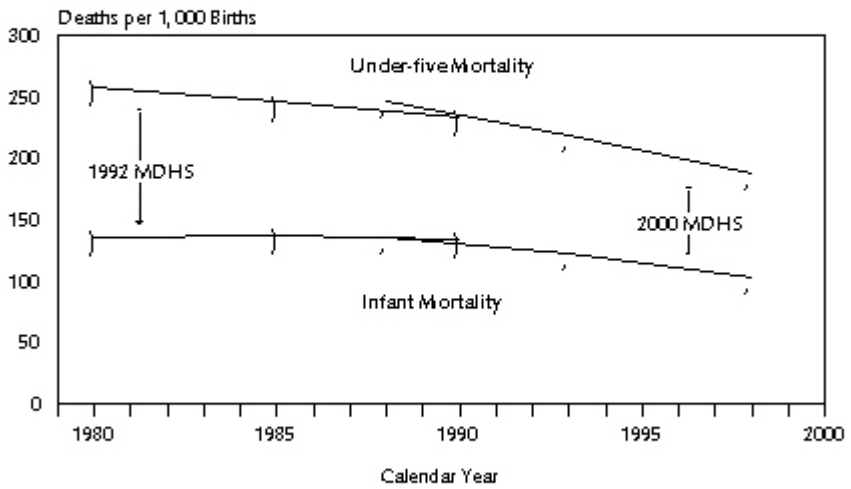
Neonatal, postneonatal, infant, child, and under-five mortality for five-year periods preceding the survey, Malawi 2000

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	41.8	62.0	103.8	94.6	188.6
5-9	50.4	72.3	122.7	110.5	219.7
10-14	51.9	83.6	135.5	129.4	247.4

[1] Computed as the difference between the infant and the neonatal mortality rates.

There are two main ways of evaluating trends in under-five mortality. Both are represented in Figure 8.1. In the first approach, the 2000 MDHS data are used to construct mortality rates for successive periods prior to the survey. This approach indicates that under-five mortality has declined by 14 percent, from 220 deaths per 1,000 births in the period 5-9 years before the survey (i.e., 1991-1995) to 189 for the period 0-4 years before the survey (i.e., 1996-2000). This represents a *rate* of mortality decline of 2.8 percent per year during the 1990s.

Figure 8.1 **Trends in Infant and Under-five Mortality, 1992 MDHS and 2000 MDHS**



In the second method of estimating trends in mortality, estimates of mortality from two successive surveys are compared—in this case, the 1992 MDHS survey and the 2000 MDHS survey. The strength of this comparison derives from the fact the surveys used identical data collection instruments and sample design approaches. The estimate calculated from the 1992 MDHS data (for the period 1988-1992) is 234 deaths per 1,000, compared with 189 per 1,000 from the 2000 MDHS data (for the period 1996-2000). This represents a 19 percent decline, or 2.4 percent per year during the late 1980s and 1990s. Thus, the two approaches yield essentially the same picture, one of slowly declining under-five mortality over the last decade or so.

By looking at changes in neonatal mortality, postneonatal mortality, and child mortality (1-4 years), one can assess whether there has been a change in the age pattern of under-five mortality. This examination indicates that mortality at all ages under five years is undergoing a downward trend of roughly the same magnitude: about 20 percent over the past decade. In other words, the age pattern of under-five mortality has not changed substantially.

The causes of childhood mortality in the developing world are many and varied. Similarly, the causes of increases and decreases in under-five mortality are typically multifactoral. The decline in mortality at all ages, as described above, suggests that any explanation of the overall decline in under-five mortality will need to involve detailed examination of trends in numerous child-survival-related variables. This type of analysis of the causes of mortality decline in Malawi is beyond the

scope of this descriptive report. Still, some child-survival-related factors can be posited as potentially involved in the observed trends. Among those that would be expected to enhance child survival, researchers may look to improvements that reduce exposure to disease-causing agents. One important example of this would be the impressive gains made in the provision of clean water supplies to Malawi's rural population (Chapter 2). Increases in the percentage of mothers who have received formal education may also be examined in light of evidence linking education to improved recognition and response to disease symptoms, as well as improved disease prevention behaviours, including adoption of hygienic practices in the household and improved infant feeding. Of course, an important 1990s trend that would be expected to counterbalance, at least in part, these improvements are the direct and indirect effects of the HIV/AIDS epidemic. These issues, and others, will need to be addressed in the context of in-depth further analysis of the MDHS data and other data.

8.3 Socioeconomic Differentials in Childhood Mortality

Table 8.2 presents mortality differentials by background characteristics such as urban-rural residence, region, district, and level of education of mothers. A ten-year period (1991-2000) is used to calculate the mortality estimates in order to have a sufficient number of cases in each category.

Table 8.2 Early childhood mortality by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality for the ten-year period preceding the survey, by socioeconomic characteristics, Malawi 2000

Socioeconomic characteristic	Neonatal mortality (NN)	Post-neonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Residence					
Urban	29.8	52.7	82.5	71.3	147.9
Rural	47.9	68.8	116.7	106.0	210.4
Region					
Northern	40.9	60.7	101.5	76.5	170.3
Central	42.0	55.6	97.6	114.6	201.0
Southern	50.5	79.1	129.6	95.2	212.5
Mother's education					
No education	46.2	70.4	116.6	110.8	214.5
Primary 1-4	56.2	72.1	128.3	110.7	224.8
Primary 5-8	36.6	62.5	99.1	87.9	178.3
Secondary+	30.9	34.5	65.4	56.3	118.0
Districts					
Blantyre	37.8	68.3	106.1	94.7	190.7
Karonga	37.6	55.6	93.2	57.9	145.7
Kasungu	37.5	55.6	93.1	125.7	207.1
Lilongwe	42.4	56.1	98.5	105.0	193.2
Machinga	56.3	62.0	118.2	98.8	205.4
Mangochi	51.7	63.9	115.6	95.5	200.1
Mulanje	61.6	68.7	130.3	111.7	227.4
Mzimba	52.6	52.6	105.2	84.7	181.0
Salima	55.0	76.8	131.9	123.9	239.5
Thyolo	58.2	87.3	145.5	93.6	225.4
Zomba	42.6	108.4	151.0	76.7	216.1
Other districts	43.8	65.5	109.3	106.2	203.9
Total[2]	45.7	66.8	112.5	101.7	202.7

[1] Computed as the difference between the infant and the neonatal mortality rates
[2] Note that these rates are for the 10 years before the survey and thus differ from Table 8.1 which is based on the five years before the survey

As expected, urban mortality rates are generally lower than rural rates. The under-five mortality rate is 148 per 1,000 in urban parts of the country, compared with 210 per 1,000 in rural areas. The urban-rural difference is proportionately larger during the neonatal period than during the postneonatal and 1-4 age periods.

Comparing the three regions, the Northern Region has the lowest under-five mortality (170 per 1,000 live births), followed by the Central Region (201 per 1,000) and the Southern Region (212 per 1,000). On the other hand, the infant mortality rate is lowest in the Central Region (98 per 1,000 live births), followed by the Northern Region (102), and is highest in the Southern Region (130). The lower infant mortality rate in the Central Region is due to a lower postneonatal mortality compared with the Northern and Southern regions. These regional differences in the age pattern of under-five mortality was also observed in the 1992 MDHS survey; however, since that time, mortality in the Southern Region has declined at a slower pace, at all ages, than mortality in the other two regions.

Table 8.2 also presents childhood mortality rates in the 11 oversampled districts. Under-five mortality was lowest in the Northern districts of Karonga (146 per 1,000) and Mzimba (181 per 1,000) and was highest in Salima District (239 per 1,000), Mulanje District (227 per 1,000), and Thyolo District (225 per 1,000). For infant mortality, Karonga and Kasungu districts had the lowest rates (93 per, 1,000) while the highest rates were observed in Zomba (151 per 1,000), Thyolo (146 per 1,000), Salima (132 per 1,000), and Mulanje (130 per 1,000).

Mother's education is strongly linked to child survival. At all ages under five, higher levels of education are generally associated with lower mortality risks. As an exception to this pattern, children of women with no formal schooling have slightly lower mortality rates than children of women with one to four years of primary education. Children of women with a secondary education have much lower under-five mortality than children of other women. Strong education-related differentials are apparent during every age period.

8.4 Biodemographic Differentials in Childhood Mortality

Studies have shown that biodemographic factors impact survival chances of young children. These factors include sex of the child, age of the mother at birth, birth order, length of previous birth interval, and the size of the child at birth. Table 8.3 presents mortality rates for the ten years preceding the survey by selected demographic characteristics.

The MDHS results show that male children experience slightly higher mortality than female children, with under-five mortality rates of 207 and 199 deaths per 1,000 live births for males and females, respectively. This differential is apparent during the first year of life, but does not extend beyond the first birthday, suggesting that heritable, nonbehavioural factors are the cause of the difference.

Children born to younger mothers (under 20 years of age) and older mothers (over 40 years) had higher mortality than children born to mothers age 20-39 years (Figure 8.2). Children of mothers under age 20 are especially vulnerable, particularly in the first month of life. Neonatal mortality is 68 deaths per 1,000 among children of teenage mothers, compared with 38 per 1,000 among children of women age 20-29. The relationship between birth order and mortality shows the same U-shaped pattern, with first births and higher order births experiencing the highest mortality rates.

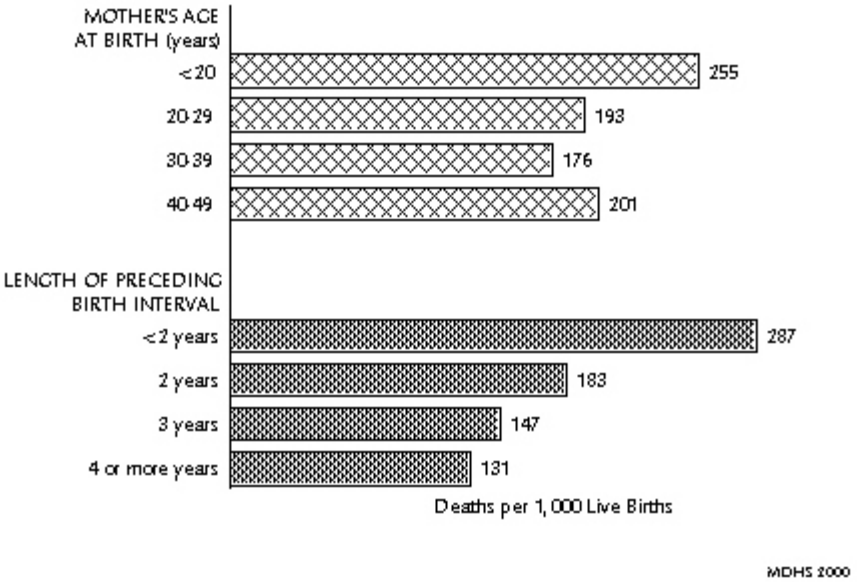
Table 8.3 Early childhood mortality by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality for the ten-year period preceding the survey, by demographic characteristics, Malawi 2000

Demographic characteristic	Neonatal mortality (NN)	Post-neonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Sex of child					
Male	50.4	66.8	117.1	101.4	206.6
Female	41.1	66.8	107.9	102.0	198.9
Mother's age at birth					
< 20	67.6	80.6	148.2	125.6	255.2
20-29	37.7	66.6	104.3	99.2	193.1
30-39	40.5	55.6	96.1	88.6	176.1
40-49	67.4	61.3	128.7	82.6	200.6
Birth order					
1	59.9	80.0	139.9	114.4	238.3
2-3	41.6	67.6	109.2	103.7	201.6
4-6	36.1	59.2	95.3	91.8	178.4
7+	51.8	59.4	111.2	98.5	198.7
Previous birth interval[2]					
< 2 years	72.9	93.4	166.3	144.3	286.7
2 years	36.5	58.4	94.9	97.2	182.9
3 years	27.5	45.7	73.1	79.3	146.6
4 or more years	25.6	52.1	77.7	57.6	130.8
Birth size[3]					
Small or very small	82.7	71.0	153.7	na	na
Average or large	32.1	58.7	90.8	na	na

na = Not applicable
[1] Computed as the difference between the infant and the neonatal mortality rates.
[2] Excludes first-order births
[3] Rates for the five-year period before the survey.

Figure 8.2 Under-five Mortality by Biodemographic Characteristics



The most potent variable explaining variation in under-five mortality is the length of the interval between births. As the birth interval gets shorter, the risk of child death increases sharply. This pattern is most pronounced in the neonatal period, when a threefold difference in risk is observed between children with an interval less than 24 months (73 per 1,000) and those with a interval of 4 years or more (26 per 1,000). The findings suggest the potential for reducing the mortality risks of Malawian children by promoting family planning use and traditional practices (such as long durations of breastfeeding) to space children farther apart.

The size of a child at birth provides an important predictor of survival during early infancy. In the 2000 MDHS survey, mothers were asked whether their young children were very small, small, average, large, or very large at birth. A mother's perception of "size" is broadly correlated to her child's actual weight at birth. Newly born babies perceived by their mothers to be small or very small are much more likely to die in the first year of life (154 per 1,000 live births) than those perceived as average or larger in size (91 per 1,000 live births). The excess mortality associated with small size at birth is especially evident during the neonatal period.

8.5 Perinatal Mortality

The 2000 MDHS survey asked women to report on pregnancy losses and the duration of the pregnancy for each loss, for all such pregnancies ending in the five years before the survey. Pregnancy losses occurring after seven completed months of gestation (stillbirths) plus deaths to live births within the first seven days of life (early neonatal deaths) constitute perinatal deaths. When the total number of perinatal deaths is divided by the total number of pregnancies reaching seven months gestation, the perinatal mortality rate is derived. The routine collection of data to estimate rates of perinatal mortality is new to sample survey research in sub-Saharan Africa. An important consideration in the evaluation of the results of this new initiative is the quality or completeness of reports on stillbirths, which are susceptible to omission, underreporting, or misclassification (as early neonatal deaths). The distinction between a stillbirth and an early neonatal death may be a fine one, depending often on the observed presence or absence of some faint signs of life after delivery. The causes of stillbirths and early neonatal deaths are overlapping, and examining just one or the other can understate the true level of mortality around delivery. For this reason, it is suggested that both event types be combined and examined together.

Table 8.4 shows perinatal mortality rates, according to demographic and socioeconomic characteristics. At the national level, the perinatal mortality rate is estimated to be 46 perinatal deaths per 1,000. Perinatal mortality displays the expected U-shaped pattern in relation to age of the mother, with the youngest and oldest women having the highest rates. First pregnancies and pregnancies with a short preceding interpregnancy interval are also at high perinatal risk. First pregnancies have a perinatal risk of 63 perinatal deaths per 1,000, and pregnancies with a interpregnancy interval of less than 15 months carry a risk of 80 perinatal deaths per 1,000, compared with a risk of just 34 per 1,000 for pregnancies with an interpregnancy interval of 39 months or more.

Perinatal mortality is higher in rural areas (48 per 1,000) than in urban areas (35 per 1,000). At the regional level, the differences in perinatal mortality rates are minimal: 42 per 1,000 in the Northern Region, 46 per 1,000 in the Central Region, and 47 per 1000 in the Southern Region. It is, however, worth noting that perinatal mortality is higher for women with one to four years of primary education (52 per 1,000) than for those with no education (44 per 1,000) and those with secondary or higher education (42 per 1,000). These differentials are similar to those observed for under-five mortality.

Table 8.4 Perinatal mortality

Number of stillbirths and early neonatal deaths, and perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Malawi 2000

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7 or more months duration
Mother's age at birth				
<20	39	125	65.9	2,484
20-29	78	178	38.2	6,718
30-39	36	68	39.8	2,599
40-49	10	34	78.2	563
Previous pregnancy interval				
No previous pregnancy	43	130	62.5	2,779
<15 months	9	28	79.8	456
15-26 months	30	102	49.7	2,653
27-38 months	32	91	35.9	3,432
39+ months	49	53	33.7	3,044
Residence				
Urban	21	32	34.9	1,524
Rural	142	373	47.5	10,840
Region				
Northern	18	39	42.4	1,352
Central	78	168	45.9	5,365
Southern	67	197	46.8	5,647
Mother's education				
No education	48	125	43.8	3,945
Primary 1-4	51	154	51.7	3,961
Primary 5-8	55	103	42.9	3,666
Secondary+	10	23	41.7	791
Total	163	405	45.9	12,364

[1] Stillbirths are fetal deaths among pregnancies lasting seven or more months.
[2] Early neonatal deaths are deaths at age 0 to 6 days among live-born children.
[3] Perinatal mortality rate is the sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months duration.

MATERNAL AND CHILD HEALTH 9

Habib Somanje and Jameson Ndawala

This chapter presents the MDHS findings in the following areas of importance to maternal and child health: health services use during and after pregnancy, characteristics of the newborn, childhood vaccinations, and common childhood illnesses and their treatment. Combined with information on childhood mortality, this information can be used to identify women and children who are at risk because of nonuse of health services and to provide information to assist in the planning of appropriate improvements in service access and delivery. The results presented in the following sections are based on data collected from mothers on all live births that occurred in the five years preceding the survey. Given the importance of malaria in Malawi, a special malaria data collection "module" was implemented in the 2000 MDHS survey. The survey results pertaining to reported fevers, treatment of febrile episodes, and other malaria control programme activities, including possession and use of bednets, are presented in a separate chapter (Chapter 13).

9.1 Antenatal Care

Table 9.1 shows the percent distribution of women who had a live birth in the five years preceding the survey by source of antenatal care (ANC) received during pregnancy, according to maternal and background characteristics. Although interviewers were instructed to record all persons a woman had consulted for care, only the provider with the highest qualifications is considered here (if more than one person was seen). Ninety-one percent of mothers received antenatal care from a doctor or trained nurse or midwife. This compares with 90 percent of births based on the 1992 MDHS data. Women received antenatal care from a traditional birth attendant (TBA) for only 3 percent of births and no antenatal care at all for 5 percent of births. Thus, most women receive some antenatal care, relying largely on a nurse or trained midwife (83 percent) or a doctor (8 percent). It should be considered, however, that the type and quality of antenatal services is not reflected in these figures.

Maternal age at birth, the birth order of the child, and urban-rural residence are not strongly related to use of antenatal care. Older, higher parity women and women living in rural areas are, however, more likely to have seen no one for antenatal services than younger, lower parity women and women living in urban areas. The use of antenatal services is strongly associated with level of education. Women with no education are eight times more likely than women with some secondary education to have received no antenatal care and 23 percent less likely to have received care from a doctor.

Access and use of antenatal services varies among Malawi's districts. Lack of any antenatal care is as high as 7 percent in Lilongwe District and as low as 1 percent in Blantyre District. Variation among districts in the use of doctors for antenatal care should be viewed with caution because the definition among respondents of what constitutes a "doctor" is rather loose and may vary by locality.

Table 9.1 Antenatal care

Percent distribution of women who had a live birth in the five years preceding the survey by source of antenatal care (ANC) during pregnancy, according to maternal and background characteristics, Malawi 2000

Background characteristic	Doctor	Nurse/ midwife	Ward attendant	Traditional birth attendant	No one	Other/ Missing	Total	Number
Mother's age at birth								
<20	7.7	85.7	1.1	2.1	3.4	0.0	100.0	1,487
20-34	8.5	83.4	1.0	2.5	4.3	0.3	100.0	5,342
35-49	7.6	79.4	1.5	3.9	7.2	0.4	100.0	1,228
Birth order								
1	8.3	86.1	0.6	1.9	3.1	0.0	100.0	1,703
2-3	8.8	83.1	1.2	2.5	4.1	0.2	100.0	2,780
4-5	8.2	84.0	0.7	2.5	4.4	0.3	100.0	1,664
6+	7.3	80.3	1.7	3.7	6.7	0.4	100.0	1,909
Residence								
Urban	9.0	88.3	0.4	0.5	1.5	0.2	100.0	1,075
Rural	8.1	82.5	1.2	3.0	5.0	0.2	100.0	6,982
Region								
Northern	4.2	87.7	0.7	4.3	2.9	0.3	100.0	894
Central	9.1	81.1	0.9	2.6	6.1	0.3	100.0	3,407
Southern	8.4	84.1	1.4	2.3	3.6	0.2	100.0	3,757
Education								
No education	7.9	78.0	1.6	4.0	8.3	0.2	100.0	2,477
Primary 1-4	8.7	83.2	1.0	2.6	4.3	0.2	100.0	2,531
Primary 5-8	7.6	87.5	0.8	1.9	1.9	0.3	100.0	2,434
Secondary+	10.2	87.8	0.4	0.6	1.0	0.0	100.0	615
Districts								
Blantyre	4.7	93.2	0.6	0.2	1.2	0.0	100.0	638
Karonga	2.8	85.2	0.5	9.1	2.4	0.0	100.0	157
Kasungu	5.5	86.3	1.6	1.3	5.0	0.3	100.0	316
Lilongwe	8.5	81.3	0.2	2.7	6.9	0.4	100.0	1,173
Machinga	14.0	78.6	1.5	3.3	2.6	0.0	100.0	314
Mangochi	9.8	80.2	5.0	2.8	1.9	0.3	100.0	412
Mulanje	2.1	91.7	0.5	2.7	2.7	0.4	100.0	368
Mzimba	3.5	89.6	0.8	2.5	3.2	0.5	100.0	382
Salima	18.7	73.0	1.2	2.7	3.9	0.6	100.0	189
Thyolo	3.7	91.1	0.6	2.4	2.0	0.2	100.0	397
Zomba	5.8	87.8	1.0	3.5	1.9	0.0	100.0	469
Other districts	10.1	79.7	1.1	2.8	6.1	0.2	100.0	3,242
Total	8.2	83.2	1.1	2.7	4.6	0.2	100.0	8,057

Note: For women with two or more live births in the five-year period, data refer to the most recent birth. If more than one source of ANC care was mentioned, only the provider with the highest qualifications is considered in this tabulation.

Antenatal care can be more effective in avoiding adverse pregnancy outcomes when it is sought early in the pregnancy and continues through to delivery. It is recommended in Malawi that women first attend an antenatal clinic in the first trimester of pregnancy and, barring signs of heightened risk, at least three more times during the pregnancy (i.e., a minimum of four times total). Information about the number and timing of visits made by pregnant women is presented in Table 9.2. For 56 percent of births, mothers made four or more antenatal care visits, indicating that many women are aware of the importance of regular attendance. Yet, the median number of antenatal care visits was 3.4, fewer than the 4.8 visits found in the 1992 MDHS survey. The median

Table 9.2 Number of antenatal care visits and stage of pregnancy

Percent distribution of women who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits, and by the stage of pregnancy at the time of the first visit, according to urban-rural residence, Malawi 2000

Number and timing of ANC visits	Urban	Rural	Total
Number of ANC visits			
None	1.5	5.0	4.6
1	1.9	4.0	3.8
2-3	27.6	35.7	34.6
4+	68.3	54.1	56.0
Don't know/missing	0.7	1.2	1.1
Total	100.0	100.0	100.0
Median number of visits (for those with ANC)	3.8	3.3	3.4
Number of months pregnant at time of first ANC visit			
No antenatal care	1.5	5.0	4.6
<4 months	7.5	6.4	6.5
4-5 months	50.6	41.3	42.6
6-7 months	37.9	43.3	42.6
8+ months	2.2	3.6	3.4
Don't know/missing	0.3	0.3	0.3
Total	100.0	100.0	100.0
Median months pregnant at first visit (for those with ANC)	5.7	6.0	5.9
Number of live births	1,075	6,982	8,057

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

number of antenatal visits per pregnancy is slightly higher in urban areas (3.8 times) than in rural areas (3.3 times)

By the start of the sixth month of pregnancy, 50 percent of Malawian women have not made a single antenatal visit—the median duration of gestation at which the first antenatal care visit was made was 5.9 months. This delayed use of services, whether because of mothers' poor access or poor knowledge, makes it difficult for the optimum benefits of antenatal care to be realised. Urban women tend to attend their first antenatal care (ANC) visit at a slightly earlier gestational age than rural women.

Unlike earlier DHS surveys, the 2000 MDHS survey asked questions about particular services that were received during pregnancy at the ANC provider. These include whether information about signs of pregnancy complications were provided, whether the woman's blood pressure was measured, whether urine and blood samples were taken, whether the woman received tetanus toxoid injections, and whether iron supplements and antimalarial (intermittent treatment) tablets were provided. Table 9.3 shows that among the births in the last five years that involved some type of antenatal care during pregnancy, 71 percent of mothers were told about the signs of pregnancy complications. For 83 percent of births, the mother's blood pressure was measured during antenatal care. A urine sample was taken from women for 23 percent of births, and a blood sample was taken for 43 percent of births. For 85 percent of births, women reported that at least one tetanus toxoid injection was given during pregnancy; this compares with 86 percent in the 1992 MDHS survey. Iron supplements were provided to mothers for 70 percent of recent births, and antimalarials were given for 72 percent of recent births.

The survey findings point to wide disparities in the type and quality of services rendered under the heading of "antenatal care". Provision of protection against neonatal tetanus is apparently widespread in Malawi, but provision of information and medicines to mitigate against illnesses during pregnancy are less widely available and are found to vary among geographically and socioeconomically defined groups. For instance, about 86 percent of expectant mothers in Mulanje District received intermittent treatment against malaria parasites, compared with just 59 percent in Machinga District. Among women of higher socioeconomic standing (with a secondary education) 83 percent were informed about important signs of pregnancy complications, compared with just 66 percent of women who never attended school. Access to this type of information may be an important, but simple, way to help reverse the worsening maternal mortality in the country (see Chapter 12).

Access to services that involve more expensive procedures (testing of blood and urine) are not widely available to pregnant women and vary greatly from district to district. For instance, in Karonga District, for just 23 percent of births, blood testing was done during pregnancy, compared with 57 percent of births in Lilongwe district. Blood is drawn during ANC visits in Malawi largely to screen for syphilis and anemia, although some of the blood samples (i.e., in selected sentinel sites) are used by the National AIDS Control Programme to maintain HIV surveillance.

Table 9.3 Antenatal care content

Among women who had a live birth in the five years preceding the survey and received some antenatal care during pregnancy, the percentage who received various services during antenatal care, by background characteristics, Malawi 2000

Background characteristic	Informed of signs of pregnancy compli-cations	Blood pressure measured	Urine sample taken	Blood sample taken	Received tetanus toxoid	Received iron tablets	Received anti-malarial	Number
Mother's age at birth								
<20	68.7	80.0	22.4	42.7	88.2	71.8	68.5	1,436
20-34	71.3	83.8	22.8	43.2	85.0	70.6	73.3	5,102
35-49	73.1	81.5	24.9	44.0	82.1	63.2	69.7	1,136
Birth order								
1	69.1	81.6	23.7	43.5	88.7	74.1	71.3	1,650
2-3	70.9	82.7	22.7	44.0	87.0	71.1	73.6	2,663
4-5	71.2	84.8	21.9	41.7	82.1	69.2	72.3	1,586
6+	73.1	82.0	23.9	43.3	82.0	64.1	69.4	1,775
Residence								
Urban	80.8	95.4	32.4	52.6	87.4	68.7	83.3	1,057
Rural	69.5	80.7	21.6	41.7	84.8	69.9	70.1	6,618
Region								
Northern	69.4	87.6	15.1	37.5	85.4	83.8	80.5	865
Central	66.2	81.9	22.5	45.9	85.0	64.4	66.0	3,194
Southern	75.7	82.3	25.5	42.2	85.4	71.1	75.0	3,615
Education								
No education	65.6	77.5	22.6	39.5	83.5	63.7	65.2	2,265
Primary 1-4	69.2	81.3	23.0	42.5	85.8	67.4	67.1	2,417
Primary 5-8	75.0	86.4	21.7	45.0	85.7	75.1	78.8	2,383
Secondary+	83.4	93.7	30.2	53.3	87.2	79.8	88.8	609
Districts								
Blantyre	87.1	92.6	30.2	49.5	87.0	75.8	80.4	630
Karonga	70.9	74.7	11.0	23.2	85.4	85.7	76.7	153
Kasungu	66.7	85.5	13.6	31.6	86.1	72.5	72.2	300
Lilongwe	70.2	87.3	29.3	57.4	88.2	60.8	64.4	1,091
Machinga	67.4	75.8	25.0	36.0	83.2	63.3	58.6	306
Mangochi	67.7	76.3	15.9	26.0	87.2	64.1	77.6	403
Mulanje	78.0	73.2	27.6	41.5	84.2	72.1	85.9	357
Mzimba	66.2	90.7	16.9	48.0	85.7	78.3	79.9	368
Salima	62.4	76.4	11.7	28.8	84.9	69.4	77.3	181
Thyolo	83.6	79.5	18.0	33.5	85.6	75.2	73.3	388
Zomba	79.1	87.9	24.5	49.7	85.6	72.4	69.4	460
Other districts	66.8	80.9	22.9	42.7	83.5	69.5	70.4	3,038
Total	71.1	82.7	23.1	43.2	85.2	69.7	71.9	7,675

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

9.2 Assistance and Medical Care at Delivery

Another important component of efforts to reduce the health risks of mothers and children is increasing the proportion of babies that are delivered in facilities where medical intervention is available. Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that can cause the death or serious illness of the mother and/or the baby. Respondents were asked to report the place of birth of all children born in the five years before the survey (Table 9.4).

At the national level, 55 percent of births in the last three years were delivered in health facilities; this is identical to the figure in the 1992 MDHS survey. Government-run health facilities were used for delivery to a much greater extent (40 percent) than privately run facilities (15 percent). About 44 percent of births were delivered at home, and 1 percent were delivered elsewhere, which includes places on the way to a health facility.

Table 9.4 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics, Malawi 2000

Background characteristic	Government health facility	Private health facility	At home	Other	Missing	Total	Number
Mother's age at birth							
<20	41.6	16.3	41.2	0.4	0.5	100.0	2,445
20-34	40.6	14.8	43.5	0.7	0.3	100.0	8,197
35-49	35.4	15.4	47.5	1.4	0.3	100.0	1,558
Birth order							
1	44.4	17.5	37.2	0.4	0.6	100.0	2,831
2-3	40.7	13.5	45.0	0.6	0.3	100.0	4,287
4-5	38.7	15.5	44.6	1.0	0.3	100.0	2,505
6+	36.1	15.0	47.3	1.3	0.3	100.0	2,578
Residence							
Urban	64.3	17.6	17.7	0.2	0.2	100.0	1,502
Rural	36.8	14.8	47.2	0.8	0.4	100.0	10,698
Region							
Northern	49.3	13.3	36.6	0.7	0.2	100.0	1,334
Central	37.5	14.3	47.3	0.5	0.4	100.0	5,287
Southern	40.5	16.4	41.7	1.0	0.4	100.0	5,580
Mother's education							
No education	32.0	12.4	54.3	0.9	0.3	100.0	3,897
Primary 1-4	37.3	14.4	47.1	0.8	0.4	100.0	3,911
Primary 5-8	47.8	16.3	35.0	0.6	0.4	100.0	3,611
Secondary+	60.1	27.4	12.0	0.3	0.2	100.0	782
Antenatal care visits[1]							
None	10.0	6.1	83.1	0.5	0.2	100.0	622
1-3 visits	39.1	14.1	45.6	0.8	0.4	100.0	4,810
4 or more visits	43.8	16.7	38.4	0.7	0.3	100.0	6,629
Total	40.2	15.2	43.6	0.8	0.4	100.0	12,201

Note: Private health facility includes Mission health facilities.
[1] Total includes 139 women who did not know or had missing information for the number of antenatal care visits.

Women age 35 years or older are more likely than younger women to deliver at home. Similarly, high birth order of the child is associated with greater likelihood of home delivery. A child born in rural Malawi is nearly three times more likely than a child born in an urban area to have been delivered at home. A child whose mother did not go to school at all is more than four times as likely to have been delivered at home as a child whose mother attended some secondary school. Women who have visited health professionals during pregnancy are more likely to deliver at a health facility than women who have had no such contact. Only 16 percent of women who did not receive any antenatal care delivered in a health facility, compared with 61 percent of women with four or more antenatal visits.

The type of assistance a woman receives during the birth of her child has important health consequences for both mother and child. Births that are delivered at home are more likely to be delivered without assistance from anyone, whereas births delivered at a health facility are more likely to be delivered by trained medical personnel. Table 9.5 shows that 56 percent of births were delivered under the supervision of personnel with medical training, mostly nurses or trained midwives. Traditional birth attendants assisted in 23 percent of births, while relatives and friends provided the primary assistance in 19 percent of births. Two percent of births were delivered without any assistance. The 1992 MDHS and 2000 MDHS results at the national level are similar, indicating little or no improvement in use of maternity services in Malawi during the 1990s.

Age of the woman and birth order of the child are not strongly associated with type of assistance at delivery. Older women and women who have already had many births are more likely to have received no assistance at delivery and are less likely to receive assistance by trained medical personnel.

Urban women are more likely than rural women to receive the benefit of medical supervision during delivery (Figure 9.1). Blantyre District shows a higher proportion of deliveries under medical supervision (81 percent) than other oversampled districts (45 to 64 percent). More than 25 percent of births in the Machinga, Mangochi, and Salima districts are delivered with assistance only from friends and relatives. In the northern districts of Mzimba and Karonga, more than 1 in 20 births is delivered with no assistance at all.

Maternal education is closely tied to use of medically trained attendants at delivery. Women with some secondary education are twice as likely to receive assistance from a trained professional as women with no education.

If a woman received antenatal care during pregnancy, she is more likely to deliver with medical assistance. Strikingly, only 16 percent of women not receiving antenatal care delivered their babies under the supervision of a trained professional, compared with 61 percent of women with at least four antenatal visits. The combination of poor antenatal care and inadequate medical supervision at delivery places these mothers at greater risk of adverse pregnancy outcomes, including maternal death.

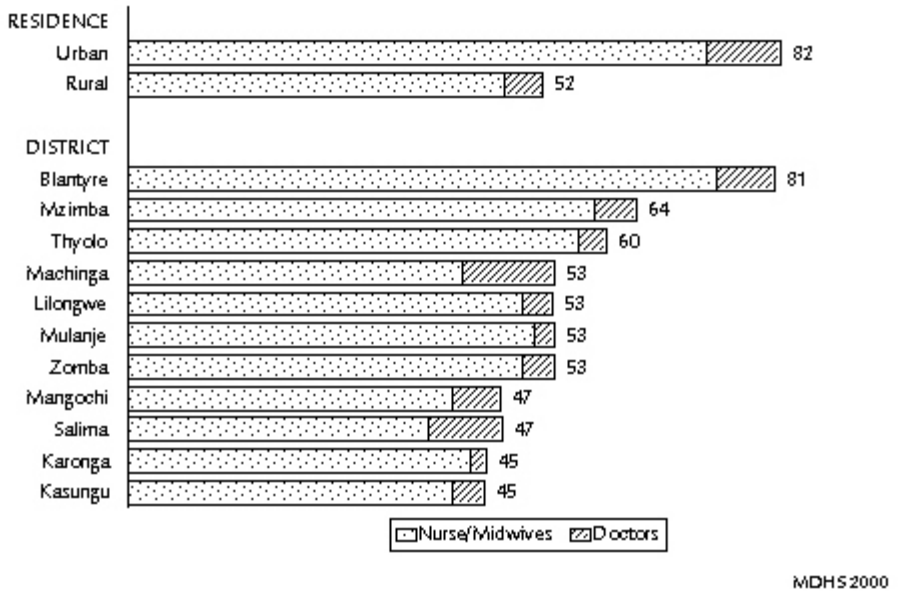
Table 9.5 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by type of assistance during delivery, according to background characteristics, Malawi 2000

Background characteristic	Doctor	Trained nurse/ midwife/ ward attendant	Traditional birth attendant	Relative/ Other	No one	Don't know/ missing	Total	Number
Mother's age at birth								
<20	5.9	52.3	23.2	17.6	0.7	0.3	100.0	2,445
20-34	5.3	50.2	23.0	19.0	2.2	0.3	100.0	8,197
35-49	5.2	46.3	20.4	21.6	6.3	0.3	100.0	1,558
Birth order								
1	6.8	55.3	22.4	14.7	0.4	0.4	100.0	2,831
2-3	5.0	49.3	23.3	20.5	1.6	0.2	100.0	4,287
4-5	5.2	48.9	23.0	19.8	2.8	0.3	100.0	2,505
6+	4.7	47.1	21.6	20.7	5.7	0.2	100.0	2,578
Residence								
Urban	9.3	72.3	10.5	6.8	1.0	0.1	100.0	1,502
Rural	4.9	47.0	24.4	20.8	2.6	0.3	100.0	10,698
Region								
Northern	4.0	58.2	18.6	13.7	5.4	0.1	100.0	1,334
Central	5.1	47.1	28.6	17.1	1.8	0.3	100.0	5,287
Southern	6.0	51.2	18.1	22.1	2.3	0.3	100.0	5,580
Mother's education								
No education	4.2	40.8	24.3	26.5	3.9	0.3	100.0	3,897
Primary 1-4	5.2	46.7	26.2	20.0	1.6	0.3	100.0	3,911
Primary 5-8	5.5	58.4	20.4	13.2	2.1	0.3	100.0	3,611
Secondary+	11.9	75.8	7.3	4.1	0.7	0.2	100.0	782
Antenatal care visits								
None	3.4	12.4	31.9	44.7	7.4	0.2	100.0	622
1-3 visits	6.0	47.6	23.4	20.4	2.3	0.4	100.0	4,810
4 or more visits	5.2	55.5	21.3	15.7	2.1	0.2	100.0	6,629
Don't know/Missing	5.0	51.3	23.8	15.1	1.9	3.0	100.0	139
Districts								
Blantyre	7.3	73.5	10.5	7.3	1.5	0.0	100.0	881
Karonga	2.0	42.7	34.3	15.3	5.6	0.0	100.0	236
Kasungu	4.1	40.5	27.8	23.0	4.4	0.2	100.0	489
Lilongwe	3.8	49.3	31.8	14.0	0.7	0.4	100.0	1,829
Machinga	11.5	41.7	15.0	29.1	2.6	0.0	100.0	469
Mangochi	6.0	40.6	14.0	38.5	0.4	0.4	100.0	637
Mulanje	2.5	50.9	25.3	18.4	2.6	0.3	100.0	553
Mzimba	5.2	58.4	12.7	16.2	7.5	0.0	100.0	562
Salima	9.2	37.5	26.0	25.2	1.4	0.6	100.0	293
Thyolo	3.6	56.2	21.6	16.7	1.5	0.3	100.0	566
Zomba	4.0	49.3	20.1	23.9	2.5	0.2	100.0	727
Other districts	5.8	48.8	23.4	18.9	2.7	0.3	100.0	4,959
Total	5.4	50.2	22.7	19.0	2.4	0.3	100.0	12,201

Note: If the respondent mentioned more than one attendant, only the most qualified attendant is considered in this tabulation.

Figure 9.1 Percentage of Births for Which Women Received Medical Assistance at Delivery, by Urban-rural Residence and Selected Districts



9.3 Caesarean Section and Small Size at Birth

According to mothers' reports, 3 percent of babies born in Malawi are delivered by caesarean section, or C-section (Table 9.6). This is the same percentage as was estimated from the 1992 MDHS survey. Generally, a C-section rate below 5 percent is thought to be a reflection of limited access to maternal health services (FCI, 1998). This finding thus indicates that many Malawian women remain without access to life-saving emergency obstetrical care.

C-sections are less common among rural women, older women, women with a large number of children, and those with little or no education. District estimates of C-section prevalence vary from 2 percent of deliveries in several districts to about 5 percent in the Zomba and Blantyre districts.

Respondents were asked whether their baby had been weighed at birth, and if so, how much the baby weighed. Interviewers were trained to use any written record of birth weight available. In addition, because many women do not deliver at a health facility, the mother was asked for her own subjective assessment of whether the child was very large, larger than average, average size, smaller than average, or very small at birth. For slightly more than one-half of births, a birth weight was reported. Among births for which a birth weight was reported, 10 percent (or about 5 percent of all births) were less than 2.5 kilograms, the cutoff point below which a baby is considered to be low birth weight.

When asked for the “size” of their child at birth, 17 percent of all mothers reported that their child was either smaller than average (13 percent) or very small (4 percent). This compares with 18 percent estimated from the 1992 MDHS survey using the same survey instrument. District estimates of low birth weight using subjective assessment (small or very small) vary from a low of 11 percent in the Zomba and Salima districts to a high of 24 percent in Mulanje District.

Table 9.6 Delivery characteristics

Percentage of live births in the five years preceding the survey delivered by caesarean section, and percent distribution by birth weight, and by mother's estimate of baby's size at birth, according to background characteristics, Malawi 2000

Background characteristic	Delivery by C-section	Birth weight: Not weighed	Birth weight: Less than 2.5 kg	Birth weight: 2.5 kg or more	Birth weight: Don't know	Birth weight: Total	Size of child at birth: Very small	Size of child at birth: Smaller than average	Size of child at birth: Average or larger	Size of child at birth: Don't know	Size of child at birth: Total	Number
Mother's age at birth												
<20	3.0	46.6	7.0	36.9	9.4	100.0	5.5	15.4	78.4	0.6	100.0	2,445
20-34	2.8	46.3	4.5	40.7	8.5	100.0	3.2	12.0	84.0	0.7	100.0	8,197
35-49	2.2	49.6	4.2	36.4	9.8	100.0	5.0	11.7	82.6	0.7	100.0	1,558
Birth order												
1	3.7	42.7	7.1	41.3	8.8	100.0	4.9	15.2	79.3	0.7	100.0	2,831
2-3	2.9	47.8	4.1	39.6	8.5	100.0	3.4	12.3	83.5	0.7	100.0	4,287
4-5	2.9	47.5	4.5	38.8	9.2	100.0	3.4	11.4	84.5	0.7	100.0	2,505
6+	1.4	48.9	4.3	37.6	9.3	100.0	4.2	11.8	83.3	0.6	100.0	2,578
Residence												
Urban	4.5	18.8	7.3	62.5	11.4	100.0	2.0	9.3	88.1	0.6	100.0	1,502
Rural	2.5	50.7	4.6	36.2	8.5	100.0	4.2	13.1	82.0	0.7	100.0	10,698
Region												
Northern	3.2	34.0	7.3	54.8	3.9	100.0	5.0	11.6	82.9	0.6	100.0	1,334
Central	2.3	50.0	5.0	36.0	8.9	100.0	4.2	14.1	81.1	0.6	100.0	5,287
Southern	3.1	46.8	4.3	38.9	10.0	100.0	3.4	11.6	84.2	0.8	100.0	5,580
Mother's education												
No education	1.8	57.8	3.4	28.4	10.4	100.0	4.0	13.5	81.5	1.0	100.0	3,897
Primary 1-4	2.6	51.2	4.5	34.2	10.1	100.0	4.4	13.6	81.5	0.4	100.0	3,911
Primary 5-8	3.1	37.5	6.4	49.1	7.0	100.0	3.5	11.6	84.1	0.8	100.0	3,611
Secondary+	6.9	13.0	8.2	75.5	3.2	100.0	2.5	9.2	88.0	0.3	100.0	782
Districts												
Blantyre	4.5	22.0	6.4	58.1	13.4	100.0	1.8	10.2	88.0	0.0	100.0	881
Karonga	2.2	55.6	4.1	35.4	4.9	100.0	6.9	8.0	85.0	0.1	100.0	236
Kasungu	2.2	51.2	3.6	39.2	6.1	100.0	4.0	10.7	84.6	0.7	100.0	489
Lilongwe	2.2	47.6	4.6	40.3	7.5	100.0	3.3	15.2	80.6	0.9	100.0	1,829
Machinga	3.5	47.6	4.1	39.0	9.3	100.0	3.3	16.4	80.0	0.3	100.0	469
Mangochi	1.6	55.0	1.4	32.6	11.0	100.0	2.9	11.2	85.1	0.8	100.0	637
Mulanje	2.0	59.0	3.7	27.5	9.8	100.0	7.1	16.9	75.8	0.2	100.0	553
Mzimba	3.5	34.0	7.7	54.7	3.6	100.0	4.8	12.1	82.3	0.7	100.0	562
Salima	4.0	54.5	2.9	34.5	8.1	100.0	3.5	7.7	87.9	0.9	100.0	293
Thyolo	2.4	42.9	6.1	41.7	9.3	100.0	4.0	13.1	82.0	0.9	100.0	566
Zomba	5.2	51.5	3.9	39.6	5.0	100.0	3.2	7.7	88.8	0.3	100.0	727
Other districts	2.4	48.3	5.5	36.5	9.7	100.0	4.2	13.0	81.9	0.9	100.0	4,959
Total	2.8	46.8	4.9	39.4	8.9	100.0	3.9	12.7	82.7	0.7	100.0	12,201

9.4 Postnatal Care

In the 2000 MDHS survey, for each last birth in the 5 years preceding the survey that occurred *outside* a health facility, mothers were asked whether "a health professional or traditional birth attendant checked on her [the respondent's] health after the birth." For just 7 percent of births, the mother received a postnatal checkup (data not shown). About half of these checkups were performed by traditional birth attendants, and the other half were performed by doctors or trained nurses or midwives.

9.5 VACCINATIONS

To assist in the evaluation of the Malawi Expanded Programme of Immunisation (EPI), the MDHS survey collected information on vaccination coverage for all children born in the five years preceding the survey, although the data presented here are restricted to children who were alive at the time of the survey. The Malawi EPI largely follows the World Health Organisation (WHO) guidelines for vaccinating children. To be considered fully vaccinated, a child should receive the following vaccinations: one dose of BCG, three doses each of DPT and polio vaccine, and one dose of measles vaccine. BCG should be given at birth or first clinic contact and protects against tuberculosis. DPT protects against diphtheria, pertussis (whooping cough), and tetanus. DPT and polio vaccine guidelines require three vaccinations at approximately 6, 10, and 14 weeks of age; the measles vaccine should be given at or soon after reaching nine months of age. The Malawi EPI recommends that children receive the complete schedule of vaccinations before 12 months of age. A dose of polio vaccine at or around birth is now being promoted although it is not yet widely given in Malawi because many children are not delivered in health facilities.

Information on vaccination coverage was collected in two ways: from child health cards seen by the interviewer and from mothers' verbal reports. Health centres and clinics in Malawi typically provide cards on which vaccinations are recorded. If a mother was able to present such a card to the interviewer, this was used as the source of information, with the interviewer recording vaccination dates directly from the card. In addition to collecting vaccination information from cards, there were two ways of collecting the information from the mother herself. If a vaccination card had been presented, but a vaccine had not been recorded on the card as being given, the mother was asked to recall whether or not that particular vaccine had been given. If the mother was not able to provide a card for the child at all, she was asked through a series of probing questions whether or not the child had received BCG, polio, DPT (including the number of doses for each), and measles vaccinations.

Information on vaccination coverage is presented in Table 9.7, according to the source of information used to determine coverage, i.e., the child health card or mother's report. Data are presented for children age 12-23 months, thereby including only children who should be fully vaccinated. By way of illustration, 77 percent of all children had evidence of a BCG vaccination recorded on their health card. However, not all children who are vaccinated have health cards available; 15 percent of children did not have a card but were reported by their mothers to have received the BCG vaccine. Thus, overall, 92 percent of children age 12-23 months are estimated to have been vaccinated against tuberculosis. Vaccinations are most effective when given at the proper age; 90 percent of children receive the BCG vaccine by 12 months of age.

Coverage for the first doses of polio (polio 1) and DPT (DPT1) is nearly universal (96 percent). Polio vaccine coverage declines after the first dose, with 91 and 80 percent of children receiving the second and third doses, respectively. This yields a dropout rate[1] of about 17 percent for polio vaccine. The dropout rate between DPT1 and DPT3 is 12 percent. Eighty-three percent of children age 12-23 months were vaccinated against measles, but only 64 percent were before their first birthday, indicating that some children are receiving their measles vaccine too late. This is important since measles at young ages is potentially life threatening, especially in already

[1] The dropout rate is defined as the percentage of children receiving the first dose who do not subsequently receive the third dose of polio or DPT vaccine. Polio 0 (at birth) is not counted in this analysis.

malnourished children. About 3 percent of children age 12-23 months had received no vaccinations. Overall, 70 percent of children age 12-23 months had all the recommended vaccinations, 54 percent before their first birthday.

Table 9.7 Vaccinations by source of information

Percentage of children 12-23 months who had received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, Malawi 2000

	Percentage of children who received:											
		DPT			Polio[1]							
Source of information	BCG	DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3	Measles	All[2]	None	Number
Vaccinated at any time before the survey												
Vaccination card	76.9	80.3	78.2	73.7	41.6	80.1	77.3	72.4	70.2	64.3	0.1	1,814
Mother's report	15.4	15.5	14.4	10.4	5.3	15.6	14.0	7.4	13.0	5.7	2.6	424
Either source	92.4	95.9	92.6	84.2	46.9	95.7	91.3	79.8	83.2	70.1	2.8	2,238
Vaccinated by 12 months of age[3]	89.7	93.8	88.9	78.6	46.2	93.3	87.2	72.7	64.2	54.0	4.6	2,238

[1] Polio 0 is the polio vaccination given at birth.
[2] Children who are fully vaccinated, i.e., those who have received BCG, measles, and three doses of DPT and polio vaccine (excluding polio vaccine given at birth).
[3] For children whose information was based on the mother's report, the proportion of vaccinations given in the first year of life was assumed to be the same as for children with a written record of vaccination.

The 2000 MDHS sample design and methods of data collection, data processing, and analysis were identical to those used in the 1992 MDHS survey, facilitating comparisons. The results of these comparisons indicate that once-high vaccination coverage levels have slipped. The first indication of the problem comes from a small drop in the percentage of children with a vaccination card from 86 to 81 percent (see Table 9.8). This in itself may indicate decreased access to services. Full coverage (all vaccines, ages 12-23 months) has fallen from 82 to 70 percent. BCG coverage has declined slightly from 97 to 92 percent, and measles coverage has fallen from 86 to 83 percent. The failure of some children to complete the polio series and the DPT series (described above) has resulted in a decline in third-dose polio coverage from 88 to 80 percent and third-dose DPT coverage from 89 to 84 percent since 1992.

The 2000 MDHS survey collected information on polio vaccine received “at or around birth” (polio 0), which can be recorded on the vaccination card or reported by the mother. The results indicate that 47 percent of children 12-23 months had received polio vaccine at birth. This corresponds closely to the percentage of children that are delivered in a health facility.

Table 9.8 presents vaccination coverage among children age 12-23 months by selected background characteristics. The differentials in coverage are similar irrespective of vaccine type; therefore, the focus is on differentials in complete coverage (i.e., all vaccines received). The results indicate virtually no difference in full coverage between boys and girls. Children of high birth order (six or higher) have lower coverage than children of lower birth order; for example, 79 percent of first births age 12-23 months have received all vaccines, compared with 58 percent of birth orders six or higher (Figure 9.2).

Table 9.8 Vaccinations by background characteristics

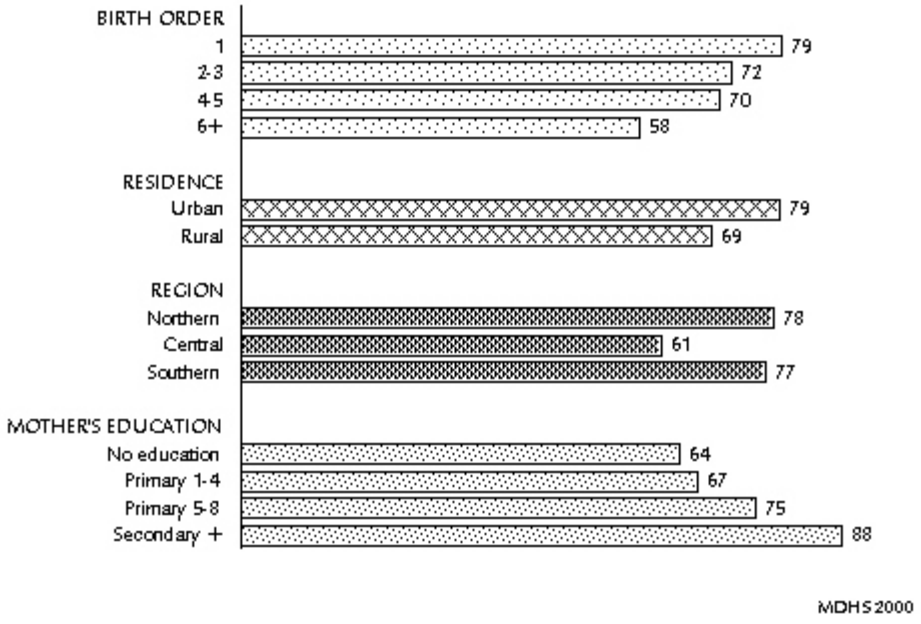
Among children age 12-23 months, the percentage who had received specific vaccines by the time of the survey (according to vaccination card or the mother's report), and the percentage with a vaccination card, by background characteristics, Malawi 2000

Background characteristic	Percentage of children who had received:											Percentage with a vaccination card	Number
		DPT			Polio[1]								
	BCG	DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3	Measles	All[2]	None		
Child's sex													
Male	92.7	95.8	92.3	83.6	47.9	95.5	90.8	79.1	83.2	69.7	2.7	79.2	1,110
Female	92.1	96.0	92.9	84.7	45.9	96.0	91.8	80.5	83.2	70.5	2.8	82.9	1,128
Birth order													
1	94.7	97.2	95.5	89.5	48.5	97.6	93.7	84.7	91.1	78.9	1.8	81.7	525
2-3	93.8	97.7	94.8	86.0	50.4	96.7	93.0	82.5	84.6	71.5	1.7	84.8	815
4-5	92.5	95.8	91.5	83.5	45.5	94.4	89.6	78.6	80.2	69.8	3.0	81.1	434
6+	87.2	91.3	86.5	75.5	40.3	93.1	87.0	70.7	74.6	58.0	5.5	73.7	463
Residence													
Urban	96.3	98.5	97.3	92.4	52.9	97.9	96.6	85.8	90.6	78.6	1.1	77.4	307
Rural	91.8	95.5	91.8	82.8	46.0	95.4	90.5	78.9	82.0	68.7	3.0	81.6	1,930
Region													
Northern	94.8	96.8	94.1	88.5	64.5	97.1	94.3	86.4	85.8	77.8	2.2	82.6	259
Central	90.4	94.6	90.8	78.6	38.3	94.3	89.2	73.8	76.9	61.4	3.9	75.0	974
Southern	93.7	96.9	93.9	88.4	50.8	96.7	92.6	83.9	88.7	76.6	1.8	86.5	1,005
Mother's education													
No education	88.4	93.1	89.5	79.3	40.8	92.8	87.8	73.5	79.2	64.0	4.7	79.9	671
Primary 1-4	93.0	95.4	91.9	81.2	46.8	95.6	91.3	78.1	80.1	66.5	2.9	80.9	690
Primary 5-8	94.4	98.4	94.8	88.7	51.9	98.1	93.2	84.6	87.5	75.1	1.1	82.1	696
Secondary+	97.2	98.2	98.2	95.9	50.6	98.1	96.9	91.4	93.4	87.5	1.0	81.9	180
Districts													
Blantyre	96.1	99.4	98.1	93.4	43.4	98.6	96.1	90.1	91.7	82.9	0.6	85.1	182
Karonga	93.9	97.6	91.0	84.9	61.8	97.1	92.2	77.3	81.7	67.7	1.7	79.0	47
Kasungu	91.0	95.9	88.4	81.3	40.1	93.5	88.6	72.3	85.8	61.4	4.1	71.5	101
Lilongwe	91.4	95.0	94.6	82.3	47.5	94.1	92.7	77.9	73.6	63.4	3.6	75.0	316
Machinga	83.6	96.1	96.1	87.5	46.7	98.1	95.2	85.5	85.4	67.1	1.9	83.1	78
Mangochi	90.3	98.8	93.1	83.3	44.4	96.5	93.1	78.0	88.7	69.0	1.2	91.7	110
Mulanje	96.2	97.7	94.7	91.7	39.4	96.2	93.2	84.2	91.5	81.0	2.3	87.9	100
Mzimba	93.8	95.8	92.8	86.7	67.1	96.7	92.8	85.4	84.4	75.3	2.3	83.7	110
Salima	86.4	89.0	84.7	71.4	34.6	88.1	84.8	69.8	78.0	61.0	8.5	80.0	54
Thyolo	95.9	98.4	97.5	92.6	75.7	98.4	96.7	87.3	95.1	81.6	1.6	85.7	104
Zomba	95.2	94.2	94.2	89.6	67.5	95.2	91.8	89.1	87.9	84.3	3.9	85.2	127
Other districts	92.0	95.2	90.4	80.9	40.7	95.6	88.9	76.4	81.0	66.8	2.8	79.9	909
Total	92.4	95.9	92.6	84.2	46.9	95.7	91.3	79.8	83.2	70.1	2.8	81.1	2,238

[1] Polio 0 is the polio vaccination given at birth.
[2] Children who are fully vaccinated, i.e., those who have received BCG, measles, and three doses of DPT and polio vaccine (excluding polio vaccine given at birth).

Full vaccination coverage among urban children (79 percent) is higher than among rural children (69 percent). As has been observed in previous surveys, children in the Central Region continue to have lower vaccination coverage levels than children in the rest of the country. District variation in vaccination coverage needs to be interpreted with caution because the number of observations on which the estimates are based is, in some cases, small. Some districts have full coverage of more than 80 percent (Blantyre, Mulanje, Thyolo, and Zomba), while others have coverage below 65 percent (Kasungu, Lilongwe, and Salima).

Figure 9.2 **Percentage of Children Age 12-23 Months Who Are Fully Vaccinated, by Background Characteristics**



The educational level of the mother is linked to the likelihood that the children have been fully vaccinated. Among children whose mother has been to secondary school, full coverage is 88 percent, compared with just 64 percent among children whose mother has never been to school.

9.6 Acute Respiratory Infection

Pneumonia is a leading cause of death of young children in Malawi. The programme to control acute respiratory infection (ARI) aims at treating cases of ARI early before complications develop. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths due to pneumonia. There is therefore emphasis placed on recognition of signs of impending severity, both by mothers and primary health care workers so that help can be sought. The prevalence of ARI was estimated by asking mothers whether their children under age five had been ill with cough accompanied by short, rapid breathing (in a second question) in the two weeks preceding the survey. These symptoms are compatible with pneumonia. It should be borne in mind that morbidity data collected in surveys are subjective (i.e., mother's perception of illness) and not validated by medical examination.

Table 9.9 shows that 27 percent of children under five years of age were ill with a cough and short, rapid breathing at some time in the two weeks preceding the survey. Using the same definition, the 1992 MDHS survey reported that 15 percent of children had ARI in the last two weeks. This large increase may be real or it may be related to improved mothers' recognition of the signs of illness. Prevalence of respiratory illness varies by age of the child, with the highest prevalence occurring at 6-11 months. Sex and birth order of the child are not associated significantly with ARI prevalence. Education of the mother is only mildly associated with ARI prevalence, with children of women with no education and with secondary or more education having the lowest prevalence levels.

Table 9.9 Prevalence and treatment of acute respiratory infection

Percentage of children under five years who were ill with a cough accompanied by short, rapid breathing (symptoms of ARI) in the two weeks preceding the survey, and percentage of children with symptoms of ARI taken to a health facility or provider, by background characteristics, Malawi 2000

Background characteristic	Percentage of children with symptoms of ARI	Percentage of children with symptoms of ARI taken to a health facility or provider[1]	Number
Child's age			
<6 months	29.2	21.2	1,274
6-11 months	34.8	29.7	1,243
12-23 months	29.2	31.8	2,238
24-35 months	26.4	25.1	2,107
36-47 months	21.6	25.7	2,047
48-59 months	21.9	22.9	1,650
Child's sex			
Male	25.8	25.9	5,225
Female	27.5	27.4	5,334
Birth order			
1	24.8	28.8	2,366
2-3	26.2	27.9	3,706
4-5	27.6	23.2	2,214
6+	28.4	26.3	2,273
Residence			
Urban	15.7	48.3	1,358
Rural	28.3	24.9	9,201
Region			
Northern	24.1	36.4	1,166
Central	28.7	21.8	4,594
Southern	25.3	29.7	4,799
Mother's education			
No education	24.3	22.0	3,388
Primary 1-4	29.1	23.9	3,303
Primary 5-8	27.5	29.3	3,150
Secondary+	22.6	52.8	718
Districts			
Blantyre	15.5	36.2	755
Karonga	9.4	35.5	213
Kasungu	33.7	13.0	437
Lilongwe	21.2	27.9	1,596
Machinga	31.7	26.9	411
Mangochi	21.1	32.8	553
Mulanje	31.3	30.2	468
Mzimba	31.4	28.9	490
Salima	20.4	34.7	244
Thyolo	20.5	25.0	479
Zomba	29.4	25.2	633
Other districts	30.7	25.7	4,281
Total	26.7	26.7	10,559

ARI = Acute respiratory infections
[1] Excludes pharmacy, shop, and traditional practitioner

ARI prevalence is much higher in rural areas (28 percent) than in urban areas (16 percent) and is slightly higher in the Central Region than in the Northern and Southern regions. District differentials are substantial. Prevalence is as low as 9 percent in Karonga District and as high as 34 percent in Kasungu District. Whether this wide range in ARI prevalence reflects genuine differences in morbidity or rather sociocultural differences in the perception of disease or disease severity cannot be ascertained from these data.

Just 27 percent of children with a report of cough with short, rapid breathing were taken to a health facility of some kind. This compares with 49 percent from the 1992 MDHS survey. Children age 6-23 months are more likely to be taken to a health facility than younger and older children. Sex and birth order of the child are not strongly related to use of health facilities for ARI. Urban children with ARI are twice as likely to have been taken to a health facility than their rural counterparts. Children with ARI from the Central region are less likely than children in the other regions to have received treatment at a health facility. Use of a health facility to treat under-five ARI cases ranges from just 13 percent in Kasungu District to 36 percent in Blantyre and Karonga districts. These findings, although underscoring serious problems of access to health services, may also suggest that mothers and other household members do not always understand the importance of quick response to ARI symptoms.

9.7 Diarrhoeal Disease and Related Findings

Dehydration caused by severe diarrhoea is a major cause of morbidity and mortality among young children in Malawi. Exposure to diarrhoeal-disease-causing agents is frequently related to use of contaminated water and unhygienic practises related to food preparation and excreta disposal. Recent efforts by the government of Malawi to improve access to safe water have been successful (see Chapter 2).

In the 2000 MDHS survey, mothers of children under five years of age were asked about the manner in which the child's fecal matter was disposed of. Table 9.10 presents the results according to background characteristics. The stools of 79 percent of children under age five are routinely disposed of in a latrine or toilet. The remaining children's stools are either buried in the vicinity of the dwelling (3 percent) or thrown outside the dwelling into the bush or to be washed away (18 percent). As expected, use of latrines and toilets is more common in urban areas, among the better educated, and among households that claim access to these facilities. Little variation was observed across Malawi's three regions.

Table 9.11 shows the prevalence of diarrhoea in children under five years of age according to background characteristics. Eighteen percent of children had experienced diarrhoea at some time in the two weeks preceding the survey. This represents a decline from 22 percent reported in the 1992 MDHS survey and is consistent with an improvement in access to safe drinking water in Malawi during the 1990s. Diarrhoeal prevalence increases with age to a peak at 6-11 months (36 percent), then falls at older ages.

Table 9.10 Disposal of children's stools

Percent distribution of children under five years of age by way in which child's fecal matter is disposed of, according to background characteristics and type of toilet facilities in household, Malawi 2000

Background characteristic	Child always uses toilet/ latrine	Thrown into toilet/ latrine	Buried in yard	Thrown away from dwelling	Not disposed of	Other/ Missing	Total	Number of children
Residence								
Urban	8.2	80.3	0.5	10.8	0.1	0.1	100.0	987
Rural	7.5	69.8	3.2	19.0	0.3	0.1	100.0	6,480
Region								
Northern	7.9	69.9	2.2	19.5	0.5	0.0	100.0	822
Central	6.8	71.8	3.3	17.7	0.3	0.0	100.0	3,200
Southern	8.3	70.9	2.5	17.9	0.2	0.2	100.0	3,445
Mother's education								
No education	6.9	64.7	4.3	23.6	0.3	0.3	100.0	2,322
Primary 1-4	7.1	70.9	3.2	18.5	0.4	0.0	100.0	2,333
Primary 5-8	8.5	76.1	1.7	13.4	0.2	0.1	100.0	2,236
Secondary+	9.2	78.8	0.0	11.9	0.0	0.0	100.0	575
Toilet facilities[1]								
None	3.3	32.5	13.0	50.7	0.3	0.1	100.0	1,355
Pit and improved latrine	8.2	80.3	0.6	10.6	0.3	0.1	100.0	5,936
Flush toilet	24.1	60.3	0.0	14.6	0.1	0.8	100.0	167
Total	7.6	71.2	2.8	17.9	0.3	0.1	100.0	7,467

[1] Total includes eight children for whom data on type of toilet facility is missing.

Table 9.11 Prevalence of diarrhoea

Percentage of children under five years with diarrhoea in the two weeks preceding the survey, by background characteristics, Malawi 2000

Background characteristic	Diarrhoea in preceding 2 weeks	Number
Child's age		
<6 months	13.0	1,274
6-11 months	35.9	1,243
12-23 months	31.5	2,238
24-35 months	13.8	2,107
36-47 months	7.4	2,047
48-59 months	5.9	1,650
Child's sex		
Male	18.4	5,225
Female	16.9	5,334
Residence		
Urban	14.3	1,358
Rural	18.1	9,201
Region		
Northern	12.8	1,166
Central	19.1	4,594
Southern	17.3	4,799
Mother's education		
No education	18.0	3,388
Primary 1-4	19.1	3,303
Primary 5-8	16.4	3,150
Secondary+	13.6	718
Total	17.6	10,559

Table 9.12 Knowledge of ORS packets

Percentage of mothers with births in the five years preceding the survey who know about ORS packets for treatment of diarrhoea, by background characteristics, Malawi 2000

Background characteristic	Percentage of mothers who know about ORS packets	Number
Age		
15-19	85.9	726
20-24	86.5	2,403
25-29	87.8	2,076
30-34	86.3	1,211
35-49	80.3	1,642
Residence		
Urban	95.6	1,075
Rural	83.9	6,983
Region		
Northern	83.2	894
Central	83.1	3,407
Southern	88.2	3,758
Mother's education		
No education	76.7	2,477
Primary 1-4	86.4	2,531
Primary 5-8	90.4	2,435
Secondary+	98.0	615
Districts		
Blantyre	94.0	638
Karonga	71.8	157
Kasungu	89.3	316
Lilongwe	85.4	1,173
Machinga	76.3	314
Mangochi	84.6	412
Mulanje	94.7	368
Mzimba	88.2	382
Salima	76.0	189
Thyolo	93.1	398
Zomba	90.0	469
Other districts	82.8	3,242
Total	85.5	8,057

ORS = Oral rehydration salts

Sex of the child is not an important factor related to diarrhoea. Residential differentials are also not large, although children in urban areas experience a slightly lower rate of diarrhoea than rural children. The Northern Region has lower diarrhoeal prevalence (13 percent) than the Central region (19 percent) and Southern Region (17 percent).

A simple and effective response to a child's dehydration is a prompt increase in the intake of appropriate fluids, i.e., oral rehydration therapy (ORT). In Malawi, families are encouraged to rehydrate children either with fluids prepared at home with locally obtained ingredients (e.g., soup, fruit juice) or with a solution prepared using prepackaged oral rehydration salts (ORS packets) mixed with water. In the 2000 MDHS survey, women who had a birth in the last five years were asked questions about their knowledge of ORS packets. Table 9.12 shows that most mothers (86 percent) know of these packets although women in rural areas, women without much formal education, and those living in certain districts of Malawi (e.g., Karonga, Machinga, and Salima) are less aware of this life-saving technology. In the 1992 MDHS survey, 90 percent of mothers of children under five knew of ORS packets.

Table 9.13 Diarrhoea treatment

Among children under five years who had diarrhoea in the two weeks preceding the survey, the percentage taken for treatment to a health provider, the percentage who received oral rehydration therapy (ORT) (solution prepared from ORS packets, or increased fluids), and the percentage given other treatments, by background characteristics, Malawi 2000

		Oral rehydration therapy			Other treatments					
Background characteristic	Percentage taken to a health provider[1]	ORS	In-creased fluid	Either ORS or increased fluids	Pill or syrup	Injec-tion	Intra-venous	Home remedy/ other	No treat-ment	Number
Child's age										
<6 months	26.1	35.1	27.5	48.8	24.2	0.0	0.4	11.1	39.8	166
6-11 months	30.3	50.6	34.6	63.0	25.0	0.6	2.1	15.8	22.7	447
12-23 months	28.3	52.5	38.1	66.5	27.5	0.6	0.5	12.3	20.6	705
24-35 months	28.6	44.9	35.5	59.8	29.1	0.4	1.5	11.3	26.1	292
36-47 months	25.3	42.0	33.1	57.5	33.5	0.0	2.1	7.9	24.8	151
48-59 months	26.9	41.8	36.5	63.3	33.6	3.2	0.0	13.4	22.5	98
Child's sex										
Male	27.5	46.5	33.5	60.5	28.7	0.5	0.3	10.6	25.5	960
Female	29.2	49.3	37.5	63.8	26.5	0.7	2.0	14.7	22.6	899
Birth order										
1	29.1	50.1	39.4	65.5	31.4	0.6	1.3	10.3	23.1	405
2-3	28.4	49.4	35.0	63.3	28.3	0.4	0.7	11.5	22.2	645
4-5	29.5	50.3	35.2	64.6	22.9	0.3	1.2	15.3	25.2	395
6+	26.4	40.9	32.4	54.6	27.5	1.2	1.4	13.9	27.0	414
Residence										
Urban	34.9	48.7	33.0	61.9	34.9	0.2	0.9	5.0	24.8	195
Rural	27.6	47.8	35.7	62.1	26.8	0.7	1.1	13.5	24.0	1,664
Region										
Northern	38.1	48.0	23.2	57.1	37.9	2.1	2.8	11.5	22.9	149
Central	21.2	43.4	36.6	60.1	22.7	0.3	1.3	13.6	27.2	878
Southern	34.2	52.6	36.4	65.2	31.1	0.7	0.6	11.7	21.1	832
Mother's education										
No education	25.3	42.9	28.9	54.4	27.6	0.5	0.5	15.6	28.5	611
Primary 1-4	30.3	49.3	37.6	64.2	25.6	0.4	1.6	13.6	21.7	632
Primary 5-8	27.9	50.5	37.5	66.1	27.2	1.0	0.7	10.2	23.9	518
Secondary+	37.3	55.7	51.3	75.4	43.6	0.2	3.2	0.0	13.0	98
Total	28.3	47.9	35.4	62.1	27.7	0.6	1.1	12.6	24.1	1,859

ORS = Oral rehydration salts
[1] Excludes pharmacy, shop, and traditional practitioner

Mothers of children who were reported to have had diarrhoea were asked about their response to the illness. Just 28 percent reported that they took their child to a health facility, compared with 45 percent from the 1992 MDHS survey. Forty-eight percent of children with diarrhoea were reported to have been given ORS. This represents a small rise from 43 percent in the 1992 MDHS survey. Overall, 62 percent were given either ORS or increased fluids of some kind, which is nearly the same as the 63 percent estimate from the 1992 MDHS survey. Of course this means that more than one-third of young children sick with diarrhoea do not receive the necessary rehydration. Treatment-seeking behaviour, in particular use of ORT, is much more common among the more educated mothers. Other differentials are not large.

There are some other common responses to diarrhoea in Malawi. Twenty-eight percent of children were given a "pill" or "syrup", and 13 percent were given some type of home remedy. Home remedies, which include predominantly herbal medicines, are more common in rural areas and for children whose mother is less educated. In 24 percent of the recent diarrhoeal cases, the mother reported that no treatment was provided to the child. This compares with 15 percent based on the 1992 MDHS survey.

In the 2000 MDHS survey, mothers of children with diarrhoea in the last two weeks were asked to report whether the child received more liquid than usual, less liquid than usual, about the usual amount of liquid, or no liquid. The same was asked about food intake, except there was an option for "never gave food" (i.e., for exclusively breastfed babies). Table 9.14 shows that only 35 percent of children with diarrhoea were given more to drink. About the same percentage (32 percent) were given the same amount as usual, and 33 percent were given either somewhat less, much less, or no fluids. When children experiencing diarrhoea receive less fluid, the risks of serious complications and death are greatly increased. The feeding patterns reported by mothers are similar to those for fluid intake: about one-third of children with diarhhoea were receiving *less* food. These patterns reflect a gap in practical knowledge among some women about the nutritional requirements of children during episodes of diarrhoeal illness.

Table 9.14 Feeding practices during diarrhoea

Percent distribution of children under five years who had diarrhoea in the two weeks preceding the survey, by amount of liquid offered and amount of food offered compared with normal practice, Malawi 2000

Feeding practice	Percent
Amount of liquid offered	
Same as usual	31.6
More	35.4
Somewhat less	18.3
Much less	11.0
None	3.6
Don't know	0.1
Amount of food offered	
Same as usual	33.2
More	27.4
Somewhat less	19.2
Much less	11.8
None	4.5
Never gave food	3.9
Don't know	0.1
Total	100.0
Number	1,859

9.8 Women's Perceptions of Problems in Accessing Health Care

The 2000 MDHS survey asked all women age 15-49 whether they thought certain issues or circumstances were "a big problem or not" when they wanted to get treatment for an illness that they (the respondents) were experiencing. Table 9.15 shows that 17 percent, or one in six women, felt that knowledge of a source was a big problem for them in gaining access to health services. Younger, unmarried, rural, and less educated women and those living in the country's Central Region were most likely to report knowledge of a source as a big problem. Nine percent mentioned that needing "permission" would be a big problem; this response being much more common among the youngest women. Needing money for transport or treatment or having a shortage of time or transport options were by far the most commonly cited obstacles to health care access: each reported by more than 50 percent of women. Smaller percentages of women reported that they did not want to go alone or that they were concerned that a female health provider might not be available.

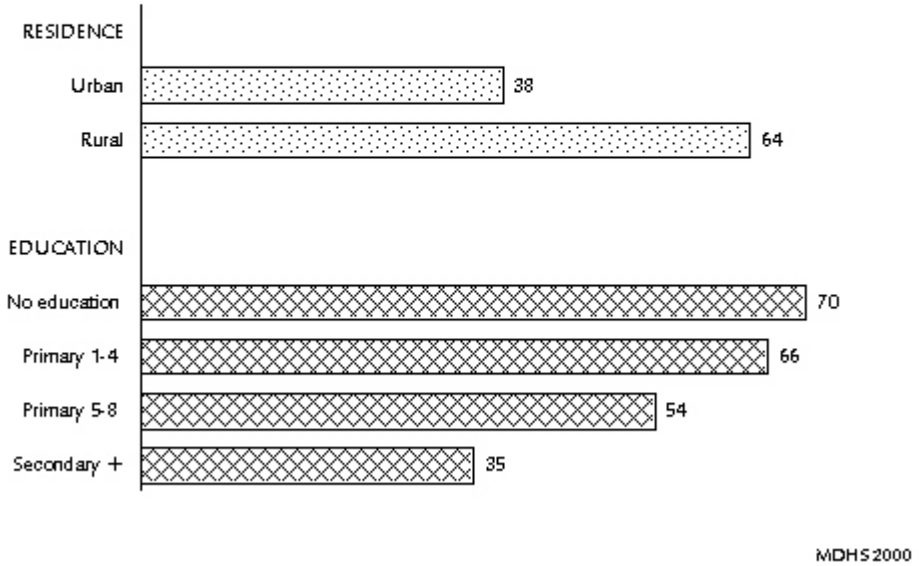
That money and time are found to be the major constraints to women's access to health services is no surprise; that these problems are most acutely felt among women living in remote parts of the country, and among women at lower socioeconomic levels is perhaps even less surprising. Still, these findings underscore the inequities in real access to health care in the country. As an example, 70 percent of women without formal education mention the cost of transport as a big problem for them in getting health services, compared with just 35 percent of women with some secondary education (Figure 9.3).

Table 9.15 Perceived problems in accessing women's health care by background characteristics

Percentage of women who reported they had a big problem in accessing health care for themselves, by type of problem and background characteristics, Malawi 2000

Background characteristic	Did not know where to go	Did not get permission to go	No money for treatment	Time required to get to health facility	Availability of transport	Cost of transport	Did not want to go alone	Concern that there may not be a female health provider	Any of the specified problems	Number
Age										
15-19	20.1	11.5	54.0	53.2	48.6	57.6	31.0	16.5	76.6	2,867
20-29	15.9	7.7	54.1	53.8	49.6	57.5	22.9	12.4	75.0	5,358
30-39	16.2	7.5	58.1	58.6	55.0	62.6	25.2	11.7	77.3	2,990
40-49	17.3	8.2	62.1	62.9	60.4	66.7	29.0	12.6	82.2	2,004
Number of living children										
0	19.6	11.1	53.5	52.9	47.6	57.0	30.7	17.0	75.8	3,216
1-2	16.2	8.0	55.1	54.6	50.7	58.4	23.1	12.4	75.9	4,628
3-4	16.2	7.0	57.1	57.8	54.9	61.6	24.9	11.1	76.6	2,877
5+	16.6	8.2	60.8	61.4	58.1	65.2	27.1	12.0	80.7	2,499
Marital status										
Never married	19.3	10.7	53.4	51.1	46.2	57.3	31.3	16.9	75.2	2,243
Married	16.5	8.0	55.4	56.6	52.8	59.5	24.8	12.5	76.7	9,452
Divorced, separated, widowed	17.7	9.0	65.4	60.5	57.8	67.7	26.5	11.6	81.0	1,525
Residence										
Urban	6.4	4.3	38.0	32.1	23.1	37.9	11.4	6.8	52.1	2,106
Rural	19.1	9.4	59.7	60.7	57.8	64.2	28.9	14.4	81.7	11,114
Region										
Northern	13.2	10.1	38.4	44.7	41.1	28.3	19.2	10.6	59.7	1,453
Central	19.0	9.2	52.0	51.6	48.2	58.4	25.0	13.1	75.5	5,321
Southern	16.3	7.7	63.7	62.5	58.2	68.6	28.5	13.8	82.0	6,446
Education										
No education	18.2	9.6	65.2	63.5	60.5	69.9	27.1	14.1	83.6	3,574
Primary 1-4	19.5	10.0	60.1	60.7	58.6	66.4	28.4	14.1	82.9	4,025
Primary 5-8	16.8	8.2	51.9	53.2	48.1	54.1	26.4	13.6	73.7	4,152
Secondary+	8.6	3.0	36.0	34.0	26.8	35.2	16.5	7.1	53.9	1,468
Total	17.1	8.6	56.2	56.2	52.3	60.0	26.1	13.2	76.9	13,220

Figure 9.3 **Percentage of Women Who Reported the Cost of Transport as a "Big Problem" for Them in Accessing Health Care for Themselves, by Background Characteristics**



INFANT FEEDING, NUTRITIONAL PRACTISES, AND NUTRITIONAL STATUS AMONG YOUNG CHILDREN AND WOMEN

10

Habib Somanje and George Bicego

Malnutrition is one of the most important health and welfare problems facing Malawians today. Young children and women of reproductive age are especially vulnerable to nutritional deficits and micronutrient deficiency disorders. The 2000 MDHS survey collected data from mothers on the feeding patterns of their children under five years of age. In this chapter, these data are used to evaluate infant feeding practises, including breastfeeding durations, introduction of complementary weaning foods, and use of feeding bottles. Other important nutritional issues, including the level of vitamin A and iron supplementation and the iodisation of salt used in the household are also discussed. Last, the nutritional status of all under-five children and all women age 15-49, based on anthropometric indices (height and weight measures), is presented and discussed.

10.1 Breastfeeding and Supplementation

The pattern of infant feeding has an important influence on the health of both the child and the mother. Feeding practises are the underlying determinants of a child's nutritional status. Poor nutritional status in young children exposes them to greater risk of illness and death. Breastfeeding also affects mothers through its biological suppression of the return to fertile status, thereby influencing the length of the interval between pregnancies and the pregnancy outcome. These effects are influenced by both the duration and frequency of breastfeeding and by the age at which the child receives foods and liquids to supplement breast milk.

10.1.1 Initiation of Breastfeeding

Colostrum, which appears right after delivery and before a mother's milk comes, has been shown to be highly nutritious and to contain a high concentration of antibodies that protect babies from infection before the child's immune system has matured. To facilitate the early initiation of breastfeeding, women delivering at home and in health facilities in Malawi are increasingly encouraged to ensure that their newly born babies are breastfed soon after birth and thereafter on demand. Bottle-feeding is discouraged, and mothers are educated to breastfeed exclusively until the child is 4-6 months old.

Table 10.1 shows that breastfeeding is nearly universal in Malawi, with 98 percent of children born in the last five years having been breastfed.[1] Overall, 72 percent of children were breastfed within an hour of delivery and 97 percent within the first 24 hours after delivery. Variation among population subgroups is minimal, but certain characteristics tend to decrease the chance that a child will be breastfed within an hour of delivery. Residence in the Central Region and nonuse of medically trained personnel at delivery are associated with a smaller likelihood of initiating breastfeeding within an hour of delivery.

[1] The remaining 2 percent are composed, in large part, of children who died during the neonatal period and were probably unable to start breastfeeding.

Table 10.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and among children ever breastfed the percentage who started breastfeeding within one hour and within one day of birth, and who received additional food or liquid before the mother's milk began flowing, by background characteristics, Malawi 2000

Background characteristic	Percentage ever breastfed	Number of children	Percentage who started breastfeeding: Within 1 hour of birth	Within 1 day of birth[1]	Percent who received additional food or liquid before milk began flowing[2]	Number of children ever breastfed
Sex						
Male	97.9	6,079	71.9	96.8	2.1	5,954
Female	98.6	6,122	72.2	97.1	2.2	6,037
Residence						
Urban	99.1	1,502	76.1	96.9	2.3	1,489
Rural	98.2	10,698	71.5	96.9	2.1	10,502
Region						
Northern	97.9	1,334	74.4	96.9	2.5	1,306
Central	98.2	5,287	66.0	95.8	2.0	5,193
Southern	98.4	5,580	77.3	98.0	2.2	5,492
Mother's education						
No education	98.3	3,897	72.1	97.1	2.2	3,829
Primary 1-4	97.7	3,911	70.4	96.3	2.0	3,822
Primary 5-8	98.8	3,611	73.5	97.6	1.9	3,566
Secondary+	99.0	782.0	73.8	96.0	3.2	774
Assistance at delivery						
Health professional[3]	98.6	6,778	74.6	97.3	2.2	6,680
Traditional birth attendant	98.3	2,768	69.2	96.8	1.9	2,722
Other	97.5	2,322	70.4	97.5	2.4	2,264
No one	97.7	297	61.1	94.7	1.7	290
Total	98.3	12,201	72.1	96.9	2.1	11,991

Note: Table is based on both living and dead children. Total includes 34 cases missing data for assistance at delivery.
[1] Includes children who started breastfeeding within one hour of birth.
[2] Children given something other than breast milk during the first three days of life before the mother started breastfeeding regularly.
[3] Doctor, nurse, or midwife

10.1.2 Age Pattern of Breastfeeding

Breast milk is uncontaminated and contains all the nutrients needed by children in the first four to six months of life. Supplementing breast milk before 4 months of age is unnecessary and is strongly discouraged since the likelihood of contamination and resulting risk of diarrhoeal disease is high. Early supplementation also reduces breast milk output since the production and release of milk is modulated by the frequency and intensity of suckling.

Table 10.2 shows breastfeeding practises from birth through the third year of life. Breastfeeding remains prevalent throughout the first 18 months: at age 16-17 months, 95 percent of children are still breastfed. Even at 22-23 months of age, two-thirds of children are being breastfed. However, by late in the second year, breastfeeding is rapidly reduced so that by 26-27 months of age just one-third of children are still breastfed. Virtually all children are completely weaned by their third birthday.

Table 10.2 Breastfeeding status by child's age

Percent distribution of youngest living children under three years of age by breastfeeding status, according to child's age in months, Malawi 2000

			Breastfeeding and:							
Child's age in months	Not breast-feeding	Exclusively breastfed	Plain water only	Water-based liquids, juice	Other milk	Comple-mentary foods	Don't know Missing	Total	Using a bottle with a nipple	Number
<2	0.0	78.4	8.8	0.0	1.0	7.3	4.5	100.0	2.0	348
2-3	0.1	50.4	8.7	1.2	1.8	30.8	7.0	100.0	1.9	445
4-5	0.0	12.2	3.4	0.5	0.3	79.6	4.2	100.0	3.1	464
6-7	0.1	3.5	0.9	0.7	0.5	92.0	2.3	100.0	2.2	414
8-9	0.2	1.6	0.7	0.4	0.0	94.9	2.2	100.0	2.6	385
10-11	1.5	0.0	1.5	0.2	0.0	96.0	0.8	100.0	4.7	427
12-13	2.1	0.4	0.0	0.0	0.0	97.0	0.6	100.0	7.7	418
14-15	1.4	0.8	0.0	0.3	0.0	97.2	0.4	100.0	5.4	362
16-17	4.6	0.8	0.3	1.3	0.0	91.3	1.6	100.0	3.7	341
18-19	10.0	0.5	0.0	0.0	0.0	89.1	0.4	100.0	4.7	369
20-21	15.2	0.0	0.0	0.0	0.0	84.1	0.7	100.0	3.2	347
22-23	32.5	0.2	0.0	0.4	0.0	66.9	0.0	100.0	3.9	320
24-25	45.7	0.0	0.0	0.4	0.0	54.0	0.0	100.0	4.1	328
26-27	65.3	0.2	0.4	0.0	0.0	34.0	0.0	100.0	5.1	305
28-29	73.1	1.6	0.2	0.0	0.0	25.2	0.0	100.0	2.7	275
30-31	81.9	0.0	0.0	0.0	0.0	18.1	0.0	100.0	2.7	243
32-33	87.1	1.5	0.0	0.0	0.0	11.4	0.0	100.0	1.2	196
34-35	92.8	0.0	0.0	0.0	0.0	7.2	0.0	100.0	2.8	193
<4	0.0	62.7	8.8	0.7	1.5	20.5	5.9	100.0	1.9	793
4-5	0.0	12.2	3.4	0.5	0.3	79.6	4.2	100.0	3.1	464
6-9	0.1	2.6	0.8	0.6	0.2	93.4	2.3	100.0	2.4	799

Note: Breastfeeding status based on mother's reports in to last 24 hours.

Exclusive breastfeeding[2] is much more common than it was in the early 1990s. The 2000 MDHS data indicate that 63 percent of children under 4 months of age are exclusively breastfed, compared with just 3 percent in the 1992 MDHS survey. The biggest observed change is a large decrease in the percentage of children under 4 months of age that are given just plain water, which is unnecessary if a child is breastfed exclusively. Just 9 percent of children under 4 months are receiving plain water (in addition to breast milk). Early introduction of complementary foods (to children under 4 months) has decreased from 56 percent in the 1992 MDHS survey to 21 percent in the 2000 MDHS survey. These trends should improve prospects for child health and survival.

After the 0-3 month age period, exclusive breastfeeding drops off sharply to 12 percent at age 4-5 months and 3 percent at 6-9 months of age. Use of complementary foods rises to 80 percent by 4-5 months and 97 percent by the child's first birthday.

Use of a feeding bottle with a nipple in infants runs counter to the promotion of healthy breastfeeding and infant feeding practises in Malawi. Infant formula, even if correctly prepared, does not adequately substitute for breast milk. Moreover, formula is often mixed incorrectly leading

[2] Exclusive breastfeeding is the practise of feeding only with breast milk for the first four to six months of life as recommended by the World Health Organisation and UNICEF.

to undernutrition of infants. Last, formula and feeding bottles can easily become contaminated with disease-causing agents. Encouragingly, the 2000 MDHS findings indicate that use of feeding bottles in children under age 4 months has declined from 4 percent to 2 percent and among children 4-5 months old, from 10 percent to 3 percent.

Table 10.3 shows that, at the national level, the median duration of any breastfeeding is 24 months, 3 months longer than the 21 months based on the 1992 MDHS data. The median duration of exclusive breastfeeding is 2.0 months and predominant breastfeeding (breastfeeding exclusively or with plain water, water-based liquids, or juice) is 2.4 months. The duration and frequency of breastfeeding vary across background characteristics of the mother. Median length of breastfeeding tends to be longer in rural areas (25 months) than in urban areas (23 months) and among uneducated women (26 months), compared with women with secondary education (22 months). Although length of breastfeeding is longer in rural areas and among less educated women, the same women tend to exclusively breastfeed for shorter durations.

The daily frequency of breastfeeding in Malawi tends to be as recommended. Ninety-eight percent of children under 6 months of age were breastfed 6 times or more in the 24 hours preceding the survey. The average number of feeds was eight during the day and five during the night. The pattern of breastfeeding in the first six months varies little by background characteristics.

Table 10.3 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among last-born children born in the three years preceding the survey, and the percentage of breastfeeding children under six months who were breastfed six or more times in the 24 hours preceding the survey, and mean number of feeds (day/night), by background characteristics, Malawi 2000

	Median duration (months) of breastfeeding				Breastfeeding children under six months[3]			
						Mean number of feeds		
Background characteristic	Any breast-feeding	Exclusive breast-feeding	Pre-dominant breast-feeding[1]	Number of children[2]	Percentage breastfed 6+ times in last 24 hours	Day	Night	Number
Sex of child								
Male	24.4	2.0	2.4	3,359	97.0	7.6	5.4	629
Female	24.1	2.1	2.4	3,394	97.9	7.4	5.4	627
Residence								
Urban	22.7	2.5	3.1	877	97.8	8.6	5.8	148
Rural	24.6	2.0	2.4	5,876	97.4	7.3	5.4	1,108
Region								
Northern	23.4	2.1	2.4	765	95.7	6.8	5.4	134
Central	24.4	1.5	2.0	2,878	97.5	7.7	5.3	520
Southern	24.5	2.5	2.9	3,110	97.8	7.4	5.5	602
Mother's education								
No education	25.8	2.0	2.3	2,060	96.5	7.5	5.4	356
Primary 1-4	24.7	1.6	2.0	2,128	98.2	7.5	5.5	405
Primary 5-8	23.6	2.3	2.8	2,075	97.5	7.4	5.3	381
Secondary+	21.9	3.4	4.0	490	97.9	7.5	5.6	114
Median for all children	24.3	2.0	2.4	6,753	97.5	7.5	5.4	1,256
Mean for all children	23.8	3.3	3.9	6,753	na	na	na	na

na = Not applicable
[1] Either exclusively breastfed or received breast milk and plain water, water-based liquids, and/or juice.
[2] Based on both living or dead children.
[3] Excludes children who do not have a valid answer on number of times breastfed

10.1.3 Types of Complementary Foods

Table 10.4 presents information on the types of foods received by children in the first three years of life, according to whether or not the child is still being breastfed. Under 4 months of age, in addition to breast milk, about 25 percent of children receive some type of solid or semisolid food, mostly cereal-based foods like porridge. Very little of other food types is given at this age. By 4-5 months of age, 83 percent of children are getting some type of solid or semisolid food (80 percentage get grain- or cereal-based food), and 18 percent are getting fluids other than breast milk. The percent of children getting fruits and vegetables of any type at 4-5 months of age is still low (7 percent), and just 7 percent receive foods rich in vitamin A, like mango, sweet potato, carrots, and papaya.

Table 10.4 Foods consumed by children in preceding 24 hours

Percentage of youngest children under three years of age living with their mother who consumed specific foods in the 24 hours preceding the interview, by breastfeeding status and child's age, Malawi 2000

Child's age in months	Infant formula	Other milk/ cheese/ yogurt	Other liquids[1]	Foods made from grains/ cereal	Fruit and vege-tables	Food made from roots or tubers[2]	Food made from legumes	Meat/ Poultry Fish/ Eggs	Any solid or semisolid food	Vitamin A rich foods[3]	Food made with oil/fat or butter	Number
BREASTFEEDING CHILDREN												
<2	1.0	0.8	1.0	7.3	0.0	0.2	0.0	0.3	9.7	0.3	0.0	348
2-3	2.1	1.0	3.5	30.7	1.3	0.4	0.7	0.4	36.1	2.0	0.0	445
4-5	1.8	2.1	14.1	79.6	7.4	2.1	1.6	2.9	82.6	7.4	0.8	462
6-7	1.9	4.2	30.4	91.9	27.0	8.4	9.9	15.6	95.9	30.1	3.1	413
8-9	2.9	6.3	40.8	93.8	51.1	17.9	19.9	28.7	96.7	55.2	6.0	385
10-11	4.7	7.7	48.2	96.8	63.8	33.4	27.7	35.4	98.8	69.0	9.2	420
12-13	3.8	6.5	49.8	98.4	74.6	30.1	32.0	44.1	100.0	78.4	10.1	408
14-15	4.7	7.2	57.4	95.7	77.6	43.1	32.4	39.4	99.3	81.6	8.3	357
16-17	1.2	8.7	55.4	92.6	72.7	43.4	30.2	41.7	98.7	78.0	9.9	324
18-23	2.5	7.5	57.4	95.4	78.4	46.8	33.8	43.4	99.7	84.7	8.2	842
24-29	1.3	6.0	48.9	94.0	79.8	55.1	28.6	39.4	100.0	85.3	5.6	358
30-35	1.6	2.9	41.0	94.0	75.3	45.3	31.5	32.8	100.0	78.5	6.4	82
<4	1.6	0.9	2.4	20.4	0.7	0.4	0.4	0.4	24.5	1.2	0.0	793
4-5	1.8	2.1	14.1	79.6	7.4	2.1	1.6	2.9	82.6	7.4	0.8	462
6-9	2.4	5.2	35.5	92.8	38.6	13.0	14.7	21.9	96.3	42.2	4.5	798
Total	2.5	5.3	38.2	81.3	50.4	26.9	20.7	27.4	85.1	54.0	5.7	4,844
NONBREASTFEEDING CHILDREN												
0-17	7.4	16.0	48.5	91.8	75.5	45.5	51.7	42.3	96.7	83.7	12.2	42
18-23	6.9	16.2	67.8	96.9	87.9	50.8	34.8	46.7	99.4	89.0	10.4	195
24-29	3.9	13.8	64.7	98.0	79.7	54.9	32.1	50.2	100.0	85.5	13.8	550
30-35	2.3	11.2	61.3	97.0	83.2	53.8	35.8	53.5	99.8	88.7	13.0	550
Total	3.8	13.1	63.2	97.3	82.2	53.5	34.6	50.8	99.7	87.3	12.9	1,337

Note: Breastfeeding status refers to last 24 hours. Food consumed in the 24 hours refer to consumption on the day and night preceding the interview. Percentage may sum to more than 100 percent because child may have received more than one type of supplement.
[1] Does not include plain water
[2] The category of tubers and roots also includes plantains and unripe bananas.
[3] Vitamin A rich foods include pumpkin, yellow squash, carrots, yellow sweet potatoes, green leafy vegetables, mangoes, and papayas. Does not include animal products.

By 6-9 months of age, all children should be receiving nutritious complementary foods in addition to breast milk. Virtually all children (96 percent) in this age group are receiving solid and semisolid foods, but the majority of these are not receiving important foods rich in vitamin A (mango, carrot, papaya, sweet potato); other fruits and vegetables; and meat, poultry, and eggs on a regular basis. Grain and cereal-based foods continue to dominate the infant feeding picture.

The percentage of children receiving foods rich in vitamin A; fruits and vegetables; roots and tubers (e.g., potatoes); and meat, fish, poultry, or eggs in the last 24 hours increases and then levels off at age 9-17 months. The percentage of children receiving foods rich in vitamin A increases to about 80 percent at age 12-13 months and then plateaus. The same applies to feeding of fruits and vegetables (about 75 percent). About 40 percent of children have started to receive meat, poultry, fish, or eggs by 12-13 months of age. Nearly one-half of children are receiving some type of tuber, root, or plantain by the age of 18 months.

Once a child is weaned from the breast, which occurs for most children between 18 and 24 months of age, the diet tends to stabilize at the following pattern: virtually all children receive grain or cereal-based foods; 80 to 85 percent of children receive fruits or vegetables; nearly 85 to 90 percent get foods rich in vitamin A; about 50 percent receive meats, poultry, fish, or eggs; one-third of children receive beans, legumes, or lentils; and 50 to 55 percent get tubers, roots, or plantains. Only 10 to 15 percent of children are getting some oils or fats added to their daily diet.

Infant formula is rarely used in Malawi; use of formula peaks during age 8-15 months for 3 to 5 percent of children. Use of other types of milk (e.g., cow's milk) and milk products is also not very common, peaking at 6 to 9 percent of children during age 8-29 months among breastfed children. When children are weaned, this percentage roughly doubles.

10.1.4 Frequency of Foods Consumed by Children

The nutritional requirements of young children are more likely to be met if they are fed a variety of foods. In the 2000 MDHS survey, interviewers read a list of specific foods or food types and asked the mother to report the number of times during the last 24 hours a child had consumed each food. Table 10.5 shows the pattern of complementary feeding by food type for children under age three.

By age six months, children should be receiving solid foods in their diet in addition to breast milk. The frequency of use of plain porridge, a principle weaning food, peaks during age 4-9 months at 1.4 to 1.5 times per day. Other similar foods, including enriched porridge and other grain-based foods and drinks (e.g., thobwa, a fermented maize-based drink) are also increasingly given to children starting late in the first year.

For children who are no longer breastfeeding, the need for varied and substantial nutritional inputs, is even greater than before weaning. The MDHS data show that among children who are fully weaned, principally those 24-35 months, the foods given most frequently are cereal-based foods (nsima, bread, and rice) and porridge at more than two times per day. Green leafy vegetables are given, on average, about once a day. Other foods rich in vitamin A, like carrots, pumpkin, mango, and papaya are also provided but with less frequency. Foods with a high protein content include meats, fish, poultry, and eggs as well as beans and other legumes. The data indicate that each of these two categories of foods is given to weaned children less than one time per day, on average.

Table 10.5 Frequency of foods consumed by children in preceding 24 hours

Mean number of times specific foods were consumed by youngest children under three years of age living with their mother in the 24 hours preceding the survey, by breastfeeding status and child's age, Malawi 2000

Child's age in months	Infant formula	Powdered/ tinned/ fresh milk	Fresh juice	Thobwa[1]	Any other liquid[2]	Cereal	Pumpkin/ yellow squash/ carrots/ yellow sweet potatoes	Green leafy vege-tables	Other vitamin A rich fruits/ vege-tables	Other fruits/ vege-tables	Tubers/ roots/ plantains	Beans/ legumes/ lentils	Meat/ fish/ poultry/ eggs	Plain porridge	Enriched porridge	Other foods con-sumed	Oils/ fats/ butter/ margarine	Number
BREASTFEEDING CHILDREN																		
<2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	348
2-3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.0	445
4-5	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.4	0.1	1.3	0.0	462
6-7	0.0	0.1	0.1	0.1	0.4	0.5	0.0	0.3	0.1	0.1	0.1	0.1	0.2	1.5	0.2	1.8	0.1	413
8-9	0.1	0.1	0.1	0.2	0.4	1.1	0.1	0.6	0.1	0.3	0.2	0.2	0.4	1.4	0.3	2.1	0.1	385
10-11	0.1	0.1	0.1	0.3	0.5	1.5	0.2	0.8	0.1	0.4	0.4	0.3	0.5	1.1	0.3	2.3	0.1	420
12-13	0.1	0.1	0.1	0.3	0.5	1.7	0.1	0.8	0.2	0.5	0.3	0.4	0.6	1.1	0.3	2.4	0.1	408
14-15	0.1	0.1	0.2	0.4	0.5	1.6	0.2	0.9	0.2	0.4	0.5	0.4	0.5	1.1	0.2	2.4	0.1	357
16-19	0.0	0.1	0.2	0.3	0.5	1.6	0.2	0.9	0.2	0.4	0.4	0.4	0.6	1.1	0.2	2.5	0.1	324
18-23	0.1	0.1	0.1	0.4	0.6	1.8	0.2	1.0	0.3	0.5	0.5	0.4	0.6	0.9	0.2	2.5	0.1	842
24-29	0.0	0.1	0.1	0.4	0.5	1.8	0.3	1.1	0.2	0.5	0.7	0.4	0.5	0.8	0.1	2.5	0.1	358
30-49	0.0	0.1	0.1	0.5	0.3	1.9	0.2	1.0	0.2	0.4	0.5	0.4	0.4	0.8	0.2	2.6	0.1	82
<4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	793
4-5	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.4	0.1	1.3	0.0	462
6-9	0.0	0.1	0.1	0.2	0.4	0.8	0.0	0.4	0.1	0.2	0.1	0.2	0.3	1.5	0.3	1.9	0.1	798
Total	0.0	0.1	0.1	0.2	0.4	1.1	0.1	0.6	0.1	0.3	0.3	0.3	0.4	1.0	0.2	1.9	0.1	4,844
NONBREASTFEEDING CHILDREN																		
0-17	0.1	0.3	0.1	0.5	0.8	1.6	0.1	1.0	0.2	0.5	0.5	0.8	0.6	1.1	0.1	2.6	0.2	42
18-23	0.1	0.2	0.2	0.5	0.9	1.8	0.2	1.1	0.3	0.6	0.6	0.4	0.6	1.0	0.3	2.7	0.2	195
24-29	0.1	0.2	0.1	0.4	0.8	1.9	0.2	1.0	0.2	0.5	0.6	0.5	0.7	0.8	0.2	2.7	0.2	550
30-35	0.0	0.2	0.1	0.4	0.7	1.9	0.2	1.1	0.3	0.6	0.6	0.5	0.7	0.8	0.2	2.7	0.2	550
Total	0.1	0.2	0.1	0.4	0.8	1.9	0.2	1.1	0.3	0.5	0.6	0.5	0.7	0.8	0.2	2.7	0.2	1,337

Note: Breastfeeding status refers to last 24 hours. Percentage may sum to more than 100 because the child may have received more than one type of supplement.
[1] *Thobwa* is a fermented maize-based drink
[2] Does not include plain water

10.1.5 Micronutrients

Micronutrient deficiencies constitute a serious threat to child health and survival. The 2000 MDHS survey collected various types of data that are useful in assessing the micronutrient status and intake of young children and women.

Micronutrient Status of Young Children

In addition to vitamin A derived through one's diet (foods and food fortification), vitamin A supplements may be received by children as part of primary prevention programmes. Women may get vitamin A supplements during the postpartum period to assist both the women and their breastfeeding children. Vitamin A is an essential micronutrient for the normal functioning of the visual system, growth and development, resistance to disease, and reproduction. It is now understood that improvement of the vitamin A status of young children reduces mortality rates.

Table 10.6 shows that 61 percent of children under age three received some type of food containing vitamin A in the last 24 hours. A question was also asked in the MDHS survey for all children under age five as to whether the child received a vitamin A supplement in the six months preceding the survey.[3] Sixty-five percent of children were reported to have recently received a supplement. As expected, the youngest children (under 7 months) were least likely to have either eaten foods rich in vitamin A or to have received a vitamin A supplement. Urban children are less likely than rural children to have received a vitamin A supplement in the last six months but were more likely to have eaten foods rich in vitamin A. District differentials are fairly substantial, with supplementation rates as low as 50 percent in Salima District and as high as 78 percent in Machinga District. Differences in vitamin A supplementation by mother's education and birth order and sex of the child are minimal.

In the 2000 MDHS survey, households were asked to present a sample of ordinary salt used in the household. The iodine content of salt was measured using a rapid test kit developed by UNICEF. Salt containing at least 15 ppm (parts per million) is considered to be adequately iodised. Disorders induced by dietary iodine deficiency constitute a major global nutrition concern. Iodine deficiency in the fetus leads to increased rates of abortion, stillbirths, congenital anomalies, cretinism, psychomotor defects, and neonatal mortality. In children and adults, the effects are demonstrated as goitre, hypothyroidism, impaired mental functions, retarded mental and physical development, and diminished school performance. Iodine deficiency can be avoided by using salt that has been fortified with iodine.

Table 10.5 shows that less than one-half (49 percent) of children under age 5 live in households possessing adequately iodised salt. Iodisation of salt is more prevalent in urban areas, in the Northern Region, and in households where the children's mothers are more educated. Variation among Malawi's districts is substantial (Figure 10.1). In Machinga District, where significant amounts of raw salt are imported from Mozambique, only 22 percent of children live in households with iodised salt, compared with more than 62 percent in Kasungu, Blantyre, and Thyolo districts.

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[3] The interviewer showed a vitamin A capsule to the mother when asking the question to assist the mother in recalling.

Table 10.6 Micronutrient intake of children

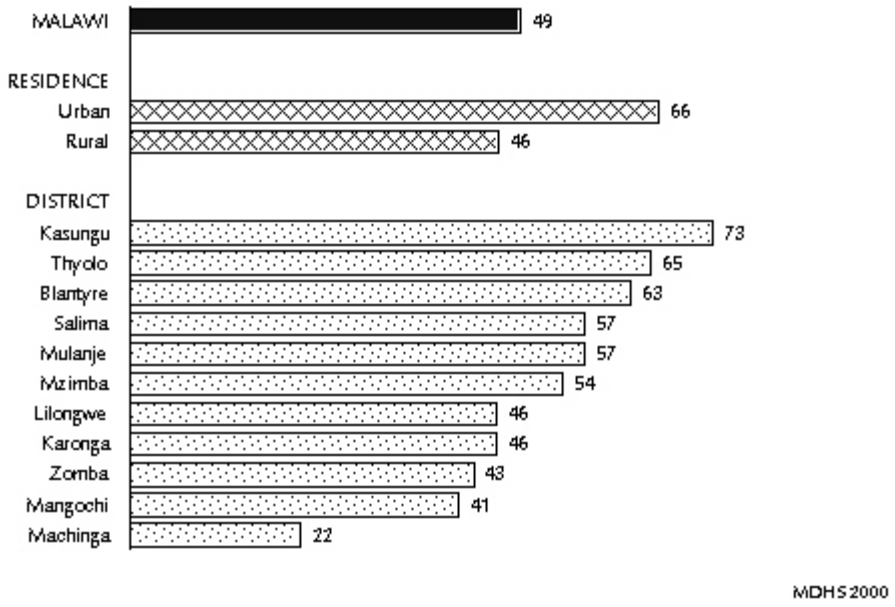
Percentage of youngest living children under three years of age living with the mother who consumed vitamin A rich foods, percentage of youngest living children under five years of age living with the mother who received vitamin A supplements, and percentage of children under five living in households using adequately iodised salt, by background characteristics, Malawi 2000

Background characteristic	Vitamin A rich foods[1]	Number of children under 3	Vitamin A supplement in last 6 months	Iodine in household salt 15+ ppm	Number of children under 5
Child's age in months					
<7	6.4	1,467	27.7	48.4	1,467
7-11	57.3	1,016	72.9	44.9	1,016
12-17	79.7	1,121	79.8	46.0	1,121
18-23	85.5	1,037	79.3	49.5	1,037
24-35	86.2	1,540	74.7	49.8	1,540
36-47	na	na	71.6	53.7	854
48-59	na	na	58.0	53.4	432
Sex of child					
Male	61.2	3,068	64.5	49.5	3,697
Female	61.2	3,113	66.1	48.3	3,769
Birth order					
1	60.3	1,358	65.3	52.3	1,537
2-3	60.7	2,211	64.9	48.0	2,597
4-5	62.0	1,300	65.8	47.7	1,554
6+	62.4	1,313	65.5	48.3	1,779
Mother's age at birth					
<20	61.0	1,176	65.2	49.8	1,339
20-24	60.5	1,984	64.4	50.8	2,308
25-29	60.8	1,407	65.7	46.8	1,687
30-34	64.1	797	66.7	47.1	1,001
35-39	62.7	551	64.1	50.7	733
40-44	61.2	198	67.3	48.4	307
45-49	51.2	67	67.8	34.5	92
Mother's education					
No education	59.8	1,897	63.2	41.9	2,322
Primary 1-4	59.8	1,914	65.4	47.1	2,333
Primary 5-8	63.4	1,905	67.7	53.9	2,236
Secondary+	64.2	465	64.1	65.4	575
Residence					
Urban	66.9	809	58.2	66.3	987
Rural	60.4	5,372	66.4	46.2	6,480
Region					
Northern	61.1	699	68.2	59.2	822
Central	63.0	2,647	65.4	46.8	3,200
Southern	59.6	2,835	64.5	48.4	3,445
Districts					
Blantyre	66.0	469	53.1	62.8	568
Karonga	59.9	123	71.8	46.0	146
Kasungu	66.3	253	65.6	73.1	303
Lilongwe	65.6	913	65.1	46.0	1,120
Machinga	61.0	233	78.2	21.5	285
Mangochi	60.0	320	56.9	41.3	385
Mulanje	65.7	273	63.6	57.0	330
Mzimba	64.4	297	63.4	54.3	352
Salima	58.7	132	49.9	57.1	171
Thyolo	54.5	276	65.8	65.3	354
Zomba	60.2	376	65.8	43.1	440
Other districts	58.7	2,516	68.3	45.6	3,012
Total	61.2	6,181	65.3	48.9	7,467

na = Not applicable

[1] Vitamin A rich foods include pumpkin, yellow squash, carrots, yellow sweet potatoes, green leafy vegetables, mangoes, and papayas. Does not include animal products.

Figure 10.1 Percentage of Children under Age 5 Who Live in Households That Use Adequately Iodised Salt



Micronutrient Status and Supplements for Women During and After Pregnancy

Provision of vitamin A supplements to women after delivery of a child is intended to boost stores and ensure adequate delivery of this essential micronutrient to the child in breast milk. The MDHS survey asked women whether they had received a vitamin A supplement in the two-month period after delivery of their last born child.[4] The women were also asked whether they had experienced any vision problems during the night time and (in a separate question) during the day.[5] Night blindness in pregnancy is a common manifestation of vitamin A deficiency (VAD).

Table 10.7 shows that 41 percent of women received a vitamin A supplement during the postnatal period. Variation in postpartum vitamin A supplementation by child's birth order and age of the mother is minimal. Supplementation is slightly higher in urban areas, in the Northern Region, and among women with more education. More substantial variation is found among the districts, ranging from just 32 percent in Salima District to 59 percent in Karonga District.

Table 10.7 also shows that about 4 percent of women with a recent birth experience night blindness, an indicator of VAD. Although the small percentages make it difficult to examine variation among subgroups of Malawi's population, certain observations are cautiously made. Night blindness is more prevalent among less educated women, women in rural areas, and women in the Central Region. District prevalence for night blindness ranges from 2 percent in Blantyre to 8 percent in Salima.

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[4] When the question was asked, the interviewer showed a vitamin A capsule to the respondent.

[5] Women are considered to experience night blindness if they report vision problems during the night, but not during the day.

Table 10.7 Micronutrient intake among mothers

Percentage of women who gave birth in the five years preceding the survey, who received vitamin A in the first two months after delivery, who suffered night blindness during pregnancy, and who took iron supplements during the pregnancy, by background characteristics, Malawi 2000

Background characteristic	Received vitamin A postpartum	Night blind during pregnancy	Iron on 90+ days during pregnancy	Number
Birth order				
1	41.4	4.2	12.9	1,703
2-3	43.3	4.1	11.4	2,780
4-5	41.3	4.2	13.4	1,664
6+	40.0	4.7	11.9	1,909
Mother's age at birth				
<20	41.4	3.3	11.8	1,487
20-24	41.8	4.3	11.2	2,482
25-29	42.6	4.4	13.3	1,787
30-34	44.1	4.4	13.9	1,073
35-39	38.0	5.3	11.3	787
40-44	38.3	5.4	13.1	340
45-49	44.0	3.4	12.3	101
Mother's education				
No education	38.3	4.1	9.9	2,477
Primary 1-4	39.3	5.5	11.0	2,531
Primary 5-8	44.9	3.4	14.5	2,434
Secondary+	52.2	3.3	17.5	615
Residence				
Urban	45.4	2.6	13.5	1,075
Rural	41.1	4.5	12.0	6,982
Region				
Northern	49.6	4.6	18.5	894
Central	39.2	5.3	9.0	3,407
Southern	42.1	3.3	13.7	3,757
Districts				
Blantyre	43.7	2.2	13.6	638
Karonga	59.2	5.5	18.7	157
Kasungu	42.1	5.9	13.5	316
Lilongwe	41.9	2.9	9.1	1,173
Machinga	52.2	2.5	7.2	314
Mangochi	35.5	3.3	10.4	412
Mulanje	36.2	3.1	11.5	368
Mzimba	38.7	4.9	18.3	382
Salima	31.9	8.0	5.5	189
Thyolo	43.4	2.5	9.8	397
Zomba	32.8	6.8	21.8	469
Other districts	42.8	5.0	12.1	3,242
Total	41.7	4.3	12.2	8,057

Iron-deficiency anemia is a major threat to maternal health; it contributes to low birth weight, lowered resistance to infection, poor cognitive development, and decreased work capacity. Further, anemia increases morbidity from infections because it adversely affects the body's immune response. The MDHS survey asked women who had a recent birth whether they had received or purchased any iron tablets (shown to the women) during their last pregnancy. If so, the woman was asked to report the number of days that the tablets were actually taken during that pregnancy. Interviewers assisted the respondent in converting responses provided on a daily or weekly basis to total number of days over the course of the pregnancy. Table 10.7 shows that 12 percent of women reported taking iron supplements on at least 90 days during the pregnancy, as

recommended. Although some groups of women were more likely than others to report taking iron supplements, no group reported supplementation rates exceeding 22 percent. Just 6 percent of women in Salima District reported the recommended level of iron supplementation during their last pregnancy, as compared with 22 percent in Zomba District.

10.2 Nutritional Status of Children under Age Five

The nutritional well-being of young children reflects household, community, and national investments in family health and contributes in both direct and indirect ways to the country's development. In collecting anthropometric data (height and weight), the MDHS survey permits objective measurement and evaluation of nutritional status of young children in Malawi. This evaluation allows identification of subgroups of the child population who are at increased risk of growth faltering, disease, impaired mental development, and death. Trends in child malnutrition can be assessed by comparing the 2000 MDHS survey results with those obtained from the 1992 MDHS survey, which used the same methods.

10.2.1 Measures of Nutritional Status in Childhood

Evaluation of nutritional status is based on the rationale that in a well-nourished population, there is a statistically predictable distribution of children of a given age with respect to height and weight of the child. Use of a standard reference population facilitates analysis of any given population over time as well as comparisons among population subgroups. One of the most commonly used reference populations, and the one used in this report, is the U.S. National Centre for Health Statistics (NCHS) standard, which is recommended for use by the World Health Organisation.

Three standard indices of physical growth that describe the nutritional status of children are presented:

- height-for-age
- weight-for-height
- weight-for-age.

Each of these indices gives different information about growth and body composition used to assess nutritional status. Height-for-age is a measure of linear growth. A child who is more than two standard deviations below the median of the NCHS reference population (i.e., >-2 SD) in terms of height-for-age is considered short for his/her age, or stunted, a condition that reflects the cumulative effect of chronic malnutrition. If the child is more than three standard deviations below the reference mean (i.e., >-3 SD), then the child is considered to be severely stunted. A child between -2 SD and -3 SD is considered moderately stunted.

Weight-for-height describes a child's current nutritional status. A child who is more than two standard deviations below the weight-for-height reference mean is considered too thin for his/her height, or wasted, a condition reflecting acute or recent nutritional deficit. As with stunting, wasting is considered severe if the child is more than three standard deviations below the reference mean. Severe wasting is closely linked to mortality risk.

Weight-for-age is a composite index of weight-for-height and height-for-age and thus does not distinguish between acute undernutrition (wasting) and chronic undernutrition (stunting). A

child can be underweight for his/her age because he/she is stunted, because he/she is wasted, or because he/she is wasted and stunted. Weight-for-age is a very good overall indicator of a population's nutritional health.

All surviving children in the household under age five were eligible for height and weight measurement. Of the 10,559 children under 60 months old at the time of the survey 9,967 (94 percent) were weighed and measured. The most commonly reported reason for not being measured was that the child was not home at the time of the survey (after repeated return visits). Of the children who were both weighed and measured, 654 (7 percent) were considered to have implausibly low or high values for height-for-age or weight-for-height. The following analysis focuses on the 9,318 children under 60 months of age for whom complete and plausible anthropometric data were collected. These children include only those whose mother was eligible for interview in the survey (i.e., women age 15-49 identified in the household schedule). The 2000 MDHS survey is different from previous DHS surveys (including the 1992 MDHS survey) in that children under age five whose mother was not in the household schedule (870 such children in this survey) were also weighed and measured. This allows for assessment of nutritional status of children whose mother is dead or otherwise not living with the child. Examination of these children shows that their nutritional status is not significantly different from the majority of children whose mother was living in the household. However, the following analysis focuses on the group of children whose mother was in the household to allow for the most robust comparisons with previous surveys.

10.2.2 Levels of Child Malnutrition

Table 10.8 shows the percentage of children under 60 months classified as malnourished according to height-for-age, weight-for-height, and weight-for-age indices, by the child's age and background characteristics.

The 2000 MDHS estimate of the prevalence of chronic malnutrition or stunting is 49 percent; almost one-half of these (24 percent of the total) are severely stunted. These estimates of stunting closely parallel those based on the 1992 MDHS data, suggesting no improvement in the long-term nutritional situation of young children over the last eight years. Figure 10.2 shows the distribution of children by age, according to the extent to which they differ from the reference population in terms of the three indicators discussed above, including low height-for-age (stunting). Clear from this presentation is the deterioration in nutritional status that begins shortly after birth. A rapid worsening in the linear growth of Malawian children begins during the first year, especially late in the first year, and continues through the second year, when stunting prevalence peaks at above 60 percent. The prevalence of stunting stays above 50 percent for the remainder of the under-five age period.

Boys are slightly more likely to be stunted than girls, as are children of high birth order compared with those of lower birth order. Children born after a long birth interval (more than 48 months) are less likely to be stunted than children born after shorter birth intervals.

The weight-for-height index gives information about children's recent experience with food intake and illnesses. Wasting represents failure to receive adequate nutrition in the period immediately preceding the survey and may be complicated and worsened by a recent illness. About 6 percent of children under five in Malawi are wasted; 1 percent are severely wasted. Wasting is most common during age 6-23 months, indicating that complementary feeding practises during the weaning period may be inadequate. The level of wasting estimated from the 2000 MDHS survey is 5.5 percent, virtually the same as that found in the 1992 MDHS survey (5.4 percent).

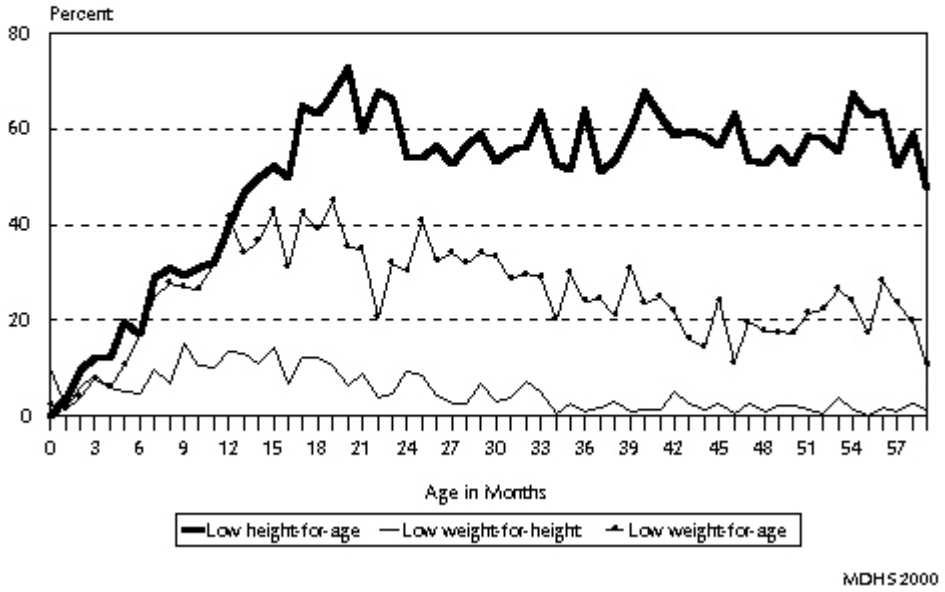
Table 10.8 Nutritional status of children by demographic characteristics

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Malawi 2000

Background characteristic	Height-for-age			Weight-for-height			Weight-for-age			Number
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	
Child's age in months										
<6	3.0	11.4	-0.4	1.3	5.8	0.4	1.3	5.9	0.0	1,005
6-9	10.2	26.4	-1.1	2.0	8.9	-0.3	5.0	23.9	-1.1	739
10-11	13.4	31.8	-1.2	2.7	10.3	-0.3	6.5	29.1	-1.2	375
12-15	21.4	46.5	-1.8	1.6	13.0	-0.4	11.4	38.9	-1.6	717
16-23	34.0	64.0	-2.4	1.9	8.2	-0.2	8.4	35.3	-1.5	1,305
24-35	29.4	55.6	-2.2	1.1	4.8	-0.1	8.8	31.1	-1.4	1,930
36-47	30.8	59.1	-2.3	0.7	2.1	0.2	3.4	21.3	-1.2	1,804
48-59	27.6	57.4	-2.2	0.6	1.5	0.2	3.5	20.5	-1.2	1,443
Sex of child										
Male	25.8	50.5	-2.0	1.2	5.1	0.0	6.0	25.7	-1.2	4,622
Female	23.0	47.6	-1.8	1.3	6.0	-0.0	5.7	25.1	-1.2	4,696
Birth order										
1	24.2	49.2	-1.9	1.3	5.7	-0.1	5.7	27.3	-1.2	1,990
2-3	23.8	48.7	-1.9	1.2	5.3	0.0	5.0	24.2	-1.2	3,278
4-5	23.0	47.4	-1.8	1.4	5.6	-0.0	6.4	24.5	-1.2	1,979
6+	26.9	50.8	-2.0	1.1	5.6	0.0	6.8	26.3	-1.2	2,071
Birth interval in months										
First birth	24.5	49.5	-1.9	1.3	5.8	-0.1	5.9	27.7	-1.2	2,010
<24 months	29.9	53.9	-2.1	1.2	5.8	0.0	9.4	29.3	-1.3	1,181
24-47 months	23.4	48.4	-1.9	1.0	4.8	0.0	4.6	23.0	-1.1	4,599
48+ months	22.9	46.2	-1.7	1.9	7.1	-0.1	6.8	26.5	-1.1	1,527
Residence										
Urban	13.5	34.2	-1.3	0.9	4.9	0.1	1.4	12.8	-0.7	1,220
Rural	26.1	51.2	-2.0	1.3	5.6	-0.0	6.5	27.3	-1.2	8,098
Region										
Northern	16.2	39.0	-1.5	1.0	4.7	-0.1	3.4	17.4	-1.0	1,027
Central	30.2	55.5	-2.1	1.2	5.0	0.1	6.7	27.9	-1.3	4,017
Southern	20.9	45.3	-1.7	1.3	6.2	-0.1	5.7	25.0	-1.1	4,273
Mother's education										
No education	28.5	54.1	-2.0	1.2	6.6	-0.0	6.9	29.0	-1.3	2,998
Primary 1-4	26.8	51.9	-2.0	1.4	5.2	-0.0	6.4	27.7	-1.2	2,932
Primary 5-8	21.1	45.4	-1.8	1.1	4.7	-0.0	5.0	22.6	-1.1	2,756
Secondary+	8.3	27.0	-1.1	1.1	5.6	0.1	2.1	9.7	-0.6	632
Districts										
Blantyre	13.5	38.1	-1.4	1.2	6.7	-0.1	3.8	18.0	-0.9	666
Karonga	14.6	38.8	-1.5	0.4	5.2	-0.0	3.1	16.0	-0.9	193
Kasungu	20.9	47.4	-1.8	0.6	2.7	0.1	2.8	20.7	-1.0	385
Lilongwe	31.6	54.2	-2.1	1.6	5.9	0.1	7.2	27.6	-1.2	1,416
Machinga	22.0	44.5	-1.8	0.3	3.3	-0.0	3.4	24.5	-1.1	367
Mangochi	24.2	47.5	-1.9	1.1	5.7	-0.1	8.5	28.8	-1.2	488
Mulanje	26.1	49.5	-2.0	1.1	4.0	-0.1	5.2	27.7	-1.3	418
Mzimba	17.8	43.9	-1.7	1.1	4.0	-0.1	3.3	18.7	-1.1	424
Salima	25.6	54.6	-2.1	1.8	5.7	-0.1	8.8	29.0	-1.3	202
Thyolo	23.3	46.3	-1.8	1.0	4.5	-0.0	5.5	25.9	-1.1	418
Zomba	21.4	45.7	-1.8	2.4	7.7	-0.1	7.8	24.6	-1.1	574
Other districts	25.8	51.3	-2.0	1.1	5.8	-0.0	6.0	26.9	-1.2	3,767
Total	24.4	49.0	-1.9	1.2	5.5	-0.0	5.9	25.4	-1.2	9,318

Note: This table refers to de facto children whose mothers were interviewed.
[1] Includes children who are below -3 standard deviations from the International Reference Population median

Figure 10.2 **Percentage of Children with Low Height-for-Age, Low Weight-for-Height, and Low Weight-for-Age, by Age of Child**



About one-quarter (25 percent) of children under five in Malawi are underweight—which reflects stunting, wasting, or both. Peak levels of low weight-for-age occur during the second year (age 12-23 months). Boys and girls are at equal risk of being underweight. The likelihood that a child will be severely underweight is highest when he/she is born after a birth interval of less than 24 months. Again, there has been little or no improvement in this broad index of nutritional status since the 1992 MDHS survey.

A child's nutritional status is in part determined by the socioeconomic situation of his/her household, which is in turn affected by where that household physically resides and the educational level the child's mother. For instance, children living in rural areas are 50 percent more likely to be stunted and 15 percent more likely to be wasted than their urban counterparts. Regional variation in nutritional status of children is substantial. Children living in the Northern Region tend to be better nourished than children in the Southern and Central regions. Stunting is extremely prevalent in the country's Central Region, where 56 percent of under-five children are too short for their age and where severe stunting is nearly twice as common as in the Northern Region. This regional pattern was also evident in the 1992 MDHS survey.

Differentials among Malawi's districts in the nutritional status of children are substantial. Children in the districts of Blantyre, Mzimba, and Karonga have underweight prevalence rates below 19 percent, compared with rates above 27 percent in Lilongwe, Mangochi, Mulanje, and Salima districts. Thirty-two percent of children in Lilongwe District are severely stunted, compared with 14 percent in Blantyre District.

Education of the mother is closely linked to nutritional status of children. Children of women with no education are three times more likely to be underweight as children of women with at least some secondary education.

10.3 Nutritional Status of Women

In the 2000 MDHS survey, data were collected on the height and weight of all women age 15-49. Several measures have been used to assess the nutritional status of women (Krasovec and Anderson, 1991). In this report, two indices are presented: the height of women and the body mass index (BMI)—an indicator combining height and weight measures. Of 13,220 women eligible for height assessment, 13,036 (99 percent) were measured. Of 11,281 women eligible for assessment of BMI (these exclude pregnant women and women less than two months postpartum), 11,125 women (99 percent) were weighed and measured and form the basis for the following analysis.

Table 10.9 presents the mean values of the maternal anthropometric indicators and the proportions of women falling into high-risk categories, according to background characteristics of women. Height of a woman is associated with past socioeconomic status and nutrition during her childhood and adolescence. Maternal height is also used to predict the risk of difficult delivery, since small stature is often associated with small pelvis size and the potential for obstructed labour. The risk of low birth weight is also increased in short women. The optimal cutoff point, below which a woman can be identified as "at risk", is in the range of 140 to 150 centimetres. The mean height of mothers measured in the MDHS survey was 156 centimetres. About 3 percent of mothers were less than 145 centimetres in height.[6] Women of relatively higher socioeconomic level, i.e., those with at least some secondary school, are taller on average and less likely than their less educated counterparts to be "at risk" due to shortness. Regional differences in height of women are minimal, but rural women are on average shorter than women in urban areas and are more likely to be less than 145 centimetres in height. Short stature is less prevalent in the Lilongwe and Blantyre districts than in other districts.

Various indices of body mass are used to assess thinness and obesity. The most commonly used body mass index is defined as the weight in kilograms divided by the squared height in metres. A lower cutoff point of 18.5 has been recommended for defining chronic energy deficiency. The mean BMI among the weighed and measured women was 21.9, with 9 percent having a BMI below 18.5, reflecting a nutritional deficit.

There are large differentials across background characteristics in the percentage of mothers assessed as malnourished or "too thin" based on the BMI. Rural women are much more likely to be too thin than urban women. Women with some secondary education are significantly less likely to have a low BMI than their less educated counterparts. Variations in low BMI among the regions are minimal; however, women in the Southern Region are slightly more likely (10 percent) than women in the other regions (8 percent) to have a low BMI. Figure 10.3 shows district variation in the prevalence of malnutrition among women. In Lilongwe and Blantyre districts, the prevalence of malnutrition is less than 7 percent, compared with more than 12 percent in Salima and Mulanje districts.

The BMI can also be used to evaluate the percentage of the population of women that is overweight and obese. A cutoff point of 25.0 has been recommended for defining "overweight". The 2000 MDHS survey finds that one in eight Malawian women (12 percent) is overweight. Two percent of women have a BMI of 30 or more (data not shown), which places them in a category of severely overweight or obese. Nearly one-quarter of women living in urban areas are overweight,

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[6] If 150 centimetres were used as the cutoff, 16 percent of women would be considered at risk.

compared with 10 percent in rural areas. Women in Blantyre are nearly three times as likely to be overweight as their counterparts living in Salima and Thyolo districts. Likewise, having attended secondary school is associated with a much higher proportion of a women being overweight, compared with women with less education. Taken together, these findings suggest that for many Malawian women, adoption of a modern lifestyle has had some unhealthy consequences.

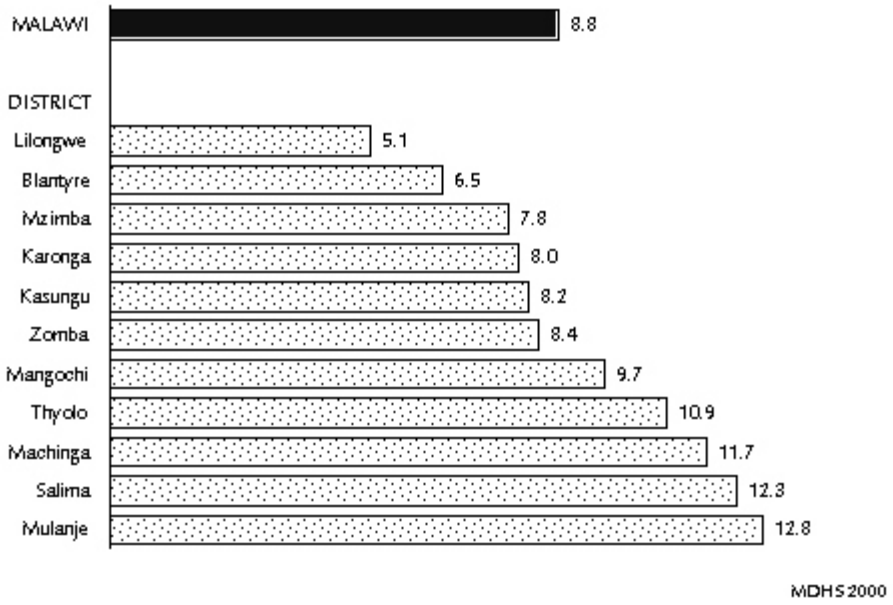
Table 10.9 Nutritional status of women by background characteristics

Among women age 15-49, mean height and percentage of women under 145 centimetres, mean body mass index (BMI), and percentage of women whose BMI (kg/m^2) is below 18.5 or above 25.0, by background characteristics, Malawi 2000

	Height			BMI			
Background characteristic	Mean	Percentage <145 cm	Number	Mean	Percentage <18.5	Percentage >25.0	Number[1]
Age							
15-19	154.5	4.9	2,805	20.9	16.6	5.3	2,457
20-24	155.9	2.7	2,913	21.8	6.7	9.5	2,276
25-29	155.9	2.6	2,379	22.1	6.0	13.2	1,947
30-34	156.6	2.1	1,549	22.2	7.2	13.4	1,301
35-39	156.1	2.1	1,409	22.7	5.6	19.3	1,259
40-44	156.2	2.6	1,042	22.6	6.1	17.8	976
45-49	156.2	2.0	938	22.2	8.3	13.4	910
Residence							
Urban	157.0	1.9	2,089	23.2	5.5	23.4	1,845
Rural	155.5	3.2	10,947	21.6	9.4	9.5	9,280
Region							
Northern	155.3	3.6	1,438	21.9	7.5	10.1	1,227
Central	156.1	2.5	5,236	22.0	7.7	12.0	4,416
Southern	155.5	3.3	6,362	21.8	9.9	12.1	5,482
Education							
No education	155.4	3.2	3,517	21.8	7.6	10.1	2,987
Primary 1-4	155.2	3.4	3,968	21.5	10.7	8.6	3,335
Primary 5-8	155.8	3.0	4,099	21.8	9.3	11.6	3,489
Secondary+	158.0	1.2	1,452	23.2	5.2	24.5	1,315
Districts							
Blantyre	157.0	1.6	1,305	22.9	6.5	22.8	1,155
Karonga	155.7	4.3	262	22.0	8.0	12.0	223
Kasungu	156.2	2.8	475	22.1	8.2	13.2	391
Lilongwe	156.7	1.4	1,844	22.4	5.1	15.6	1,554
Machinga	155.3	2.1	472	21.4	11.7	11.5	386
Mangochi	154.7	4.4	630	21.6	9.7	11.0	541
Mulanje	154.8	3.7	614	21.4	12.8	9.2	540
Mzimba	155.4	2.9	596	21.8	7.8	9.8	509
Salima	155.4	3.4	292	21.4	12.3	7.8	242
Thyolo	155.0	4.1	680	21.4	10.9	7.7	587
Zomba	155.5	2.9	841	21.7	8.4	10.4	730
Other districts	155.5	3.5	5,023	21.7	9.6	9.1	4,268
Total	155.8	3.0	13,036	21.9	8.8	11.8	11,125

[1] Excludes pregnant women and women who had a birth in the preceding two months.

Figure 10.3 **Prevalence of Chronic Energy Deficiency (Percent with BMI < 18.5) among Women Age 15-49, for Selected Districts**



AIDS AND OTHER SEXUALLY TRANSMITTED INFECTIONS

11

Henry Damisoni and George Bicego

Acquired immune deficiency syndrome (AIDS) is one of the most serious public health and development challenges to ever visit sub-Saharan Africa. In Malawi, it is estimated that 15 percent of adults age 15-49 are currently infected with the human immunodeficiency virus (HIV), the virus that causes AIDS (NACP, 2001). This would mean that 740,000 men and women will develop or already have developed AIDS. Further, 65,000 children under age 15 are estimated to be HIV infected. About three-quarters of all AIDS cases occur among people in the most economically productive age group, 20-45 years. The deaths of these individuals constitute personal, economic, and social tragedies in the lives of surviving family, friends, and employers.

The principal mode of HIV transmission in Malawi is heterosexual contact. This accounts for 90 percent of HIV infections in the country (UNAIDS, 2000). The duration between HIV infection and onset of AIDS varies but averages 9-10 years, and death typically ensues within 1-2 years of symptom onset.[1] This is followed in importance by perinatal transmission (9 percent of all HIV infections), whereby the mother passes HIV to the child during pregnancy or around the time of birth. It has been estimated that approximately 20 percent of babies born to HIV-positive mothers will be infected around the time of birth. About one-half of children infected perinatally will die before their fifth birthday. It is now understood that the virus may also be passed from mother to infant during breastfeeding.

The children of HIV-infected parents who are not themselves infected are still at a great disadvantage, due to health and social consequences of losing one or both parents to AIDS. It is estimated that between 1990 and 2000, the number of Malawian children under 15 who were living without one or both parents grew from about 740,000 to 1.20 million (Hunter and Williamson, 2000), with most of the increase being the result of sharp rises in the rates of adult mortality (see Chapter 12).

The future course of Malawi's AIDS epidemic depends on a number of important variables, including the level of public awareness about HIV/AIDS, the level and pattern of risk-related behaviours, access to high-quality services for sexually transmitted infections (STIs), and provision of HIV-testing and counseling. The impact of AIDS is now affecting all sectors of Malawian society, and the nation's response needs to be matched with multisectoral strategies and interventions. The National AIDS Control Programme (NACP) is on the leading edge of efforts to bring down barriers to effective HIV/AIDS programmes and has identified the key challenges and opportunities to galvanise an effective national effort in "Malawi's National Response to HIV/AIDS for 2000-2004: Combating HIV/AIDS with Renewed Hope and Vigour in the New Millennium" (NACP, 2001).

The data obtained from the 2000 MDHS survey provide a good opportunity to assess levels and trends in some of these factors. This chapter first presents findings about current levels of general and more specific knowledge on AIDS-related issues. Since knowledge of one's own HIV

[1] These estimates of survival times assume no use of antiretroviral therapies.

status is considered an important step leading to a constructive attitude and behaviour change, information on the respondents' experience with HIV-testing is provided. Next, findings are presented on knowledge of and experience with other sexually transmitted infections, which may be important cofactors in HIV transmission. The chapter concludes by providing information on patterns of sexual activity and condom use. The principle objective of this chapter is to establish the prevalence of relevant knowledge, perceptions, and behaviours at the national level and within geographic and socioeconomic subgroups of the population. In this way, AIDS control programmes can target those groups of individuals most in need of information and services and most vulnerable to the risk of HIV infection.

11.1 Knowledge of Ways to Prevent HIV/AIDS

Table 11.1 shows that general awareness of AIDS is nearly universal in Malawi, with 99 percent of women and almost 100 percent of men reporting that they had "heard of AIDS." Fewer, but still a large proportion of, women and men report that they think that there is "a way to avoid getting AIDS" (93 percent of women and 98 percent of men). Women and men living in rural areas and in the Northern Region are more likely to report that AIDS cannot be avoided than urban respondents and those living in the Central and Southern regions. Education is also strongly related to poor understanding of HIV/AIDS prevention. For example, less than 1 percent of women who ever attended secondary school reported that AIDS cannot be avoided, compared with 11 percent of women who have not attended school.[2]

If respondents reported that AIDS could be avoided, they were asked to report how "a person could avoid getting the AIDS virus." Two types of questions were asked about ways to avoid getting HIV/AIDS. First, an open-ended question was asked, and respondents were allowed to give all the ways to avoid HIV/AIDS that they knew of without prompting. Next, women and men were asked specific questions on whether condom use and (in a separate question) limiting their sexual activity to just one partner can reduce their chances of getting AIDS.

Table 11.2 provides results on AIDS prevention knowledge. The denominator or base for these estimates is all men and women (including those who reported that they did not know about HIV/AIDS at all, that they did not know whether it could be avoided, or that they thought it could not be avoided). The most frequently reported means to prevent HIV/AIDS was avoiding sex altogether, for both women (67 percent) and men (77 percent). Condom use was reported by 55 percent of women and 71 percent of men. Limiting the number of sexual partners was cited by 27 percent of women and 20 percent of men. Although HIV is rarely transmitted by sharing razor blades, 34 percent of women and 27 percent of men cited avoidance of this practise. All other means were reported much less frequently, but more than 10 percent of both women and men reported avoidance of injections as a means to prevent HIV/AIDS. The pattern of these reports indicates that the relative importance of different ways to prevent HIV infection in the population and the predominant role of unprotected sex with casual partners in the spread of HIV need to be better understood and accepted.

[2] This includes the small percentage who report that they do not know of AIDS.

Table 11.1 Knowledge of AIDS

Percentage of women and men who have heard of AIDS, and percentage who believe there is a way to avoid getting AIDS, by background characteristics, Malawi 2000

Background characteristic	Women			Men		
	Has heard of HIV/AIDS	Believes there is a way to avoid getting AIDS	Number	Has heard of HIV/AIDS	Believes there is a way to avoid getting AIDS	Number
Age						
15-19	98.3	91.5	2,867	99.1	96.4	660
20-24	99.0	94.5	2,957	99.7	98.0	598
25-29	99.3	93.8	2,401	99.7	98.0	539
30-39	99.3	93.6	2,990	100.0	98.8	670
40-49 (men, 40-54)	98.6	91.9	2,004	99.8	97.1	624
Current marital status						
Married or living together	99.1	93.3	9,452	99.9	98.5	1,906
Divorced, separated, widowed	98.8	93.1	1,525	98.5	93.6	113
Never married						
Ever had sex	99.0	95.3	868	99.7	98.5	767
Never had sex	97.4	90.6	1,375	98.3	91.8	306
Residence						
Urban	99.8	99.0	2,106	99.9	98.0	564
Rural	98.7	92.0	11,114	99.6	97.6	2,528
Region						
Northern	99.4	90.4	1,453	99.2	95.2	351
Central	98.9	91.9	5,321	99.8	98.1	1,296
Southern	98.8	94.7	6,446	99.6	97.9	1,446
Education						
No education	97.8	88.8	3,574	99.2	94.9	322
Primary 1-4	98.7	91.7	4,025	99.2	97.2	898
Primary 5-8	99.8	96.0	4,152	99.9	98.0	1,243
Secondary+	99.8	99.5	1,468	100.0	99.2	629
Total	98.9	93.1	13,220	99.7	97.7	3,092

AIDS prevention programmes focus their messages and efforts on three important aspects of behaviour: use of condoms, limiting the number of sexual partners/staying faithful to one partner, and delaying sexual debut in young persons (i.e., abstinence). In the first three columns of Table 11.3, the percent distributions of men and women who reported 0, 1, or 2 to 3 of these ways to avoid AIDS are shown. Eighty-five percent of women and 92 percent of men knew of 2 or 3 ways to avoid getting HIV/AIDS. Women were nearly twice as likely as men to report 0 or just 1 of the key AIDS prevention methods (15 percent for women, 8 percent for men). Other characteristics related to knowledge of ways to prevent HIV infection include age, sexual activity, education, and residential characteristics. The link between educational level of the respondent and AIDS prevention knowledge is a strong one. Only 5 percent of women with secondary education knew fewer than two ways of AIDS prevention, compared with 21 percent of women with no schooling. Significantly, young respondents (age 15-19) and those reporting that they never had sex knew fewer AIDS prevention methods than older, sexually experienced men and women.

Table 11.2.1 Knowledge of ways to avoid HIV/AIDS: women

Percentage of all women 15-49 who know of specific ways to avoid HIV/AIDS, by background characteristics, Malawi 2000

Background characteristic	Abstain from sexual relations	Use condoms	Limit number of sexual partners	Avoid sex with partners who have multiple partners	Avoid sex with prosti-tutes	Avoid trans-fusions	Avoid injections	Avoid sharing razors/ blades	Avoid kissing	Avoid mosquito bites	Seek protection from trad. healer	Other	Number of women[1]
Age													
15-19	64.7	55.1	21.1	2.8	4.1	3.3	11.7	36.1	0.9	0.3	1.0	1.7	2,867
20-24	66.4	59.9	28.4	2.8	4.3	3.3	9.2	32.9	0.5	0.5	0.5	2.0	2,957
25-29	67.2	55.2	29.6	1.9	5.3	3.2	10.6	35.1	0.4	0.4	0.9	1.9	2,401
30-39	69.6	52.4	29.5	2.3	3.9	2.8	11.6	33.2	0.3	0.1	1.1	1.7	2,990
40-49	68.0	48.3	29.5	2.5	3.4	3.2	9.8	30.4	0.4	0.1	1.1	1.6	2,004
Current marital status													
Married or living together	66.3	53.3	29.7	2.3	4.3	2.9	10.7	32.6	0.5	0.2	0.8	1.9	9,452
Divorced, separated, widowed	69.0	60.2	25.9	3.1	4.0	2.4	8.3	31.4	0.3	0.1	1.0	1.2	1,525
Never married													
Ever had sex	70.7	70.8	20.7	3.2	4.4	4.7	10.2	36.6	0.9	0.5	1.6	1.8	868
Never had sex	68.7	46.9	18.0	2.1	3.9	4.3	12.7	41.9	1.0	0.7	1.0	1.9	1,375
Residence													
Urban	76.1	65.9	33.8	2.3	2.9	3.9	11.3	34.6	0.5	0.7	0.9	0.6	2,106
Rural	65.4	52.4	26.2	2.5	4.5	3.0	10.5	33.5	0.5	0.2	0.9	2.0	11,114
Region													
Northern	61.7	39.9	24.2	3.1	2.6	2.4	11.1	26.6	0.7	1.1	1.8	1.0	1,453
Central	61.6	46.4	30.3	2.5	5.1	2.8	11.5	31.4	0.3	0.2	0.4	2.2	5,321
Southern	72.9	64.7	25.8	2.3	3.9	3.6	9.8	37.1	0.7	0.1	1.1	1.7	6,446
Education													
No education	62.9	45.2	27.9	2.5	4.2	2.5	7.6	29.2	0.4	0.2	0.6	1.4	3,574
Primary 1-4	63.7	53.7	28.5	2.3	4.2	2.4	8.1	31.7	0.4	0.1	0.8	2.1	4,025
Primary 5-8	70.5	58.7	25.2	2.2	4.2	3.1	13.6	36.3	0.4	0.3	1.3	2.0	4,152
Secondary+	77.0	68.1	30.0	3.4	4.5	6.8	16.4	42.4	1.5	0.9	1.2	1.2	1,468
Total	67.1	54.6	27.4	2.5	4.2	3.1	10.6	33.7	0.5	0.3	0.9	1.8	13,220

[1] Includes women who do not know AIDS and those who believe there is no way to avoid HIV/AIDS.

On the right side of Table 11.3 are the MDHS results when prompting is used to ascertain whether women and men know about condom use and about limiting the number of sexual partners as ways to avoid HIV infection. When women are prompted, their reported knowledge of condom use for HIV/AIDS protection rises from 55 percent (unprompted) to 77 percent. In the same way, men's knowledge rises from 71 to 86 percent. Without prompting, 27 percent of women and 20 percent of men reported limiting the number of sexual partners as a way to avoid HIV/AIDS. When prompted, the percentages rise to 82 and 84 percent, respectively.

The methodology used in the 2000 MDHS survey to estimate knowledge about AIDS prevention is relatively new. As such, comparisons with the 1996 MKAPH are difficult.[3] However, some comparisons are useful. Unprompted knowledge of condom use rose rapidly between 1996 and 2000, from 23 to 55 percent in women and from 47 to 71 percent in men. In 1996, 17 percent

[3] Comparison with the AIDS prevention knowledge data from the 1992 MDHS is not feasible.

Table 11.2.2 Knowledge of ways to avoid HIV/AIDS: men

Percentage of all men 15-54 who know of specific ways to avoid HIV/AIDS, by background characteristics, Malawi 2000

Background characteristic	Abstain from sexual relations	Use condoms	Limit number of sexual partners	Avoid sex with partners who have multiple partners	Avoid sex with prosti-tutes	Avoid trans-fusions	Avoid injections	Avoid sharing razors/ blades	Avoid kissing	Avoid mosquito bites	Seek protection from trad. healer	Other	Number of men[1]
Age													
15-19	69.3	73.0	11.3	1.2	7.5	5.1	10.7	33.3	1.0	0.5	0.7	2.6	660
20-24	73.9	80.2	17.6	1.5	6.4	4.9	10.9	28.4	1.7	0.2	0.6	3.0	598
25-29	80.9	69.5	21.9	1.7	9.4	4.1	10.5	26.8	1.0	0.5	1.1	1.4	539
30-39	82.2	72.4	25.6	1.1	5.5	3.2	11.8	24.2	1.8	0.5	0.2	1.4	670
40-54	80.7	61.7	25.8	1.1	7.2	2.2	10.6	21.8	0.9	0.2	1.1	2.8	624
Current marital status													
Married or living together	80.1	68.6	25.3	1.3	7.2	3.0	10.8	24.1	1.2	0.4	0.8	2.1	1,906
Divorced, separated, widowed	79.2	75.7	16.0	1.0	7.1	3.2	9.7	25.6	2.5	0.0	0.0	4.3	113
Never married													
Ever had sex	71.6	82.3	12.6	1.1	6.3	5.3	12.3	32.4	0.9	0.4	0.9	2.3	767
Never had sex	73.6	59.7	10.9	1.8	8.9	6.0	8.7	31.2	2.5	0.5	0.0	2.6	306
Residence													
Urban	84.5	77.5	20.8	2.5	12.6	6.2	14.7	33.5	1.9	0.5	0.3	3.8	564
Rural	75.7	70.0	20.3	1.0	5.9	3.4	10.1	25.5	1.2	0.4	0.8	1.9	2,528
Region													
Northern	55.0	66.0	29.8	2.8	17.0	2.6	9.1	24.5	1.4	0.0	0.1	2.9	351
Central	80.2	66.9	19.1	0.7	4.7	5.5	11.2	26.0	0.9	0.1	0.6	1.1	1,296
Southern	80.2	76.7	19.3	1.5	6.9	2.8	11.1	28.4	1.6	0.8	1.0	3.1	1,446
Education													
No education	78.1	61.2	25.1	0.3	3.2	1.6	4.7	18.2	0.4	0.3	0.3	1.4	322
Primary 1-4	75.1	68.8	21.0	0.6	2.9	1.5	5.5	18.6	0.6	0.4	0.6	1.5	898
Primary 5-8	73.0	72.6	19.4	1.3	8.6	4.1	12.7	29.8	1.0	0.3	0.6	2.1	1,243
Secondary+	88.6	77.9	19.2	2.8	12.2	8.1	18.4	37.7	3.4	0.7	1.3	4.1	629
Total	77.3	71.4	20.4	1.3	7.1	3.9	10.9	26.9	1.3	0.4	0.7	2.3	3,092

[1] Includes men who do not know AIDS and those who believe there is no way to avoid HIV/AIDS.

of women and 37 percent of men cited sexual abstinence as a ways to prevent HIV/AIDS, compared with 67 percent (women) and 77 percent (men) in 2000. It may be that this sharp rise relates more to increased acceptance of sexual abstinence and condom use as feasible or socially practical behaviours than a change in "knowledge" per se. This underscores the difficulty in the collection and interpretation of data on AIDS prevention knowledge. In this case, complex and changing psychosocial contextual factors are embedded in this indicator called "knowledge".

Table 11.3.1 Knowledge of programmatically important ways to avoid HIV/AIDS: women

Percent distribution of women by knowledge of programmatically important ways to avoid HIV/AIDS, and percentage of women who know of two specific ways to avoid HIV/AIDS, according to background characteristics, Malawi 2000

Background characteristic	Knowledge of programmatically important ways to avoid HIV/AIDS				Specific ways to avoid HIV/AIDS		
	None[1]	One way	Two or three ways	Total	Use condoms	Limit number of sexual partners[2]	Number
Age							
15-19	9.1	9.5	81.4	100.0	75.7	77.0	2,867
20-24	5.6	7.3	87.1	100.0	81.0	82.2	2,957
25-29	6.5	6.6	86.9	100.0	76.7	85.1	2,401
30-39	6.5	6.3	87.2	100.0	76.5	84.1	2,990
40-49	8.4	8.4	83.3	100.0	71.3	80.7	2,004
Marital status							
Married or living together	6.9	7.4	85.7	100.0	76.2	83.1	9,452
Divorced, separated, widowed	7.1	7.3	85.6	100.0	78.8	80.6	1,525
Never married							
Ever had sex	4.7	7.2	88.1	100.0	86.9	79.5	868
Never had sex	10.4	9.4	80.2	100.0	69.9	75.3	1,375
Residence							
Urban	1.2	5.7	93.0	100.0	85.1	88.3	2,106
Rural	8.3	7.9	83.8	100.0	74.9	80.6	11,114
Region							
Northern	9.7	7.5	82.8	100.0	63.6	86.2	1,453
Central	8.5	9.9	81.6	100.0	71.6	78.9	5,321
Southern	5.4	5.7	88.8	100.0	83.6	83.2	6,446
Education							
No education	11.6	9.7	78.7	100.0	68.7	77.6	3,574
Primary 1-4	8.7	7.9	83.5	100.0	75.2	79.6	4,025
Primary 5-8	4.2	6.6	89.2	100.0	81.1	84.9	4,152
Secondary+	0.6	4.3	95.1	100.0	86.6	89.3	1,468
Total	7.2	7.6	85.3	100.0	76.6	81.8	13,220

Note: Programmatically important ways are abstaining from sex, using condoms, and limiting the number of sexual partners. Abstinence from sex is measured from a spontaneous response only, and using condoms and limiting the number of sexual partners is measured from spontaneous and probed responses.

[1] Those who have not heard of AIDS or who do not know of any programmatically important ways to avoid HIV/AIDS.

[2] Refers to limiting number of sexual partners, and limiting sex to one partner/staying faithful to one partner.

Table 11.3.2 Knowledge of programmatically important ways to avoid HIV/AIDS: men

Percent distribution of men by knowledge of programmatically important ways to avoid HIV/AIDS, and percentage of men who know of two specific ways to avoid HIV/AIDS, according to background characteristics, Malawi 2000

Background characteristic	Knowledge of programmatically important ways to avoid HIV/AIDS				Specific ways to avoid HIV/AIDS		
	None[1]	One way	Two or three ways	Total	Use condoms	Limit number of sexual partners[2]	Number
Age							
15-19	4.0	8.7	87.3	100.0	86.9	77.7	660
20-24	2.1	4.6	93.3	100.0	91.2	88.0	598
25-29	2.0	6.6	91.5	100.0	85.9	82.7	539
30-39	1.2	4.1	94.7	100.0	87.5	85.0	670
40-54	2.9	5.5	91.6	100.0	80.1	84.9	624
Marital status							
Married or living together	1.5	5.2	93.3	100.0	85.1	85.7	1,906
Divorced, separated, widowed	6.4	5.8	87.7	100.0	87.0	78.8	113
Never married							
Ever had sex	1.8	6.1	92.1	100.0	92.7	83.5	767
Never had sex	8.6	9.4	82.0	100.0	77.3	72.5	306
Residence							
Urban	2.1	2.9	95.0	100.0	89.0	83.4	564
Rural	2.5	6.6	90.9	100.0	85.7	83.6	2,528
Region							
Northern	5.0	9.6	85.4	100.0	78.9	85.4	351
Central	2.0	7.2	90.8	100.0	84.4	80.1	1,296
Southern	2.2	3.9	94.0	100.0	89.8	86.3	1,446
Education							
No education	5.1	7.3	87.6	100.0	81.2	78.5	322
Primary 1-4	2.9	7.7	89.4	100.0	84.9	80.9	898
Primary 5-8	2.2	5.3	92.5	100.0	86.8	84.7	1,243
Secondary+	0.8	3.8	95.4	100.0	89.9	87.9	629
Total	2.4	5.9	91.7	100.0	86.3	83.6	3,092

Note: Programmatically important ways are abstaining from sex, using condoms, and limiting the number of sexual partners. Abstinence from sex is measured from a spontaneous response only, and using condoms and limiting the number of sexual partners is measured from spontaneous and probed responses.

[1] Those who have not heard of AIDS or who do not know of any programmatically important ways to avoid HIV/AIDS.

[2] Refers to limiting number of sexual partners, and limiting sex to one partner/staying faithful to one partner.

11.2 KNOWLEDGE OF OTHER AIDS-RELATED ISSUES

Table 11.4 shows the distribution of women and men by their responses to questions intended to evaluate important aspects of a person's knowledge of HIV/AIDS. When asked whether a "healthy-looking person can have the AIDS virus," 84 percent of women and 92 percent of men correctly responded "yes." This represents an increase in knowledge from the 1996 MKAPH when 74 percent of women and 86 percent of men responded correctly to the same question. Women and men least likely to respond correctly to this question tended to be young, sexually inexperienced, rural, and less educated.

Table 11.4 Knowledge of HIV/AIDS-related issues

Percentage of women and men by responses to questions on various HIV/AIDS-related issues, according to background characteristics, Malawi 2000

	Women						Men					
	Percentage who say that a healthy-looking person can have the AIDS virus	Percentage who say that HIV/AIDS can be transmitted from mother to child			Percentage who say they know someone personally who has AIDS or died of AIDS	Number of women	Percentage who say that a healthy-looking person can have the AIDS virus	Percentage who say that HIV/AIDS can be transmitted from mother to child			Percentage who say they know someone personally who has AIDS or died of AIDS	Number of men
Background characteristic		During pregnancy	During delivery	By breast-feeding				During pregnancy	During delivery	By breast-feeding		
Age												
15-19	81.5	55.2	50.5	53.2	67.6	2,867	86.8	59.2	51.4	51.5	71.3	660
20-24	85.5	68.3	64.4	67.4	71.2	2,957	90.6	71.0	62.5	61.8	84.2	598
25-29	86.3	68.2	65.5	67.2	75.2	2,401	95.0	76.8	66.4	67.2	83.3	539
30-39	85.9	69.7	67.7	69.1	74.5	2,990	93.9	73.3	66.8	66.4	82.2	670
40-49 (men, 40-54)	81.8	67.2	64.4	68.0	73.3	2,004	92.6	72.9	61.5	64.4	87.2	624
Marital status												
Married or living together	84.5	68.2	64.9	67.5	74.0	9,452	93.5	73.8	65.2	65.7	84.5	1,906
Divorced, separated, widowed	85.4	66.6	66.1	68.0	69.4	1,525	94.3	63.7	50.5	56.2	79.6	113
Never married												
Ever had sex	87.3	61.6	58.7	59.2	70.3	868	91.1	70.6	61.8	62.5	80.8	767
Never had sex	79.6	48.9	43.1	45.9	64.5	1,375	81.1	51.0	42.2	40.5	64.5	306
Residence												
Urban	95.1	77.1	74.2	74.0	78.0	2,106	96.2	78.8	70.6	59.0	82.0	564
Rural	82.3	63.4	60.1	63.0	71.1	11,114	90.7	68.5	59.5	62.8	81.3	2,528
Region												
Northern	82.8	71.9	68.6	68.2	86.6	1,453	83.2	68.8	62.4	64.0	85.6	351
Central	80.5	61.3	56.3	61.1	77.2	5,321	91.9	71.3	62.0	64.7	85.8	1,296
Southern	87.8	67.7	65.9	67.0	64.9	6,446	93.6	69.9	61.0	59.3	76.6	1,446
Education												
No education	77.3	58.8	56.6	60.1	64.9	3,574	86.6	60.5	55.1	61.2	75.5	322
Primary 1-4	81.5	61.6	58.2	63.2	72.2	4,025	89.8	65.6	56.5	63.4	80.7	898
Primary 5-8	88.4	70.8	66.1	67.8	75.9	4,152	92.2	71.3	60.6	62.9	82.8	1,243
Secondary+	97.5	78.7	76.8	71.9	79.9	1,468	95.9	80.3	73.8	59.0	83.0	629
Total	84.3	65.6	62.3	64.8	72.2	13,220	91.7	70.4	61.5	62.1	81.5	3,092

The 2000 MDHS survey asked respondents whether they thought the AIDS virus can be transmitted from a mother to her child during pregnancy, and (in separate questions) during delivery and during breastfeeding. The results indicate that about two-thirds of both women and men responded "yes," that they understood each of these three modes of mother-to-child transmission. Again, young, sexually inexperienced, rural, and less educated men and women were least likely to be informed about this important AIDS-related issue.

The survey also asked the question, "Do you *personally* know someone who has the AIDS virus or who has died from AIDS?" The same question was asked in the 1996 MKAPH, allowing assessment of changes in the personal impact of the epidemic. In 1996, 71 percent of women and 68 percent of men responded that they knew someone with the AIDS virus or who died from AIDS; these figures increased to 72 percent and 82 percent in the 2000 MDHS survey.

11.3 Stigma Associated with AIDS and Acceptability of AIDS-related Messages in the Media

In the 2000 MDHS survey, currently married women and men who had heard of AIDS were asked whether they had ever discussed AIDS prevention with their spouse/partner. Table 11.5 shows that 72 percent of women and 86 percent of men reported that they had had this discussion. Higher level of education is associated with greater communication between spouses about AIDS prevention.

Table 11.5 Discussion of HIV/AIDS with spouse/partner

Percent distribution of women and men who are currently married or living with a partner by whether they ever discussed the prevention of HIV/AIDS with their spouse/partner, according to background characteristics, Malawi 2000

	Women					Men				
Background characteristic	Yes	No	Has not heard of AIDS	Total	Number	Yes	No	Has not heard of AIDS	Total	Number
Age										
15-19	65.5	33.3	1.3	100.0	934	61.6	38.4	0.0	100.0	23
20-24	73.1	25.6	1.2	100.0	2,324	88.0	11.9	0.0	100.0	236
25-29	75.4	23.8	0.7	100.0	2,102	85.5	14.1	0.1	100.0	441
30-39	73.1	26.1	0.7	100.0	2,505	87.0	12.8	0.2	100.0	622
40-49 (men, 40-54)	69.4	29.4	1.2	100.0	1,587	84.8	15.0	0.2	100.0	584
Residence										
Urban	80.5	19.1	0.4	100.0	1,362	85.6	14.2	0.1	100.0	307
Rural	70.9	28.0	1.1	100.0	8,089	85.8	13.9	0.2	100.0	1,599
Region										
Northern	74.3	25.2	0.6	100.0	1,075	93.9	5.8	0.3	100.0	217
Central	72.6	26.4	1.0	100.0	3,919	87.3	12.4	0.3	100.0	775
Southern	71.5	27.4	1.1	100.0	4,458	82.5	17.3	0.0	100.0	914
Education										
No education	61.9	36.0	2.0	100.0	2,975	74.2	25.2	0.4	100.0	265
Primary 1-4	70.4	28.8	0.9	100.0	2,980	82.7	16.8	0.2	100.0	565
Primary 5-8	80.8	19.0	0.2	100.0	2,784	90.3	9.6	0.1	100.0	737
Secondary+	90.0	9.9	0.2	100.0	713	90.0	10.0	0.0	100.0	338
Total	72.3	26.8	1.0	100.0	9,452	85.8	14.0	0.2	100.0	1,906

Table 11.6 provides responses to questions that are intended to evaluate the level of stigma attached to AIDS, to persons living with HIV and AIDS (PLWHAs), and condoms. First, respondents were asked, "If a person learns that he or she is infected with the AIDS virus, should the person be allowed to keep this fact private or should this information be available to the community?" Just 26 percent of women and 17 percent of men thought that HIV-positive individuals should be allowed to keep their HIV status private. Fear of public disclosure has been implicated as an important barrier to HIV-testing and programmes aimed at assisting PLWHAs and their families.

Programmes designed to assist in the support and care of AIDS-affected persons are hindered by fear of association with HIV and AIDS. The 2000 MDHS survey asked, "If a relative of yours became sick with AIDS would you be willing to care for her or him in your own household?" The majority of both women (94 percent) and men (96 percent) responded that they would be willing to take care of a relative who had AIDS.

Table 11.6.1 Social aspects of HIV/AIDS prevention and mitigation: women

Among women who have heard of AIDS, the percentage who gave specific responses to questions on various social aspects of HIV/AIDS prevention and mitigation, by background characteristics, Malawi 2000

Background characteristic	Believes the HIV positive status of community member should be considered confidential	Willing to care for relatives with AIDS at home	Believes an HIV positive coworker should be allowed to keep working	Believes children age 12-14 years should be taught to use condoms to avoid AIDS	Believes condoms are safe	Believes couples should have HIV test before marriage	Number of women
Age							
15-19	25.5	91.5	47.4	54.7	76.5	89.2	2,817
20-24	25.8	93.2	50.8	60.1	80.3	92.5	2,928
25-29	24.4	94.1	51.2	56.6	77.5	91.8	2,385
30-39	26.1	95.4	47.6	53.4	74.4	92.4	2,969
40-49	27.4	94.2	45.7	48.6	69.2	89.0	1,977
Current marital status							
Married or living together	25.5	93.5	47.6	55.1	75.7	91.2	9,370
Divorced, separated, widowed	28.6	96.0	50.2	58.5	78.9	92.0	1,507
Never married							
Ever had sex	25.2	95.4	55.5	63.3	86.1	93.3	859
Never had sex	25.1	90.9	49.7	45.6	67.9	88.2	1,340
Residence							
Urban	34.2	97.5	65.8	60.5	77.0	94.2	2,101
Rural	24.2	92.9	45.4	54.0	75.8	90.5	10,974
Region							
Northern	30.0	94.4	38.7	42.5	47.2	92.0	1,444
Central	18.5	91.7	42.5	50.5	73.1	88.8	5,265
Southern	30.9	95.1	56.0	61.6	84.9	92.8	6,367
Education							
No education	27.1	90.4	44.1	51.5	73.4	86.8	3,496
Primary 1-4	25.0	92.0	41.9	53.4	76.2	89.9	3,971
Primary 5-8	25.4	96.1	51.0	56.3	76.8	94.3	4,143
Secondary+	26.0	98.8	71.2	64.5	79.0	95.8	1,466
Total	25.8	93.6	48.7	55.1	76.0	91.1	13,076

Table 11.6.2 Social aspects of HIV/AIDS prevention and mitigation: men

Among men who have heard of AIDS, the percentage who gave specific responses to questions on various social aspects of HIV/AIDS prevention and mitigation, by background characteristics, Malawi 2000

Background characteristic	Believes the HIV pos. status of community member should be considered confidential	Willing to care for relatives with AIDS at home	Believes an HIV pos. coworker should be allowed to keep working	Believes children age 12-14 years should be taught to use condoms to avoid AIDS	Believes condoms are safe	Believes couples should have HIV test before marriage	Number of men
Age							
15-19	20.5	92.6	46.2	58.0	85.8	91.2	654
20-24	16.4	95.7	53.5	68.7	85.7	95.2	597
25-29	15.4	97.6	60.2	70.8	84.1	93.6	538
30-39	13.4	97.2	55.8	66.3	82.3	94.2	670
40-54	17.5	96.7	51.2	61.6	79.9	94.3	623
Current marital status							
Married or living together	15.4	96.7	53.2	66.1	82.5	95.1	1,905
Divorced, separated, widowed	20.9	99.0	49.4	75.5	88.4	92.9	111
Never married							
Ever had sex	18.1	96.1	56.2	65.1	87.9	93.1	765
Never had sex	19.4	89.2	46.3	52.1	77.2	86.5	300
Residence							
Urban	19.5	96.4	71.4	63.3	79.7	91.5	564
Rural	16.0	95.8	49.0	65.2	84.4	94.2	2,517
Region							
Northern	19.7	93.9	37.6	56.2	70.8	95.4	348
Central	12.6	95.7	49.9	67.2	82.1	94.5	1,293
Southern	19.6	96.5	59.8	64.8	87.8	92.4	1,440
Education							
No education	16.7	92.8	41.1	65.5	81.8	92.2	319
Primary 1-4	19.0	94.0	44.0	64.3	86.3	92.9	891
Primary 5-8	16.1	96.9	53.3	64.9	84.2	95.3	1,242
Secondary+	14.4	98.2	71.8	65.0	79.1	92.2	629
Total	16.7	95.9	53.1	64.8	83.5	93.7	3,081

Discrimination in the workplace against those infected with HIV is a human rights abuse and has the potential to further weaken the Malawian workforce. The survey asked respondents, "Should persons with the AIDS virus who work with other persons such as in a shop, office, or on a farm be allowed to continue their work or not?" The results indicate that 49 percent of women and 53 percent of men think that HIV-positive individuals should keep their right to work. Of course, this means that about one-half of adults harbour some level of stigma against HIV-infected persons. This attitude is more prevalent among less educated respondents (Figure 11.1) and those living in rural areas.

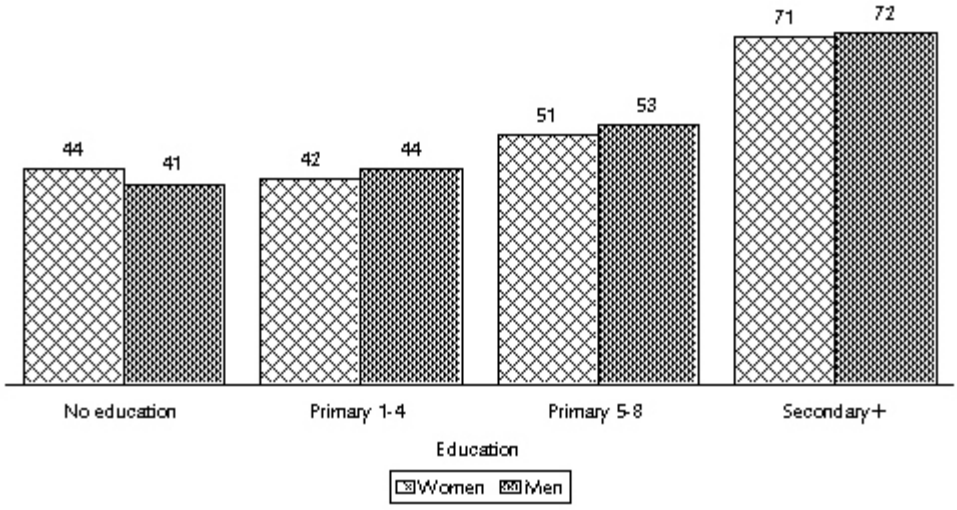
It is proposed that, as a public health intervention, children should be introduced to AIDS prevention messages *before* they reach an age at which sexual activity typically begins. The 2000 MDHS survey asked men and women whether they thought "children age 12-14 years should be

taught about using a condom to avoid AIDS." The results are mixed, with men more likely to accept the idea (65 percent) than women (55 percent). For women, higher educational level and residence in urban areas and in the Southern Region are associated with a more positive attitude toward early introduction of the notion of condom use to avoid AIDS. For men, differentials are minimal.

The MDHS survey asked women and men whether they thought "condoms are safe to use." The findings indicate that 76 percent of women and 84 percent of men think that condoms are safe, but certain population subgroups are more likely to believe that condoms are not safe to use (i.e., respondent who answered "no" or "depends" to the question). For example, less than one-half of women in the Northern Region believe condoms are safe. Young women who have not yet started sexual activity are also less likely to believe condoms are safe. This belief may well represent a barrier to condom use when these young women do start to have sex. The prevailing fears about condom safety need to be better understood.

Given the growing awareness about HIV/AIDS and the potential for devastating impacts on families, it has been proposed that individuals planning to be married should be tested for HIV. The survey asked "Do you think that men and women who intend to marry should be tested for the AIDS virus before marriage?" The results indicate that the majority of women (91 percent) and men (94 percent) agree with the idea of premarital HIV-testing.

Figure 11.1 **Percentage of Women and Men Who Think That an HIV-positive Individual Who Works with Others in a Shop, Office, or Farm Should Be Allowed to Continue Working, by Level of Education**



MDHS 2000

All men and women who knew of AIDS were asked to report whether they thought it was acceptable for AIDS-related messages to be broadcast on television and radio and to be published in newspapers. Table 11.7 shows that more than 90 percent of men reported that it is acceptable for AIDS to be discussed in each of these three media. Women were slightly less likely than men to accept AIDS-related messages in the media.

Table 11.7 Discussion of HIV/AIDS in the media

Among women and men who have heard of AIDS, the percentage who think that discussion of AIDS in the media is acceptable, by media type and background characteristics, Malawi 2000

	Women				Men			
Background characteristic	Radio	TV	Newspaper	Number of women	Radio	TV	Newspaper	Number of men
Age								
15-19	93.1	89.3	91.0	2,817	95.9	91.0	94.8	654
20-24	95.5	90.7	93.4	2,928	96.0	94.1	96.3	597
25-29	94.3	87.9	91.7	2,385	97.9	96.7	98.7	538
30-39	95.2	90.2	93.0	2,969	97.8	93.7	97.0	670
40-49 (men, 40-54)	90.7	85.1	88.4	1,977	97.1	91.4	95.9	623
Current marital status								
Married or living together	94.1	88.6	91.6	9,370	97.3	93.8	97.0	1,905
Divorced, separated, widowed	93.9	89.4	92.4	1,507	99.7	93.7	98.0	111
Never married								
Ever had sex	95.9	92.2	95.2	859	96.3	94.0	96.1	765
Never had sex	92.1	88.4	89.9	1,340	95.1	87.9	93.8	300
Residence								
Urban	96.6	93.4	96.0	2,101	98.4	96.8	98.9	564
Rural	93.5	88.1	90.9	10,974	96.6	92.5	95.9	2,517
Region								
Northern	94.7	86.8	91.0	1,444	95.2	93.1	96.4	348
Central	91.8	86.3	89.8	5,265	96.5	93.5	95.8	1,293
Southern	95.6	91.5	93.5	6,367	97.8	93.1	97.1	1,440
Education								
No education	90.2	84.7	87.3	3,496	94.3	86.5	89.2	319
Primary 1-4	92.7	86.4	89.7	3,971	96.9	93.4	96.3	891
Primary 5-8	96.5	92.0	95.0	4,143	97.1	93.5	97.5	1,242
Secondary+	99.3	97.2	99.0	1,466	97.9	95.8	98.3	629
Total	94.0	88.9	91.8	13,076	96.9	93.2	96.5	3,081

11.4 TESTING FOR HIV

MDHS respondents were asked whether they had ever been tested for HIV or the AIDS virus. If they said that they had not, respondents were then asked whether they would like to be tested. If they said they would like to be tested, respondents were asked whether they knew of a specific place where they could go to get the test for the AIDS virus. It should be understood that responses to these questions do not necessarily represent experiences with voluntary counseling and testing (VCT) services. Further, we do not know from the survey data whether respondents received the results of the tests that were reported to have occurred. Last, the data on desire to be tested do not necessarily reflect a person's likelihood of actually pursuing HIV-testing options. Table 11.8 shows that 9 percent of women and 15 percent of men reported that they had already been tested for HIV, with urban men and women, those with more education, and those in peak reproductive years (age 20-39) experiencing the highest levels of HIV-testing.

The overall desire or demand to be tested includes both those who responded that they have not yet been tested but would like to be tested (i.e., unmet demand) and those who have already been tested (i.e., met demand). In this approach, columns 1 and 2 of Table 11.8 can be added together to get a rough estimate of the total demand for HIV-testing. For instance, 81 percent of women and 87 percent of men have a need or demand to be tested (see Figure 11.2). Just 9 percent of women had already had the test, meaning that 10 percent of demand has been satisfied. The corresponding figure for men is better, 17 percent. The same approach can be used across background characteristics of the population. For example, 5 percent of HIV-testing demand is satisfied among women who have never been to school, compared with 23 percent among women with more than a secondary school education. Among men living in urban areas of Malawi, 26 percent of demand for testing is being met, compared with just 16 percent among men in rural areas.

Among respondents who reported that they had been tested for the AIDS virus, 58 percent of women and 49 percent of men said that they were tested at a public facility such as a government-run hospital or clinic. Thirty percent of women and 38 percent of men report that they were tested at a private facility. Eight percent of women and 10 percent of men said that they were tested for HIV at Macro, an organization providing voluntary HIV counseling and testing services at sites located only in Blantyre and Lilongwe (as of the survey date). The remainder reported that they were tested at other places, including BLM (Banja La Mtsogolo) centres.

Of respondents who reported not having been tested, 67 percent of women and 76 percent of men said that they knew of a place where they could be tested if they so desired. Knowledge of a testing site is lower among women and men who live in rural areas, among those who have not started sexual activity, and especially among those who have had less formal schooling, compared with other women and men.

Table 11.8.1 Testing for HIV: women

Percent distribution of women by whether tested for HIV and, if not, by desire to be tested; percent distribution of women who have been tested by source of testing, and percentage of women who have not been tested who know a source for the test, according to background characteristics, Malawi 2000

Background characteristic	Percent tested for HIV	Not tested: Percent who want to be tested for HIV	Not tested: Percent who don't want to be tested for HIV	Not tested: Don't know if they want to be tested[1]	Total	Number	Among those tested, source of testing: Public facility	Private facility	BLM[2]	Macro[3]	Other	Total	Number	Not tested: Knows source for a test	Number
Age															
15-19	6.4	74.1	17.0	2.6	100.0	2,867	53.8	33.2	2.0	10.8	0.2	100.0	183	65.8	2,684
20-24	11.8	73.1	12.9	2.1	100.0	2,957	59.3	27.4	2.6	10.6	0.2	100.0	349	71.7	2,608
25-29	10.6	73.4	13.6	2.5	100.0	2,401	59.0	28.1	4.3	7.6	1.0	100.0	254	69.5	2,147
30-39	7.8	73.3	17.1	1.8	100.0	2,990	58.3	33.3	1.5	5.7	1.2	100.0	232	68.1	2,758
40-49	5.2	67.7	24.1	3.0	100.0	2,004	55.2	35.1	2.8	5.0	1.9	100.0	104	59.5	1,901
Current marital status															
Married or living together	9.0	72.4	16.4	2.3	100.0	9,452	57.7	32.9	2.7	6.2	0.5	100.0	849	67.0	8,603
Divorced, separated, widowed	9.4	71.4	17.0	2.2	100.0	1,525	65.0	21.4	2.0	8.9	2.6	100.0	144	67.6	1,381
Never married															
Ever had sex	8.8	75.7	13.4	2.0	100.0	868	48.7	21.2	2.7	26.6	0.8	100.0	77	74.0	792
Never had sex	3.8	73.6	19.0	3.5	100.0	1,375	51.4	28.1	3.8	16.7	0.0	100.0	53	64.4	1,322
Residence															
Urban	16.9	67.0	14.4	1.7	100.0	2,106	52.7	24.4	2.5	19.9	0.5	100.0	356	80.4	1,750
Rural	6.9	73.7	16.9	2.5	100.0	11,114	60.1	33.2	2.7	3.1	0.9	100.0	766	65.0	10,348
Region															
Northern	8.7	76.2	13.0	2.1	100.0	1,453	71.5	25.5	2.1	0.3	0.7	100.0	126	70.6	1,327
Central	7.3	72.0	18.7	2.1	100.0	5,321	55.9	30.4	3.5	9.5	0.6	100.0	389	66.6	4,932
Southern	9.4	72.3	15.6	2.7	100.0	6,446	56.1	31.5	2.2	9.4	0.9	100.0	607	67.1	5,839
Education															
No education	4.0	69.6	22.4	4.1	100.0	3,574	58.4	38.7	0.0	1.0	1.8	100.0	143	54.0	3,431
Primary 1-4	7.1	71.8	18.6	2.5	100.0	4,025	56.9	36.7	3.4	2.3	0.8	100.0	285	62.0	3,740
Primary 5-8	9.5	77.8	11.6	1.1	100.0	4,152	63.5	27.6	2.3	6.3	0.4	100.0	394	77.1	3,759
Secondary+	20.5	67.3	10.8	1.5	100.0	1,468	50.7	24.3	3.7	20.6	0.7	100.0	300	91.8	1,168
Total	8.5	72.6	16.5	2.4	100.0	13,220	57.8	30.4	2.7	8.4	0.8	100.0	1,122	67.3	12,098

[1] Includes those who have never heard of AIDS
[2] Banja La Mtsogolo, family planning clinic
[3] Voluntary counselling and HIV testing centres.

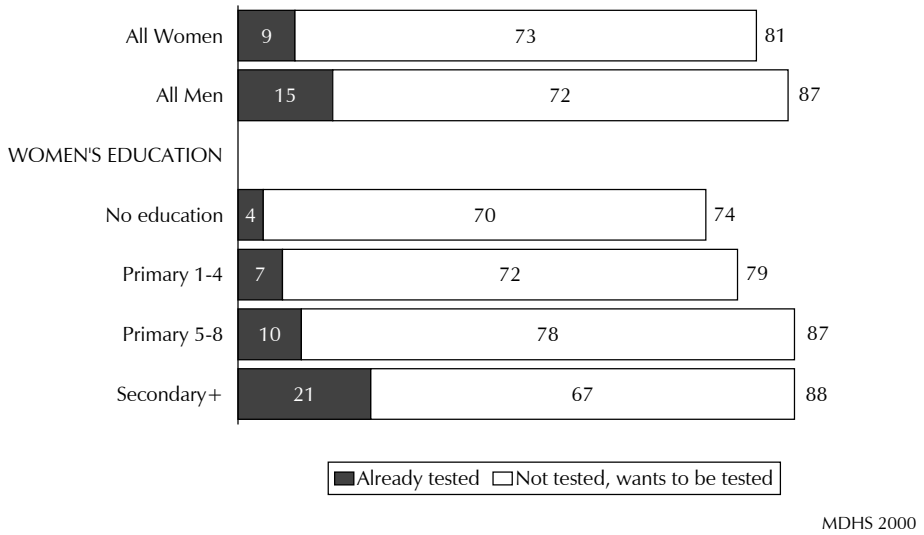
Table 11.8.2 Testing for HIV: men

Percent distribution of men by whether tested for HIV and, if not, by desire to be tested; percent distribution of men who have been tested by source of testing, and percentage of men who have not been tested who know a source for the test, according to background characteristics, Malawi 2000

Background characteristic	Percent tested for HIV	Not tested: Percent who want to be tested for HIV	Not tested: Percent who don't want to be tested for HIV	Not tested: Don't know if they want to be tested[1]	Total	Number	Among those tested, source of testing: Public facility	Private facility	BLM[2]	Macro[3]	Other	Total	Number	Not tested: Knows source for a test	Number
Age															
15-19	6.6	79.8	11.5	2.1	100.0	660	45.7	42.7	1.3	9.6	0.7	100.0	43	71.9	617
20-24	17.8	73.8	7.8	0.6	100.0	598	41.6	36.3	9.3	12.3	0.4	100.0	106	81.6	492
25-29	23.7	65.2	10.3	0.9	100.0	539	49.7	36.2	1.2	12.8	0.0	100.0	128	78.7	412
30-39	18.0	70.0	11.3	0.7	100.0	670	49.6	42.3	1.6	6.6	0.0	100.0	120	77.9	550
40-54	11.6	71.3	15.5	1.6	100.0	624	59.8	32.7	1.5	5.5	0.4	100.0	72	72.2	552
Current marital status															
Married or living together	17.8	69.7	11.7	0.8	100.0	1,906	53.2	36.4	2.2	8.1	0.1	100.0	339	76.0	1,568
Divorced, separated, widowed	15.6	73.0	8.6	2.8	100.0	113	46.3	53.7	0.0	0.0	0.0	100.0	18	70.0	95
Never married															
Ever had sex	12.6	76.9	9.5	0.9	100.0	767	37.8	37.3	6.3	18.0	0.6	100.0	97	81.3	670
Never had sex	5.7	75.9	14.7	3.8	100.0	306	33.9	52.6	8.3	4.2	0.9	100.0	17	66.2	288
Residence															
Urban	21.9	62.6	14.5	0.9	100.0	564	49.3	25.6	2.2	22.3	0.6	100.0	124	91.2	440
Rural	13.7	74.4	10.6	1.3	100.0	2,528	48.9	42.2	3.6	5.2	0.1	100.0	346	73.1	2,181
Region															
Northern	20.5	66.4	11.8	1.4	100.0	351	62.1	32.5	2.1	3.0	0.4	100.0	72	72.9	279
Central	14.1	74.1	11.3	0.5	100.0	1,296	48.2	35.8	5.2	10.7	0.0	100.0	183	73.3	1,113
Southern	14.9	72.0	11.2	1.9	100.0	1,446	45.4	41.4	1.9	11.0	0.4	100.0	216	79.3	1,230
Education															
No education	5.5	79.0	13.5	1.9	100.0	322	77.8	16.4	0.0	5.7	0.0	100.0	18	61.6	304
Primary 1-4	11.4	75.6	11.0	2.0	100.0	898	42.9	47.7	6.4	3.0	0.0	100.0	102	67.6	796
Primary 5-8	15.1	74.4	9.7	0.8	100.0	1,243	50.5	40.3	2.8	6.3	0.0	100.0	187	78.6	1,056
Secondary+	25.9	59.5	14.0	0.6	100.0	629	48.0	31.2	2.0	18.1	0.6	100.0	163	94.5	466
Total	15.2	72.2	11.3	1.2	100.0	3,092	49.0	37.9	3.2	9.7	0.2	100.0	470	76.1	2,622

[1] Includes those who have never heard of AIDS
[2] Banja La Mtsogolo, family planning clinic
[3] Voluntary counselling and HIV testing centres.

Figure 11.2 **Percentage of Respondents with a Need (Met and Unmet) for HIV-Testing Services, by Sex and (among Women) by Level of Education**



11.5 Reports on Recent Sexually Transmitted Infections

The 2000 MDHS survey asked respondents whether they had had a sexually transmitted infection (other than HIV/AIDS) in the last 12 months. They were also asked whether they had experienced a genital sore or ulcer and whether they had any genital discharge in the past 12 months. These symptoms have been shown useful in identifying STIs in men; they are less easily interpreted in women since women are likely to experience more non-STI conditions of the reproductive tract that produce a discharge. Further, STIs in women may often not produce symptoms that can be easily recognised. Last, reporting of STIs and recognised STI symptoms is subject to a downward bias (i.e., underreporting) due to the social stigma attached to STIs.

Table 11.9 shows that about 1 percent of women and 2 percent of men reported an STI in the past 12 months, which suggests underreporting of STIs especially among women. However, when asked whether they had experienced a genital discharge in the last 12 months, 5 percent of women and 4 percent of men reported that they had. Further, 8 percent of women and 4 percent of men reported a genital sore or ulcer. The finding of 8 percent of women reporting a genital sore or ulcer is significant in the context of evidence that sores or ulcers (whether resulting from an STI or not) may facilitate transmission of HIV, especially if left untreated.

When all reports of ulcers and sores, discharge, and STIs are combined into one index, the MDHS survey findings indicate that 11 percent of women and 8 percent of men had some type of STI in the last 12 months. Among men, a clear age pattern to STI reports exists, with young men at much higher risk than older men. Among women, the reverse appears to be true but the pattern is not pronounced. STIs are more prevalent in urban areas among men but in rural areas among women. No clear pattern of STI reports is found across education categories, although reports of

Table 11.9.1 Self-reporting of sexually transmitted infections and STI symptoms: women

Among women who ever had sex, the percentage self-reporting an STI (other than HIV/AIDS) and/or associated symptoms in the 12 months preceding the survey, by background characteristics, Malawi 2000

Background characteristic	Percentage with an STI	Percentage with genital discharge	Percentage with genital sore or ulcer	Percentage with STI, or discharge or genital sore/ulcer	Number
Age					
15-19	0.9	3.9	5.2	8.4	1,643
20-24	1.2	4.0	7.8	10.4	2,830
25-29	1.1	4.9	8.8	11.6	2,383
30-39	1.6	6.2	9.9	13.2	2,988
40-49	1.3	4.5	7.2	9.9	2,001
Current marital status					
Married or living together	1.2	4.9	8.2	11.3	9,452
Divorced, separated, widowed	1.4	5.2	8.9	11.5	1,525
Never married	1.1	3.3	4.7	6.8	868
Residence					
Urban	1.2	2.7	6.7	8.1	1,834
Rural	1.3	5.2	8.3	11.5	10,011
Region					
Northern	1.7	3.4	2.5	5.6	1,284
Central	1.5	5.3	8.1	11.6	4,706
Southern	1.0	4.7	9.2	11.6	5,855
Education					
No education	1.2	3.9	7.2	9.3	3,505
Primary 1-4	1.3	6.0	10.2	13.7	3,616
Primary 5-8	1.3	4.7	7.5	10.7	3,535
Secondary+	1.2	4.2	5.7	8.2	1,189
Alcohol consumption (last 3 mos.)[1]					
Has not been drunk	1.2	4.8	8.1	11.0	11,604
Has been drunk	2.8	5.7	6.8	10.8	223
Total	1.3	4.8	8.0	11.0	11,845

[1] Total includes 18 women with missing values for alcohol consumption.

an STI among men increases markedly with increasing educational level, which may reflect better recognition and diagnosis among men with greater access to and use of health services. Among both men and women, lower levels of STIs were reported in the Northern Region than in the Central and Southern regions.

Some questions on STIs were asked in the 1996 MKAPH, but most are not comparable to the questions used in the 2000 MDHS survey.[4] One indicator that is reasonably comparable is the self-reports by men of urethral discharge. In the 1996 MKAPH, 5 percent of men reported a

[4] The 2000 MDHS questions on HIV and AIDS are based on improvements recommended in the Joint United Nations Programme on HIV/AIDS guidelines for Monitoring and Evaluation of HIV/AIDS Programmes (UNAIDS, 2000).

Table 11.9.2 Self-reporting of sexually transmitted infections and STI symptoms: men

Among men who ever had sex, the percentage self-reporting an STI (other than HIV/AIDS) and/or associated symptoms in the 12 months preceding the survey, by background characteristics, Malawi 2000

Background characteristic	Percentage with an STI	Percentage with genital discharge	Percentage with genital sore or ulcer	Percentage with STI, or discharge or genital sore/ulcer	Number
Age					
15-19	1.7	7.5	6.1	13.3	404
20-24	2.1	5.3	4.8	9.5	558
25-29	3.5	4.4	3.7	8.9	534
30-39	2.8	3.5	5.4	8.5	668
40-54	0.9	0.7	2.6	3.7	623
Current marital status					
Married or living together	1.9	2.5	4.0	6.6	1,906
Divorced, separated, widowed	8.0	7.6	8.7	18.3	113
Never married	2.1	7.1	4.9	11.3	767
Residence					
Urban	7.1	6.2	5.5	12.2	494
Rural	1.2	3.5	4.2	7.6	2,292
Region					
Northern	2.2	3.9	2.7	6.7	301
Central	0.7	3.7	4.0	7.5	1,147
Southern	3.5	4.3	5.2	9.5	1,339
Education					
No education	0.9	3.0	3.5	6.3	314
Primary 1-4	1.2	4.8	5.2	9.4	798
Primary 5-8	2.3	3.6	4.8	8.8	1,100
Secondary+	4.1	4.2	3.2	7.4	574
Alcohol consumption (last 3 months)					
Has not been drunk	2.0	3.9	4.3	8.4	2,158
Has been drunk	3.1	4.3	4.9	8.5	627
Total	2.2	4.0	4.4	8.4	2,786

discharge, compared with 4 percent in the 2000 MDHS survey. This difference is small and should not be overinterpreted, because it falls within the bounds of statistical (sampling) error.

In the 2000 MDHS survey, women and men were asked to report on their alcohol drinking habits and whether and how often they became "drunk" in the last three months. It is thought that drinking, especially excessive drinking, increases the likelihood of risky sexual behaviour that could lead to STIs. The findings indicate that the relationship between reported recent drinking behaviour and reports of recent STIs is not a strong one. For both women and men, respondents were indeed more likely to have reported an STI in the last 12 months if they reported having been "drunk", but the difference is small. The reports of STI symptoms, discharge, or sore or ulcer, also do not differ much between categories of drinking behaviour.

11.6 TREATMENT-SEEKING AND OTHER BEHAVIOURS IN RESPONSE TO STIS

If respondents reported an STI or an STI symptom (i.e., discharge or sore or ulcer) in the past 12 months, they were asked questions on their actions in response to the illness or symptom. Table 11.10 presents information on the 1,298 women and 234 men who reported an STI or STI symptom in the last 12 months. Men and women were equally likely to have reported that they sought some type of treatment or advice (women, 61 percent; men, 60 percent). A small male-female difference does emerge, however, when looking specifically at whether a health facility was attended (men, 28 percent; women, 22 percent). The low use of health facilities to seek treatment of reported STIs and STI symptoms among both men and women suggests either overreporting of STIs (not likely) or that large numbers of persons are not receiving adequate treatment for their STIs. The pattern of reports indicates lower levels of access and use of STI treatment services especially in Malawi's rural, less educated population.

Table 11.10.1 Source of treatment of STIs: women

Percentage of women who reported an STI (other than HIV/AIDS) and/or associated symptoms in the 12 months preceding the survey, by source of treatment or advice and background characteristics, Malawi 2000

Background characteristic	Clinic hospital or private doctor	Traditional healer	Advice or medicine from pharmacy or shop	Advice from friends or relatives	Advice or treatment from any source[1]	No advice or treatment	Number of women
Age							
15-19	16.9	28.5	16.7	33.8	55.2	41.8	137
20-24	22.3	34.2	15.4	36.4	64.5	34.6	293
25-29	26.0	33.0	12.2	36.3	64.9	34.5	276
30-39	21.8	28.2	13.5	26.9	56.8	41.0	393
40-49	21.2	37.6	10.3	30.1	59.5	39.4	199
Current marital status							
Married or living together	21.3	31.4	13.7	30.2	59.1	39.8	1,064
Divorced, separated, widowed	24.1	38.0	10.6	38.0	64.3	31.6	175
Never married	33.5	26.6	19.0	52.1	74.8	25.2	59
Residence							
Urban	39.8	28.6	19.6	35.0	77.4	22.1	149
Rural	19.9	32.5	12.7	31.9	58.3	40.1	1,149
Region							
Northern	35.0	36.3	15.5	45.9	64.3	35.3	72
Central	21.4	28.0	9.7	26.5	53.6	45.9	544
Southern	21.5	34.9	16.3	35.5	65.6	32.0	681
Education							
No education	16.6	35.7	10.7	27.8	58.8	40.9	326
Primary 1-4	18.2	34.5	13.3	32.4	58.9	39.0	496
Primary 5-8	24.7	28.5	15.9	34.5	59.4	39.2	378
Secondary+	51.5	21.6	14.4	38.2	78.7	18.5	98
Total	22.2	32.1	13.5	32.3	60.5	38.0	1,298

[1] Based on columns 1-4 of this table.

Table 11.10.2 Source of treatment of STIs: men

Percentage of men who reported an STI (other than HIV/AIDS) and/or associated symptoms in the 12 months preceding the survey, by source of treatment or advice and background characteristics, Malawi 2000

Background characteristic	Clinic hospital or private doctor	Traditional healer	Advice or medicine from pharmacy or shop	Advice from friends or relatives	Advice or treatment from any source[1]	No advice or treatment	Number of men
Age							
15-19	11.6	16.5	22.0	22.0	42.1	57.9	54
20-24	31.0	16.0	15.8	22.1	56.9	43.1	53
25-29	38.6	18.3	28.4	31.8	63.7	36.3	47
30-39	29.1	35.1	35.6	22.7	68.7	29.0	57
40-54	*	*	*	*	*	*	23
Current marital status							
Married or living together	29.3	30.7	29.6	28.6	66.8	31.5	126
Divorced, separated, widowed	(46.7)	(31.6)	(22.1)	(14.0)	(65.8)	(34.2)	21
Never married	22.8	11.6	20.9	23.7	47.3	52.7	87
Residence							
Urban	49.8	30.5	46.5	33.1	86.9	13.1	60
Rural	21.0	21.3	18.4	22.8	49.9	48.9	173
Region							
Northern	(35.6)	(15.0)	(48.2)	(46.8)	(88.1)	(11.9)	20
Central	25.1	6.0	24.8	25.3	40.8	57.7	86
Southern	29.5	37.0	22.7	22.2	67.6	31.7	127
Education							
No education	*	*	*	*	*	*	20
Primary 1-4	25.0	18.9	30.3	26.6	66.4	33.6	75
Primary 5-8	20.8	33.5	17.5	24.2	55.1	42.7	97
Secondary+	60.2	17.8	34.3	27.3	68.1	31.9	42
Total	28.4	23.7	25.7	25.5	59.5	39.6	234

( ) Estimate based on 25-49 unweighted cases
* Less than 25 unweighted cases; estimate has been suppressed.
[1] Based on columns 1-4 of this table.

A gender differential was observed in the type of response to STIs. In Malawi, men are apparently more likely than women to go to seek advice or buy medicines at a shop or pharmacy; women are more likely than men to consult a traditional healer or to seek advice from friends and relatives.

Table 11.11 shows that 71 percent of women and 47 percent of men reporting an STI in the past year said that they had informed (all of) their partner(s). About one-quarter of women and nearly one-half of men said that they did not inform (any of) their partner(s). Respondents reporting an STI were also asked whether they had done something to avoid infecting their partner(s). The results indicate that 44 percent of women and 47 percent of men took some action. When asked what action they took, the most frequently mentioned action was abstinence from sex (36 percent, women; 38 percent, men). About one-quarter of women and men mentioned use of medicines. Just 6 percent of women and 12 percent of men said that they used condoms to prevent

infecting their partner(s). Respondents with a higher educational level and those living in urban areas were more likely to report using condoms. Part of the explanation for such low levels of protective action among respondents who reported STIs or STI symptoms may be that many of the reported STIs were not recognised as such. In addition, if the respondent's partner introduced the infection into the partnership, the respondent would probably feel no reason to adopt protective actions.

Table 11.11.1 Efforts to protect partners from infection: women with STIs

Percent distribution of women who had an STI (other than HIV/AIDS) and/or associated symptoms in the 12 months preceding the survey by whether they informed their partner(s) of their condition, and percentage who took action to protect their partner(s) from infection, according to background characteristics, Malawi 2000

	Informed partner(s)					Action taken to protect partner						
Background characteristic	Yes	Some/ not all	No	Missing	Total	Avoided sexual relations	Used condoms	Used medicine	Any action	No action	Partner already infected	Number of women
Age												
15-19	65.5	0.3	34.2	0.0	100.0	37.4	14.1	26.5	48.0	50.4	0.2	137
20-24	69.5	1.3	26.7	2.5	100.0	36.2	7.6	30.8	46.8	49.9	0.5	293
25-29	78.8	0.3	19.9	1.0	100.0	41.8	6.8	32.8	49.0	48.2	1.3	276
30-39	71.5	0.7	25.8	2.0	100.0	33.0	2.3	27.3	40.3	54.1	3.0	393
40-49	67.7	0.7	29.4	2.3	100.0	31.3	2.8	27.3	38.3	57.5	0.7	199
Current marital status												
Married or living together	77.3	0.6	20.2	1.9	100.0	36.7	4.7	29.7	45.4	50.5	1.4	1,064
Divorced, separated, widowed	44.3	1.2	53.3	1.2	100.0	31.0	6.5	28.1	35.0	62.7	1.9	175
Never married	45.3	0.6	54.1	0.0	100.0	34.6	22.4	23.4	49.1	47.6	0.0	59
Residence												
Urban	79.5	0.2	19.8	0.5	100.0	43.1	15.2	38.0	56.3	39.6	2.3	149
Rural	70.3	0.8	27.0	1.9	100.0	34.8	4.6	28.0	42.5	53.6	1.3	1,149
Region												
Northern	66.9	0.5	26.0	6.6	100.0	33.8	10.5	23.6	38.3	56.1	0.4	72
Central	70.4	1.3	26.0	2.3	100.0	26.2	4.2	21.2	33.2	63.4	0.4	544
Southern	72.7	0.2	26.4	0.7	100.0	43.7	6.6	36.1	53.4	42.5	2.4	681
Education												
No education	71.4	0.6	26.7	1.2	100.0	35.7	1.3	32.4	43.3	53.6	1.8	326
Primary 1-4	73.0	0.7	24.4	1.9	100.0	37.1	3.6	29.1	42.8	53.1	1.3	496
Primary 5-8	70.6	1.0	26.2	2.2	100.0	35.4	9.0	27.4	45.4	49.9	1.2	378
Secondary+	66.0	0.0	33.7	0.3	100.0	30.9	19.3	25.5	48.5	49.0	1.3	98
Total	71.4	0.7	26.2	1.7	100.0	35.8	5.8	29.2	44.1	52.0	1.4	1,298

Table 11.11.2 Efforts to protect partners from infection: men with STIs

Percent distribution of men who had an STI (other than HIV/AIDS) and/or associated symptoms in the 12 months preceding the survey by whether they informed their partner(s) of their condition, and percentage who took action to protect their partner(s) from infection, according to background characteristics, Malawi 2000

Background characteristic	Informed partner(s)				Total	Action taken to protect partner					Partner already infected	Number of men
	Yes	Some/ not all	No	Missing		Avoided sexual relations	Used condoms	Used medicine	Any action	No action		
Age												
15-19	23.9	2.6	73.5	0.0	100.0	29.6	16.6	21.4	36.8	63.2	0.0	54
20-24	41.0	2.7	53.2	3.1	100.0	22.4	14.1	26.8	44.2	52.1	0.5	53
25-29	44.4	3.0	50.3	2.3	100.0	45.1	14.6	30.7	54.1	37.9	4.1	47
30-39	64.5	3.8	31.4	0.3	100.0	50.7	7.6	19.7	53.2	39.0	7.5	57
40-54	79.6	0.0	18.3	2.1	100.0	43.0	4.8	23.6	51.4	43.0	4.9	23
Current marital status												
Married or living together	61.3	2.8	33.8	2.0	100.0	47.0	11.0	27.5	56.2	37.8	3.6	126
Divorced, separated, widowed	(49.7)	(0.0)	(50.3)	(0.0)	100.0)	(38.7)	(8.9)	(21.0)	(48.1)	(38.3)	(13.6)	21
Never married	26.2	3.2	69.6	0.9	100.0	23.4	15.0	20.4	34.4	64.4	0.3	87
Residence												
Urban	50.7	7.1	41.1	1.1	100.0	47.2	19.1	39.8	67.6	27.1	4.7	60
Rural	46.0	1.2	51.2	1.6	100.0	34.2	9.9	18.9	40.3	54.9	2.7	173
Region												
Northern	(71.0)	(0.0)	(23.6)	(5.4)	100.0	(59.7)	(7.2)	(21.4)	(62.2)	(20.1)	(12.4)	20
Central	44.5	1.6	52.5	1.3	100.0	31.0	8.4	16.0	35.5	62.2	0.0	86
Southern	45.3	3.9	49.8	0.9	100.0	38.5	15.7	30.4	53.1	42.2	4.0	127
Education												
No education	*	*	*	*	100.0	*	*	*	*	*	*	20
Primary 1-4	46.9	1.8	50.2	1.1	100.0	41.3	10.7	23.2	48.5	50.4	0.0	75
Primary 5-8	47.6	0.0	49.9	2.5	100.0	34.6	11.4	23.4	42.9	50.7	3.4	97
Secondary+	44.0	11.9	43.8	0.4	100.0	38.3	19.3	29.1	57.3	34.9	7.4	42
Total	47.3	2.7	48.6	1.4	100.0	37.5	12.3	24.3	47.4	47.7	3.2	234

( ) Estimate based on 25-49 unweighted cases
* Less than 25 unweighted cases; estimate has been suppressed.

11.7 Number of Sexual Partners

Given that most HIV infections in Malawi are contracted through heterosexual contact, information on sexual behaviour is important in designing and monitoring intervention programmes to control the spread of the disease. The 2000 MDHS survey included questions on the respondent's last three sexual partners in the 12 months preceding the survey, with two broad partner types recognised: 1) those cohabiting with the respondent (mostly spouses) and 2) those not cohabiting with the respondent at the time of the last sexual encounter with that partner. For male respondents, the question was also asked whether they had paid for sex in the last 12 months. Information on use of condoms at last sexual encounter with each of these partner types was collected. In the context of HIV/AIDS/STI prevention, the analysis in the following section is limited to higher risk sexual activity. Based on UNAIDS guidelines for monitoring and evaluation of HIV/AIDS programmes, a working definition of higher risk sex is sex outside the context of a cohabiting relationship, which, in broad terms, means extramarital sex among married individuals and all sex for the unmarried. Although these definitions are far from ideal, evaluation of data from previous surveys indicates that a more precise formulation is impractical and produces data that are difficult to interpret.

MARRIED MEN AND WOMEN

Table 11.12 shows the percent distributions of married women and men by number of persons with whom they had sex in the last 12 months, excluding spouse or cohabiting partner, according to background characteristics. These data indicate that men report having more sexual partners than women. Only 1 percent of currently married women reported extramarital sexual activity in the last 12 months, compared with 18 percent of married men. About 2 percent of married men reported two or more extramarital partners in the last year, while virtually no married women reported the same. Previous survey experience suggests that extramarital sex is probably underreported by women.

Age-related, urban-rural, regional, and education-related differentials in the number of recent noncohabiting sexual partners reported by men are negligible. The MDHS survey asked male respondents to report on their drinking pattern over the last three months, including whether and

Table 11.12 Number of sexual partners: married women and men

Percent distribution of currently married women and men by number of persons with whom they had sexual intercourse in the past 12 months, excluding spouse or cohabiting partner, according to background characteristics, Malawi 2000

	Women					Men					
	Number of sexual partners excluding spouse or cohabiting partner					Number of sexual partners excluding spouse or cohabiting partner					
Background characteristic	0	1	2+	Total	Number	0	1	2+	Total	Mean	Number
Age											
15-19	97.8	2.0	0.2	100.0	934	(70.6)	(16.3)	(13.1)	100.0	(0.4)	23
20-24	99.2	0.7	0.0	100.0	2,324	83.6	14.9	1.5	100.0	0.2	236
25-29	99.6	0.3	0.1	100.0	2,102	79.6	17.8	2.6	100.0	0.3	441
30-39	99.5	0.4	0.0	100.0	2,505	82.4	16.0	1.6	100.0	0.2	622
40-49 (men, 40-54)	99.5	0.5	0.0	100.0	1,587	84.8	13.4	1.8	100.0	0.2	584
Residence											
Urban	99.5	0.4	0.1	100.0	1,362	80.9	15.9	3.2	100.0	0.3	307
Rural	99.3	0.7	0.0	100.0	8,089	82.8	15.4	1.8	100.0	0.2	1,599
Region											
Northern	99.7	0.3	0.0	100.0	1,075	84.4	13.7	1.9	100.0	0.2	217
Central	99.4	0.6	0.0	100.0	3,919	83.3	15.0	1.6	100.0	0.2	775
Southern	99.1	0.8	0.1	100.0	4,458	81.3	16.3	2.4	100.0	0.2	914
Education											
No education	99.3	0.6	0.0	100.0	2,975	83.0	15.0	1.8	100.0	0.2	265
Primary 1-4	99.1	0.9	0.1	100.0	2,980	82.0	16.0	2.0	100.0	0.2	565
Primary 5-8	99.5	0.4	0.1	100.0	2,784	82.7	15.8	1.5	100.0	0.2	737
Secondary+	99.2	0.8	0.0	100.0	713	82.4	14.3	3.3	100.0	0.2	338
Alcohol consumption (last 3 months)[1]											
Has not been drunk	99.4	0.6	0.0	100.0	9,256	84.5	13.7	1.8	100.0	0.2	1,389
Has been drunk	96.5	1.3	2.2	100.0	180	77.1	20.3	2.6	100.0	0.3	517
Total	99.3	0.7	0.1	100.0	9,452	82.5	15.5	2.0	100.0	0.2	1,906

[1] Excludes 16 women with missing alcohol consumption information.
( ) Estimate based on 25-49 unweighted cases.

how often they got drunk. The findings indicate that married men who have gotten drunk in the last three months are more likely to have engaged in extramarital sexual activity (23 percent) than men who have not recently gotten drunk (16 percent).

UNMARRIED MEN AND WOMEN

Among unmarried men who have ever had sex, 67 percent had some sexual activity in the previous 12 months—about one-quarter of these reported two or more partners (Table 11.13). Unmarried women reported considerably less sexual activity than unmarried men. About 38 percent of the unmarried women who have ever had sex reported having had at least one sexual partner in the last year. Of those women who did report recent sexually activity, a much smaller percentage reported sex with more than one partner than men did (5 percent versus 22 percent).

Table 11.13 Number of sexual partners: unmarried women and men

Percent distribution of unmarried women and men who ever had sex, by number of persons with whom they had sexual intercourse in the 12 months preceding the survey, according to selected background characteristics, Malawi 2000

	Women						Men					
	Number of sexual partners excluding spouse or cohabiting partner						Number of sexual partners excluding spouse or cohabiting partner					
Background characteristic	0	1	2+	Total	Mean	Number	0	1	2+	Total	Mean	Number
Age												
15-19	32.5	65.4	2.1	100.0	0.7	709	29.4	56.1	14.5	100.0	1.0	381
20-24	57.5	40.5	2.1	100.0	0.5	507	29.3	54.0	16.7	100.0	1.0	322
25-29	73.8	24.2	2.0	100.0	0.3	280	34.8	53.5	11.7	100.0	0.8	93
30-39	80.4	18.7	0.9	100.0	0.2	483	57.9	27.3	14.8	100.0	0.6	46
40-49 (men, 40-54)	90.8	8.2	1.0	100.0	0.1	414	75.1	21.7	3.3	100.0	0.3	39
Current marital status												
Divorced, separated, widowed	81.7	16.8	1.5	100.0	0.2	1,525	55.0	35.6	9.4	100.0	0.6	113
Never married	28.5	69.6	1.9	100.0	0.7	868	30.3	54.4	15.3	100.0	1.0	767
Residence												
Urban	50.7	47.8	1.5	100.0	0.5	471	33.3	48.3	18.4	100.0	1.0	187
Rural	65.2	33.1	1.7	100.0	0.4	1,922	33.5	53.0	13.5	100.0	0.9	693
Region												
Northern	65.8	33.2	1.1	100.0	0.4	208	37.0	56.8	6.2	100.0	0.7	83
Central	64.9	33.7	1.4	100.0	0.4	787	36.3	49.4	14.3	100.0	0.9	372
Southern	60.4	37.6	1.9	100.0	0.4	1,398	30.3	53.3	16.4	100.0	1.0	425
Education												
No education	83.7	15.5	0.8	100.0	0.2	530	56.2	34.6	9.1	100.0	0.5	49
Primary 1-4	65.5	32.5	2.0	100.0	0.4	636	34.8	48.6	16.6	100.0	0.9	233
Primary 5-8	54.1	43.7	2.2	100.0	0.5	751	27.7	57.2	15.2	100.0	1.0	363
Secondary+	47.5	51.2	1.3	100.0	0.5	476	36.3	51.1	12.7	100.0	0.9	235
Alcohol consumption (last 3 months)[1]												
Has not been drunk	62.7	35.8	1.5	100.0	0.4	2,334	35.6	51.7	12.7	100.0	0.8	724
Has been drunk	49.7	40.7	9.6	100.0	0.7	53	23.6	53.3	23.0	100.0	1.2	156
Total	62.4	36.0	1.7	100.0	0.4	2,393	33.4	52.0	14.5	100.0	0.9	880

[1] Excludes 6 women with missing alcohol consumption information.

More than two-thirds of unmarried women age 15-19 who have ever had sex reported at least one partner in the last 12 months; 2 percent have had two or more partners. The percentage of sexually active unmarried women goes down with increasing age to just 9 percent in the age group 40-49 years. This general pattern is seen among men as well. One in six unmarried men age 20-24 reported having two or more partners—a pattern of behaviour that places them at high risk of infection with HIV and other STIs.

Residence in the Southern Region and higher levels of education are associated with higher levels of sexual activity in unmarried individuals. Unmarried women in urban areas are more likely to be sexually active than their rural counterparts. This is not true among men, but of those who are sexually active, urban men are more likely than rural men to have multiple partners.

Among both women and men, having been drunk at least once in the last three months is strongly related to high-risk sexual activity. Twenty-three percent of unmarried men who reported that they got drunk recently had two or more partners in the last 12 months, compared with 13 percent of men who did not get drunk recently. The percentage of women who reported that they got drunk recently is small; however, the data suggest that women who engage in excessive drinking are also more likely to have multiple sex partners.

11.8 Payment for Sexual Relations

Male respondents in the 2000 MDHS survey were asked whether they had paid money in exchange for sex in the last 12 months. Among men who have ever had sex, 21 percent reported paying for sex in the last 12 months (Table 11.14). Married men were almost as likely (20 percent) as unmarried men (21 percent) to have recently paid for sex.

There is substantial variation in commercial sex differentials across population subgroups. Urban residence is associated with greater likelihood of having paid for sex among married men, but a smaller likelihood among unmarried men. Men in the Northern Region are much less likely to have engaged in commercial sex (9 percent) than in the Central Region (13 percent) and the Southern Region (30 percent). Men who have been drunk at least once in the last three months are more likely to have engaged in commercial sex (24 percent) than men who have not been drunk (19 percent).

11.9 Knowledge of a Source for Condoms

Because of the important role that the condom plays in combating the transmission of HIV, respondents were asked if they know where they could be obtained. If they reported knowing a source and could cite a specific source, they were asked whether they could actually get a condom if they wanted to get one. This last question was intended to ascertain the level of personal access to condoms as opposed to having passing knowledge.

Table 11.15 shows that 77 percent of women and 87 percent of men could cite a place where they could obtain a condom. This compares with 71 percent (women) and 89 percent (men) reported from the 1996 MKAPH. Knowledge of a source for condoms varies widely, with the lowest levels among men and women who are less educated and those living in rural areas. When asked whether they could actually get a condom, 57 percent of women and 79 percent of men reported that they could. An important and troubling finding is that more than half of women and more

Table 11.14 Payment for sexual relations

Among men who have ever had sexual intercourse, percentage who paid for sex in the 12 months preceding the survey, by marital status and background characteristics, Malawi 2000

Background characteristic	Currently married		Not currently married		All	
	Percent	Number	Percent	Number	Percent	Number
Age						
15-24	17.5	259	21.9	702	20.7	962
25-34	20.9	749	18.4	113	20.6	862
35-54	20.5	898	16.7	65	20.3	963
Residence						
Urban	29.6	307	17.1	187	24.9	494
Rural	18.5	1,599	22.1	693	19.6	2,292
Region						
Northern	9.3	217	9.2	83	9.3	301
Central	12.3	775	13.4	372	12.7	1,147
Southern	29.7	914	30.0	425	29.8	1,339
Education						
No education	20.6	265	18.3	49	20.2	314
Primary 1-4	20.0	565	28.7	233	22.6	798
Primary 5-8	19.6	737	20.9	363	20.0	1,100
Secondary+	21.9	338	14.2	235	18.7	574
Alcohol consumption (last 3 months)						
Has not been drunk	19.1	1,389	20.1	724	19.4	2,114
Has been drunk	23.5	517	25.2	156	23.9	673
Total	20.3	1,906	21.0	880	20.5	2,786

than one-quarter of men in the age group 15-19 reported that they could not get a condom themselves if they wanted to. Respondents living in rural areas, as well as less educated respondents, also reported low levels of personal access to condoms (Figure 11.3). Two-thirds of women who had never had sex reported that they could not get a condom if they wanted to.

11.10 Chishango Condoms

The MDHS survey asked men and women if they "had ever heard of a condom called Chishango," in order to monitor condom brand awareness. Table 11.16 shows that virtually all men (97 percent) and most women (89 percent) had heard of this condom brand. The lowest Chishango brand awareness was among women in the oldest and youngest age groups, women in rural areas, women residing in the Northern Region, and women with less education.

Table 11.15 Knowledge of male condoms

Percentage of women and men who know a source for condoms and who "could get a condom if they wanted to" by background characteristics, Malawi 2000

Background characteristic	Women			Men		
	Knows a source for condoms	Could get condoms if wanted	Number	Knows a source for condoms	Could get condoms if wanted	Number
Age						
15-19	69.1	48.2	2,867	83.8	71.5	660
20-24	82.2	66.4	2,957	93.4	88.0	598
25-29	83.7	66.4	2,401	91.4	86.6	539
30-39	79.3	59.6	2,990	89.1	82.1	670
40-49 (men, 40-54)	69.0	43.5	2,004	79.0	68.9	624
Current marital status						
Married or living together	79.0	60.5	9,452	87.2	79.6	1,906
Divorced, separated, widowed	76.8	55.4	1,525	81.2	79.5	113
Never married						
Ever had sex	78.5	65.2	868	92.8	86.3	767
Never had sex	62.7	33.8	1,375	75.1	57.8	306
Residence						
Urban	94.4	69.0	2,106	98.6	92.8	564
Rural	73.7	55.2	11,114	84.6	76.0	2,528
Region						
Northern	77.8	41.8	1,453	87.8	76.5	351
Central	74.9	58.3	5,321	84.2	76.5	1,296
Southern	78.5	60.2	6,446	89.7	82.0	1,446
Education						
No education	66.1	48.7	3,574	71.8	62.8	322
Primary 1-4	73.0	55.2	4,025	80.5	72.4	898
Primary 5-8	83.6	61.2	4,152	90.4	81.4	1,243
Secondary+	95.9	74.2	1,468	98.2	92.5	629
Total	77.0	57.4	13,220	87.2	79.1	3,092

Figure 11.3 Percentage of Women and Men Who Could "Get a Condom If They Wanted To", by Level of Education

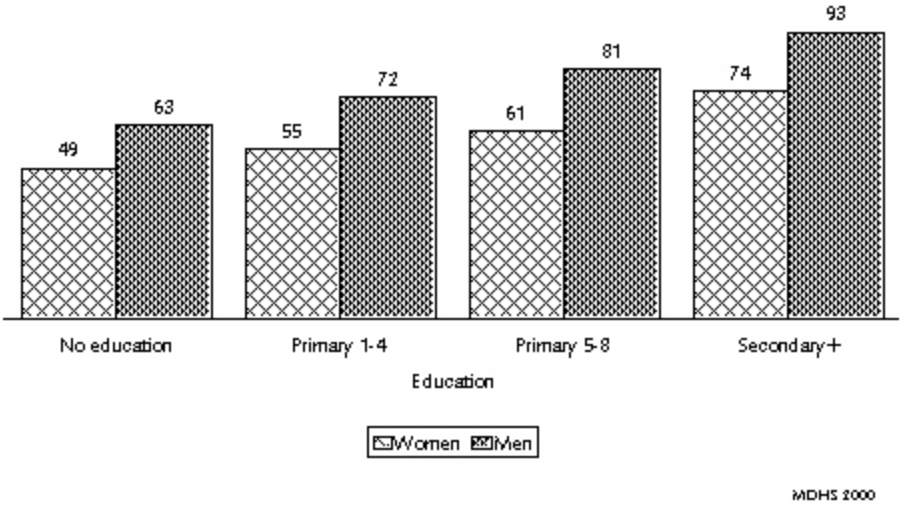


Table 11.16 Knowledge of Chishango brand condom

Percentage of women and men who have heard of Chishango brand condoms, by background characteristics, Malawi 2000

Background characteristic	Women		Men	
	Percent	Number	Percent	Number
Age				
15-19	89.1	2,867	94.1	660
20-24	92.8	2,957	99.2	598
25-29	91.9	2,401	98.9	539
30-34	90.6	1,566	98.5	330
35-39	88.0	1,424	99.2	340
40-44	83.6	1,053	94.7	240
45-49	78.7	951	93.8	207
50-54	na	na	94.0	177
Residence				
Urban	98.6	2,106	99.8	564
Rural	87.5	11,114	96.4	2,528
Region				
Northern	83.0	1,453	93.8	351
Central	86.5	5,321	96.8	1,296
Southern	93.0	6,446	97.9	1,446
Education				
No education	81.9	3,574	94.0	322
Primary 1-4	87.8	4,025	95.3	898
Primary 5-8	93.8	4,152	97.6	1,243
Secondary+	98.8	1,468	99.8	629
Total	89.3	13,220	97.0	3,092

na = Not applicable

11.11 USE OF CONDOMS

Table 11.17 shows the percentages of men and women who used a condom during their last sexual encounter, by partner type and background characteristics. Taking all partner types together (i.e., any partner), men are about three times more likely than women to have used a condom at last sex (14 percent versus 5 percent).

Condoms are used less frequently during sex with cohabiting partners (within formal and informal marriages) for both women (3 percent) and men (6 percent), compared with sex with noncohabiting partners (women, 29 percent; men, 39 percent). It is clear that many women and men understand that sex outside of stable relationships entails greater risk. The 1996 MKAPH collected similar condom use data, allowing an assessment of trends during the late 1990s.

Table 11.17.1 Use of condoms: women

Percentage of women who had sexual intercourse in the 12 months preceding the survey who used a condom during last sexual intercourse with spouse or cohabiting partner, with noncohabiting partner, and with any partner, by background characteristics, Malawi 2000

Background characteristic	Spouse or cohabiting partner		Noncohabiting partner		Any partner	
	Percent	Number	Percent	Number	Percent	Number
Age						
15-19	4.1	953	31.9	482	13.3	1,422
20-24	4.2	2,358	32.6	218	6.3	2,560
25-29	2.7	2,103	21.3	79	3.3	2,172
30-39	1.2	2,498	19.3	104	1.9	2,596
40-49	1.0	1,576	10.5	45	1.2	1,615
Current marital status						
Married or living together	2.6	9,037	16.7	61	2.6	9,062
Divorced, separated, widowed	1.6	436	21.9	273	8.8	694
Never married	na	na	33.1	593	32.5	608
Residence						
Urban	3.3	1,372	44.3	235	9.1	1,600
Rural	2.4	8,117	23.4	692	3.9	8,764
Region						
Northern	5.7	988	44.4	72	8.3	1,060
Central	1.9	3,943	28.1	283	3.6	4,211
Southern	2.4	4,558	27.0	572	4.9	5,094
Education						
No education	1.6	3,001	9.1	101	1.8	3,089
Primary 1-4	1.8	3,011	17.2	237	2.8	3,221
Primary 5-8	3.1	2,757	27.0	339	5.7	3,090
Secondary+	7.1	720	49.7	250	17.7	965
Alcohol consumption (last 3 months)[1]						
Has not been drunk	2.5	9,297	28.2	889	4.7	10,140
Has been drunk	2.1	176	41.4	33	7.3	206
Total	2.5	9,489	28.7	927	4.7	10,365

na = Not applicable
[1] Total includes 19 women with missing alcohol consumption information.

Condom use in sex with noncohabiting partners has increased from 20 to 29 percent among women; among men, there was a negligible change from 38 to 39 percent. Condom use *within* marriage has declined slightly since 1996; from 4 to 3 percent in women and from 9 to 6 percent in men.

The pattern of condom use across age categories varies depending on the sex of the respondent. In women, during both cohabiting and noncohabiting sexual activity, use of a condom is highest in the youngest age groups and declines with increasing age. Looking at men's sexual activity within marriage, condom use also declines with increasing age; but during sex with noncohabiting partners, condom use is lowest in the youngest (age 15-19) and the oldest (40-54) age groups.

Table 11.17.2 Use of condoms: men

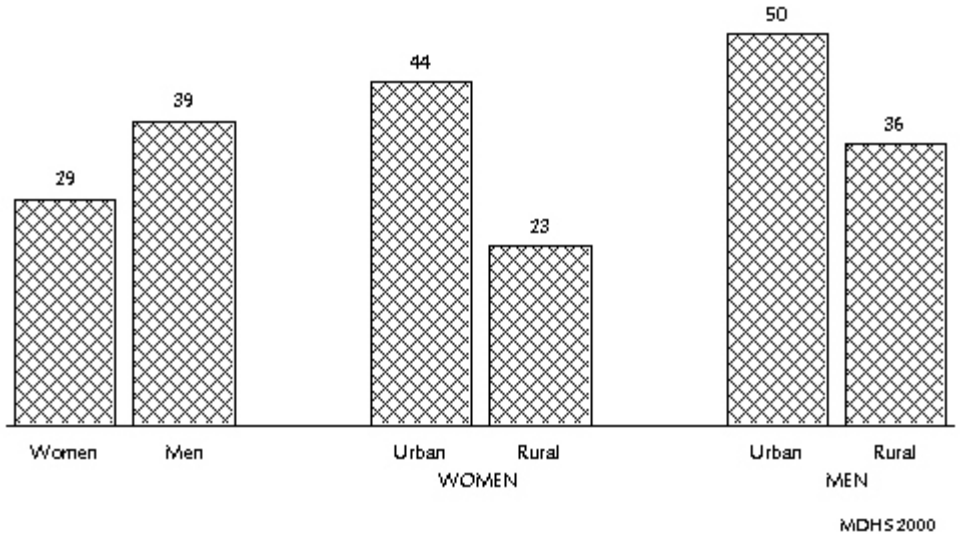
Percentage of men who had sexual intercourse in the 12 months preceding the survey who used a condom during last sexual intercourse with spouse or cohabiting partner, with noncohabiting partner, and with any partner, by background characteristics, Malawi 2000

Background characteristic	Spouse or cohabiting partner		Noncohabiting partner		Any partner	
	Percent	Number	Percent	Number	Percent	Number
Age						
15-19	(20.1)	23	28.9	274	28.1	293
20-24	7.5	226	46.9	263	27.3	459
25-29	7.5	428	45.5	140	13.7	495
30-39	6.4	609	41.4	94	7.7	635
40-54	3.0	577	28.5	51	3.5	587
Current marital status						
Married or living together	5.8	1,831	42.4	243	6.7	1,861
Divorced, separated, widowed	(9.7)	30	37.0	49	26.0	74
Never married	na	na	37.5	532	37.5	534
Residence						
Urban	7.2	305	49.6	175	20.4	430
Rural	5.7	1,559	36.0	648	12.6	2,039
Region						
Northern	10.2	208	49.2	69	18.2	264
Central	6.8	751	38.7	312	14.9	999
Southern	4.2	905	37.4	442	12.2	1,206
Education						
No education	4.0	259	23.7	51	5.3	285
Primary 1-4	4.0	547	29.2	227	8.9	704
Primary 5-8	6.5	720	38.7	349	15.0	989
Secondary+	9.2	337	54.4	197	24.2	492
Alcohol consumption (last 3 months)						
Has not been drunk	5.6	1,352	37.8	618	14.0	1,837
Has been drunk	6.7	512	42.3	206	13.8	632
Total	5.9	1,864	38.9	823	14.0	2,469

na = Not applicable
( ) Estimate based on 25-49 unweighted cases.

Urban men and women were much more likely to use a condom at last sex than their rural counterparts. The urban-rural differential is especially pronounced for condom use with noncohabiting partners (Figure 11.4). Women living in urban areas are almost twice as likely to use a condom during sex with noncohabiting partners than women in rural areas.

Figure 11.4 **Percentage of Women and Men Who Used a Condom at Last Sex With a Noncohabiting (Higher Risk) Partner, by Urban-rural Residence**



Education is uniformly associated with higher reported condom use by both men and women, but the effect is more pronounced in women. Women with a secondary school education are five times more likely to use a condom during sex with a noncohabiting partner (50 percent) than women who never attended school (9 percent). This strong influence of education on risk avoidance behaviour is unlikely to be wholly the result of formal schooling per se but suggests that educated women possess more personal autonomy and influence in negotiating safer sex practise.

It might be expected that drinking, especially drinking to excess, would be associated with risky behaviour, namely, nonuse of condoms. However, the data do not generally support this. For men, condom use with both categories of partners is higher among those reporting having been drunk. Among women, this is true only for noncohabiting partners. Of course, this does not mean that drinking is protective; it does suggest that drinkers are self-selected into a category of sexual activity that recognises and, to a certain degree, responds to a higher-risk context.

Condom Use during Commercial Sex

Among men who reported having paid for sex in the last 12 months, only about one-third (35 percent) reported using a condom on the last occasion (Table 11.18). This is even lower than the estimate of condom use by men during sex with a noncohabiting partner and suggests that many men either have not heard, have not understood, or simply have not responded to the

Table 11.18 Use of condoms during commercial sex

Among men who paid for sex in the 12 months preceding survey, the percentage who used a condom at last paid intercourse, by background characteristics, Malawi 2000

Background characteristic	Percentage using a condom	Number of men
Age		
15-24	37.1	199
25-34	44.4	178
35-54	25.5	195
Current marital status		
Currently married	34.0	386
Not currently married	38.4	185
Residence		
Urban	45.6	123
Rural	32.6	449
Region		
Northern	41.4	28
Central	35.5	145
Southern	35.0	399
Education		
No education	19.8	64
Primary 1-4	29.7	180
Primary 5-8	36.4	220
Secondary+	52.0	107
Alcohol consumption (last 3 months)		
Has not been drunk	34.9	411
Has been drunk	36.6	161
Total	35.4	572

message to use condoms during risky sex. A man's educational level is closely associated with condom use; 52 percent of men who engaged in commercial sex used a condom if they had a secondary education, but just 20 percent used a condom if they had not attended school. Marital status and drinking patterns were only weakly associated with condom use at last paid sex.

ADULT AND MATERNAL MORTALITY 12

Ann Phoya and George Bicego

In an earlier chapter of this report, estimates of mortality during the first years of life were presented and discussed. Early childhood mortality varies substantially as an index of social and economic development and thus tends to be predictably high in disadvantaged settings. Mortality during later childhood and adolescence is, on the other hand, relatively low in all societies but begins to rise with age starting in the late teenage years. The pattern and pace of the rise in adult mortality with increasing age is tied closely to the occupational profile, fertility pattern, and epidemiological characteristics of a population. Two aspects of adult mortality dynamics deserve close attention in the Malawian context. First, given sharp rises in the prevalence of HIV infection and AIDS (discussed in the previous chapter) over the last 15 years, Malawi is expected to suffer increases in both female and male adult mortality in the near term. Second, mortality related to pregnancy and childbearing (maternal mortality) serves as an important indicator to monitor women's and reproductive health programmes in the country.

The 2000 MDHS Women's Questionnaire included a sibling history, which is a detailed account of the survivorship of all of the live-born children of the respondent's mother (i.e., maternal siblings). These data allow direct estimation of overall adult mortality (by sex), as well as maternal mortality in particular. The direct approach to estimating adult and maternal mortality maximises use of the available data, using information on the age of surviving siblings, the age at death of siblings who died, and the number of years ago the sibling died. This allows the data to be aggregated to determine the number of person-years of exposure to mortality risk and the number of sibling deaths occurring in defined calendar periods. Rates of adult mortality and maternal mortality are obtained by dividing all adult deaths (or maternal deaths) in a calendar period by person-years of exposure to death in those periods. The procedure calculates rates in each of the five-year age periods first and then aggregates the estimates for the whole 15-49 age range, weighting the age-specific estimates using the observed age structure of the female population.

12.1 The Data

Each female respondent was first asked to give the total number of her mother's live births. Then the respondent was asked to provide a list of all of the children born to her mother starting with the first born and was asked whether each of these siblings was still alive at the survey date. For living siblings, current age was recorded; for deceased siblings, age at death and years since death were recorded. Interviewers were instructed that when a respondent could not provide precise information on ages or years ago, approximate but still quantitative answers were acceptable. For sisters who died at ages 12 years or above, three questions were used to determine whether the death was maternity-related: "Was [NAME OF SISTER] pregnant when she died?" and if negative, "Did she die during childbirth?" and if negative, "Did she die within two months of the birth of a child or pregnancy termination?"

The estimation of adult and maternal mortality by either direct or indirect means requires reasonably accurate reporting of the number of sisters and brothers the respondent ever had, the number that have died, and (for maternal mortality) the number of sisters who have died of

maternity-related causes. There is no definitive procedure for establishing the completeness or accuracy of retrospective data on sibling survivorship. However, the MDHS sibling history data do not show any obvious defects that would indicate poor data quality or systematic underreporting. Table 12.1 shows the number of siblings reported by the respondents and the completeness of the reported data on current age, age at death, and years since death.

Table 12.1 Data on siblings: completeness of reported data

Number of siblings reported by survey respondents and completeness of the reported data on age, age at death, and years since death, Malawi 2000

Sibling status and completeness of reporting	Sisters		Brothers		Total	
	Number	Percent	Number	Percent	Number	Percent
Total siblings reported	39,447	100.0	39,744	100.0	79,191	100.0
Living	28,579	72.4	28,384	71.4	56,963	71.9
Dead	10,863	27.5	11,348	28.6	22,211	28.0
Missing survival status	4	0.0	12	0.0	16	0.0
Living siblings	28,579	100.0	28,384	100.0	56,963	100.0
Age reported	28,562	99.9	28,373	100.0	56,936	100.0
Age missing	17	0.1	10	0.0	28	0.0
Dead siblings	10,863	100.0	11,348	100.0	22,211	100.0
AD and YSD reported	10,802	99.4	11,278	99.4	22,080	99.4
Missing only AD	8	0.1	15	0.1	23	0.1
Missing only YSD	37	0.3	41	0.4	78	0.4
Missing both	16	0.1	14	0.1	30	0.1

AD = Age at death
YSD = Years since death/year of death

Of the 79,191 siblings reported in the sibling histories of MDHS respondents, for only 16 (<0.1 percent) was survival status not reported. Among surviving siblings, current ages (used to estimate exposure to death) were not reported for less than 0.1 percent of siblings. Among deceased siblings, complete reporting of age at death and years since death was nearly universal. For 99 percent of deceased siblings, both age at death and years since death (or year of death) were reported. In less than 1 percent of cases, either the age at death or the years since death (and year of death) was missing. Rather than exclude the small number of siblings with missing data from further analysis, information on the birth order of siblings in conjunction with other information was used to impute the missing data.[1] The sibling survivorship data, including cases with imputed values, were used in the direct estimation of adult and maternal mortality.

[1] The imputation procedure is based on the assumption that the reported birth order of siblings in the history is correct. The first step is to calculate birth dates. For each living sibling with a reported age and each dead sibling with complete information on both age at death and years since death, the birth date was calculated. For a sibling missing these data, a birth date was imputed within the range defined by the birth dates of the bracketing siblings. In the case of living siblings, an age was then calculated from the imputed birth date. In the case of dead siblings, if either the age at death or years since death was reported, that information was combined with the birth date to produce the missing information. If both pieces of information were missing, the distribution of the ages at death for siblings for whom the years since death were unreported, but age at death was reported, was used as a basis for imputing the age at death.

12.2 ADULT MORTALITY

One way to assess the quality of data used to estimate maternal mortality is to evaluate the plausibility and stability of overall adult mortality. It is reasoned that if estimated rates of overall adult mortality are implausible, rates based on a subset of deaths—maternal deaths in particular—are unlikely to be free of serious problems. As described above, levels and trends in overall adult mortality have important implications in their own right for health and social programmes in Malawi, especially regarding mitigation of the impact of the AIDS epidemic.

Table 12.2 shows age-specific mortality rates for men and women age 15-49, for the calendar period 0-6 years before the survey (i.e., 7-year period before the interview). Also shown are identically calculated estimates drawn from the 1992 MDHS survey, for a period 0-6 years before that survey. The centre of the reference period of the estimates from the 1992 and 2000 survey data are early 1989 and early 1997, respectively.

Table 12.2 Adult mortality rates

Direct estimates of age-specific mortality rates for women and men age 15-49, for the periods 0-6 years prior to the 2000 MDHS and 1992 MDHS

	2000 MDHS			1992 MDHS
Age group	Deaths	Exposure (person-years)	Mortality rates (/1000)	Mortality rates (/1000)
WOMEN				
15-19	132	32,383	4.1	5.3
20-24	287	33,485	8.6	3.6
25-29	315	27,706	11.4	6.8
30-34	326	21,063	15.5	7.2
35-39	262	15,263	17.1	9.0
40-44	173	9,682	17.9	8.9
45-49	104	5,592	18.7	9.6
15-49	1,599	145,174	11.3	6.5
MEN				
15-19	105	31,021	3.4	3.8
20-24	190	32,255	5.9	4.1
25-29	254	27,860	9.1	6.8
30-34	310	21,487	14.4	8.4
35-39	315	15,465	20.3	7.6
40-44	210	9,340	22.5	10.1
45-49	128	5,523	23.2	9.7
15-49	1,511	142,952	11.1	6.3

Despite some small fluctuations in the age-specific rates, the results of this analysis are unambiguous. Figures 12.1 and 12.2 clearly show that mortality in both women and men has risen sharply between the period of the late 1980s to the early 1990s and the mid- to late 1990s. Indeed, when looking at the summary measure of mortality for the age group 15-49, one observes a 74 percent increase in all-cause adult female mortality and a 76 percent increase in adult male mortality.

Figure 12.1 Trends in Age-specific Mortality among Women 15-49

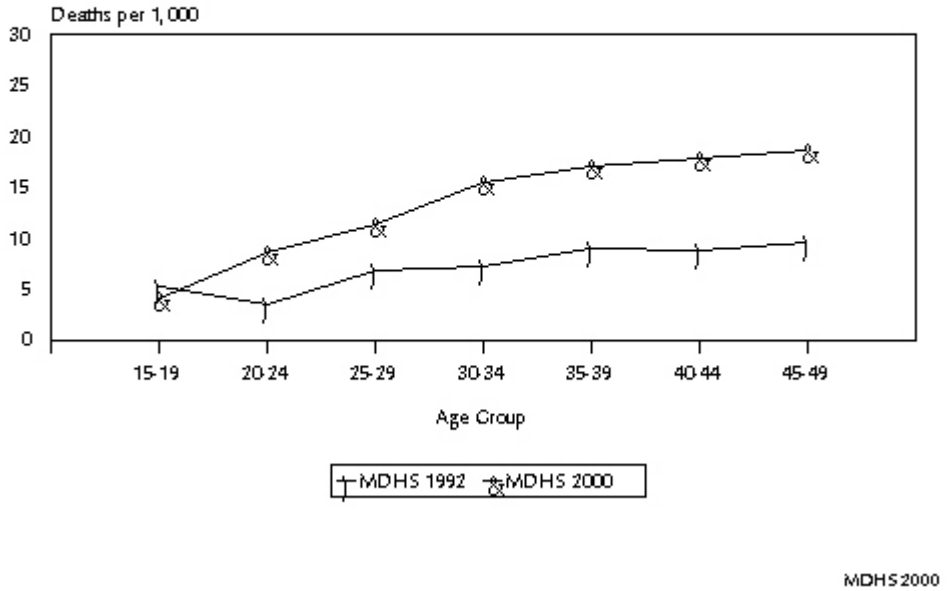
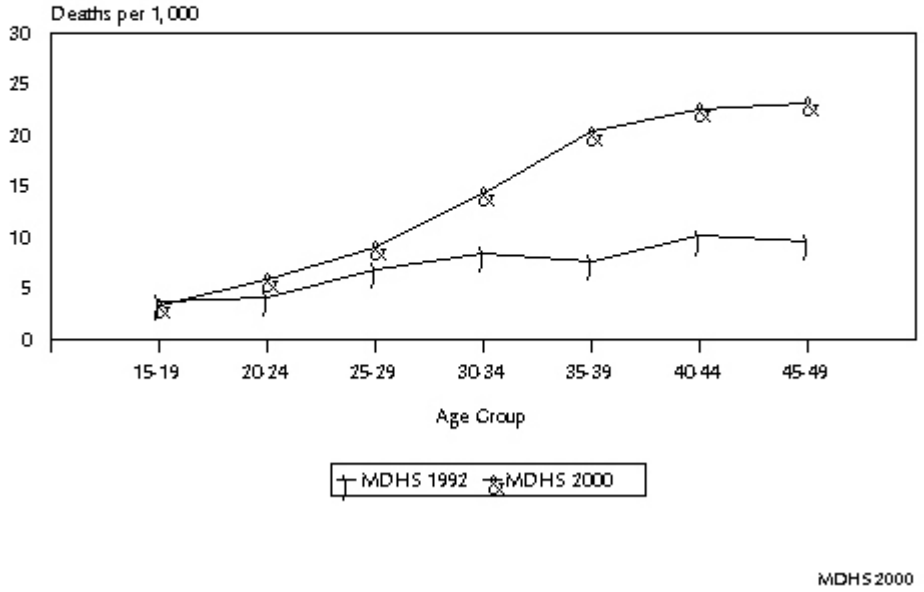


Figure 12.2 Trends in Age-specific Mortality among Men 15-49



Of particular interest is the broad age-pattern "signature" to the rises in mortality, with the largest changes for men occurring from age 30 and older, whereas for women, an earlier impact is observed (age 20 and older). This sex differential in the age pattern of the rise in mortality is consistent with the sex differential in HIV infection and AIDS-related mortality in sub-Saharan Africa, which is in turn related to the age differential in sexual activity (i.e., older men with younger women).

12.3 Maternal Mortality

Maternal deaths are a subset of all female deaths, specifically those associated with pregnancy and childbearing. The approach used to obtain the maternal mortality results is the same as that is used to obtain overall adult mortality. Direct, age-specific estimates of maternal mortality from the reported sibling survivorship histories are shown in Table 12.3 for the period 0-6 years before the survey, alongside estimates based on the 1992 MDHS data for the period 0-6 years before that survey.

Table 12.3 Direct estimates of maternal mortality

Direct estimates of maternal mortality rates and the maternal mortality ratio, for the period 0-6 years prior to the 2000 MDHS and 1992 MDHS

	2000 MDHS			1992 MDHS
Age group	Deaths	Exposure (person-years)	Mortality rates (/1000)	Mortality rates (/1000)
15-19	13	32,383	0.4	1.3
20-24	80	33,485	2.4	0.5
25-29	75	27,706	2.7	1.5
30-34	79	21,062	3.7	1.8
35-39	44	15,263	2.9	1.9
40-44	43	9,682	4.5	0.8
45-49	11	5,591	1.9	3.4
15-49	344	145,174	2.4	1.4
General fertility rate (GFR)			0.210	0.220
Maternal mortality ratio (MMR)[1]			1,120	620

[1] Per 100,000 live births, calculated as the maternal mortality rate divided by the general fertility rate.

The number of maternal deaths is small from the 1992 survey (68), so the differences between age-specific rates from the 1992 MDHS survey and the 2000 MDHS survey should not be overinterpreted—the preferred approach is to focus attention on the estimate for all childbearing ages combined (15-49 years). For the period 0-6 years before the survey (centered on early 1997), the rate of mortality due to causes related to pregnancy and childbearing is 2.4 maternal deaths per 1,000 woman-years of exposure.[2]

[2] The rate for the whole age range 15-49 is standardised on the MDHS household age structure.

The maternal mortality rate is converted to a maternal mortality ratio (MMR) and expressed per 100,000 live births by dividing the rate by the general fertility rate (0.210) associated with the same period. In this way, the obstetrical risk of pregnancy and childbearing is underlined. Using direct estimation procedures based on the 2000 MDHS survey, the maternal mortality ratio is estimated to be 1,120 maternal deaths per 100,000 live births applicable to the seven-year period before the survey (centered on early 1997). This estimate of the maternal mortality ratio exceeds by some 80 percent the estimate from the 1992 MDHS survey of 620 maternal deaths per 100,000 live births.

The proportion of all female deaths that are maternity-related has remained constant at 20 to 21 percent between the late 1980s and the late 1990s.[3] At face value, this means that maternal mortality has risen at roughly the same pace as nonmaternal mortality. This may appear implausible if one regards the rise in all-cause female mortality as principally AIDS driven, which would be expected to cause a disproportionate rise in nonmaternal mortality. Possible explanations include the following:

1. The maternal mortality component of all-cause female mortality may have been underestimated in the 1992 MDHS survey. This would result from either misclassification of maternal deaths as nonmaternal deaths or simply underreporting of maternal deaths.
2. The maternal mortality component of all-cause female mortality may have been overestimated in the 2000 MDHS survey. This could result from an increase in nonmaternal deaths that are, in part, being (mis)classified as maternal deaths. Given the prevailing social stigma associated with AIDS, some respondents may be biased toward reporting a sister's AIDS-related death as being maternity-related.
3. It is also important to recall that (based on survey definitions) all deaths occurring during pregnancy through the postpartum period are considered maternal. Under this definition, it is expected that maternal mortality will rise in contexts with a combination of high fertility and high HIV prevalence. This methodological issue is discussed in Stecklov, 1995 and Khlat et al., 2000, but no solution is provided other than suggestions to focus measurement of maternal mortality on direct obstetrical causes, an approach probably not feasible in the context of a household survey.
4. Rather than being misclassified, some AIDS-related deaths may have simply been omitted in the 2000 MDHS survey. This would mean that the true rise in all-cause female mortality is even higher than described here.
5. There may have been a real rise in deaths that are at once maternity-related and directly HIV/AIDS-related. HIV-infection-induced immunosuppression may be expected to cause increases in case-fatality from pregnancy and delivery-related infections. Increases in pregnancy loss associated with HIV infection may also cause increased risks of maternal death (Gray et al, 1998). The evidence to support these explanations is, however, not strong.
6. There may have been a real rise in maternal deaths due in part to deterioration in maternal health services associated with the AIDS epidemic.

[3] These proportionate maternal mortality estimates are in the range of those presented by Stanton et al. (1997) in their exhaustive review of similar data collected around the world.

Each of these explanations alone would probably not explain the observed patterns (very large and roughly proportional rises in both maternal and nonmaternal mortality), but taken together, they may help to place the findings in methodological and substantive contexts.

In conclusion, the available evidence points to dramatic rises in both maternal and nonmaternal mortality during the 1990s. Malawi's maternal mortality ratio stands at 1,120 maternal deaths per 100,000 live births. The MMR estimate may include mortality related to HIV infection and AIDS. This finding underscores the need to focus particular attention on reproductive health services in general and safe delivery practises in particular. Further, the 2000 MDHS findings strongly suggest that safe motherhood policies and initiatives need to be evaluated within the context of the nation's AIDS epidemic. In-depth research is urgently needed to better understand the troubling rises in both maternal mortality and overall mortality in adult men and women.

MALARIA 13

Jameson Ndawala, Gertrude Kalanda, and Mary Mahy

Malaria is a major public health concern in Malawi, especially among pregnant women and children under the age of five. It is a leading cause of morbidity and mortality in Malawi, accounting for one-third of all outpatient visits and more than a third of visits among children under five years old. In the current five-year National Health Plan (1999-2004), the Ministry of Health and Population has singled out malaria as "the most serious health problem facing Malawi today." There are more than 8 million episodes of malaria illness per year experienced by Malawi's population of 10 million. About 40 percent of the deaths in children less than two years old are related to malaria.

The type of malaria most common in Malawi (*plasmodium falciparum*) can lead to death; however, the most severe cases are typically limited to those who are not immune or have low immunity. People most at risk are children from age three months, who no longer have the immunity transferred from their mother, to about the age of five years when they have developed their own immunity. Also at particular risk are pregnant women because their natural immunity is reduced. Pregnant women are four times more likely to suffer from complications of malaria than nonpregnant women. Malaria is a cause of pregnancy loss, low birth weight, and neonatal mortality (Jamison et al, 1993).

Malaria continues to be costly in both societal and economic terms. Absenteeism from school and work due to malaria is common. Poverty worsens in populations affected by malaria illness because the workforce is less productive. This affects food production and outputs from other industries. It is estimated that the government of Malawi spends US$2.7 million per annum in treating malaria cases, including both inpatients and outpatients. The public at large spends US$35.00 per annum per household on malaria treatment and yet malaria can be prevented.

The recent global Roll Back Malaria (RBM) movement, which Malawi endorsed and to which Malawi committed itself in the Abuja Declaration, has set the framework within which the country is implementing malaria control. The movement's goal is to halve the burden of malaria by 2010. It sets out to increase bednet usage to 60 percent of all pregnant women, as well as children under five years old. It also aims to improve access to prompt and appropriate treatment within 24 hours of onset of illness.

In controlling malaria in Malawi, one of the strategies that the Ministry of Health and Population has adopted is the presumptive treatment of fever with sulpha-pyrimethamine (SP) (also known as Fansidar) as the first line drug and promotion of efforts to increase its availability at the community level.

13.1 Bednets

The use of insecticide-treated bednets (mosquito nets) is a primary health intervention to reduce malaria transmission. Treated nets are being promoted through three main channels: 1) the

public sector as community-based projects, 2) public/private partnerships implemented by nongovernmental organisations directly to the community, and 3) the private sector's social marketing initiatives such as those assisted by Population Services International (PSI), (BITNET). This section presents MDHS findings based on data collected at the household level on bednet possession and data collected at the individual level on use and treatment of bednets by household members.

13.1.1 Possession of Bednets

All households in the 2000 MDHS survey were asked whether they owned bednets and how many they owned. To allow monitoring of the distribution of bednets made available under social marketing initiatives (blue and green nets), a question was asked as to how many of the bednets were white (as opposed to coloured).

Table 13.1 presents results of the MDHS survey on household possession of bednets. Thirteen percent of households reported owning a bednet. Among the households that reported bednet ownership, the average number of bednets per household is 1.6. Ownership of at least one coloured bednet is 5 percent; in those households, the average number of coloured bednets is 1.4.

Table 13.1 Possession and use of bednets

Percentage of households with bednets, mean number of bednets per household, and percentage of children under five, women age 15-49, and men age 15-54, who slept under a bednet the night before the survey, by background characteristics, Malawi 2000

	Households that own at least one:		Mean number of bednets per household[1]			Percentage who used a bednet the night before the interview					
Background characteristic	Bednet	Coloured bednet[2]	Bednet	Coloured bednet[2]	Total	Children under 5	Number	Women 15-49	Number	Men 15-54	Number
Residence											
Urban	32.0	16.7	1.8	1.6	1,949	20.8	1,358	19.2	2,106	10.6	564
Rural	10.1	3.6	1.5	1.3	12,264	5.7	9,201	5.4	11,114	5.4	2,528
Region											
Northern	24.8	6.4	1.7	1.3	1,496	16.8	1,166	14.4	1,453	9.6	351
Central	10.9	4.0	1.6	1.3	5,744	6.0	4,594	6.0	5,321	4.2	1,296
Southern	12.4	6.3	1.6	1.5	6,973	7.0	4,799	7.3	6,446	7.4	1,446
Owns a radio											
Yes	19.6	8.3	1.6	1.5	7,782	10.5	6,157	10.6	7,923	7.8	2,041
No	5.2	1.7	1.4	1.2	6,413	3.7	4,395	3.1	5,285	3.3	1,048
Household head's/ mother's/women's/ men's education											
No education	6.6	2.1	1.4	1.3	3,977	4.0	2,486	3.4	3,093	4.8	610
Primary 1-4	7.7	2.6	1.4	1.2	3,879	4.4	2,852	3.9	3,442	3.4	864
Primary 5-8	12.5	4.6	1.5	1.2	4,425	5.9	3,786	6.3	4,563	5.0	1,063
Secondary+	38.6	19.3	1.8	1.6	1,932	24.6	1,436	22.5	2,123	15.1	554
Total	13.1	5.4	1.6	1.4	14,213	7.6	10,559	7.6	13,220	6.3	3,092

[1] Mean number of bednets per household households with bednets.
[2] Coloured bednets (e.g. blue and green) are usually those available under recent social marketing initiatives.

Urban households, households in the Northern Region, and households with higher socioeconomic status are much more likely to possess at least one bednet. Twenty-five percent of households in the Northern Region have at least one bednet, compared with 12 percent in the Southern Region and 11 percent in the Central Region. Ownership of bednets is also high among urban households (32 percent versus 10 percent for rural households) and among households that own a radio (20 percent versus 5 percent in households with no radio). There is a strong relationship between the household head's level of education and the presence of a bednet in the house. Households whose head has a secondary or higher education are about six times more likely to have a bednet (39 percent) than households in which the head of household has no education (7 percent).

The differentials in possession of coloured bednets parallel those described above for all bednets, except that regional differences in coloured bednet possession are not as marked, and socioeconomic differentials are larger than shown for all bednets.

13.1.2 Use of Bednets

In the 2000 MDHS survey, women age 15-49 in households possessing a bednet were asked questions about their own use of bednets and the use of bednets for all of their own children under age five. Men age 15-54 in households possessing a bednet were asked similar questions about their own bednet use. Since the prevalence of malaria-carrying mosquitoes varies seasonally, with a peak during and immediately following periods of rain, use of bednets may be expected to follow a similar seasonal pattern. Since the survey was conducted mostly before the rainy season (July to November), estimates of bednet use should be understood to reflect the prevailing dry-season use levels.

Figure 13.1 Percentage of Children under Age 5 and Women Age 15-49 Who Slept under a Bednet on the Night Before the Survey

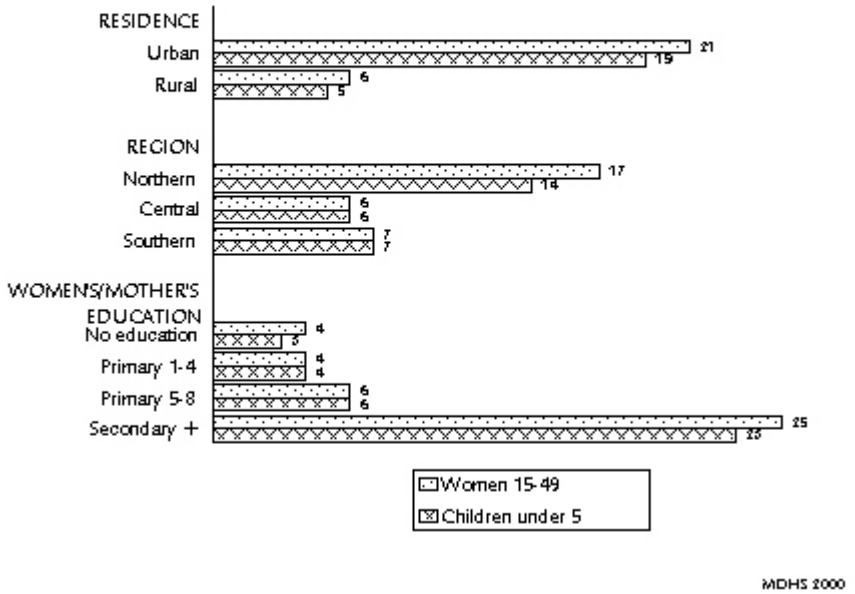


Table 13.1 shows that 8 percent[1] of women age 15-49 and 8 percent of children under age five slept under a bednet on the night before the survey. A slightly lower percentage of men (6 percent) reported sleeping under a bednet. The pattern of bednet use by children, women, and men across background characteristics closely resembles the pattern observed for bednet possession.

13.1.3 Insecticide Treatment of Bednets

Table 13.2 presents the age and insecticide treatment pattern for bednets that were used the previous night by children under age five, women, and men by background characteristics. The average age of the bednets used by children under age 5 is 18 months. The average is higher in the Northern Region at 25 months, compared with the Central Region (18 months) and the Southern region (15 months). Differences in the age of the bednets by urban-rural residence and mother's education are small.

Regarding bednets that were used the previous night by children under five, 38 percent had been treated, and of those, the average period since last treatment was four months. The proportion of children using bednets that were ever soaked or dipped is higher in the Southern Region (51 percent) than in the Central (33 percent) or Northern (22 percent) regions. It is also twice as high in urban areas (56 percent) as in rural areas (28 percent). Children whose mothers have been

Table 13.2 Bednet age and insecticide treatment for bednets

Age of bednets and insecticide treatment pattern for bednets that were used the previous night by children under age five, women age 15-49, and men age 15-54, according to background characteristics, Malawi 2000

	Children under 5				Women age 15-49				Men age 15-54			
Background characteristic	Average age of bednets (months)	Percent of bednets ever soaked or dipped	Average months since last treatment	Number of children using bednets	Average age of bednets (months)	Percent of bednets ever soaked or dipped	Average months since last treatment	Number of women using bednets	Average age of bednets (months)	Percent of bednets ever soaked or dipped	Average months since last treatment	Number of men using bednets
Residence												
Urban	17.3	56.0	3.7	282	15.5	57.8	3.7	405	9.1	59.0	2.0	60
Rural	18.9	27.7	4.4	523	17.3	33.4	3.9	599	14.5	38.5	3.3	136
Region												
Northern	24.8	21.5	5.1	195	23.3	18.5	4.8	209	(13.9)	(14.0)	(2.8)	34
Central	17.7	33.4	3.9	275	15.8	42.9	3.7	322	13.0	59.0	1.9	55
Southern	15.0	50.5	3.8	334	14.1	54.3	3.7	473	12.3	47.2	3.4	107
Mother's/Women's/ Men's education												
No education	19.4	21.3	3.6	149	19.7	25.2	3.6	160	*	*	*	14
Primary1-4	18.9	26.9	5.4	141	16.6	37.5	4.3	173	(13.5)	(50.6)	(3.4)	31
Primary5-8	18.3	37.1	3.9	266	16.6	38.5	3.8	317	11.9	33.8	1.7	55
Secondary+	17.5	54.1	3.8	249	15.2	58.4	3.7	353	10.5	52.1	2.9	95
Total	18.4	37.6	4.0	805	16.6	43.2	3.8	1,004	12.8	44.8	2.8	195

* Fewer than 25 unweighted cases; estimate has been suppressed
( ) Estimate based on 25-49 cases

[1] Among pregnant women, 7 percent reported sleeping under a bednet on the night before the survey (not in Table 13.1).

to secondary school are much more likely to have slept under a bednet that was treated. The duration since last treatment does not vary much across background characteristics, although it appears to be slightly longer in the Northern Region.

The average age of the bednets used by women and men is 17 months and 13 months, respectively. Forty-three percent of the women and 45 percent of the men used bednets that had been treated. Thus, the bednets used by adults appear to be more recently purchased and more recently treated than those used by children. The pattern for both women and men by background characteristic is similar to that observed for children.

13.2 Intermittent Treatment During Pregnancy

Pregnant women who carry the malaria parasite may be at risk of serious problems that jeopardise their own health, compromise the health of the foetus, and increase the likelihood of adverse pregnancy outcomes such as low birth weight. As a protective measure, it is recommended that pregnant women receive intermittent treatment (IT) with SP/Fansidar twice—once in the second trimester and once in the third trimester—to clear the malaria parasite from their body. In reference to the pregnancy that ended in their last live birth, women were asked whether any antimalarials were taken during the pregnancy,[2] which drug was taken,[3] and how many different times it was taken during the pregnancy. The data do not allow assessment of the timing of the doses relative to stage of pregnancy.

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[2] To avoid confusion with treatment doses of antimalarials (i.e., in response to an episode of malaria), the question was followed immediately with, "Not considered here are instances when you took the drug *because* you had malaria."

[3] Interviewers carried samples of antimalarials, so that if a respondent was not certain of the drug type, it could be ascertained by showing the samples.

Table 13.3 Intermittent treatment

Percentage of women who received intermittent treatment with sulpha-pyrimethamine (SP) during the last pregnancy in last five years, by background characteristics, Malawi 2000

Background characteristic	Received SP at least once during pregnancy	Received SP 2 or more times during pregnancy	Number of births
Birth order			
1	67.8	29.8	1,703
2-3	70.3	30.8	2,780
4-5	67.3	27.6	1,664
6+	63.4	28.1	1,909
Age of mother			
15-24	67.3	28.0	3,129
25-34	69.7	31.0	3,286
35-49	63.5	28.4	1,642
Residence			
Urban	81.3	32.1	1,075
Rural	65.4	28.9	6,982
Region			
Northern	76.8	27.0	894
Central	60.6	29.7	3,407
Southern	71.5	29.5	3,757
Woman's education			
No education	58.9	26.3	2,585
Primary 1-4	62.9	28.0	2,423
Primary 5-8	76.2	31.9	2,434
Secondary+	87.3	37.0	615
Total	67.5	29.3	8,057

Table 13.3 presents the percentage of women who received at least one dose and at least two doses of SP/Fansidar during the last pregnancy leading to a live birth in the last five years. The data indicate that, in Malawi, 68 percent of all mothers received at least one dose of SP/Fansidar as a prophylaxis and that 29 percent received at least two doses. Differentials by background characteristics are generally not large, although pregnant women in urban areas and in the Northern Region are more likely to receive at least one IT dose. More educated women are also more likely to receive IT than less educated women. Still, only about one-third of pregnant women with at least some secondary schooling reported that they had received two doses of Fansidar during their last pregnancy.

13.3 Treatment of Children with Fever

Since the major manifestation of malaria is fever, mothers were asked whether their children under age five had had a fever in the two weeks preceding the survey. If a fever was reported, the mother was asked whether treatment was sought at a health facility and whether the child was given any medication. Interviewers in the MDHS survey used a chart to record information provided by the mother on the sequence of actions taken in response to the child's fever. Potential actions included, among other things, what type of health facility the child was taken to and what types of medication were ultimately given to the child.

Table 13.4 shows that 42 percent of children were reported to have had a fever in the two weeks prior to the survey, which is similar to the 41 percent from the 1992 MDHS survey. This varied by region: the Northern Region had a prevalence rate of 34 percent, while the Central and Southern regions had prevalence rates of 44 and 42 percent, respectively. Rural children were more likely to have had fever (43 percent), compared with urban children (32 percent). Children of women with no education were less likely to have had fever (42 percent) than children of mothers with one to four years of primary education (46 percent). Children of women with five to eight years of primary or some secondary education had lower prevalence of fever (39 and 31 percent, respectively). Children age 3-4 have a lower fever prevalence than younger children, probably because their bodies have become more immune after repeated episodes.

Table 13.4 Treatment of children with fever

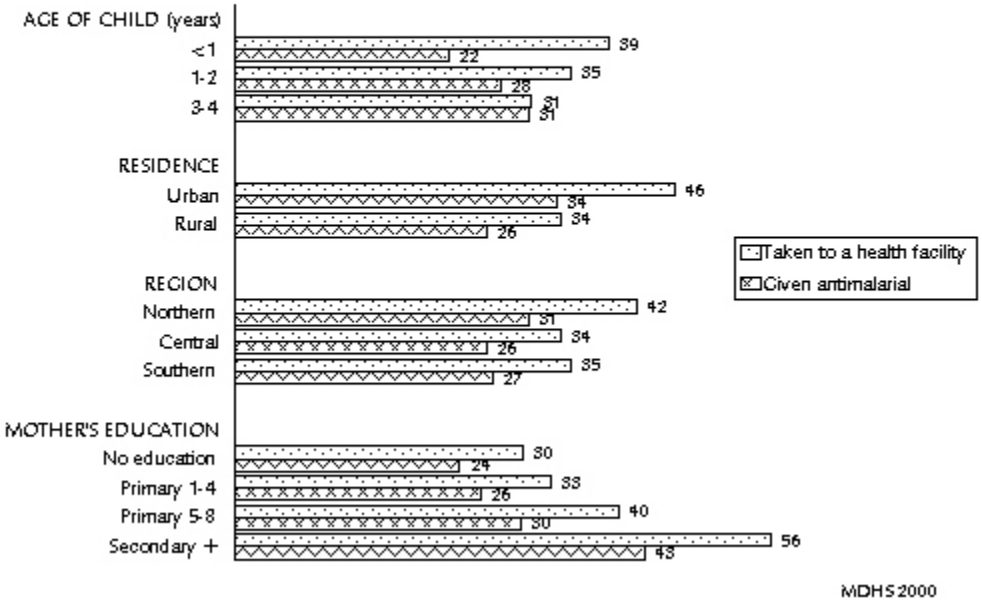
Percentage of children under 5 with fever in the two weeks preceding the survey and, of those, the percentage who were taken to a health facility and percentage who received antimalarials, by background characteristics, Malawi 2000

			Among those with fever, percentage:						
Background characteristic	Percent with fever in preceding 2 weeks	Number	Percent taken to a health facility	Given any anti-malarial	Given SP/Fansidar	Given Chloro-quine	Given other anti-malarial	Don't know what medication was given	Number of children ill with fever
Age of child (years)									
<1	46.6	2,517	39.0	22.4	18.4	1.5	2.7	1.9	1,173
1-2	49.0	4,345	35.3	27.7	23.8	1.5	3.2	1.4	2,129
3-4	29.6	3,697	30.8	30.6	27.3	0.9	3.2	0.6	1,093
Residence									
Urban	31.9	1,358	45.8	33.7	27.6	0.5	7.1	1.6	434
Rural	43.0	9,201	34.0	26.3	22.8	1.4	2.6	1.3	3,961
Region									
Northern	33.8	1,166	41.5	30.7	24.5	1.5	6.9	1.0	394
Central	43.6	4,594	34.4	26.4	22.1	2.1	2.9	1.2	2,003
Southern	41.6	4,799	34.8	26.9	24.2	0.5	2.5	1.5	1,998
Mother's education									
No education	42.0	3,538	30.4	23.5	20.6	1.7	1.6	2.3	1,486
Primary 1-4	46.1	3,153	32.8	25.6	22.5	1.5	2.2	1.0	1,455
Primary 5-8	39.1	3,150	40.0	29.9	25.3	0.8	4.3	0.7	1,231
Secondary+	31.0	718	56.0	42.7	34.1	0.5	11.7	1.3	223
District									
Blantyre	39.4	755	36.3	23.7	19.1	0.3	4.7	2.0	298
Karonga	36.3	213	35.2	30.5	19.8	1.9	8.8	1.1	77
Kasungu	43.6	437	28.0	18.2	13.8	2.1	2.3	0.5	191
Lilongwe	38.1	1,596	35.5	28.2	23.0	3.1	3.0	1.9	608
Machinga	33.5	411	35.9	34.1	31.1	1.6	2.5	0.5	138
Mangochi	42.0	553	33.4	23.0	20.7	0.6	2.3	0.1	232
Mulanje	46.4	468	27.1	21.3	19.7	0.3	1.4	0.3	217
Mzimba	34.0	490	35.4	29.1	22.2	2.2	5.4	1.9	166
Salima	44.0	244	34.6	28.9	25.5	0.7	3.3	0.6	108
Thyolo	35.0	479	35.4	24.3	22.8	1.0	0.5	5.1	167
Zomba	39.8	633	31.0	27.3	26.1	0.5	0.7	0.5	252
Other districts	45.3	4,281	37.2	28.3	24.8	1.1	3.3	1.3	1,940
Total	41.6	10,559	35.2	27.0	23.2	1.3	3.1	1.3	4,394

Among children reported to have had a fever in the two weeks prior to the survey, 35 percent were taken to a health facility and 27 percent were given an antimalarial (mostly SP/Fansidar, 23 percent). Differentials in health facility use by background characteristics are similar to those for antimalarial use. Children living in the Northern Region, in urban areas, and children of more educated mothers are more likely to have been taken to a health facility and to have been given an antimalarial (Figure 13.2). District-level variation in health facility use is not pronounced, but levels of antimalarial use tend to vary more among districts, ranging from just 18 percent in Kasungu District to 34 percent in Machinga District.

While younger children were more likely than older children to be taken to a health facility when a fever was recognised, they were less likely to be given an antimalarial.

Figure 13.2 Among Children under Age 5 with Fever in 2 Weeks Preceding Survey, the Percentage Who Were Treated with an Antimalarial Drug and the Percentage Who Were Taken to a Health Facility



13.4 Timing of Antimalarial Response to Child's Fever

Most deaths due to malaria in children could be avoided by prompt recognition and treatment with antimalarial drugs. For each medicine reported by the mother, MDHS interviewers asked, "How long after the fever began was [NAME OF MEDICINE] first given to [NAME OF CHILD]?"

Of febrile children who were treated with an antimalarial, 83 percent were reported to have received the antimalarial within 0-1 days of onset of the fever (Table 13.5). Treatment with SP/Fansidar is more likely to be done in a timely manner than treatment with other antimalarials (mostly Chloroquine). Differentials are small, but treatment in rural areas, in the Central Region, and among children of mothers with less than secondary education tended to be less prompt.

Table 13.5 Promptness of treatment of children with fever

Among children under age five who had a fever in the two weeks preceding the survey and who were given specific antimalarial medicines, the percentage who were given treatment on the same day that the fever was recognised or the next day, by background characteristics, Malawi 2000

Background characteristic	Given SP/Fansidar		Given other antimalarial		Given any antimalarial	
	Percent given same or next day	Number of children	Percent given same or next day	Number of children	Percent given same or next day	Number of children
Age of child (years)						
<1	82.9	217	78.8	49	82.1	264
2-3	84.0	503	77.4	99	83.5	585
4-5	83.1	298	73.6	45	83.1	334
Residence						
Urban	90.8	120	74.2	33	87.0	146
Rural	82.5	899	77.4	160	82.5	1,037
Region						
Northern	84.2	96	77.1	32	82.1	120
Central	77.0	441	74.5	99	77.7	527
Southern	89.3	482	80.6	61	88.5	536
Mother's education						
No education	85.4	307	76.3	50	85.1	351
Primary 1-4	82.4	327	73.4	55	82.2	373
Primary 5-8	81.1	309	75.3	60	80.3	363
Secondary+	90.5	76	88.0	28	88.9	96
Total	83.5	1,019	76.9	192	83.0	1,183

13.5 Initial Response to Child's Fever

Table 13.6 shows the distribution of febrile children by the mother's report of first response to the fever. Twenty-six percent of the children were taken to a health facility as the first response; 21 percent on the same day or the day after fever onset. Forty percent of the children were given medicine that was bought at a pharmacy or shop (without a prescription) as a first response. An additional 23 percent were given medicine that was obtained at home, although this may have included anything that the respondent considered to be a medicine (modern pharmaceutical or traditional). Use of a traditional healer as a first response was reported for less than 1 percent of febrile cases.

Children of mothers with more education were more likely to first respond by taking the febrile child to a health facility or giving the child a medicine already found at home, whereas women with less education were more likely to give the child a medicine obtained in a shop or pharmacy or not treat the child at all.

This presentation of the 2000 MDHS findings on malaria is not exhaustive, nor does it involve use of all data collected in the survey related to malaria and malaria programmes. It is hoped and anticipated that this brief analysis will assist in the design and evaluation of malaria control initiatives in Malawi and will encourage others to implement further, more detailed studies of the 2000 MDHS data.

Table 13.6 Initial response to fever

Percent distribution of children with fever in preceding two weeks by specific actions taken as the first response to fever, according to background characteristics, Malawi 2000

Background characteristic	Taken to a health facility	Taken to a tradi-tional healer	Given medicine from home	Given medicine from pharmacy or shop (non-pre-scription)	Given tepid sponging	Given herbs at home	Given other treatments	Did nothing/ don't know	Total	Number
Age of child										
<1	29.8 (23.9)	1.1	20.6	38.1	3.0	1.0	0.3	6.2	100.0	1,173
1-2	26.4 (21.8)	0.6	22.3	40.0	3.6	0.6	0.2	6.3	100.0	2,129
3-4	21.1 (17.6)	0.4	27.7	40.8	3.8	0.6	0.2	5.4	100.0	1,093
Region										
Northern	28.5 (22.6)	0.5	34.8	24.1	4.1	0.8	0.4	6.8	100.0	394
Central	24.6 (20.3)	0.0	23.7	40.6	3.2	0.7	0.2	7.0	100.0	2,003
Southern	26.9 (22.1)	1.4	20.4	41.9	3.6	0.7	0.2	4.9	100.0	1,998
Residence										
Urban	34.1 (27.2)	0.1	21.0	39.6	2.6	0.1	0.1	2.4	100.0	434
Rural	25.1 (20.7)	0.7	23.5	39.7	3.6	0.8	0.2	6.4	100.0	3,961
Mother's education										
No education	23.9 (19.0)	0.6	23.5	40.5	2.7	1.2	0.0	7.7	100.0	1,486
Primary 1-4	23.5 (19.5)	1.1	22.1	42.4	3.6	0.7	0.4	6.1	100.0	1,455
Primary 5-8	30.2 (25.5)	0.4	22.2	37.7	4.5	0.2	0.2	4.7	100.0	1,231
Secondary+	33.4 (26.1)	0.0	34.1	27.9	1.9	0.6	0.1	1.9	100.0	223
Total	26.0 (21.3)	0.7	23.2	39.7	3.5	0.7	0.2	6.0	100.0	4,394

Note: Number in parentheses is the percentage taken to a health facility as the first response, and on the same day that the fever was recognised or the next day.

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SAMPLE DESIGN

APPENDIX A

A major objective of the 2000 MDHS sample design was to provide independent estimates with acceptable precision for important population and health indicators. The sample was designed to provide these estimates for different domains, including estimates for the country, for urban and rural areas, for each of the three regions, and for eleven selected districts (each as a separate domain). The selected districts were chosen based on the size of the district (the five largest) and for programmatic importance.

The population covered by the 2000 MDHS was all women age 15-49 living in the selected households. The initial target sample was 14,000 completed eligible women interviews, and the final sample was 13,220 completed interviews. Information on sampling errors for five selected variables from the MDHS 1992 was used to help determine the most efficient allocation of the target number of interviews by domain with a minimum allocation of 900 for each of the 11 district domain. Based on this objective and some adjustments to ensure that the sample size requirements for each domain were met, the target number of completed interviews was distributed by districts (see table below).

Sample design: Distribution of PUSs by district, Malawi 2000

District	Minimum number of complete interviews	Total number of PSUs	Number of urban PSUs	Number of rural PSUs
Lilongwe	900	36	16	20
Blantyre	900	36	22	14
Mzimba	900	36	5	31
Mangochi	900	36	2	34
Zomba	900	36	4	32
Kasungu	900	36	2	34
Thyolo	900	36	2	34
Mulanje	900	36	2	34
Machinga	900	36	2	34
Salima	900	36	3	33
Karonga	900	36	5	31
Other	4,100	164	6	158
Total	14,000	560	71	489

[1] PSU, Primary Sampling Unit; corresponds to enumerations areas

Sample Frame

Based on the 1998 census frame, the National Statistical Office developed an updated preliminary master sample to use during the intercensal period. In order to maintain an integrated household survey approach for future household surveys, it was decided that the 2000 MDHS sample should use the preliminary master sample as the sample frame. The 2000 MDHS sample of enumeration areas (EAs) is thus a sub-sample of NSO's preliminary master sample.

NSO's preliminary master sample of EAs is stratified according to district designation and, within districts, by urban-rural designation.[1] Since one objective of the master sample is to permit estimation at the district level, the total number of EAs per district was not allocated proportional to population size of the district. Instead, a minimum of 24 EAs were allocated to each district, with certain districts being allocated more EAs based on size and programmatic interest. For instance, Lilongwe and Blantyre districts were each allocated 48 EAs in the master sample. The master sample includes a total of 816 EAs out of the 9,213 EAs established in the 1998 census. A small number of EAs located in national parks and forest areas (representing less than 1 percent of the population of Malawi) were excluded from the master sample.

The design features and stratification of the master sample are implicit in the 2000 MDHS and all other subsamples.

Sample Selection

Based on the 2000 MDHS sample design objectives of 36 EAs per "emphasis" district and adequate urban and rural representation, a total of 560 EAs were selected from the master sample: 489 in rural and 71 in urban areas. Figure A.1 shows the geographic distribution of the EAs or sample points included in the 2000 MDHS. All districts are represented in the sample, but the sample is specifically designed to allow for estimation of certain parameters for the following "oversampled" districts: Lilongwe, Blantyre, Karonga, Mzimba, Kasungu, Salima, Mangochi, Machinga, Zomba, Thyolo, and Mulanje. A simple systematic sample of EAs was implemented district by district;

The sample "take" (i.e. number of households sampled) per EA was determined using the following formulae:

$$P_{1i} = \{(a * M_i) / (\Sigma M_i)\} * \{c/a\}$$

$$P_{2i} = b_i / L_i$$

where

a is the number of EAs to be selected in each of the urban/rural components of the district sample from the master sample,

c is the number of EAs to be selected in each of the urban/rural components of the district sample in the 2000 MDHS sample,

M_i is the number of households in the i-th EA in each of the urban/rural components of the district according to the 1998 population census,

ΣM_i is the total number of households in each of the urban/rural components of the district according to the 1998 population census,

b_i is the household sample take selected in each EA, and

[1] Rural enumerations areas (EAs) have populations of between 800 and 1,200 persons; urban EAs have populations of 1,000 to 1,500 persons

L_i is the total number of households listed in the selected i-th EA during the 2000 MDHS listing operation.

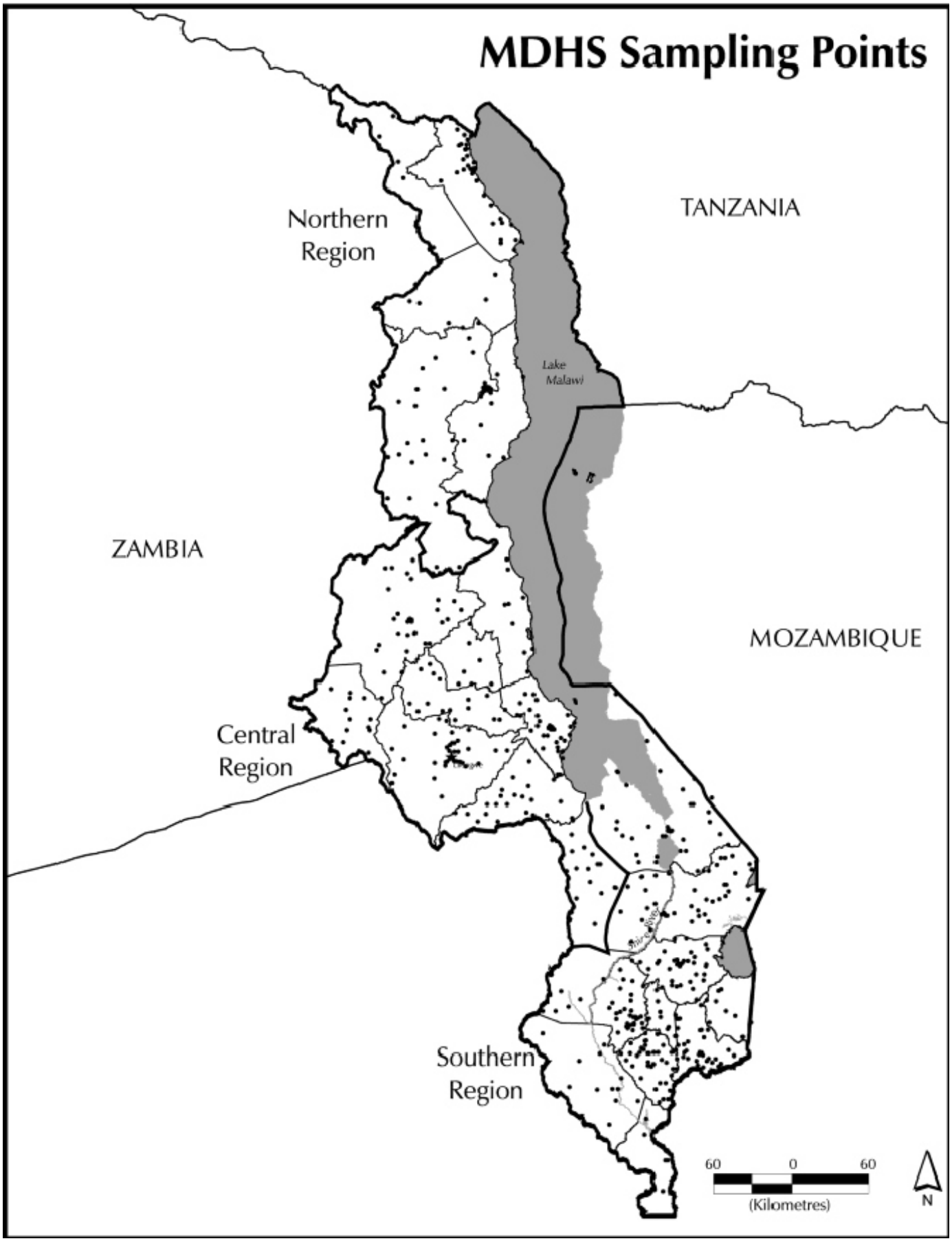
Before the final household selection, a complete household listing operation was completed for each selected EA. Based on these household lists, the household selection was then implemented to maintain a self-weighted sample in each domain but the sampling rates differ between districts. Therefore, the total 2000 MDHS sample is weighted, and a final weighting adjustment is required to provide national estimates.

All women age 15-49 were targeted for interview in the selected households. Every fourth household was identified for inclusion in the male survey; in those households, all men age 15-54 were identified and considered eligible for individual interview.

Sample Implementation

The results of the sample implementation for the households and the individual interviews are shown in Tables A.1 and A.2. The results indicate that 15,421 potential households were selected. The MDHS 2001 fieldwork teams successfully completed interviews in 14,213. The main reasons that potential households were not interviewed were that the potential household was found to be vacant at the time of the interview or the household was away for an extended period, in total this accounted for about 6 percent of potential households. A total of 14,352 households were occupied, of which 14,213 were successfully interviewed. Overall, the household response rate was 99 percent. The household response rate was similar among the urban and rural areas and among the three regions, between 98.7 and 99.2 percent.

In the interviewed households, 13,538 eligible women were identified, of whom 97.7 percent were interviewed. The individual women's response rate was also similar among the urban and rural areas and among the three regions (between 97.5 and 98.0 percent). For eligible men the response rate was lower overall (91.6 percent), with a range among domains between 88.8 and 93 percent.


MDHS Sampling Points
Northern Region
TANZANIA
Lake Malawi
ZAMBIA
MOZAMBIQUE
Central Region
Southern Region
60
0
60
(Kilometres)
N

A.1 Sample implementation: women

Percent distribution of households and eligible women in the 2000 MDHS sample by results of the household and individual interviews and response rates, according to region and urban-rural residence, Malawi 2000

	Region			Residence		
Result	Northern	Central	Southern	Urban	Rural	Total
Selected households						
Completed (C)	91.7	92.1	92.4	93.4	91.9	92.2
Household present but no competent respondent at home (HP)	0.3	0.6	0.5	0.6	0.5	0.5
Refused (R)	0.0	0.2	0.0	0.2	0.1	0.1
Dwelling not found (DNF)	0.4	0.2	0.4	0.5	0.3	0.3
Household absent (HA)	2.0	0.9	0.7	0.8	1.0	1.0
Dwelling vacant/address not a dwelling (DV)	5.1	5.4	5.2	3.9	5.6	5.3
Dwelling destroy (DD)	0.4	0.8	0.8	0.7	0.7	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households	2,490	5,250	7,681	2,868	12,553	15,421
Household response rate (HRR)[1]	99.2	99.1	99.0	98.7	99.1	99.0
Eligible women						
Completed (EWC)	97.7	97.7	97.6	98.0	97.5	97.7
Not at home (EWNH)	1.4	0.9	1.5	1.1	1.4	1.3
Refused (EWR)	0.0	0.4	0.2	0.3	0.3	0.3
Partly completed (EWPC)	0.0	0.1	0.1	0.1	0.1	0.1
Incapacitated (EWI)	0.8	0.7	0.4	0.4	0.6	0.6
Other (EWO)	0.1	0.2	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	2,239	4,613	6,686	2,929	10,609	13,538
Eligible woman response rate (EWRR)[2]	97.7	97.7	97.6	98.0	97.5	97.7
Overall response rate (ORR)[3]	96.9	96.8	96.6	96.8	96.7	96.7

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, refused, and dwelling not found. The eligible woman response rate is calculated for completed interviews as a proportion of completed, not at home, refused, partially completed, incapacitated and "other." The overall response rate is the product of the household and eligible woman response rates.

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{C}{C + HP + R + DNF} * 100$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{EWC}{EWC + EWNH + EWR + EWPC + EWI + EWO} * 100$$

[3] The overall response rate (ORR) is calculated as: ORR = (HRR * EWRR) ÷ 100

A.2 Sample implementation: men

Percent distribution of households and eligible men in the 2000 MDHS sample by results of the household and individual interviews and response rates, according to region and urban-rural residence, Malawi 2000

	Region			Residence		
Result	Northern	Central	Southern	Urban	Rural	Total
Selected households						
Completed (C)	93.2	92.7	92.9	92.9	92.9	92.9
Household present but no competent respondent at home (HP)	0.2	0.8	0.7	1.1	0.5	0.6
Refused (R)	0.0	0.2	0.1	0.3	0.0	0.1
Dwelling not found (DNF)	0.3	0.2	0.4	0.5	0.3	0.3
Household absent (HA)	2.1	1.1	0.7	1.3	1.0	1.1
Dwelling vacant/address not a dwelling (DV)	4.1	4.1	4.5	3.3	4.5	4.3
Dwelling destroy (DD)	0.2	1.0	0.6	0.5	0.7	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households	630	1,307	1,935	748	3,124	3,872
Household response rate (HRR)[1]	99.5	98.8	98.7	98.0	99.1	98.9
Eligible men						
Completed (EWC)	93.0	91.8	90.9	88.8	92.4	91.6
Not at home (EWNH)	5.0	4.3	6.3	7.4	4.7	5.3
Postponed (EMP)	0.3	0.1	0.1	0.1	0.1	0.1
Refused (EWR)	0.5	0.8	0.6	1.5	0.4	0.7
Partly completed (EWPC)	0.2	0.0	0.1	0.0	0.1	0.1
Incapacitated (EWI)	0.3	1.9	1.0	0.9	1.3	1.2
Other (EWO)	0.7	1.2	1.1	1.4	1.0	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	585	1,216	1,576	812	2,565	3,377
Eligible man response rate (EMRR)[2]	93.0	91.8	90.9	88.8	92.4	91.6
Overall response rate (ORR)[3]	92.5	90.7	89.7	87.0	91.6	90.5

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, refused, and dwelling not found. The eligible man response rate is calculated for completed interviews as a proportion of completed, not at home, postponed, refused, partially completed, incapacitated and "other." The overall response rate is the product of the household and eligible woman response rates.

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{C}{C + HP + R + DNF} * 100$$

[2] Using the number of eligible men falling into specific response categories, the eligible woman response rate (EMRR) is calculated as:

$$\frac{EMC}{EMC + EMNH + EMP + EMR + EMPC + EMI + EMO} * 100$$

[3] The overall response rate (ORR) is calculated as: ORR = (HRR * EMRR) ÷ 100

SAMPLING ERRORS APPENDIX B

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2000 MDHS to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2000 MDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for 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 the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2000 MDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the 2000 MDHS is the ISSA Sampling Error Module (ISSAS). This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jacknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

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

in which

$$z_{hi} = y_{hi} - r \cdot x_{hi}, \text{ and } z_h = y_h - r \cdot x_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of enumeration areas selected in the hth stratum,
y_{hi} is the sum of the values of variable y in EA i in the hth stratum,
x_{hi} is the sum of the number of cases in EA i in the hth stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The Jacknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2000 MDHS, there were 559 non-empty clusters (one cluster contained no eligible women). Hence, 559 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(R)=var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = k\,r - (k-1)\,r_{(i)}$$

where r is the estimate computed from the full sample of 559 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 558 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, ISSAS 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, while 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. ISSAS also computes the relative error and confidence limits for the estimates.

Sampling errors for the 2000 MDHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, for north, central and south regions, and for each of 11 over-sampled district plus the rest of the country. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.18 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1).

In general, the relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. There are some differentials in the relative standard error for the estimates of sub-populations. For example, for the variable *contraceptive use among currently married women age 15-49*, the relative standard errors as a percent of the estimated mean

for the whole country, for urban areas, and for rural areas are 2.2 percent, 4.7 percent, and 2.3 percent, respectively.

The confidence interval (e.g., as calculated for *contraceptive use among currently married women age 15-49)* can be interpreted as follows: the overall national sample proportion is 0.306 and its standard error is 0.007. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e. $0.306 \pm 2(0.007)$. There is a high probability (95 percent) that the *true* average proportion of contraceptive use among currently married women age 15 to 49 is between 0.293 and 0.320.

Table B.1 List of selected variables for sampling errors, Malawi 2000

Variable	Estimate	Base population
Urban residence	Proportion	All eligible women 15-49
No education	Proportion	All eligible women 15-49
Secondary education or higher	Proportion	All eligible women 15-49
Never married	Proportion	All eligible women 15-49
Currently married (in union)	Proportion	All eligible women 15-49
Married before age 20	Proportion	All eligible women 25-49
Had first sexual intercourse before 18	Proportion	All eligible women 25-49
Children ever born	Mean	All eligible women 15-49
Children ever born to women 40-49	Mean	All eligible women 40-49
Children surviving	Mean	All eligible women 15-49
Knows any contraceptive method	Proportion	Currently married women
Knows any modern contraceptive method	Proportion	Currently married women
Ever used any contraceptive method	Proportion	Currently married women
Currently using any method	Proportion	Currently married women
Currently using modern method	Proportion	Currently married women
Currently using pill	Proportion	Currently married women
Currently using IUD	Proportion	Currently married women
Currently using injectables	Proportion	Currently married women
Currently using implants	Proportion	Currently married women
Currently using condom	Proportion	Currently married women
Currently using female sterilisation	Proportion	Currently married women
Currently using male sterilisation	Proportion	Currently married women
Currently using periodic abstinence	Proportion	Currently married women
Currently using withdrawal	Proportion	Currently married women
Using public sector source for contraception	Proportion	Married using modern
Want no more children	Proportion	Currently married women
Want to delay next birth at least 2 years	Proportion	Currently married women
Ideal number of children	Mean	All eligible women 15-49
Mother received tetanus injections	Proportion	Births in last 5 years
Mother received medical care at birth	Proportion	Births in last 5 years
Child had diarrhoea in the last 2 weeks	Proportion	Children Under-5
Child treated for diarrhoea with ORS packet	Proportion	Children Under-5 with diarrhoea in last 2 weeks
Child received medical treatment for diarrhoea	Proportion	Children Under-5 with diarrhoea in last 2 weeks
Child had health card	Proportion	Children 12-23 months
Child received BCG vaccination	Proportion	Children 12-23 months
Child received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Child received polio vaccination (3 doses)	Proportion	Children 12-23 months
Child received measles vaccination	Proportion	Children 12-23 months
Child fully immunised	Proportion	Children 12-23 months
Weight-for-height (Below -2SD)	Proportion	Children 0-47 months
Height-for-age (Below -2SD)	Proportion	Children 0-47 months
Weight-for-age (Below -2SD)	Proportion	Children 0-47 months
Total fertility rate (last 3 years)	Rate	Woman-years of exposure to childbearing
Neonatal mortality rate	Rate	Number of births
Infant mortality rate	Rate	Number of births
Child mortality rate	Rate	Number of births
Under-5 child mortality rate	Rate	Number of births
Postneonatal mortality rate	Rate	Number of births
	MEN	
Urban residence	Proportion	All eligible men 15-59
No education	Proportion	All eligible men 15-59
Secondary education or higher	Proportion	All eligible men 15-59
Never married	Proportion	All eligible men 15-59
Currently married (in union)	Proportion	All eligible men 15-59
Knows any contraceptive method	Proportion	Currently married 15-59
Knows any modern contraceptive method	Proportion	Currently married 15-59
Ever used any contraceptive method	Proportion	Currently married 15-59
Currently using any method	Proportion	Currently married 15-59
Currently using modern method	Proportion	Currently married 15-59
Currently using pill	Proportion	Currently married 15-59
Currently using IUD	Proportion	Currently married 15-59
Currently using injectables	Proportion	Currently married 15-59
Currently using implants	Proportion	Currently married 15-59
Currently using condom	Proportion	Currently married 15-59
Currently using female sterilisation	Proportion	Currently married 15-59
Currently using male sterilisation	Proportion	Currently married 15-59
Currently using periodic abstinence	Proportion	Currently married 15-59
Currently using withdrawal	Proportion	Currently married 15-59
Want no more children	Proportion	Currently married 15-59
Want to delay next birth at least 2 years	Proportion	Currently married 15-59
Ideal number of children	Mean	All eligible men 15-59

Table B.2 Sampling errors: Total sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.159	0.010	13220	13220	3.181	0.064	0.139	0.180
No education	0.270	0.007	13220	13220	1.849	0.026	0.256	0.285
Secondary education or higher	0.111	0.006	13220	13220	2.310	0.057	0.098	0.124
Never married	0.170	0.005	13220	13220	1.389	0.027	0.161	0.179
Currently married (in union)	0.715	0.005	13220	13220	1.396	0.008	0.704	0.726
Married before age 20	0.746	0.006	10306	10353	1.303	0.007	0.735	0.757
Had first sexual intercourse before 18	0.637	0.006	10306	10353	1.365	0.010	0.624	0.650
Children ever born	3.132	0.029	13220	13220	1.156	0.009	3.074	3.190
Children ever born to women 40-49	6.799	0.079	1966	2004	1.171	0.012	6.642	6.956
Children surviving	2.423	0.022	13220	13220	1.103	0.009	2.380	2.466
Knows any contraceptive method	0.986	0.001	9361	9452	1.077	0.001	0.984	0.989
Knows any modern contraceptive method	0.984	0.001	9361	9452	1.032	0.001	0.982	0.987
Ever used any contraceptive method	0.524	0.007	9361	9452	1.438	0.014	0.509	0.538
Currently using any method	0.306	0.007	9361	9452	1.422	0.022	0.293	0.320
Currently using modern method	0.261	0.007	9361	9452	1.581	0.027	0.247	0.276
Currently using pill	0.027	0.002	9361	9452	1.317	0.081	0.023	0.032
Currently using IUD	0.001	0.000	9361	9452	1.093	0.333	0.000	0.002
Currently using injectables	0.164	0.006	9361	9452	1.528	0.036	0.152	0.176
Currently using implants	0.001	0.000	9361	9452	1.049	0.424	0.000	0.001
Currently using condom	0.016	0.001	9361	9452	1.066	0.087	0.013	0.018
Currently using female sterilisation	0.047	0.003	9361	9452	1.233	0.057	0.042	0.053
Currently using male sterilisation	0.001	0.000	9361	9452	1.062	0.459	0.000	0.001
Currently using periodic abstinence	0.009	0.001	9361	9452	1.200	0.129	0.007	0.011
Currently using withdrawal	0.015	0.001	9361	9452	1.162	0.097	0.012	0.018
Using public sector source for contraception	0.673	0.016	2767	2844	1.815	0.024	0.641	0.705
Want no more children	0.375	0.006	9361	9452	1.179	0.016	0.363	0.387
Want to delay next birth at least 2 years	0.371	0.005	9361	9452	1.098	0.015	0.360	0.382
Ideal number of children	4.994	0.047	13155	13152	1.105	0.009	4.901	5.088
Mother received tetanus injection	0.852	0.005	7626	7675	1.205	0.006	0.842	0.862
Mother received medical care at birth	0.556	0.012	11926	12201	2.191	0.021	0.532	0.579
Child had diarrhoea in the last 2 weeks	0.176	0.004	10367	10559	1.111	0.024	0.168	0.184
Child treated for diarrhoea with ORS packet	0.621	0.014	1755	1859	1.186	0.022	0.594	0.649
Child received medical treatment for diarrhoea	0.283	0.014	1755	1859	1.260	0.048	0.256	0.310
Child had health card	0.811	0.010	2216	2238	1.176	0.012	0.791	0.830
Child received BCG vaccination	0.924	0.006	2216	2238	1.129	0.007	0.911	0.937
Child received DPT vaccination (3 doses)	0.842	0.011	2216	2238	1.430	0.013	0.819	0.864
Child received polio vaccination (3 doses)	0.798	0.012	2216	2238	1.438	0.015	0.774	0.823
Child received measles vaccination	0.832	0.009	2216	2238	1.158	0.011	0.814	0.851
Child fully immunised	0.701	0.013	2216	2238	1.315	0.018	0.675	0.727
Weight-for-height (Below -2 SD)	0.055	0.003	9156	9318	1.375	0.060	0.049	0.062
Height-for-age (Below -2 SD)	0.490	0.007	9156	9318	1.347	0.015	0.476	0.504
Weight-for-age (Below -2 SD)	0.254	0.006	9156	9318	1.373	0.025	0.241	0.267
Total fertility rate (last 3 years)	6.349	0.095	na	37062	1.382	0.015	6.158	6.539
Neonatal mortality (last 5 years)	41.830	2.464	12136	12427	1.204	0.059	36.902	46.759
Infant mortality (last 5 years)	103.804	3.759	12185	12477	1.246	0.036	96.286	111.323
Child mortality (last 5 years)	94.556	3.737	12494	12812	1.202	0.040	86.882	101.831
Under-5 mortality (last 5 years)	188.566	4.702	12548	12868	1.195	0.025	178.962	197.771
Postneonatal mortality (last 5 years)	61.974	2.722	12180	12470	1.158	0.044	56.530	67.418
MEN								
Urban residence	0.182	0.014	3092	3092	1.950	0.074	0.155	0.210
No education	0.104	0.007	3092	3092	1.202	0.063	0.091	0.117
Secondary education or higher	0.204	0.010	3092	3092	1.320	0.047	0.184	0.223
Never married	0.347	0.010	3092	3092	1.214	0.030	0.326	0.368
Currently married (in union)	0.616	0.010	3092	3092	1.171	0.017	0.596	0.637
Knows any contraceptive method	0.997	0.001	1903	1906	1.116	0.001	0.994	1.000
Know any modern contraceptive method	0.995	0.002	1903	1906	1.219	0.002	0.991	0.999
Ever used any contraceptive method	0.787	0.013	1903	1906	1.359	0.016	0.762	0.813
Currently using any method	0.313	0.012	1901	1904	1.147	0.039	0.288	0.337
Currently using modern method	0.269	0.011	1901	1904	1.109	0.042	0.246	0.291
Currently using pill	0.036	0.007	1901	1904	1.680	0.199	0.022	0.051
Currently using IUD	0.001	0.000	1901	1904	0.840	0.775	0.000	0.002
Currently using injectables	0.114	0.008	1901	1904	1.112	0.071	0.098	0.130
Currently using implants	0.001	0.000	1901	1904	0.820	0.790	0.000	0.001
Currently using condom	0.068	0.007	1901	1904	1.134	0.096	0.055	0.081
Currently using female sterilisation	0.047	0.005	1901	1904	1.097	0.113	0.036	0.058
Currently using male sterilisation	0.001	0.001	1901	1904	0.952	0.817	0.000	0.002
Currently using periodic abstinence	0.008	0.002	1901	1904	1.208	0.309	0.003	0.013
Currently using withdrawal	0.017	0.003	1901	1904	1.017	0.178	0.011	0.023
Want no more children	0.373	0.012	1901	1905	1.077	0.032	0.349	0.397
Want to delay next birth at least 2 years	0.382	0.013	1901	1905	1.180	0.034	0.355	0.408
Ideal number of children	4.814	0.095	3074	3073	1.147	0.020	4.624	5.005

na = Not applicable

Table B.3 Sampling errors: Urban sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	1.000	0.000	2871	2106	na	0.000	1.000	1.000
No education	0.103	0.013	2871	2106	2.322	0.128	0.077	0.129
Secondary education or higher	0.364	0.022	2871	2106	2.417	0.060	0.320	0.407
Never married (in union)	0.248	0.017	2871	2106	2.166	0.070	0.213	0.283
Currently married (in union)	0.647	0.019	2871	2106	2.114	0.029	0.609	0.685
Married before age 20	0.632	0.019	2185	1616	1.862	0.030	0.594	0.671
Had first sexual intercourse before 18	0.560	0.019	2185	1616	1.827	0.035	0.521	0.599
Children ever born	2.331	0.078	2871	2106	1.702	0.034	2.174	2.487
Children ever born to women 40-49	5.923	0.273	308	231	1.718	0.046	5.377	6.469
Children surviving	1.959	0.059	2871	2106	1.512	0.030	1.842	2.077
Knows any contraceptive method	0.999	0.001	1853	1362	1.188	0.001	0.996	1.001
Knows any modern contraceptive method	0.998	0.001	1853	1362	1.158	0.001	0.996	1.001
Ever used any contraceptive method	0.638	0.016	1853	1362	1.442	0.025	0.606	0.671
Currently using any method	0.412	0.019	1853	1362	1.702	0.047	0.373	0.451
Currently using modern method	0.382	0.021	1853	1362	1.856	0.055	0.340	0.424
Currently using pill	0.042	0.008	1853	1362	1.731	0.193	0.025	0.058
Currently using IUD	0.003	0.002	1853	1362	1.303	0.594	0.000	0.006
Currently using injectables	0.229	0.016	1853	1362	1.631	0.070	0.197	0.261
Currently using implants	0.003	0.002	1853	1362	1.217	0.513	0.000	0.006
Currently using condom	0.026	0.004	1853	1362	1.191	0.171	0.017	0.034
Currently using female sterilisation	0.076	0.006	1853	1362	0.960	0.078	0.064	0.088
Currently using male sterilisation	0.001	0.001	1853	1362	1.421	0.998	0.000	0.003
Currently using periodic abstinence	0.007	0.003	1853	1362	1.458	0.409	0.001	0.012
Currently using withdrawal	0.010	0.003	1853	1362	1.099	0.248	0.005	0.016
Using public sector source for contraception	0.613	0.047	799	635	2.726	0.077	0.519	0.707
Want no more children	0.389	0.012	1853	1362	1.038	0.030	0.365	0.412
Want to delay next birth at least 2 years	0.355	0.010	1853	1362	0.893	0.028	0.335	0.375
Ideal number of children	4.129	0.081	2863	2103	1.056	0.019	3.968	4.290
Mother received tetanus injections	0.874	0.011	1458	1057	1.299	0.013	0.852	0.897
Mother received medical care at birth	0.816	0.022	2084	1502	2.170	0.027	0.772	0.859
Child had diarrhoea in the last 2 weeks	0.143	0.010	1891	1358	1.152	0.066	0.124	0.162
Child treated for diarrhoea with ORS packet	0.619	0.031	261	195	0.987	0.049	0.558	0.680
Child received medical treatment for diarrhoea	0.349	0.044	261	195	1.454	0.126	0.261	0.438
Child had health card	0.774	0.032	417	307	1.547	0.041	0.711	0.837
Child received BCG vaccination	0.963	0.013	417	307	1.361	0.013	0.938	0.988
Child received DPT vaccination (3 doses)	0.924	0.024	417	307	1.872	0.026	0.876	0.972
Child received polio vaccination (3 doses)	0.858	0.028	417	307	1.621	0.032	0.803	0.914
Child received measles vaccination	0.906	0.022	417	307	1.548	0.024	0.862	0.950
Child fully immunised	0.786	0.036	417	307	1.793	0.046	0.714	0.858
Weight-for-height (Below -2 SD)	0.049	0.010	1697	1220	1.703	0.196	0.030	0.069
Height-for-age (Below -2 SD)	0.342	0.019	1697	1220	1.574	0.056	0.303	0.381
Weight-for-age (Below -2 SD)	0.128	0.011	1697	1220	1.248	0.085	0.106	0.150
Total fertility rate (last 3 years)	4.506	0.247	na	5875	1.894	0.055	4.013	4.999
Neonatal mortality (last 10 years)	29.825	5.332	3846	2772	1.758	0.179	19.160	40.490
Infant mortality (last 10 years)	82.519	8.207	3861	2792	1.802	0.099	66.104	98.934
Child mortality (last 10 years)	71.262	8.173	3879	2805	1.682	0.115	54.917	87.608
Under-5 mortality (last 10 years)	147.900	13.959	3894	2825	2.152	0.094	119.982	175.819
Postneonatal mortality (last 10 years)	52.694	9.097	3861	2792	2.474	0.173	34.500	70.887
MEN								
Urban residence	1.000	0.000	721	564	na	0.000	1.000	1.000
No education	0.034	0.009	721	564	1.379	0.273	0.016	0.053
Secondary education or higher	0.469	0.031	721	564	1.674	0.066	0.407	0.531
Never married	0.414	0.023	721	564	1.262	0.056	0.368	0.461
Currently married (in union)	0.544	0.024	721	564	1.312	0.045	0.496	0.593
Knows any contraceptive method	1.000	0.000	399	307	na	0.000	1.000	1.000
Knows any modern contraceptive method	0.999	0.001	399	307	0.651	0.001	0.997	1.001
Ever used any contraceptive method	0.782	0.033	399	307	1.613	0.043	0.715	0.848
Currently using any method	0.379	0.031	399	307	1.279	0.082	0.317	0.441
Currently using modern method	0.352	0.029	399	307	1.197	0.081	0.294	0.409
Currently using pill	0.069	0.034	399	307	2.685	0.494	0.001	0.138
Currently using IUD	0.001	0.001	399	307	0.656	1.008	0.000	0.003
Currently using injectables	0.135	0.022	399	307	1.261	0.160	0.092	0.178
Currently using implants	0.000	0.000	399	307	na	na	0.000	0.000
Currently using condom	0.076	0.020	399	307	1.510	0.264	0.036	0.116
Currently using female sterilisation	0.069	0.017	399	307	1.337	0.246	0.035	0.103
Currently using male sterilisation	0.001	0.001	399	307	0.611	1.002	0.000	0.003
Currently using periodic abstinence	0.005	0.005	399	307	1.400	0.980	0.000	0.015
Currently using withdrawal	0.020	0.009	399	307	1.252	0.436	0.003	0.038
Want no more children	0.367	0.038	398	307	1.576	0.104	0.290	0.443
Want to delay next birth at least 2 years	0.309	0.038	398	307	1.639	0.123	0.233	0.385
Ideal number of children	3.946	0.186	718	561	1.358	0.047	3.575	4.317

na = Not applicable

Table B.4 Sampling errors: Rural sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.000	0.000	10349	11114	na	na	0.000	0.000
No education	0.302	0.008	10349	11114	1.672	0.025	0.287	0.317
Secondary education or higher	0.063	0.005	10349	11114	1.942	0.074	0.054	0.072
Never married (in union)	0.155	0.004	10349	11114	1.217	0.028	0.146	0.164
Currently married (in union)	0.728	0.006	10349	11114	1.272	0.008	0.717	0.739
Married before age 20	0.767	0.005	8121	8737	1.149	0.007	0.756	0.778
Had first sexual intercourse before 18	0.651	0.007	8121	8737	1.302	0.011	0.637	0.665
Children ever born	3.284	0.030	10349	11114	1.040	0.009	3.224	3.344
Children ever born to women 40-49	6.913	0.080	1658	1774	1.088	0.012	6.754	7.072
Children surviving	2.511	0.022	10349	11114	1.000	0.009	2.466	2.555
Knows any contraceptive method	0.984	0.001	7508	8089	1.038	0.002	0.981	0.987
Knows any modern contraceptive method	0.982	0.002	7508	8089	0.991	0.002	0.979	0.985
Ever used any contraceptive method	0.504	0.008	7508	8089	1.363	0.016	0.489	0.520
Currently using any method	0.289	0.007	7508	8089	1.252	0.023	0.276	0.302
Currently using modern method	0.241	0.007	7508	8089	1.380	0.028	0.227	0.254
Currently using pill	0.025	0.002	7508	8089	1.180	0.085	0.021	0.029
Currently using IUD	0.001	0.000	7508	8089	1.045	0.400	0.000	0.002
Currently using injectables	0.153	0.006	7508	8089	1.436	0.039	0.141	0.165
Currently using implants	0.000	0.000	7508	8089	0.995	0.721	0.000	0.001
Currently using condom	0.014	0.001	7508	8089	1.014	0.098	0.011	0.017
Currently using female sterilisation	0.043	0.003	7508	8089	1.298	0.071	0.037	0.049
Currently using male sterilisation	0.000	0.000	7508	8089	0.967	0.508	0.000	0.001
Currently using periodic abstinence	0.010	0.001	7508	8089	1.155	0.136	0.007	0.012
Currently using withdrawal	0.016	0.002	7508	8089	1.142	0.104	0.013	0.019
Using public sector source for contraception	0.690	0.017	1968	2209	1.607	0.024	0.657	0.724
Want no more children	0.373	0.007	7508	8089	1.185	0.018	0.360	0.386
Want to delay next birth at least 2 years	0.373	0.006	7508	8089	1.108	0.017	0.361	0.386
Ideal number of children	5.159	0.053	10292	11049	1.088	0.010	5.052	5.266
Mother received tetanus injections	0.848	0.005	6168	6618	1.186	0.006	0.838	0.859
Mother received medical care at birth	0.519	0.013	9842	10698	2.114	0.024	0.494	0.544
Child had diarrhoea in the last 2 weeks	0.181	0.005	8476	9201	1.084	0.025	0.172	0.190
Child treated for diarrhoea with ORS packet	0.621	0.015	1494	1664	1.178	0.024	0.591	0.651
Child received medical treatment for diarrhoea	0.276	0.014	1494	1664	1.199	0.051	0.248	0.304
Child had health card	0.816	0.010	1799	1930	1.112	0.012	0.796	0.837
Child received BCG vaccination	0.918	0.007	1799	1930	1.073	0.008	0.903	0.932
Child received DPT vaccination (3 doses)	0.828	0.012	1799	1930	1.351	0.015	0.804	0.853
Child received polio vaccination (3 doses)	0.789	0.013	1799	1930	1.373	0.017	0.762	0.815
Child received measles vaccination	0.820	0.010	1799	1930	1.073	0.012	0.801	0.840
Child fully immunised	0.687	0.013	1799	1930	1.198	0.019	0.661	0.714
Weight-for-height (Below -2 SD)	0.056	0.004	7459	8098	1.315	0.063	0.049	0.063
Height-for-age (Below -2 SD)	0.512	0.007	7459	8098	1.214	0.014	0.498	0.527
Weight-for-age (Below -2 SD)	0.273	0.007	7459	8098	1.328	0.026	0.259	0.287
Total fertility rate (last 3 years)	6.667	0.088	na	31188	1.211	0.013	6.491	6.842
Neonatal mortality (last 10 years)	47.938	2.142	18245	19865	1.166	0.045	43.654	52.223
Infant mortality (last 10 years)	116.709	3.293	18308	19937	1.240	0.028	110.123	123.294
Child mortality (last 10 years)	106.037	3.210	18501	20158	1.159	0.030	99.617	112.457
Under-5 mortality (last 10 years)	210.370	4.309	18569	20237	1.234	0.020	201.752	218.989
Postneonatal mortality (last 10 years)	68.770	2.397	18303	19930	1.181	0.035	63.977	73.564
MEN								
Urban residence	0.000	0.000	2371	2528	na	na	0.000	0.000
No education	0.120	0.008	2371	2528	1.157	0.064	0.104	0.135
Secondary education or higher	0.144	0.011	2371	2528	1.491	0.075	0.123	0.166
Never married	0.332	0.012	2371	2528	1.216	0.035	0.308	0.355
Currently married (in union)	0.633	0.011	2371	2528	1.156	0.018	0.610	0.655
Knows any contraceptive method	0.996	0.002	1504	1599	1.083	0.002	0.993	1.000
Knows any modern contraceptive method	0.995	0.002	1504	1599	1.201	0.002	0.990	0.999
Ever used any contraceptive method	0.788	0.014	1504	1599	1.311	0.018	0.761	0.816
Currently using any method	0.300	0.013	1502	1597	1.096	0.043	0.274	0.326
Currently using modern method	0.253	0.012	1502	1597	1.055	0.047	0.229	0.277
Currently using pill	0.030	0.005	1502	1597	1.130	0.166	0.020	0.040
Currently using IUD	0.001	0.001	1502	1597	0.895	1.001	0.000	0.002
Currently using injectables	0.110	0.009	1502	1597	1.084	0.080	0.092	0.128
Currently using implants	0.001	0.001	1502	1597	0.796	0.789	0.000	0.002
Currently using condom	0.066	0.007	1502	1597	1.058	0.103	0.053	0.080
Currently using female sterilisation	0.043	0.005	1502	1597	1.046	0.128	0.032	0.054
Currently using male sterilisation	0.001	0.001	1502	1597	1.005	1.000	0.000	0.002
Currently using periodic abstinence	0.009	0.003	1502	1597	1.171	0.325	0.003	0.014
Currently using withdrawal	0.016	0.003	1502	1597	0.968	0.194	0.010	0.023
Want no more children	0.374	0.012	1503	1598	0.978	0.033	0.350	0.399
Want to delay next birth at least 2 years	0.396	0.014	1503	1598	1.073	0.034	0.369	0.423
Ideal number of children	5.008	0.108	2356	2512	1.098	0.022	4.793	5.224

na = Not applicable

Table B.5 Sampling errors: Northern sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.201	0.068	2187	1453	7.913	0.337	0.065	0.337
No education	0.111	0.017	2187	1453	2.503	0.151	0.078	0.145
Secondary education or higher	0.145	0.022	2187	1453	2.880	0.150	0.101	0.188
Never married (in union)	0.155	0.014	2187	1453	1.866	0.093	0.126	0.184
Currently married (in union)	0.740	0.021	2187	1453	2.190	0.028	0.699	0.781
Married before age 20	0.796	0.012	1671	1121	1.173	0.015	0.773	0.819
Had first sexual intercourse before 18	0.660	0.013	1671	1121	1.142	0.020	0.634	0.687
Children ever born	3.144	0.059	2187	1453	1.011	0.019	3.026	3.261
Children ever born to women 40-49	6.418	0.192	316	215	1.331	0.030	6.035	6.802
Children surviving	2.562	0.045	2187	1453	0.924	0.017	2.473	2.651
Knows any contraceptive method	0.981	0.004	1564	1075	1.051	0.004	0.974	0.988
Knows any modern contraceptive method	0.977	0.004	1564	1075	1.011	0.004	0.970	0.985
Ever used any contraceptive method	0.640	0.022	1564	1075	1.784	0.034	0.597	0.683
Currently using any method	0.354	0.027	1564	1075	2.269	0.078	0.299	0.408
Currently using modern method	0.254	0.036	1564	1075	3.284	0.142	0.181	0.326
Currently using pill	0.044	0.008	1564	1075	1.602	0.189	0.027	0.061
Currently using IUD	0.000	0.000	1564	1075	0.657	1.008	0.000	0.001
Currently using injectables	0.109	0.028	1564	1075	3.512	0.254	0.054	0.165
Currently using implants	0.000	0.000	1564	1075	0.729	1.003	0.000	0.001
Currently using condom	0.047	0.005	1564	1075	0.950	0.108	0.037	0.058
Currently using female sterilisation	0.049	0.008	1564	1075	1.455	0.162	0.033	0.065
Currently using male sterilisation	0.001	0.001	1564	1075	1.231	0.984	0.000	0.003
Currently using periodic abstinence	0.007	0.003	1564	1075	1.398	0.432	0.001	0.012
Currently using withdrawal	0.077	0.012	1564	1075	1.727	0.151	0.054	0.100
Using public sector source for contraception	0.774	0.059	402	299	2.810	0.076	0.657	0.891
Want no more children	0.362	0.016	1564	1075	1.303	0.044	0.330	0.393
Want to delay next birth at least 2 years	0.400	0.015	1564	1075	1.225	0.038	0.369	0.430
Ideal number of children	5.099	0.106	2180	1449	1.207	0.021	4.887	5.311
Mother received tetanus injections	0.854	0.013	1262	865	1.290	0.015	0.829	0.879
Mother received medical care at birth	0.622	0.035	1936	1334	2.708	0.056	0.552	0.691
Child had diarrhoea in the last 2 weeks	0.128	0.011	1718	1166	1.280	0.082	0.107	0.149
Child treated for diarrhoea with ORS packet	0.571	0.038	214	149	1.094	0.067	0.495	0.647
Child received medical treatment for diarrhoea	0.381	0.053	214	149	1.537	0.139	0.276	0.487
Child had health card	0.826	0.022	379	259	1.146	0.027	0.782	0.870
Child received BCG vaccination	0.948	0.016	379	259	1.313	0.016	0.917	0.979
Child received DPT vaccination (3 doses)	0.885	0.024	379	259	1.483	0.027	0.837	0.933
Child received polio vaccination (3 doses)	0.864	0.026	379	259	1.514	0.031	0.812	0.917
Child received measles vaccination	0.858	0.028	379	259	1.514	0.033	0.801	0.914
Child fully immunised	0.778	0.039	379	259	1.806	0.050	0.699	0.856
Weight-for-height (Below -2 SD)	0.047	0.007	1527	1027	1.292	0.147	0.033	0.061
Height-for-age (Below -2 SD)	0.390	0.022	1527	1027	1.739	0.057	0.346	0.434
Weight-for-age (Below -2 SD)	0.174	0.015	1527	1027	1.510	0.087	0.144	0.204
Total fertility rate (last 3 years)	6.240	0.244	na	4051	1.263	0.039	5.752	6.729
Neonatal mortality (last 10 years)	40.850	7.670	3610	2535	1.989	0.188	25.511	56.189
Infant mortality (last 10 years)	101.532	8.624	3618	2546	1.550	0.085	84.284	118.780
Child mortality (last 10 years)	76.550	8.072	3640	2571	1.465	0.105	60.406	92.693
Under-5 mortality (last 10 years)	170.309	13.122	3648	2582	1.724	0.077	144.065	196.554
Postneonatal mortality (last 10 years)	60.682	8.778	3618	2546	2.183	0.145	43.126	78.238
MEN								
Urban residence	0.251	0.085	544	351	4.555	0.337	0.082	0.421
No education	0.027	0.007	544	351	1.028	0.264	0.013	0.041
Secondary education or higher	0.258	0.032	544	351	1.719	0.125	0.194	0.323
Never married	0.352	0.019	544	351	0.938	0.055	0.314	0.391
Currently married (in union)	0.620	0.018	544	351	0.847	0.028	0.584	0.655
Knows any contraceptive method	1.000	0.000	336	217	na	0.000	1.000	1.000
Knows any modern contraceptive method	0.999	0.001	336	217	0.653	0.001	0.996	1.001
Ever used any contraceptive method	0.884	0.022	336	217	1.236	0.025	0.840	0.927
Currently using any method	0.385	0.026	336	217	0.960	0.066	0.334	0.436
Currently using modern method	0.291	0.030	336	217	1.209	0.103	0.231	0.351
Currently using pill	0.080	0.047	336	217	3.174	0.589	0.000	0.174
Currently using IUD	0.000	0.000	336	217	na	na	0.000	0.000
Currently using injectables	0.049	0.019	336	217	1.605	0.387	0.011	0.087
Currently using implants	0.001	0.001	336	217	0.650	1.007	0.000	0.004
Currently using condom	0.111	0.023	336	217	1.342	0.208	0.065	0.157
Currently using female sterilisation	0.045	0.012	336	217	1.042	0.262	0.022	0.069
Currently using male sterilisation	0.005	0.005	336	217	1.294	1.003	0.000	0.015
Currently using periodic abstinence	0.000	0.000	336	217	na	na	0.000	0.000
Currently using withdrawal	0.080	0.020	336	217	1.345	0.249	0.040	0.120
Want no more children	0.314	0.031	335	216	1.203	0.097	0.253	0.375
Want to delay next birth at least 2 years	0.484	0.063	335	216	2.307	0.130	0.357	0.610
Ideal number of children	4.820	0.285	542	350	1.841	0.059	4.249	5.391

na = Not applicable

Table B.6 Sampling errors: Central sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.131	0.009	4508	5321	1.816	0.070	0.113	0.149
No education	0.269	0.011	4508	5321	1.715	0.042	0.247	0.292
Secondary education or higher	0.094	0.009	4508	5321	2.119	0.098	0.075	0.112
Never married (in union)	0.178	0.007	4508	5321	1.266	0.040	0.164	0.193
Currently married (in union)	0.737	0.008	4508	5321	1.251	0.011	0.720	0.753
Married before age 20	0.728	0.009	3534	4200	1.175	0.012	0.710	0.746
Had first sexual intercourse before 18	0.572	0.012	3534	4200	1.399	0.020	0.549	0.595
Children ever born	3.302	0.050	4508	5321	1.122	0.015	3.203	3.402
Children ever born to women 40-49	7.285	0.122	637	762	1.052	0.017	7.042	7.528
Children surviving	2.529	0.035	4508	5321	1.046	0.014	2.459	2.600
Knows any contraceptive method	0.985	0.002	3287	3919	1.118	0.002	0.980	0.990
Knows any modern contraceptive method	0.983	0.002	3287	3919	1.099	0.003	0.978	0.988
Ever used any contraceptive method	0.515	0.013	3287	3919	1.458	0.025	0.489	0.540
Currently using any method	0.314	0.011	3287	3919	1.399	0.036	0.292	0.337
Currently using modern method	0.272	0.012	3287	3919	1.521	0.043	0.248	0.296
Currently using pill	0.021	0.003	3287	3919	1.290	0.152	0.015	0.028
Currently using IUD	0.001	0.000	3287	3919	0.985	0.664	0.000	0.002
Currently using injectables	0.182	0.011	3287	3919	1.585	0.059	0.160	0.203
Currently using implants	0.001	0.000	3287	3919	0.889	0.630	0.000	0.001
Currently using condom	0.011	0.002	3287	3919	1.140	0.190	0.007	0.015
Currently using female sterilisation	0.052	0.005	3287	3919	1.269	0.095	0.042	0.061
Currently using male sterilisation	0.000	0.000	3287	3919	1.015	0.998	0.000	0.001
Currently using periodic abstinence	0.012	0.002	3287	3919	1.142	0.180	0.008	0.016
Currently using withdrawal	0.009	0.002	3287	3919	1.063	0.194	0.006	0.013
Using public sector source for contraception	0.690	0.026	952	1182	1.705	0.037	0.638	0.741
Want no more children	0.433	0.011	3287	3919	1.238	0.025	0.411	0.454
Want to delay next birth at least 2 years	0.356	0.009	3287	3919	1.094	0.026	0.338	0.375
Ideal number of children	5.087	0.082	4481	5293	1.065	0.016	4.924	5.250
Mother received tetanus injections	0.850	0.008	2696	3194	1.221	0.010	0.833	0.866
Mother received medical care at birth	0.522	0.020	4394	5287	2.288	0.039	0.481	0.563
Child had diarrhoea in the last 2 weeks	0.191	0.007	3822	4594	1.075	0.036	0.177	0.205
Child treated for diarrhoea with ORS packet	0.601	0.022	729	878	1.198	0.037	0.556	0.645
Child received medical treatment for diarrhoea	0.212	0.021	729	878	1.375	0.100	0.170	0.254
Child had health card	0.750	0.017	829	974	1.114	0.022	0.717	0.784
Child received BCG vaccination	0.904	0.011	829	974	1.058	0.012	0.882	0.926
Child received DPT vaccination (3 doses)	0.786	0.022	829	974	1.508	0.027	0.743	0.829
Child received polio vaccination (3 doses)	0.738	0.022	829	974	1.408	0.029	0.695	0.782
Child received measles vaccination	0.769	0.016	829	974	1.103	0.021	0.736	0.801
Child fully immunised	0.614	0.019	829	974	1.105	0.031	0.576	0.651
Weight-for-height (Below -2 SD)	0.050	0.006	3331	4017	1.454	0.110	0.039	0.061
Height-for-age (Below -2 SD)	0.555	0.011	3331	4017	1.245	0.020	0.533	0.577
Weight-for-age (Below -2 SD)	0.279	0.011	3331	4017	1.390	0.039	0.257	0.301
Total fertility rate (last 3 years)	6.823	0.142	na	14959	1.229	0.021	6.540	7.106
Neonatal mortality (last 10 years)	42.013	3.241	8179	9832	1.252	0.077	35.532	48.494
Infant mortality (last 10 years)	97.585	4.600	8199	9856	1.268	0.047	88.386	106.784
Child mortality (last 10 years)	114.611	5.017	8314	10002	1.220	0.044	104.576	124.646
Under-5 mortality (last 10 years)	201.012	6.839	8337	10031	1.356	0.034	187.334	214.689
Postneonatal mortality (last 10 years)	55.572	3.237	8196	9852	1.190	0.058	49.099	62.045
MEN								
Urban residence	0.154	0.017	1116	1296	1.573	0.111	0.120	0.188
No education	0.118	0.012	1116	1296	1.200	0.098	0.094	0.141
Secondary education or higher	0.172	0.018	1116	1296	1.562	0.103	0.136	0.207
Never married	0.373	0.019	1116	1296	1.283	0.050	0.335	0.410
Currently married (in union)	0.598	0.018	1116	1296	1.194	0.029	0.563	0.633
Knows any contraceptive method	0.998	0.002	672	775	1.012	0.002	0.995	1.002
Knows any modern contraceptive method	0.998	0.002	672	775	1.012	0.002	0.995	1.002
Ever used any contraceptive method	0.785	0.022	672	775	1.366	0.028	0.742	0.828
Currently using any method	0.336	0.022	671	774	1.219	0.066	0.292	0.381
Currently using modern method	0.282	0.019	671	774	1.077	0.066	0.245	0.320
Currently using pill	0.024	0.007	671	774	1.201	0.295	0.010	0.038
Currently using IUD	0.000	0.000	671	774	na	na	0.000	0.000
Currently using injectables	0.128	0.013	671	774	1.010	0.102	0.101	0.154
Currently using implants	0.001	0.001	671	774	0.836	0.998	0.000	0.003
Currently using condom	0.072	0.011	671	774	1.093	0.152	0.050	0.094
Currently using female sterilisation	0.053	0.010	671	774	1.142	0.186	0.034	0.073
Currently using male sterilisation	0.000	0.000	671	774	na	na	0.000	0.000
Currently using periodic abstinence	0.013	0.005	671	774	1.144	0.382	0.003	0.023
Currently using withdrawal	0.013	0.004	671	774	1.011	0.336	0.004	0.022
Want no more children	0.399	0.019	672	775	1.025	0.049	0.360	0.438
Want to delay next birth at least 2 years	0.390	0.021	672	775	1.105	0.053	0.348	0.431
Ideal number of children	4.645	0.146	1111	1290	1.194	0.031	4.353	4.936

na = Not applicable

Table B.7 Sampling errors: Southern sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.173	0.011	6525	6446	2.318	0.063	0.152	0.195
No education	0.307	0.009	6525	6446	1.613	0.030	0.289	0.325
Secondary education or higher	0.118	0.009	6525	6446	2.222	0.075	0.100	0.136
Never married (in union)	0.166	0.006	6525	6446	1.370	0.038	0.153	0.179
Currently married (in union)	0.692	0.007	6525	6446	1.303	0.011	0.677	0.706
Married before age 20	0.750	0.009	5101	5033	1.410	0.011	0.733	0.767
Had first sexual intercourse before 18	0.686	0.008	5101	5033	1.239	0.012	0.670	0.702
Children ever born	2.989	0.039	6525	6446	1.120	0.013	2.910	3.067
Children ever born to women 40-49	6.518	0.119	1013	1027	1.242	0.018	6.280	6.757
Children surviving	2.303	0.031	6525	6446	1.113	0.013	2.242	2.365
Knows any contraceptive method	0.989	0.002	4510	4458	1.007	0.002	0.986	0.992
Knows any modern contraceptive method	0.987	0.002	4510	4458	0.937	0.002	0.984	0.990
Ever used any contraceptive method	0.503	0.009	4510	4458	1.149	0.017	0.486	0.521
Currently using any method	0.288	0.007	4510	4458	1.037	0.024	0.274	0.302
Currently using modern method	0.253	0.007	4510	4458	1.078	0.028	0.239	0.267
Currently using pill	0.029	0.003	4510	4458	1.191	0.103	0.023	0.035
Currently using IUD	0.002	0.001	4510	4458	1.125	0.396	0.000	0.003
Currently using injectables	0.161	0.006	4510	4458	1.052	0.036	0.150	0.173
Currently using implants	0.001	0.000	4510	4458	1.147	0.615	0.000	0.002
Currently using condom	0.012	0.002	4510	4458	1.043	0.139	0.009	0.016
Currently using female sterilisation	0.043	0.003	4510	4458	1.068	0.075	0.037	0.050
Currently using male sterilisation	0.001	0.000	4510	4458	1.070	0.606	0.000	0.002
Currently using periodic abstinence	0.007	0.001	4510	4458	1.149	0.202	0.004	0.010
Currently using withdrawal	0.005	0.001	4510	4458	1.037	0.210	0.003	0.008
Using public sector source for contraception	0.636	0.018	1413	1362	1.439	0.029	0.600	0.673
Want no more children	0.328	0.007	4510	4458	1.027	0.022	0.313	0.342
Want to delay next birth at least 2 years	0.377	0.008	4510	4458	1.055	0.020	0.361	0.392
Ideal number of children	4.894	0.064	6494	6409	1.077	0.013	4.766	5.023
Mother received tetanus injections	0.854	0.007	3668	3615	1.132	0.008	0.840	0.867
Mother received medical care at birth	0.572	0.014	5596	5580	1.839	0.025	0.543	0.600
Child had diarrhoea in the last 2 weeks	0.173	0.006	4827	4799	1.050	0.033	0.162	0.185
Child treated for diarrhoea with ORS packet	0.652	0.019	812	832	1.110	0.029	0.614	0.689
Child received medical treatment for diarrhoea	0.342	0.017	812	832	1.028	0.050	0.307	0.376
Child had health card	0.865	0.013	1008	1005	1.217	0.015	0.839	0.891
Child received BCG vaccination	0.937	0.008	1008	1005	1.109	0.009	0.920	0.954
Child received DPT vaccination (3 doses)	0.884	0.012	1008	1005	1.170	0.014	0.860	0.908
Child received polio vaccination (3 doses)	0.839	0.016	1008	1005	1.361	0.019	0.807	0.871
Child received measles vaccination	0.887	0.011	1008	1005	1.083	0.012	0.865	0.909
Child fully immunised	0.766	0.019	1008	1005	1.385	0.024	0.729	0.803
Weight-for-height (Below -2 SD)	0.062	0.005	4298	4273	1.265	0.077	0.052	0.071
Height-for-age (Below -2 SD)	0.453	0.009	4298	4273	1.182	0.020	0.434	0.471
Weight-for-age (Below -2 SD)	0.250	0.008	4298	4273	1.225	0.033	0.233	0.266
Total fertility rate (last 3 years)	5.958	0.135	na	18052	1.347	0.023	5.687	6.229
Neonatal mortality (last 10 years)	50.462	2.555	10302	10270	1.038	0.051	45.352	55.572
Infant mortality (last 10 years)	129.563	4.398	10352	10327	1.196	0.034	120.766	138.359
Child mortality (last 10 years)	95.244	3.829	10426	10390	1.033	0.040	87.587	102.902
Under-5 mortality (last 10 years)	212.467	5.619	10478	10450	1.215	0.026	201.229	223.705
Postneonatal mortality (last 10 years)	79.101	3.464	10350	10325	1.210	0.044	72.173	86.029
MEN								
Urban residence	0.192	0.011	1432	1446	1.024	0.056	0.170	0.213
No education	0.111	0.009	1432	1446	1.107	0.083	0.092	0.129
Secondary education or higher	0.219	0.011	1432	1446	1.034	0.052	0.196	0.241
Never married	0.323	0.013	1432	1446	1.050	0.040	0.297	0.349
Currently married (in union)	0.632	0.014	1432	1446	1.112	0.022	0.604	0.660
Knows any contraceptive method	0.995	0.003	895	914	1.111	0.003	0.989	1.000
Knows any modern contraceptive method	0.992	0.004	895	914	1.243	0.004	0.984	0.999
Ever used any contraceptive method	0.767	0.018	895	914	1.275	0.024	0.730	0.803
Currently using any method	0.275	0.016	894	913	1.041	0.057	0.244	0.306
Currently using modern method	0.252	0.016	894	913	1.072	0.062	0.221	0.283
Currently using pill	0.036	0.006	894	913	1.028	0.177	0.023	0.049
Currently using IUD	0.001	0.001	894	913	0.833	0.776	0.000	0.003
Currently using injectables	0.118	0.011	894	913	1.055	0.096	0.095	0.141
Currently using implants	0.000	0.000	894	913	na	na	0.000	0.000
Currently using condom	0.054	0.009	894	913	1.128	0.158	0.037	0.071
Currently using female sterilisation	0.042	0.007	894	913	0.996	0.159	0.029	0.055
Currently using male sterilisation	0.000	0.000	894	913	0.529	1.000	0.000	0.001
Currently using periodic abstinence	0.006	0.003	894	913	1.142	0.514	0.000	0.011
Currently using withdrawal	0.005	0.002	894	913	1.064	0.508	0.000	0.010
Want no more children	0.365	0.018	894	914	1.105	0.049	0.329	0.401
Want to delay next birth at least 2 years	0.351	0.016	894	914	1.020	0.046	0.318	0.384
Ideal number of children	4.966	0.140	1421	1433	1.010	0.028	4.685	5.247

na = Not applicable

Table B.8 Sampling errors: Blantyre sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.682	0.022	1023	1324	1.535	0.033	0.638	0.727
No education	0.100	0.013	1023	1324	1.346	0.126	0.075	0.126
Secondary education or higher	0.341	0.028	1023	1324	1.880	0.082	0.285	0.396
Never married (in union)	0.251	0.018	1023	1324	1.341	0.072	0.215	0.287
Currently married (in union)	0.632	0.019	1023	1324	1.234	0.029	0.595	0.669
Married before age 20	0.658	0.027	781	1008	1.562	0.040	0.604	0.711
Had first sexual intercourse before 18	0.550	0.020	781	1008	1.100	0.036	0.511	0.589
Children ever born	2.360	0.110	1023	1324	1.349	0.046	2.140	2.579
Children ever born to women 40-49	6.346	0.412	132	164	1.623	0.065	5.522	7.169
Children surviving	1.906	0.084	1023	1324	1.262	0.044	1.739	2.074
Knows any contraceptive method	1.000	0.000	656	837	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	656	837	na	0.000	1.000	1.000
Ever used any contraceptive method	0.655	0.018	656	837	0.949	0.027	0.620	0.690
Currently using any method	0.408	0.015	656	837	0.758	0.036	0.379	0.437
Currently using modern method	0.384	0.013	656	837	0.685	0.034	0.358	0.410
Currently using pill	0.038	0.009	656	837	1.201	0.237	0.020	0.055
Currently using IUD	0.005	0.003	656	837	1.002	0.566	0.000	0.010
Currently using injectables	0.226	0.011	656	837	0.697	0.050	0.203	0.249
Currently using implants	0.004	0.002	656	837	1.027	0.671	0.000	0.008
Currently using condom	0.020	0.005	656	837	0.850	0.231	0.011	0.030
Currently using female sterilisation	0.083	0.007	656	837	0.639	0.083	0.069	0.097
Currently using male sterilisation	0.002	0.002	656	837	1.072	0.992	0.000	0.005
Currently using periodic abstinence	0.005	0.003	656	837	1.047	0.591	0.000	0.010
Currently using withdrawal	0.007	0.003	656	837	0.961	0.441	0.001	0.014
Using public sector source for contraception	0.560	0.035	301	390	1.225	0.063	0.490	0.630
Want no more children	0.349	0.018	656	837	0.971	0.052	0.312	0.385
Want to delay next birth at least 2 years	0.369	0.015	656	837	0.818	0.042	0.338	0.400
Ideal number of children	3.900	0.086	1023	1324	0.847	0.022	3.728	4.072
Mother received tetanus injections	0.870	0.011	500	630	0.714	0.013	0.848	0.892
Mother received medical care at birth	0.808	0.021	703	881	1.274	0.027	0.765	0.850
Child had diarrhoea in the last 2 weeks	0.172	0.015	599	755	0.965	0.089	0.141	0.202
Child treated for diarrhoea with ORS packet	0.592	0.042	105	130	0.844	0.071	0.507	0.676
Child received medical treatment for diarrhoea	0.324	0.042	105	130	0.873	0.131	0.239	0.409
Child had health card	0.851	0.047	143	182	1.550	0.055	0.758	0.944
Child received BCG vaccination	0.961	0.015	143	182	0.944	0.016	0.931	0.992
Child received DPT vaccination (3 doses)	0.934	0.024	143	182	1.122	0.025	0.887	0.981
Child received polio vaccination (3 doses)	0.901	0.022	143	182	0.874	0.024	0.857	0.945
Child received measles vaccination	0.917	0.018	143	182	0.780	0.020	0.881	0.953
Child fully immunised	0.829	0.031	143	182	0.971	0.037	0.767	0.891
Weight-for-height (Below -2 SD)	0.067	0.017	531	666	1.441	0.252	0.033	0.100
Height-for-age (Below -2 SD)	0.381	0.027	531	666	1.200	0.072	0.326	0.436
Weight-for-age (Below -2 SD)	0.180	0.020	531	666	1.122	0.110	0.140	0.220
Total fertility rate (last 3 years)	4.295	0.322	na	10594	2.487	0.075	3.651	4.939
Neonatal mortality (last 10 years)	37.812	6.809	1338	1671	1.062	0.180	24.194	51.430
Infant mortality (last 10 years)	106.080	10.173	1345	1681	1.105	0.096	85.735	126.426
Child mortality (last 10 years)	94.675	11.191	1351	1686	1.116	0.118	72.294	117.057
Under-5 mortality (last 10 years)	190.712	17.237	1359	1696	1.430	0.090	156.239	225.186
Postneonatal mortality (last 10 years)	68.268	7.365	1344	1680	1.051	0.108	53.539	82.998
MEN								
Urban residence	0.698	0.026	252	321	0.892	0.037	0.646	0.749
No education	0.040	0.015	252	321	1.203	0.372	0.010	0.070
Secondary education or higher	0.473	0.027	252	321	0.868	0.058	0.418	0.528
Never married	0.385	0.030	252	321	0.967	0.077	0.326	0.444
Currently married (in union)	0.574	0.031	252	321	0.997	0.054	0.512	0.637
Knows any contraceptive method	1.000	0.000	146	184	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	146	184	na	0.000	1.000	1.000
Ever used any contraceptive method	0.820	0.027	146	184	0.838	0.033	0.766	0.873
Currently using any method	0.361	0.027	146	184	0.672	0.074	0.307	0.414
Currently using modern method	0.331	0.024	146	184	0.620	0.073	0.282	0.379
Want no more children	0.409	0.041	146	184	0.997	0.099	0.328	0.491
Want to delay next birth at least 2 years	0.287	0.032	146	184	0.863	0.113	0.222	0.351
Ideal number of children	3.874	0.202	247	316	0.946	0.052	3.470	4.278

na = Not applicable

Table B.9 Sampling errors: Karonga sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.157	0.009	941	266	0.785	0.059	0.138	0.175
No education	0.152	0.016	941	266	1.366	0.105	0.120	0.184
Secondary education or higher	0.102	0.009	941	266	0.931	0.090	0.084	0.121
Never married (in union)	0.155	0.012	941	266	0.994	0.076	0.131	0.178
Currently married (in union)	0.719	0.017	941	266	1.126	0.023	0.686	0.752
Married before age 20	0.794	0.019	719	204	1.270	0.024	0.755	0.832
Had first sexual intercourse before 18	0.680	0.018	719	204	1.046	0.027	0.644	0.717
Children ever born	2.926	0.070	941	266	0.802	0.024	2.787	3.065
Children ever born to women 40-49	6.129	0.260	139	39	1.092	0.042	5.609	6.648
Children surviving	2.407	0.063	941	266	0.871	0.026	2.281	2.534
Knows any contraceptive method	0.951	0.009	672	191	1.081	0.009	0.933	0.969
Knows any modern contraceptive method	0.948	0.009	672	191	1.089	0.010	0.930	0.967
Ever used any contraceptive method	0.534	0.019	672	191	0.973	0.035	0.497	0.572
Currently using any method	0.285	0.017	672	191	0.959	0.059	0.252	0.319
Currently using modern method	0.168	0.017	672	191	1.145	0.098	0.135	0.201
Currently using pill	0.018	0.005	672	191	1.084	0.313	0.007	0.029
Currently using IUD	0.002	0.002	672	191	1.022	1.008	0.000	0.005
Currently using injectables	0.064	0.010	672	191	1.059	0.156	0.044	0.084
Currently using implants	0.000	0.000	672	191	na	na	0.000	0.000
Currently using condom	0.037	0.006	672	191	0.874	0.171	0.025	0.050
Currently using female sterilisation	0.045	0.013	672	191	1.583	0.280	0.020	0.071
Currently using male sterilisation	0.000	0.000	672	191	na	na	0.000	0.000
Currently using periodic abstinence	0.006	0.004	672	191	1.242	0.611	0.000	0.014
Currently using withdrawal	0.091	0.009	672	191	0.851	0.104	0.072	0.110
Using public sector source for contraception	0.645	0.044	136	38	1.060	0.068	0.557	0.732
Want no more children	0.269	0.021	672	191	1.231	0.078	0.227	0.311
Want to delay next birth at least 2 years	0.461	0.018	672	191	0.941	0.039	0.425	0.498
Ideal number of children	4.969	0.076	937	265	0.803	0.015	4.818	5.121
Mother received tetanus injection	0.854	0.015	539	153	1.003	0.018	0.823	0.884
Mother received medical care at birth	0.447	0.031	831	236	1.545	0.069	0.386	0.509
Child had diarrhoea in the last 2 weeks	0.127	0.015	749	213	1.186	0.115	0.097	0.156
Child treated for diarrhoea with ORS packet	0.422	0.080	94	27	1.496	0.190	0.262	0.582
Child received medical treatment for diarrhoea	0.292	0.048	94	27	1.001	0.163	0.197	0.387
Child had health card	0.790	0.040	165	47	1.268	0.051	0.710	0.871
Child received BCG vaccination	0.939	0.020	165	47	1.093	0.022	0.899	0.980
Child received DPT vaccination (3 doses)	0.849	0.026	165	47	0.943	0.031	0.797	0.902
Child received polio vaccination (3 doses)	0.773	0.034	165	47	1.030	0.044	0.706	0.841
Child received measles vaccination	0.817	0.042	165	47	1.346	0.051	0.734	0.900
Child fully immunised	0.677	0.041	165	47	1.118	0.061	0.595	0.760
Weight-for-height (Below -2 SD)	0.052	0.011	681	193	1.272	0.211	0.030	0.074
Height-for-age (Below -2 SD)	0.388	0.016	681	193	0.888	0.042	0.355	0.421
Weight-for-age (Below -2 SD)	0.160	0.014	681	193	0.968	0.085	0.133	0.188
Total fertility rate (last 3 years)	5.642	0.226	na	2176	1.985	0.040	5.190	6.094
Neonatal mortality (last 10 years)	37.610	6.483	1531	435	1.266	0.172	24.644	50.576
Infant mortality (last 10 years)	93.160	10.264	1532	435	1.278	0.110	72.632	113.689
Child mortality (last 10 years)	57.906	6.321	1542	438	0.875	0.109	45.265	70.547
Under-5 mortality (last 10 years)	145.672	11.331	1543	438	1.166	0.078	123.010	168.334
Postneonatal mortality (last 10 years)	55.551	6.661	1532	435	1.087	0.120	42.229	68.872
MEN								
Urban residence	0.156	0.015	245	64	0.636	0.095	0.127	0.186
No education	0.033	0.012	245	64	1.043	0.362	0.009	0.057
Secondary education or higher	0.269	0.022	245	64	0.773	0.082	0.225	0.313
Never married	0.310	0.026	245	64	0.881	0.084	0.258	0.362
Currently married (in union)	0.629	0.030	245	64	0.966	0.047	0.569	0.689
Knows any contraceptive method	1.000	0.000	154	40	na	0.000	1.000	1.000
Knows any modern contraceptive method	0.993	0.007	154	40	1.030	0.007	0.980	1.007
Ever used any contraceptive method	0.882	0.019	154	40	0.744	0.022	0.843	0.921
Currently using any method	0.437	0.037	154	40	0.934	0.086	0.362	0.512
Currently using modern method	0.280	0.032	154	40	0.880	0.114	0.216	0.344
Want no more children	0.211	0.035	154	40	1.056	0.165	0.141	0.281
Want to delay next birth at least 2 years	0.554	0.043	154	40	1.070	0.078	0.468	0.640
Ideal number of children	5.184	0.235	244	64	1.029	0.045	4.715	5.653

na = Not applicable

Table B.10 Sampling errors: Kasungu sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.058	0.013	728	484	1.462	0.218	0.033	0.084
No education	0.212	0.024	728	484	1.604	0.115	0.163	0.260
Secondary education or higher	0.097	0.021	728	484	1.893	0.214	0.056	0.139
Never married (in union)	0.163	0.015	728	484	1.064	0.090	0.133	0.192
Currently married (in union)	0.759	0.015	728	484	0.919	0.019	0.730	0.788
Married before age 20	0.777	0.025	573	384	1.414	0.032	0.728	0.826
Had first sexual intercourse before 18	0.576	0.020	573	384	0.979	0.035	0.536	0.617
Children ever born	3.477	0.109	728	484	0.996	0.031	3.259	3.696
Children ever born to women 40-49	7.572	0.275	88	66	0.972	0.036	7.022	8.123
Children surviving	2.670	0.091	728	484	1.081	0.034	2.489	2.851
Knows any contraceptive method	0.993	0.004	540	367	1.085	0.004	0.986	1.001
Knows any modern contraceptive method	0.991	0.004	540	367	1.065	0.004	0.982	1.000
Ever used any contraceptive method	0.637	0.022	540	367	1.072	0.035	0.593	0.681
Currently using any method	0.361	0.021	540	367	0.992	0.057	0.320	0.402
Currently using modern method	0.263	0.019	540	367	0.982	0.071	0.226	0.301
Currently using pill	0.042	0.010	540	367	1.135	0.235	0.022	0.061
Currently using IUD	0.000	0.000	540	367	0.491	1.000	0.000	0.001
Currently using injectables	0.142	0.014	540	367	0.950	0.101	0.113	0.170
Currently using implants	0.003	0.002	540	367	0.946	0.728	0.000	0.008
Currently using condom	0.033	0.008	540	367	1.036	0.243	0.017	0.048
Currently using female sterilisation	0.032	0.010	540	367	1.332	0.315	0.012	0.052
Currently using male sterilisation	0.000	0.000	540	367	na	na	0.000	0.000
Currently using periodic abstinence	0.027	0.010	540	367	1.474	0.380	0.007	0.048
Currently using withdrawal	0.029	0.006	540	367	0.894	0.223	0.016	0.042
Using public sector source for contraception	0.709	0.047	178	109	1.367	0.066	0.615	0.802
Want no more children	0.445	0.023	540	367	1.089	0.052	0.398	0.491
Want to delay next birth at least 2 years	0.344	0.020	540	367	0.975	0.058	0.304	0.384
Ideal number of children	6.676	0.453	720	477	1.568	0.068	5.771	7.582
Mother received tetanus injections	0.861	0.021	436	300	1.303	0.025	0.818	0.903
Mother received medical care at birth	0.447	0.033	701	489	1.543	0.073	0.381	0.512
Child had diarrhoea in the last 2 weeks	0.213	0.016	625	437	0.983	0.075	0.181	0.245
Child treated for diarrhoea with ORS packet	0.687	0.035	136	93	0.888	0.051	0.617	0.756
Child received medical treatment for diarrhoea	0.229	0.044	136	93	1.197	0.192	0.141	0.317
Child had health card	0.715	0.045	142	101	1.204	0.062	0.626	0.804
Child received BCG vaccination	0.910	0.022	142	101	0.957	0.024	0.866	0.955
Child received DPT vaccination (3 doses)	0.813	0.032	142	101	0.992	0.039	0.749	0.876
Child received polio vaccination (3 doses)	0.723	0.046	142	101	1.246	0.063	0.632	0.814
Child received measles vaccination	0.858	0.027	142	101	0.954	0.032	0.804	0.913
Child fully immunised	0.614	0.034	142	101	0.842	0.055	0.547	0.681
Weight-for-height (Below -2 SD)	0.027	0.008	555	385	1.268	0.315	0.010	0.044
Height-for-age (Below -2 SD)	0.474	0.027	555	385	1.277	0.057	0.421	0.528
Weight-for-age (Below -2 SD)	0.207	0.017	555	385	1.010	0.082	0.173	0.241
Total fertility rate (last 3 years)	6.954	0.307	na	4048	1.716	0.044	6.340	7.568
Neonatal mortality (last 10 years)	37.490	6.868	1344	936	1.274	0.183	23.754	51.226
Infant mortality (last 10 years)	93.063	10.056	1348	939	1.312	0.108	72.951	113.174
Child mortality (last 10 years)	125.709	13.719	1370	956	1.324	0.109	98.271	153.147
Under-5 mortality (last 10 years)	207.073	13.099	1374	959	1.130	0.063	180.875	233.270
Postneonatal mortality (last 10 years)	55.572	7.410	1348	939	1.200	0.133	40.753	70.392
MEN								
Urban residence	0.058	0.014	215	142	0.881	0.242	0.030	0.086
No education	0.099	0.032	215	142	1.573	0.324	0.035	0.164
Secondary education or higher	0.177	0.031	215	142	1.181	0.174	0.116	0.239
Never married	0.370	0.028	215	142	0.855	0.076	0.314	0.427
Currently married (in union)	0.590	0.030	215	142	0.879	0.050	0.531	0.649
Knows any contraceptive method	1.000	0.000	124	84	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	124	84	na	0.000	1.000	1.000
Ever used any contraceptive method	0.957	0.020	124	84	1.119	0.021	0.917	0.998
Currently using any method	0.331	0.051	124	84	1.198	0.153	0.230	0.433
Currently using modern method	0.297	0.044	124	84	1.072	0.149	0.208	0.385
Want no more children	0.417	0.042	124	84	0.956	0.102	0.332	0.502
Want to delay next birth at least 2 years	0.457	0.043	124	84	0.949	0.093	0.372	0.543
Ideal number of children	4.998	0.367	213	140	1.208	0.074	4.263	5.733

na = Not applicable

Table B.11 Sampling errors: Lilongwe sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.316	0.024	871	1864	1.535	0.077	0.267	0.364
No education	0.241	0.022	871	1864	1.485	0.089	0.198	0.284
Secondary education or higher	0.134	0.021	871	1864	1.781	0.154	0.093	0.175
Never married (in union)	0.173	0.015	871	1864	1.156	0.086	0.144	0.203
Currently married (in union)	0.752	0.017	871	1864	1.150	0.022	0.718	0.786
Married before age 20	0.696	0.018	697	1502	1.015	0.025	0.661	0.732
Had first sexual intercourse before 18	0.621	0.026	697	1502	1.391	0.041	0.569	0.672
Children ever born	3.148	0.103	871	1864	1.079	0.033	2.941	3.355
Children ever born to women 40-49	6.827	0.284	103	224	0.911	0.042	6.260	7.394
Children surviving	2.403	0.065	871	1864	0.905	0.027	2.273	2.532
Knows any contraceptive method	0.997	0.002	637	1402	1.053	0.002	0.992	1.002
Knows any modern contraceptive method	0.997	0.002	637	1402	1.053	0.002	0.992	1.002
Ever used any contraceptive method	0.520	0.028	637	1402	1.409	0.054	0.464	0.576
Currently using any method	0.361	0.026	637	1402	1.354	0.071	0.309	0.412
Currently using modern method	0.328	0.028	637	1402	1.481	0.084	0.272	0.383
Currently using pill	0.024	0.007	637	1402	1.103	0.278	0.011	0.038
Currently using IUD	0.000	0.000	637	1402	na	na	0.000	0.000
Currently using injectables	0.221	0.025	637	1402	1.541	0.115	0.170	0.272
Currently using implants	0.000	0.000	637	1402	na	na	0.000	0.000
Currently using condom	0.012	0.005	637	1402	1.053	0.378	0.003	0.021
Currently using female sterilisation	0.066	0.010	637	1402	1.054	0.157	0.045	0.087
Currently using male sterilisation	0.000	0.000	637	1402	na	na	0.000	0.000
Currently using periodic abstinence	0.007	0.004	637	1402	1.085	0.510	0.000	0.014
Currently using withdrawal	0.006	0.003	637	1402	0.822	0.421	0.001	0.011
Using public sector source for contraception	0.692	0.045	243	514	1.515	0.065	0.602	0.781
Want no more children	0.436	0.024	637	1402	1.207	0.054	0.389	0.484
Want to delay next birth at least 2 years	0.342	0.019	637	1402	1.036	0.057	0.303	0.381
Ideal number of children	4.964	0.125	869	1860	0.699	0.025	4.715	5.214
Mother received tetanus injections	0.882	0.014	503	1091	0.949	0.015	0.855	0.909
Mother received medical care at birth	0.531	0.043	820	1829	2.067	0.081	0.445	0.617
Child had diarrhoea in the last 2 weeks	0.165	0.014	727	1596	1.026	0.086	0.137	0.194
Child treated for diarrhoea with ORS packet	0.558	0.043	113	264	0.923	0.076	0.473	0.644
Child received medical treatment for diarrhoea	0.195	0.052	113	264	1.450	0.269	0.090	0.300
Child had health card	0.750	0.028	142	316	0.775	0.037	0.694	0.805
Child received BCG vaccination	0.914	0.019	142	316	0.833	0.021	0.875	0.952
Child received DPT vaccination (3 doses)	0.823	0.046	142	316	1.458	0.056	0.731	0.915
Child received polio vaccination (3 doses)	0.779	0.045	142	316	1.319	0.058	0.689	0.869
Child received measles vaccination	0.736	0.025	142	316	0.698	0.034	0.685	0.787
Child fully immunised	0.634	0.035	142	316	0.883	0.055	0.564	0.704
Weight-for-height (Below -2 SD)	0.059	0.014	651	1416	1.444	0.234	0.031	0.086
Height-for-age (Below -2 SD)	0.542	0.024	651	1416	1.152	0.043	0.495	0.589
Weight-for-age (Below -2 SD)	0.276	0.022	651	1416	1.258	0.080	0.232	0.320
Total fertility rate (last 3 years)	6.455	0.329	na	15381	2.078	0.051	5.796	7.113
Neonatal mortality (last 10 years)	42.394	7.371	1497	3377	1.265	0.174	27.652	57.136
Infant mortality (last 10 years)	98.487	10.444	1502	3385	1.278	0.106	77.599	119.375
Child mortality (last 10 years)	105.032	11.356	1521	3442	1.342	0.108	82.319	127.745
Under-5 mortality (last 10 years)	193.175	16.150	1527	3453	1.441	0.084	160.874	225.475
Postneonatal mortality (last 10 years)	56.093	6.869	1501	3382	1.079	0.122	42.355	69.832
MEN								
Urban residence	0.361	0.047	217	487	1.432	0.130	0.267	0.454
No education	0.080	0.022	217	487	1.202	0.277	0.036	0.125
Secondary education or higher	0.228	0.037	217	487	1.282	0.161	0.154	0.301
Never married	0.395	0.037	217	487	1.108	0.093	0.322	0.469
Currently married (in union)	0.574	0.031	217	487	0.908	0.053	0.512	0.635
Knows any contraceptive method	1.000	0.000	122	279	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	122	279	na	0.000	1.000	1.000
Ever used any contraceptive method	0.718	0.048	122	279	1.180	0.067	0.622	0.815
Currently using any method	0.336	0.048	122	279	1.112	0.142	0.241	0.432
Currently using modern method	0.288	0.040	122	279	0.978	0.140	0.207	0.368
Want no more children	0.398	0.040	122	279	0.901	0.101	0.318	0.478
Want to delay next birth at least 2 years	0.399	0.040	122	279	0.903	0.101	0.319	0.479
Ideal number of children	4.383	0.194	216	485	0.827	0.044	3.994	4.772

na = Not applicable

Table B.12 Sampling errors: Machinga sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.050	0.007	798	481	0.935	0.144	0.036	0.065
No education	0.429	0.027	798	481	1.563	0.064	0.374	0.484
Secondary education or higher	0.046	0.012	798	481	1.629	0.264	0.022	0.070
Never married (in union)	0.115	0.010	798	481	0.870	0.086	0.095	0.134
Currently married (in union)	0.777	0.019	798	481	1.272	0.024	0.739	0.814
Married before age 20	0.769	0.015	636	386	0.914	0.020	0.739	0.800
Had first sexual intercourse before 18	0.740	0.018	636	386	1.046	0.025	0.704	0.777
Children ever born	3.227	0.074	798	481	0.733	0.023	3.079	3.375
Children ever born to women 40-49	6.668	0.333	122	79	1.349	0.050	6.002	7.334
Children surviving	2.474	0.076	798	481	0.969	0.031	2.321	2.626
Knows any contraceptive method	0.964	0.010	604	374	1.317	0.010	0.944	0.984
Knows any modern contraceptive method	0.962	0.010	604	374	1.337	0.011	0.941	0.983
Ever used any contraceptive method	0.492	0.028	604	374	1.378	0.057	0.435	0.548
Currently using any method	0.266	0.021	604	374	1.179	0.080	0.224	0.308
Currently using modern method	0.226	0.022	604	374	1.291	0.097	0.182	0.270
Currently using pill	0.025	0.008	604	374	1.213	0.306	0.010	0.041
Currently using IUD	0.000	0.000	604	374	0.456	0.999	0.000	0.001
Currently using injectables	0.160	0.016	604	374	1.093	0.102	0.128	0.193
Currently using implants	0.000	0.000	604	374	0.459	1.006	0.000	0.001
Currently using condom	0.015	0.005	604	374	1.015	0.338	0.005	0.025
Currently using female sterilisation	0.020	0.007	604	374	1.171	0.330	0.007	0.034
Currently using male sterilisation	0.002	0.002	604	374	1.108	1.008	0.000	0.006
Currently using periodic abstinence	0.004	0.003	604	374	1.052	0.649	0.000	0.010
Currently using withdrawal	0.004	0.003	604	374	1.060	0.654	0.000	0.010
Using public sector source for contraception	0.821	0.042	160	93	1.385	0.051	0.737	0.905
Want no more children	0.323	0.022	604	374	1.129	0.066	0.280	0.366
Want to delay next birth at least 2 years	0.396	0.022	604	374	1.102	0.055	0.352	0.439
Ideal number of children	6.053	0.374	795	479	1.488	0.062	5.305	6.801
Mother received tetanus injections	0.832	0.023	499	306	1.378	0.027	0.786	0.878
Mother received medical care at birth	0.533	0.038	757	469	1.859	0.072	0.456	0.609
Child had diarrhoea in the last 2 weeks	0.152	0.019	668	411	1.363	0.123	0.115	0.190
Child treated for diarrhoea with ORS packet	0.671	0.065	101	63	1.376	0.097	0.541	0.800
Child received medical treatment for diarrhoea	0.383	0.040	101	63	0.798	0.104	0.303	0.463
Child had health card	0.831	0.046	132	78	1.397	0.056	0.739	0.924
Child received BCG vaccination	0.836	0.048	132	78	1.461	0.057	0.741	0.932
Child received DPT vaccination (3 doses)	0.875	0.025	132	78	0.870	0.029	0.824	0.926
Child received polio vaccination (3 doses)	0.855	0.040	132	78	1.282	0.047	0.776	0.935
Child received measles vaccination	0.854	0.033	132	78	1.054	0.038	0.788	0.920
Child fully immunised	0.671	0.049	132	78	1.182	0.073	0.572	0.769
Weight-for-height (Below -2 SD)	0.033	0.007	595	367	0.920	0.201	0.020	0.046
Height-for-age (Below -2 SD)	0.445	0.023	595	367	1.123	0.052	0.399	0.492
Weight-for-age (Below -2 SD)	0.245	0.025	595	367	1.283	0.100	0.196	0.294
Total fertility rate (last 3 years)	6.963	0.309	na	4121	1.917	0.044	6.345	7.582
Neonatal mortality (last 10 years)	56.254	7.484	1346	842	1.014	0.133	41.286	71.222
Infant mortality (last 10 years)	118.242	11.638	1350	845	1.178	0.098	94.966	141.518
Child mortality (last 10 years)	98.839	11.774	1365	855	1.139	0.119	75.291	122.387
Under-5 mortality (last 10 years)	205.394	17.138	1369	858	1.341	0.083	171.119	239.669
Postneonatal mortality (last 10 years)	61.988	9.093	1350	845	1.233	0.147	43.803	80.174
MEN								
Urban residence	0.056	0.010	173	119	0.570	0.179	0.036	0.076
No education	0.161	0.046	173	119	1.637	0.284	0.070	0.253
Secondary education or higher	0.143	0.033	173	119	1.242	0.232	0.077	0.209
Never married	0.322	0.031	173	119	0.858	0.095	0.261	0.383
Currently married (in union)	0.634	0.042	173	119	1.141	0.066	0.550	0.717
Knows any contraceptive method	0.989	0.011	108	75	1.113	0.011	0.966	1.011
Knows any modern contraceptive method	0.989	0.011	108	75	1.113	0.011	0.966	1.011
Ever used any contraceptive method	0.775	0.043	108	75	1.060	0.055	0.689	0.860
Currently using any method	0.309	0.044	108	75	0.979	0.142	0.221	0.396
Currently using modern method	0.261	0.042	108	75	0.991	0.161	0.177	0.345
Want no more children	0.396	0.059	108	75	1.249	0.149	0.278	0.514
Want to delay next birth at least 2 years	0.322	0.064	108	75	1.428	0.200	0.193	0.451
Ideal number of children	6.642	0.899	171	117	1.404	0.135	4.844	8.440

na = Not applicable

Table B.13 Sampling errors: Mangochi sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.078	0.007	654	637	0.659	0.088	0.065	0.092
No education	0.492	0.024	654	637	1.245	0.050	0.443	0.540
Secondary education or higher	0.053	0.011	654	637	1.234	0.204	0.031	0.075
Never married (in union)	0.136	0.016	654	637	1.186	0.117	0.104	0.168
Currently married (in union)	0.734	0.016	654	637	0.932	0.022	0.701	0.766
Married before age 20	0.706	0.027	505	494	1.347	0.039	0.651	0.760
Had first sexual intercourse before 18	0.784	0.025	505	494	1.352	0.032	0.735	0.834
Children ever born	3.290	0.105	654	637	0.917	0.032	3.081	3.499
Children ever born to women 40-49	6.888	0.417	103	107	1.320	0.061	6.054	7.721
Children surviving	2.540	0.081	654	637	0.943	0.032	2.378	2.703
Knows any contraceptive method	0.986	0.005	467	467	0.822	0.005	0.977	0.995
Knows any modern contraceptive method	0.983	0.005	467	467	0.857	0.005	0.973	0.993
Ever used any contraceptive method	0.432	0.023	467	467	1.005	0.053	0.386	0.478
Currently using any method	0.216	0.016	467	467	0.826	0.073	0.184	0.247
Currently using modern method	0.167	0.014	467	467	0.789	0.082	0.140	0.194
Currently using pill	0.030	0.009	467	467	1.130	0.300	0.012	0.047
Currently using IUD	0.003	0.003	467	467	1.033	0.834	0.000	0.009
Currently using injectables	0.080	0.014	467	467	1.142	0.179	0.051	0.109
Currently using implants	0.000	0.000	467	467	na	na	0.000	0.000
Currently using condom	0.011	0.006	467	467	1.138	0.489	0.000	0.023
Currently using female sterilisation	0.034	0.007	467	467	0.804	0.199	0.020	0.047
Currently using male sterilisation	0.000	0.000	467	467	na	na	0.000	0.000
Currently using periodic abstinence	0.000	0.000	467	467	na	na	0.000	0.000
Currently using withdrawal	0.005	0.004	467	467	1.125	0.702	0.000	0.013
Using public sector source for contraception	0.649	0.059	105	83	1.265	0.091	0.531	0.768
Want no more children	0.287	0.026	467	467	1.227	0.090	0.236	0.339
Want to delay next birth at least 2 years	0.430	0.034	467	467	1.493	0.080	0.362	0.499
Ideal number of children	7.027	0.302	651	633	0.985	0.043	6.424	7.631
Mother received tetanus injections	0.872	0.018	392	403	1.119	0.021	0.836	0.909
Mother received medical care at birth	0.466	0.056	601	637	2.354	0.120	0.355	0.578
Child had diarrhoea in the last 2 weeks	0.198	0.022	524	553	1.266	0.109	0.155	0.241
Child treated for diarrhoea with ORS packet	0.620	0.050	101	110	1.027	0.080	0.521	0.719
Child received medical treatment for diarrhoea	0.343	0.052	101	110	1.107	0.152	0.239	0.447
Child had health card	0.917	0.032	108	110	1.215	0.034	0.854	0.980
Child received BCG vaccination	0.903	0.033	108	110	1.168	0.036	0.838	0.968
Child received DPT vaccination (3 doses)	0.833	0.046	108	110	1.301	0.055	0.742	0.924
Child received polio vaccination (3 doses)	0.780	0.035	108	110	0.891	0.044	0.711	0.849
Child received measles vaccination	0.887	0.023	108	110	0.783	0.026	0.840	0.933
Child fully immunised	0.690	0.050	108	110	1.149	0.072	0.590	0.790
Weight-for-height (Below -2 SD)	0.057	0.011	463	488	1.106	0.201	0.034	0.079
Height-for-age (Below -2 SD)	0.475	0.031	463	488	1.328	0.065	0.413	0.536
Weight-for-age (Below -2 SD)	0.288	0.025	463	488	1.206	0.088	0.238	0.339
Total fertility rate (last 3 years)	7.410	0.310	na	5512	1.993	0.042	6.790	8.030
Neonatal mortality (last 10 years)	51.748	7.266	1107	1168	1.030	0.140	37.216	66.280
Infant mortality (last 10 years)	115.606	10.366	1112	1172	1.062	0.090	94.874	136.338
Child mortality (last 10 years)	95.509	12.436	1119	1181	1.147	0.130	70.638	120.380
Under-5 mortality (last 10 years)	200.073	15.283	1125	1187	1.149	0.076	169.507	230.639
Postneonatal mortality (last 10 years)	63.858	7.498	1111	1171	1.022	0.117	48.863	78.853
MEN								
Urban residence	0.080	0.015	154	154	0.684	0.188	0.050	0.110
No education	0.192	0.040	154	154	1.255	0.208	0.112	0.272
Secondary education or higher	0.106	0.022	154	154	0.872	0.205	0.063	0.150
Never married	0.370	0.046	154	154	1.175	0.124	0.278	0.461
Currently married (in union)	0.594	0.057	154	154	1.444	0.097	0.479	0.708
Knows any contraceptive method	0.986	0.014	91	92	1.151	0.014	0.958	1.015
Knows any modern contraceptive method	0.986	0.014	91	92	1.151	0.014	0.958	1.015
Ever used any contraceptive method	0.654	0.063	91	92	1.264	0.097	0.527	0.781
Currently using any method	0.172	0.059	91	92	1.471	0.340	0.055	0.290
Currently using modern method	0.144	0.045	91	92	1.204	0.309	0.055	0.234
Want no more children	0.361	0.048	90	91	0.940	0.133	0.266	0.457
Want to delay next birth at least 2 years	0.371	0.041	90	91	0.810	0.112	0.288	0.454
Ideal number of children	6.049	0.391	153	153	0.794	0.065	5.266	6.832

na = Not applicable

Table B.14 Sampling errors: Mulanje sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.032	0.004	905	624	0.651	0.120	0.024	0.039
No education	0.277	0.021	905	624	1.382	0.074	0.235	0.318
Secondary education or higher	0.051	0.008	905	624	1.044	0.150	0.036	0.066
Never married (in union)	0.128	0.012	905	624	1.037	0.090	0.105	0.151
Currently married (in union)	0.688	0.017	905	624	1.080	0.024	0.654	0.721
Married before age 20	0.822	0.015	730	502	1.090	0.019	0.791	0.852
Had first sexual intercourse before 18	0.894	0.011	730	502	0.940	0.012	0.872	0.915
Children ever born	3.038	0.080	905	624	0.894	0.026	2.877	3.198
Children ever born to women 40-49	6.297	0.339	133	94	1.299	0.054	5.619	6.974
Children surviving	2.354	0.073	905	624	1.005	0.031	2.207	2.500
Knows any contraceptive method	1.000	0.000	623	429	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	623	429	na	0.000	1.000	1.000
Ever used any contraceptive method	0.550	0.024	623	429	1.203	0.044	0.502	0.598
Currently using any method	0.306	0.027	623	429	1.465	0.089	0.252	0.360
Currently using modern method	0.263	0.028	623	429	1.614	0.108	0.206	0.320
Currently using pill	0.038	0.008	623	429	1.005	0.202	0.023	0.054
Currently using IUD	0.000	0.000	623	429	na	na	0.000	0.000
Currently using injectables	0.167	0.024	623	429	1.619	0.145	0.119	0.216
Currently using implants	0.000	0.000	623	429	na	na	0.000	0.000
Currently using condom	0.006	0.003	623	429	0.977	0.498	0.000	0.012
Currently using female sterilisation	0.051	0.011	623	429	1.281	0.221	0.028	0.074
Currently using male sterilisation	0.000	0.000	623	429	na	na	0.000	0.000
Currently using periodic abstinence	0.005	0.003	623	429	1.044	0.575	0.000	0.011
Currently using withdrawal	0.004	0.003	623	429	1.011	0.643	0.000	0.009
Using public sector source for contraception	0.624	0.045	217	141	1.366	0.072	0.534	0.714
Want no more children	0.306	0.020	623	429	1.076	0.065	0.266	0.346
Want to delay next birth at least 2 years	0.356	0.017	623	429	0.872	0.047	0.322	0.389
Ideal number of children	4.889	0.163	905	624	1.108	0.033	4.564	5.215
Mother received tetanus injections	0.842	0.021	515	357	1.294	0.025	0.801	0.884
Mother received medical care at birth	0.534	0.038	792	553	1.881	0.071	0.458	0.610
Child had diarrhoea in the last 2 weeks	0.179	0.014	673	468	1.000	0.081	0.150	0.207
Child treated for diarrhoea with ORS packet	0.799	0.031	115	83	0.855	0.039	0.736	0.861
Child received medical treatment for diarrhoea	0.378	0.043	115	83	0.978	0.114	0.291	0.464
Child had health card	0.879	0.031	144	100	1.136	0.035	0.818	0.941
Child received BCG vaccination	0.962	0.014	144	100	0.901	0.015	0.934	0.991
Child received DPT vaccination (3 doses)	0.917	0.025	144	100	1.072	0.027	0.868	0.966
Child received polio vaccination (3 doses)	0.842	0.034	144	100	1.138	0.041	0.773	0.911
Child received measles vaccination	0.915	0.027	144	100	1.163	0.029	0.861	0.969
Child fully immunised	0.810	0.044	144	100	1.336	0.054	0.723	0.897
Weight-for-height (Below -2 SD)	0.040	0.007	598	418	0.846	0.166	0.027	0.054
Height-for-age (Below -2 SD)	0.495	0.022	598	418	1.047	0.045	0.450	0.539
Weight-for-age (Below -2 SD)	0.277	0.019	598	418	1.010	0.068	0.239	0.314
Total fertility rate (last 3 years)	5.515	0.196	na	5251	1.850	0.035	5.123	5.906
Neonatal mortality (last 10 years)	61.613	6.235	1456	1009	0.923	0.101	49.142	74.083
Infant mortality (last 10 years)	130.313	8.893	1458	1010	0.874	0.068	112.526	148.100
Child mortality (last 10 years)	111.675	8.429	1479	1024	0.850	0.075	94.817	128.533
Under-5 mortality (last 10 years)	227.435	9.817	1481	1025	0.802	0.043	207.801	247.069
Postneonatal mortality (last 10 years)	68.700	7.775	1458	1010	1.075	0.113	53.150	84.251
MEN								
Urban residence	0.033	0.009	171	117	0.652	0.269	0.016	0.051
No education	0.062	0.022	171	117	1.184	0.352	0.018	0.106
Secondary education or higher	0.150	0.037	171	117	1.356	0.248	0.076	0.224
Never married	0.312	0.036	171	117	1.023	0.117	0.239	0.385
Currently married (in union)	0.640	0.032	171	117	0.865	0.050	0.577	0.704
Knows any contraceptive method	1.000	0.000	110	75	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	110	75	na	0.000	1.000	1.000
Ever used any contraceptive method	0.679	0.059	110	75	1.326	0.087	0.560	0.797
Currently using any method	0.312	0.050	110	75	1.124	0.160	0.212	0.411
Currently using modern method	0.302	0.048	110	75	1.094	0.159	0.206	0.398
Want no more children	0.529	0.045	110	75	0.942	0.085	0.439	0.619
Want to delay next birth at least 2 years	0.318	0.038	110	75	0.856	0.120	0.242	0.395
Ideal number of children	3.954	0.132	171	117	1.063	0.033	3.690	4.218

na = Not applicable

Table B.15 Sampling errors: Mzimba sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.199	0.025	781	603	1.714	0.123	0.150	0.248
No education	0.147	0.025	781	603	1.978	0.170	0.097	0.197
Secondary education or higher	0.122	0.016	781	603	1.330	0.128	0.091	0.153
Never married (in union)	0.161	0.018	781	603	1.332	0.109	0.126	0.196
Currently married (in union)	0.760	0.025	781	603	1.642	0.033	0.710	0.810
Married before age 20	0.795	0.015	599	464	0.897	0.019	0.766	0.825
Had first sexual intercourse before 18	0.660	0.017	599	464	0.895	0.026	0.626	0.695
Children ever born	3.310	0.092	781	603	0.910	0.028	3.125	3.495
Children ever born to women 40-49	6.666	0.315	115	101	1.294	0.047	6.037	7.296
Children surviving	2.623	0.068	781	603	0.856	0.026	2.486	2.760
Knows any contraceptive method	0.988	0.005	568	458	1.157	0.005	0.978	0.999
Knows any modern contraceptive method	0.986	0.005	568	458	1.103	0.006	0.975	0.997
Ever used any contraceptive method	0.635	0.033	568	458	1.656	0.053	0.568	0.702
Currently using any method	0.345	0.028	568	458	1.399	0.081	0.289	0.400
Currently using modern method	0.216	0.025	568	458	1.431	0.114	0.167	0.266
Currently using pill	0.043	0.008	568	458	0.979	0.194	0.026	0.060
Currently using IUD	0.000	0.000	568	458	na	na	0.000	0.000
Currently using injectables	0.088	0.012	568	458	1.001	0.135	0.064	0.112
Currently using implants	0.001	0.001	568	458	0.668	0.997	0.000	0.002
Currently using condom	0.032	0.007	568	458	0.979	0.226	0.018	0.047
Currently using female sterilisation	0.046	0.014	568	458	1.549	0.296	0.019	0.074
Currently using male sterilisation	0.002	0.002	568	458	1.098	0.952	0.000	0.007
Currently using periodic abstinence	0.009	0.005	568	458	1.387	0.625	0.000	0.019
Currently using withdrawal	0.102	0.018	568	458	1.425	0.178	0.065	0.138
Using public sector source for contraception	0.648	0.054	172	111	1.472	0.083	0.540	0.755
Want no more children	0.379	0.023	568	458	1.110	0.060	0.333	0.424
Want to delay next birth at least 2 years	0.405	0.023	568	458	1.130	0.057	0.359	0.452
Ideal number of children	5.293	0.191	780	603	1.000	0.036	4.910	5.675
Mother received tetanus injections	0.857	0.021	459	368	1.331	0.025	0.814	0.899
Mother received medical care at birth	0.636	0.050	689	562	2.369	0.078	0.537	0.735
Child had diarrhoea in the last 2 weeks	0.138	0.018	611	490	1.283	0.131	0.102	0.174
Child treated for diarrhoea with ORS packet	0.591	0.045	80	67	0.842	0.076	0.501	0.680
Child received medical treatment for diarrhoea	0.325	0.074	80	67	1.327	0.227	0.178	0.472
Child had health card	0.837	0.039	143	110	1.240	0.046	0.760	0.914
Child received BCG vaccination	0.938	0.025	143	110	1.257	0.027	0.887	0.989
Child received DPT vaccination (3 doses)	0.867	0.030	143	110	1.058	0.035	0.806	0.927
Child received polio vaccination (3 doses)	0.854	0.033	143	110	1.121	0.039	0.787	0.920
Child received measles vaccination	0.844	0.034	143	110	1.064	0.040	0.776	0.912
Child fully immunised	0.753	0.045	143	110	1.216	0.060	0.662	0.844
Weight-for-height (Below -2 SD)	0.040	0.010	538	424	1.174	0.245	0.020	0.059
Height-for-age (Below -2 SD)	0.439	0.032	538	424	1.455	0.073	0.375	0.503
Weight-for-age (Below -2 SD)	0.187	0.024	538	424	1.434	0.129	0.139	0.235
Total fertility rate (last 3 years)	6.714	0.386	na	5189	2.064	0.058	5.941	7.487
Neonatal mortality (last 10 years)	52.596	11.657	1296	1075	1.563	0.222	29.281	75.911
Infant mortality (last 10 years)	105.239	15.415	1300	1079	1.507	0.146	74.408	136.070
Child mortality (last 10 years)	84.688	11.124	1308	1086	1.188	0.131	62.440	106.935
Under-5 mortality (last 10 years)	181.014	19.735	1312	1090	1.499	0.109	141.545	220.484
Postneonatal mortality (last 10 years)	52.643	7.485	1300	1079	1.104	0.142	37.674	67.613
MEN								
Urban residence	0.252	0.036	199	142	1.152	0.141	0.181	0.323
No education	0.030	0.013	199	142	1.095	0.441	0.004	0.057
Secondary education or higher	0.254	0.036	199	142	1.169	0.142	0.182	0.327
Never married	0.300	0.030	199	142	0.917	0.100	0.240	0.359
Currently married (in union)	0.668	0.031	199	142	0.935	0.047	0.605	0.730
Knows any contraceptive method	1.000	0.000	125	95	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	125	95	na	0.000	1.000	1.000
Ever used any contraceptive method	0.872	0.036	125	95	1.184	0.041	0.801	0.943
Currently using any method	0.343	0.039	125	95	0.914	0.113	0.265	0.421
Currently using modern method	0.245	0.032	125	95	0.822	0.129	0.182	0.309
Want no more children	0.347	0.042	124	94	0.980	0.121	0.263	0.431
Want to delay next birth at least 2 years	0.515	0.054	124	94	1.198	0.105	0.407	0.623
Ideal number of children	5.275	0.460	198	142	1.351	0.087	4.355	6.196

na = Not applicable

Table B.16 Sampling errors: Salima sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.094	0.007	784	301	0.637	0.071	0.081	0.108
No education	0.363	0.038	784	301	2.206	0.104	0.288	0.439
Secondary education or higher	0.092	0.017	784	301	1.690	0.190	0.057	0.127
Never married (in union)	0.162	0.013	784	301	1.014	0.082	0.135	0.189
Currently married (in union)	0.739	0.017	784	301	1.110	0.024	0.704	0.774
Married before age 20	0.698	0.023	610	233	1.224	0.033	0.652	0.743
Had first sexual intercourse before 18	0.578	0.023	610	233	1.170	0.040	0.532	0.625
Children ever born	3.194	0.129	784	301	1.227	0.040	2.937	3.452
Children ever born to women 40-49	7.104	0.187	105	42	0.691	0.026	6.729	7.478
Children surviving	2.415	0.104	784	301	1.271	0.043	2.208	2.622
Knows any contraceptive method	0.954	0.018	577	223	2.034	0.019	0.918	0.989
Knows any modern contraceptive method	0.952	0.018	577	223	2.005	0.019	0.916	0.987
Ever used any contraceptive method	0.365	0.031	577	223	1.545	0.085	0.303	0.427
Currently using any method	0.185	0.024	577	223	1.481	0.130	0.137	0.233
Currently using modern method	0.155	0.025	577	223	1.639	0.160	0.105	0.204
Currently using pill	0.013	0.005	577	223	0.984	0.357	0.004	0.022
Currently using IUD	0.000	0.000	577	223	na	na	0.000	0.000
Currently using injectables	0.096	0.020	577	223	1.591	0.203	0.057	0.135
Currently using implants	0.000	0.000	577	223	na	na	0.000	0.000
Currently using condom	0.004	0.002	577	223	0.802	0.524	0.000	0.008
Currently using female sterilisation	0.041	0.010	577	223	1.231	0.248	0.021	0.061
Currently using male sterilisation	0.000	0.000	577	223	na	na	0.000	0.000
Currently using periodic abstinence	0.005	0.003	577	223	1.053	0.631	0.000	0.011
Currently using withdrawal	0.007	0.003	577	223	0.996	0.499	0.000	0.014
Using public sector source for contraception	0.542	0.051	116	41	1.099	0.094	0.439	0.644
Want no more children	0.381	0.021	577	223	1.018	0.054	0.340	0.422
Want to delay next birth at least 2 years	0.334	0.020	577	223	1.034	0.061	0.293	0.374
Ideal number of children	5.150	0.225	779	299	1.237	0.044	4.699	5.600
Mother received tetanus injections	0.849	0.017	467	181	1.033	0.020	0.815	0.883
Mother received medical care at birth	0.467	0.048	746	293	2.262	0.103	0.371	0.564
Child had diarrhoea in the last 2 weeks	0.162	0.017	629	244	1.097	0.103	0.129	0.195
Child treated for diarrhoea with ORS packet	0.526	0.052	96	40	1.020	0.098	0.423	0.629
Child received medical treatment for diarrhoea	0.244	0.033	96	40	0.777	0.134	0.179	0.309
Child had health card	0.800	0.041	145	54	1.215	0.051	0.718	0.882
Child received BCG vaccination	0.864	0.048	145	54	1.651	0.055	0.769	0.960
Child received DPT vaccination (3 doses)	0.714	0.060	145	54	1.554	0.083	0.595	0.833
Child received polio vaccination (3 doses)	0.698	0.056	145	54	1.450	0.081	0.585	0.811
Child received measles vaccination	0.780	0.046	145	54	1.304	0.059	0.688	0.871
Child fully immunised	0.610	0.059	145	54	1.422	0.097	0.492	0.729
Weight-for-height (Below -2 SD)	0.057	0.013	525	202	1.285	0.224	0.031	0.083
Height-for-age (Below -2 SD)	0.546	0.025	525	202	1.119	0.046	0.497	0.596
Weight-for-age (Below -2 SD)	0.290	0.032	525	202	1.551	0.110	0.226	0.354
Total fertility rate (last 3 years)	6.706	0.261	na	2510	1.113	0.039	6.183	7.228
Neonatal mortality (last 10 years)	55.049	7.616	1387	546	1.062	0.138	39.817	70.281
Infant mortality (last 10 years)	131.883	15.748	1388	547	1.461	0.119	100.386	163.379
Child mortality (last 10 years)	123.923	12.438	1414	558	1.075	0.100	99.046	148.799
Under-5 mortality (last 10 years)	239.462	20.247	1416	559	1.523	0.085	198.968	279.957
Postneonatal mortality (last 10 years)	76.834	10.172	1387	546	1.250	0.132	56.489	97.178
MEN								
Urban residence	0.109	0.011	174	65	0.450	0.098	0.088	0.130
No education	0.187	0.044	174	65	1.489	0.236	0.099	0.275
Secondary education or higher	0.211	0.053	174	65	1.697	0.249	0.106	0.317
Never married	0.294	0.043	174	65	1.254	0.148	0.207	0.381
Currently married (in union)	0.664	0.048	174	65	1.336	0.072	0.568	0.760
Knows any contraceptive method	1.000	0.000	115	43	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	115	43	na	0.000	1.000	1.000
Ever used any contraceptive method	0.690	0.058	115	43	1.337	0.084	0.574	0.806
Currently using any method	0.220	0.042	115	43	1.076	0.190	0.137	0.303
Currently using modern method	0.196	0.040	115	43	1.078	0.205	0.115	0.276
Want no more children	0.380	0.027	115	43	0.603	0.072	0.325	0.434
Want to delay next birth at least 2 years	0.380	0.038	115	43	0.829	0.099	0.305	0.456
Ideal number of children	4.959	0.383	174	65	1.131	0.077	4.193	5.725

na = Not applicable

Table B.17 Sampling errors: Thyolo sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.029	0.010	882	687	1.766	0.344	0.009	0.049
No education	0.293	0.035	882	687	2.284	0.120	0.223	0.363
Secondary education or higher	0.062	0.013	882	687	1.641	0.215	0.035	0.089
Never married (in union)	0.130	0.011	882	687	0.970	0.084	0.108	0.152
Currently married (in union)	0.664	0.019	882	687	1.218	0.029	0.625	0.703
Married before age 20	0.782	0.018	698	551	1.162	0.023	0.745	0.818
Had first sexual intercourse before 18	0.710	0.028	698	551	1.603	0.039	0.654	0.765
Children ever born	2.871	0.085	882	687	0.976	0.030	2.700	3.041
Children ever born to women 40-49	5.962	0.235	137	107	0.954	0.039	5.492	6.433
Children surviving	2.191	0.077	882	687	1.104	0.035	2.038	2.344
Knows any contraceptive method	1.000	0.000	575	456	na	0.000	1.000	1.000
Knows any modern contraceptive method	0.998	0.002	575	456	1.035	0.002	0.994	1.002
Ever used any contraceptive method	0.431	0.023	575	456	1.127	0.054	0.384	0.478
Currently using any method	0.259	0.020	575	456	1.078	0.076	0.219	0.298
Currently using modern method	0.244	0.017	575	456	0.973	0.072	0.209	0.279
Currently using pill	0.015	0.005	575	456	0.901	0.301	0.006	0.025
Currently using IUD	0.002	0.002	575	456	1.033	0.999	0.000	0.006
Currently using injectables	0.163	0.019	575	456	1.251	0.118	0.124	0.202
Currently using implants	0.000	0.000	575	456	na	na	0.000	0.000
Currently using condom	0.011	0.005	575	456	1.044	0.410	0.002	0.020
Currently using female sterilisation	0.049	0.011	575	456	1.231	0.227	0.027	0.071
Currently using male sterilisation	0.002	0.002	575	456	1.044	1.010	0.000	0.006
Currently using periodic abstinence	0.001	0.001	575	456	0.723	0.994	0.000	0.003
Currently using withdrawal	0.002	0.002	575	456	0.944	0.818	0.000	0.006
Using public sector source for contraception	0.437	0.045	203	156	1.296	0.103	0.347	0.528
Want no more children	0.306	0.017	575	456	0.884	0.056	0.272	0.340
Want to delay next birth at least 2 years	0.330	0.021	575	456	1.074	0.064	0.288	0.372
Ideal number of children	4.158	0.102	880	686	1.319	0.025	3.953	4.363
Mother received tetanus injections	0.856	0.012	487	388	0.765	0.014	0.832	0.880
Mother received medical care at birth	0.599	0.045	706	566	2.188	0.075	0.508	0.689
Child had diarrhoea in the last 2 weeks	0.136	0.014	598	479	1.061	0.106	0.107	0.165
Child treated for diarrhoea with ORS packet	0.630	0.055	80	65	1.013	0.087	0.521	0.739
Child received medical treatment for diarrhoea	0.315	0.049	80	65	0.958	0.155	0.217	0.413
Child had health card	0.857	0.030	129	104	0.978	0.035	0.797	0.917
Child received BCG vaccination	0.959	0.014	129	104	0.826	0.015	0.931	0.988
Child received DPT vaccination (3 doses)	0.926	0.023	129	104	1.017	0.025	0.880	0.973
Child received polio vaccination (3 doses)	0.873	0.032	129	104	1.112	0.037	0.809	0.938
Child received measles vaccination	0.951	0.011	129	104	0.580	0.011	0.929	0.973
Child fully immunised	0.816	0.034	129	104	1.000	0.041	0.748	0.884
Weight-for-height (Below -2 SD)	0.045	0.010	523	418	1.147	0.225	0.025	0.065
Height-for-age (Below -2 SD)	0.463	0.023	523	418	1.041	0.050	0.417	0.508
Weight-for-age (Below -2 SD)	0.259	0.025	523	418	1.291	0.097	0.208	0.309
Total fertility rate (last 3 years)	5.283	0.281	na	5756	1.931	0.053	4.721	5.844
Neonatal mortality (last 10 years)	58.183	8.917	1315	1047	1.185	0.153	40.349	76.018
Infant mortality (last 10 years)	145.456	13.749	1318	1049	1.216	0.095	117.958	172.953
Child mortality (last 10 years)	93.573	9.184	1326	1055	0.908	0.098	75.204	111.941
Under-5 mortality (last 10 years)	225.418	16.598	1329	1057	1.196	0.074	192.221	258.614
Postneonatal mortality (last 10 years)	87.272	8.962	1318	1049	1.045	0.103	69.349	105.196
MEN								
Urban residence	0.027	0.010	179	141	0.789	0.355	0.008	0.046
No education	0.116	0.026	179	141	1.079	0.223	0.064	0.168
Secondary education or higher	0.175	0.033	179	141	1.169	0.190	0.109	0.242
Never married	0.293	0.038	179	141	1.117	0.130	0.217	0.369
Currently married (in union)	0.671	0.039	179	141	1.109	0.058	0.593	0.749
Knows any contraceptive method	1.000	0.000	120	94	na	0.000	1.000	1.000
Knows any modern contraceptive method	1.000	0.000	120	94	na	0.000	1.000	1.000
Ever used any contraceptive method	0.811	0.044	120	94	1.212	0.054	0.724	0.898
Currently using any method	0.216	0.041	120	94	1.091	0.190	0.134	0.299
Currently using modern method	0.198	0.040	120	94	1.089	0.201	0.119	0.278
Want no more children	0.428	0.045	120	94	0.987	0.105	0.338	0.518
Want to delay next birth at least 2 years	0.374	0.040	120	94	0.898	0.107	0.294	0.454
Ideal number of children	3.982	0.115	179	141	0.814	0.029	3.751	4.213

na = Not applicable

Table B.18 Sampling errors: Zomba sample, Malawi 2000

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.111	0.014	899	846	1.346	0.127	0.083	0.139
No education	0.292	0.023	899	846	1.510	0.078	0.247	0.338
Secondary education or higher	0.066	0.011	899	846	1.337	0.167	0.044	0.089
Never married (in union)	0.176	0.013	899	846	1.031	0.074	0.150	0.203
Currently married (in union)	0.668	0.014	899	846	0.916	0.022	0.639	0.696
Married before age 20	0.782	0.021	695	659	1.325	0.027	0.741	0.824
Had first sexual intercourse before 18	0.672	0.016	695	659	0.874	0.023	0.641	0.703
Children ever born	3.182	0.072	899	846	0.743	0.023	3.038	3.326
Children ever born to women 40-49	6.112	0.234	162	171	0.921	0.038	5.645	6.580
Children surviving	2.347	0.048	899	846	0.649	0.021	2.250	2.443
Knows any contraceptive method	0.989	0.006	597	564	1.367	0.006	0.978	1.001
Knows any modern contraceptive method	0.985	0.006	597	564	1.167	0.006	0.973	0.997
Ever used any contraceptive method	0.439	0.021	597	564	1.039	0.048	0.397	0.481
Currently using any method	0.263	0.019	597	564	1.060	0.073	0.225	0.301
Currently using modern method	0.220	0.020	597	564	1.150	0.089	0.181	0.259
Currently using pill	0.014	0.006	597	564	1.185	0.411	0.002	0.025
Currently using IUD	0.000	0.000	597	564	na	na	0.000	0.000
Currently using injectables	0.168	0.018	597	564	1.205	0.110	0.131	0.205
Currently using implants	0.001	0.001	597	564	0.593	1.005	0.000	0.002
Currently using condom	0.011	0.006	597	564	1.304	0.510	0.000	0.022
Currently using female sterilisation	0.026	0.007	597	564	1.094	0.272	0.012	0.041
Currently using male sterilisation	0.000	0.000	597	564	na	na	0.000	0.000
Currently using periodic abstinence	0.010	0.005	597	564	1.287	0.529	0.000	0.020
Currently using withdrawal	0.004	0.003	597	564	1.173	0.728	0.000	0.011
Using public sector source for contraception	0.843	0.042	169	151	1.504	0.050	0.759	0.927
Want no more children	0.375	0.014	597	564	0.701	0.037	0.347	0.403
Want to delay next birth at least 2 years	0.293	0.017	597	564	0.928	0.059	0.258	0.328
Ideal number of children	4.558	0.128	895	843	0.932	0.028	4.302	4.815
Mother received tetanus injections	0.856	0.022	480	460	1.405	0.026	0.812	0.901
Mother received medical care at birth	0.533	0.025	740	727	1.172	0.047	0.482	0.583
Child had diarrhoea in the last 2 weeks	0.178	0.016	653	633	1.006	0.089	0.146	0.209
Child treated for diarrhoea with ORS packet	0.661	0.048	111	113	1.018	0.072	0.566	0.757
Child received medical treatment for diarrhoea	0.280	0.045	111	113	1.106	0.162	0.190	0.371
Child had health card	0.852	0.024	125	127	0.797	0.029	0.803	0.901
Child received BCG vaccination	0.952	0.019	125	127	1.023	0.020	0.914	0.990
Child received DPT vaccination (3 doses)	0.896	0.019	125	127	0.710	0.021	0.859	0.933
Child received polio vaccination (3 doses)	0.891	0.025	125	127	0.925	0.028	0.841	0.940
Child received measles vaccination	0.879	0.031	125	127	1.115	0.036	0.817	0.942
Child fully immunised	0.843	0.027	125	127	0.867	0.032	0.788	0.897
Weight-for-height (Below -2 SD)	0.077	0.016	592	574	1.477	0.210	0.045	0.109
Height-for-age (Below -2 SD)	0.457	0.025	592	574	1.186	0.054	0.407	0.506
Weight-for-age (Below -2 SD)	0.246	0.024	592	574	1.317	0.098	0.198	0.295
Total fertility rate (last 3 years)	6.219	0.226	na	7613	1.143	0.036	5.766	6.671
Neonatal mortality (last 10 years)	42.590	7.377	1360	1324	1.155	0.173	27.837	57.344
Infant mortality (last 10 years)	151.023	15.671	1371	1336	1.430	0.104	119.682	182.364
Child mortality (last 10 years)	76.690	7.468	1377	1340	0.869	0.097	61.755	91.626
Under-5 mortality (last 10 years)	216.131	16.344	1388	1352	1.297	0.076	183.444	248.818
Postneonatal mortality (last 10 years)	108.433	13.702	1371	1336	1.428	0.126	81.029	135.836
MEN								
Urban residence	0.143	0.015	213	177	0.639	0.107	0.113	0.174
No education	0.133	0.028	213	177	1.180	0.207	0.078	0.188
Secondary education or higher	0.151	0.024	213	177	0.994	0.162	0.102	0.199
Never married	0.328	0.032	213	177	1.003	0.099	0.264	0.393
Currently married (in union)	0.591	0.031	213	177	0.912	0.052	0.529	0.653
Knows any contraceptive method	1.000	0.000	118	105	na	0.000	1.000	1.000
Knows any modern contraceptive method	0.997	0.003	118	105	0.599	0.003	0.991	1.003
Ever used any contraceptive method	0.831	0.035	118	105	1.003	0.042	0.762	0.901
Currently using any method	0.338	0.042	117	104	0.966	0.125	0.254	0.423
Currently using modern method	0.328	0.045	117	104	1.029	0.137	0.238	0.417
Want no more children	0.342	0.050	118	105	1.140	0.146	0.242	0.442
Want to delay next birth at least 2 years	0.251	0.047	118	105	1.163	0.186	0.157	0.344
Ideal number of children	5.378	0.417	212	176	0.962	0.078	4.543	6.213

na = Not applicable

DATA QUALITY TABLES

APPENDIX C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Malawi 2000

	Males		Females			Males		Females	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	1,319	4.4	1,301	4.1	37	242	0.8	220	0.7
1	1,110	3.7	1,136	3.6	38	279	0.9	341	1.1
2	1,043	3.5	1,119	3.5	39	202	0.7	208	0.7
3	1,071	3.6	1,115	3.5	40	335	1.1	335	1.1
4	889	3.0	921	2.9	41	157	0.5	143	0.5
5	812	2.7	780	2.5	42	289	1.0	264	0.8
6	1,200	4.0	1,226	3.9	43	166	0.6	150	0.5
7	932	3.1	983	3.1	44	118	0.4	164	0.5
8	960	3.2	977	3.1	45	198	0.7	193	0.6
9	860	2.9	843	2.7	46	168	0.6	167	0.5
10	860	2.9	900	2.8	47	140	0.5	181	0.6
11	719	2.4	743	2.3	48	182	0.6	217	0.7
12	900	3.0	908	2.9	49	160	0.5	181	0.6
13	754	2.5	935	2.9	50	210	0.7	229	0.7
14	778	2.6	825	2.6	51	158	0.5	238	0.8
15	651	2.2	559	1.8	52	149	0.5	266	0.8
16	694	2.3	604	1.9	53	154	0.5	156	0.5
17	586	2.0	529	1.7	54	111	0.4	193	0.6
18	635	2.1	739	2.3	55	134	0.4	180	0.6
19	514	1.7	530	1.7	56	133	0.4	152	0.5
20	606	2.0	751	2.4	57	116	0.4	141	0.4
21	540	1.8	620	2.0	58	130	0.4	172	0.5
22	533	1.8	513	1.6	59	96	0.3	97	0.3
23	477	1.6	593	1.9	60	198	0.7	225	0.7
24	489	1.6	536	1.7	61	62	0.2	107	0.3
25	599	2.0	595	1.9	62	90	0.3	117	0.4
26	412	1.4	507	1.6	63	64	0.2	112	0.4
27	421	1.4	431	1.4	64	71	0.2	84	0.3
28	471	1.6	506	1.6	65	100	0.3	146	0.5
29	340	1.1	379	1.2	66	46	0.2	74	0.2
30	474	1.6	463	1.5	67	73	0.2	62	0.2
31	269	0.9	251	0.8	68	94	0.3	106	0.3
32	409	1.4	371	1.2	69	84	0.3	77	0.2
33	200	0.7	238	0.7	70+	600	2.0	694	2.2
34	254	0.8	249	0.8					
35	348	1.2	322	1.0	Total	29,990	100.0	31,735	100.0
36	352	1.2	347	1.1					

Note: The de facto population includes all residents and nonresidents (visitors) who slept in the household the night before the interview.

Table C.2.1 Age distribution of eligible and interviewed women

Percent distribution of the de facto household population of women age 10-54, and of interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted) by five-year groups, Malawi 2000

Age	Household population of women		Interviewed women		Percentage of eligible women interviewed (weighted)
	Number	Percent	Number	Percent	
10-14	4,311	na	na	na	na
15-19	2,961	22.1	2,842	21.7	96.0
20-24	3,013	22.5	2,945	22.5	97.8
25-29	2,417	18.0	2,372	18.1	98.1
30-34	1,572	11.7	1,546	11.8	98.3
25-39	1,439	10.7	1,413	10.8	98.2
40-44	1,057	7.9	1,036	7.9	98.1
45-49	939	7.0	926	7.1	98.6
50-54	1,082	na	na	na	na
15-49	13,397	na	13,080	na	97.6

Note: The de facto population includes all residents and nonresidents (visitors) who slept in the household the night before the interview. Weights for both household population of women and interviewed women are household weights.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

Percent distribution of the de facto household population of men age 10-59, and of interviewed men age 15-54, and percentage of eligible men who were interviewed (weighted) by five-year groups, Malawi 2000

Age	Household population of men		Interviewed men		Percentage of eligible men interviewed (weighted)
	Number	Percent	Number	Percent	
10-14	1,111	na	na	na	na
15-19	714	21.5	655	21.6	91.7
20-24	644	19.4	584	19.2	90.6
25-29	566	17.1	527	17.3	93.0
30-34	357	10.8	323	10.6	90.5
25-39	355	10.7	332	10.9	93.5
40-44	265	8.0	240	7.9	90.6
45-49	215	6.5	197	6.5	91.7
50-54	199	6.0	179	5.9	90.1
55-59	170	na	na	na	na
15-54	3,317	na	3,038	na	91.6

Note: The de facto population includes all residents and nonresidents (visitors) who slept in the household the night before the interview. Weights for both household population of men and interviewed men are household weights.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Malawi 2000

Subject	Reference group	Percentage missing information	Number of cases
Birth Date	Births in past 15 years		
Month only		1.46	30,271
Month and year		0.02	30,271
Age at death	Dead children born in past 15 years	0.24	5,883
Age at/date of first union[1]	Ever-married women age 15-49	0.39	10,977
Respondent's education	All women age 15-49	0.00	13,220
Child's size at birth	Births in previous 5 years	16.65	6,493
Anthropometry			
Height	Living children 0-59 months	2.05	10,559
Weight		1.37	10,559
Height or weight		2.29	10,559
Diarrhoea in past 2 weeks	Living children 0-59 months	1.59	10,559

[1] Both year and age missing

Table C.4 Births by calendar years

Distribution of births by calendar years for living (L), dead (D), and total (T) children, according to reporting completeness, sex ratio at birth, and ratio of births by calendar year, Malawi 2000

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar ratio[3]			Male			Female		
Year	(L)	(D)	(T)	(L)	(D)	(T)	(L)	(D)	(T)	(L)	(D)	(T)	(L)	(D)	(T)	(L)	(D)	(T)
2000	1,795	147	1,942	100.0	100.0	100.0	100.3	108.3	100.9	-	-	-	899	76	976	896	70	967
1999	2,373	293	2,666	100.0	99.7	100.0	95.2	114.5	97.1	121.3	116.8	120.8	1,157	157	1,313	1,216	137	1,352
1998	2,117	355	2,472	100.0	100.0	100.0	98.2	113.9	100.3	95.3	106.3	96.7	1,049	189	1,238	1,068	166	1,234
1997	2,069	375	2,444	100.0	100.0	100.0	99.8	100.2	99.9	106.6	98.9	105.3	1,034	188	1,221	1,036	187	1,223
1996	1,767	403	2,169	100.0	99.8	99.9	97.1	99.2	97.5	100.1	121.4	103.5	870	200	1,071	896	202	1,098
1995	1,460	288	1,749	99.8	98.7	99.6	102.5	97.5	101.6	74.4	57.6	71.0	739	142	882	721	146	867
1994	2,159	599	2,758	98.2	95.6	97.6	98.5	107.1	100.3	141.8	154.3	144.3	1,071	310	1,381	1,088	289	1,377
1993	1,586	488	2,073	99.0	94.6	98.0	100.4	93.5	98.7	83.3	94.8	85.7	794	236	1,030	791	252	1,043
1992	1,650	430	2,080	97.9	94.5	97.2	108.3	106.8	108.0	114.7	103.8	112.3	858	222	1,080	792	208	1,000
1991	1,290	341	1,631	98.3	93.8	97.4	88.4	111.3	92.8	-	-	-	605	180	785	685	161	846
1996-2000	10,121	1,572	11,693	100.0	99.9	100.0	98.0	106.2	99.0	-	-	-	5,009	810	5,819	5,112	762	5,874
1991-1995	8,145	2,147	10,291	98.6	95.3	97.9	99.8	103.1	100.5	-	-	-	4,068	1,090	5,158	4,077	1,057	5,134
1986-1990	5,890	2,084	7,974	98.0	94.9	97.2	98.9	113.8	102.6	-	-	-	2,928	1,109	4,038	2,962	975	3,937
1981-1985	3,990	1,555	5,544	98.2	95.1	97.3	101.8	116.4	105.7	-	-	-	2,013	836	2,849	1,977	718	2,695
< 1981	3,884	2,016	5,901	97.1	93.8	96.0	100.6	107.2	102.8	-	-	-	1,948	1,043	2,991	1,936	973	2,910
All	32,029	9,375	41,404	98.7	95.6	98.0	99.4	109.0	101.5	-	-	-	15,966	4,889	20,854	16,063	4,486	20,550

na = Not applicable

[1]Both year and month of birth given

[2]$(B_m/B_f)*100$, where B_m and B_f are the numbers of male and female births, respectively

[3]$[2B_x/(B_{x-1}+B_{x+1})]*100$, where B_x is the number births in calendar year *x*

Table C.5 Reporting of age at death in days

Distribution of reported deaths under 1 month of age by age at death in days, and the percentage of early neonatal deaths reported to occur at ages 0-6 days, for five-year periods preceding the survey, Malawi 2000

Age at death (in days)	Number of years preceding survey				Total
	0-4	5-9	10-14	15-19	0-19
<1	125	131	97	70	424
1	81	74	52	42	249
2	44	48	31	24	146
3	34	43	30	31	138
4	31	21	16	10	79
5	18	24	25	11	78
6	9	12	14	16	51
7	64	61	41	28	194
8	9	8	6	6	28
9	6	7	3	3	19
10	7	11	4	4	25
11	2	0	1	2	5
12	1	2	5	1	8
13	3	2	1	1	6
14	19	34	33	16	103
15	4	3	3	1	12
16	2	0	0	2	4
17	4	1	5	0	10
18	0	1	1	0	2
19	1	0	0	1	2
20	2	2	3	4	12
21	12	13	19	6	50
22	0	3	0	1	4
23	5	5	1	0	11
24	5	3	0	0	8
26	3	1	0	1	5
27	1	1	3	0	4
28	6	4	1	3	14
29	6	2	1	0	9
30	10	10	8	2	30
31+	1	0	0	0	1
% early neonatal[2]	66.6	67.2	65.7	71.2	67.3
Total 0-30	512	525	404	288	1,729

[1] Includes cases for which age at death (in exact days) is not known
[2] (0-6 days/0-30 days) * 100

Table C.6 Reporting of age at death in months

Distribution of reported deaths under 2 years of age by age at death in months and the percentage of neonatal deaths reported to occur at ages under one month, for five-year periods preceding the survey, Malawi 2000

Age at death (in months)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
< 1 Month[a]	515	526	408	288	1,737
1	60	67	60	34	221
2	59	79	66	55	259
3	83	69	66	44	261
4	82	75	67	37	261
5	54	55	40	38	188
6	65	70	75	36	247
7	55	63	80	25	223
8	67	55	68	39	229
9	54	70	75	60	259
10	28	40	44	27	138
11	38	37	36	21	131
12	84	166	148	99	498
13	28	38	45	22	132
14	34	39	31	26	130
15	17	26	18	16	76
16	11	22	13	13	60
17	18	14	6	3	42
18	23	28	21	16	88
19	7	4	12	12	35
20	20	14	10	4	49
21	7	5	3	5	19
22	4	12	3	1	20
23	14	26	14	4	58
24+	4	4	1	8	17
Missing	0	4	1	0	4
1 Year	18	47	26	17	107
Percent neonatal[b]	44.4	43.6	37.6	40.9	41.8
Total 0-11	1,159	1,206	1,084	705	4,155

[a] Includes deaths under 1 month reported in days
[b] (under 1 month/under 1 year) * 100

2000 Malawi Demographic and Health Survey Staff

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C. Machinjili, Assistant Project Manager
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L. R. S. Mpando, Field Coordinator
L. Magombo, Field Coordinator
J. Kaphuka, Field Coordinator
R. Chinula, Field Coordinator
S. Kang'oma (Mrs), Field Coordinator

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QUESTIONNAIRES

APPENDIX E

MALAWI DEMOGRAPHIC AND HEALTH SURVEY-II
MALAWI GOVERNMENT – NATIONAL STATISTICAL OFFICE
HOUSEHOLD QUESTIONNAIRE

IDENTIFICATION

VILLAGE/PLACE NAME _____

NAME OF HOUSEHOLD HEAD _____

MDHS CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

URBAN/RURAL (URBAN=1, RURAL=2) . . . . . .

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR
INTERVIEWER'S NAME	_____	_____	_____	NAME
RESULT*	_____	_____	_____	RESULT
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS
TIME	_____	_____		

*RESULT CODES:

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN

TOTAL ELIGIBLE MEN

LINE NO. OF RESP. TO HOUSEHOLD SCHEDULE

LANGUAGE OF QUESTIONNAIRE ENGLISH 3

LANGUAGE OF INTERVIEW CHICHEWA 1
TUMBUKA 2
OTHER_____ 3
(SPECIFY)

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

HOUSEHOLD SCHEDULE

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

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	ELIGIBILITY		
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household?*	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-54	CIRCLE LINE NUMBER OF ALL CHILD-REN UNDER AGE 6
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8a)	(9)
			M F	YES NO	YES NO	IN YEARS			
01			1 2	1 2	1 2		01	01	01
02			1 2	1 2	1 2		02	02	02
03			1 2	1 2	1 2		03	03	03
04			1 2	1 2	1 2		04	04	04
05			1 2	1 2	1 2		05	05	05
06			1 2	1 2	1 2		06	06	06
07			1 2	1 2	1 2		07	07	07
08			1 2	1 2	1 2		08	08	08
09			1 2	1 2	1 2		09	09	09
10			1 2	1 2	1 2		10	10	10

* CODES FOR Q.3
RELATIONSHIP TO HEAD OF HOUSEHOLD:
01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
10 = OTHER RELATIVE
11 = ADOPTED/FOSTER/ STEPCHILD
12 = NOT RELATED
98 = DON'T KNOW

LINE NO.	PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD**				EDUCATION						
	Is (NAME)'s natural mother alive?	IF ALIVE	Is (NAME)'s natural father alive?	IF ALIVE	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS				
		Does (NAME)'s natural mother live in this house-hold? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER		Does (NAME)'s natural father live in this house-hold? IF YES: What is his name? RECORD FATHER'S LINE NUMBER	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended?*** What is the highest year (NAME) completed at that level?***	Is (NAME) currently attending school?	During the current school year, did (NAME) attend school at any time?	During the current school year, what level and class [is/was] (NAME) attending?***	During the previous school year, did (NAME) attend school at any time?	During that school year, what level and year did (NAME) attend?***
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	YES NO DK		YESNO DK		YES NO	LEVEL YEARS	YES NO	YES NO	LEVEL YEARS	YES NO	LEVEL YEARS
01	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
02	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
03	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
04	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
05	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
06	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
07	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
08	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
09	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
10	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	

** Q.10 THROUGH Q.13
THESE QUESTIONS REFER TO THE BIOLOGICAL PARENTS OF THE CHILD.
IN Q.11 AND Q.13, RECORD '00' IF PARENT NOT LISTED IN HOUSEHOLD SCHEDULE.

***CODES FOR Qs. 15, 18 AND 20
EDUCATION LEVEL:
1 = PRIMARY
2 = SECONDARY
3 = HIGHER
8 = DON'T KNOW

YEARS COMPLETED:
00 = LESS THAN 1 YEAR COMPLETED
98 = DON'T KNOW

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	ELIGIBILITY		
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household?*	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-54	CIRCLE LINE NUMBER OF ALL CHILD-REN UNDER AGE 6
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8a)	(9)
			M F	YES NO	YES NO	IN YEARS			
11			1 2	1 2	1 2		11	11	11
12			1 2	1 2	1 2		12	12	12
13			1 2	1 2	1 2		13	13	13
14			1 2	1 2	1 2		14	14	14
15			1 2	1 2	1 2		15	15	15
16			1 2	1 2	1 2		16	16	16
17			1 2	1 2	1 2		17	17	17
18			1 2	1 2	1 2		18	18	18
19			1 2	1 2	1 2		19	19	19
20			1 2	1 2	1 2		20	20	20

* CODES FOR Q.3
RELATIONSHIP TO HEAD OF HOUSEHOLD:
01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
10 = OTHER RELATIVE
11 = ADOPTED/FOSTER/ STEPCHILD
12 = NOT RELATED
98 = DON'T KNOW

** Q.10 THROUGH Q.13
THESE QUESTIONS REFER TO THE BIOLOGICAL PARENTS OF THE CHILD.
IN Q.11 AND Q.13, RECORD '00' IF PARENT NOT LISTED IN HOUSEHOLD SCHEDULE.

***CODES FOR Qs. 15, 18 AND 20
EDUCATION LEVEL:
1 = PRIMARY
2 = SECONDARY
3 = HIGHER
8 = DON'T KNOW

EDUCATION YEAR:
00 = LESS THAN 1 YEAR COMPLETED
98 = DON'T KNOW

LINE NO.	PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD**				EDUCATION						
	Is (NAME)'s natural mother alive?	IF ALIVE	Is (NAME)'s natural father alive?	IF ALIVE	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS				
		Does (NAME)'s natural mother live in this household? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER		Does (NAME)'s natural father live in this household? IF YES: What is his name? RECORD FATHER'S LINE NUMBER	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended?*** What is the highest class (NAME) completed at that level?***	Is (NAME) currently attending school?	During the current school year, did (NAME) attend school at any time?	During the current school year, what level and class [is/was] (NAME) attending?***	During the previous school year, did (NAME) attend school at any time?	During that school year, what level and class did (NAME) attend?***
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	YES NO DK		YES NO DK		YES NO	LEVEL YEAR	YES NO	YES NO	LEVEL YEAR	YES NO	LEVEL YEAR
11	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
12	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
13	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
14	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
15	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
16	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
17	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
18	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
19	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
20	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	

TICK HERE IF CONTINUATION SHEET USED ☐

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) Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed? YES ☐ → ENTER EACH IN TABLE NO ☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
21	What is the main source of drinking water for members of your household?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED INTO YARD/PLOT . . . . . 12 COMMUNITY STAND PIPE . . . . . 13 UNPROTECTED WELL . . . . . 21 PROTECTED WELL . . . . . 31 BOREHOLE . . . . . 41 SURFACE WATER SPRING . . . . . 51 RIVER/STREAM . . . . . 52 POND/LAKE . . . . . 53 DAM . . . . . 54 RAINWATER . . . . . 61 TANKER TRUCK/BOWSER . . . . . 71 BOTTLED WATER . . . . . 81 OTHER _____ 96 (SPECIFY)	 → 23 → 23 → 23 → 23
22	How long does it take you to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] ON PREMISES 996	
23	What kind of toilet facility does your household use?	FLUSH TOILET . . . . . 11 PIT TOILET/LATRINE TRADITIONAL PIT TOILET . . . . . 21 VENTILATED IMPROVED PIT (VIP) LATRINE . . . . . 22 NO FACILITY . . . . . 31 OTHER _____ 96 (SPECIFY)	 → 25
24	Do you share this facility with other households?	YES . . . . . 1 NO 2	
25	Does your household have: Electricity? A paraffin lamp? A radio? A television?	YES NO ELECTRICITY . . . . . 1 2 PARAFFIN LAMP . . . . . 1 2 RADIO . . . . . 1 2 TELEVISION 1 2	
26	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 PARAFFIN . . . . . 02 CHARCOAL . . . . . 03 FIREWOOD . . . . . 04 STRAW . . . . . 05 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
27	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/SAND . . . . . 11 DUNG . . . . . 12 RUDIMENTARY FLOOR WOOD PLANKS . . . . . 21 PALM/BAMBOO . . . . . 22 BROKEN BRICKS . . . . . 23 FINISHED FLOOR PARQUET OR POLISHED WOOD . . . . . 31 VINYL OR ASPHALT STRIPS . . . 32 CERAMIC TILES . . . . . 33 CEMENT . . . . . 34 BRICK . . . . . 35 OTHER _____ 96 (SPECIFY)	
28	Does any member of your household own: A bicycle? A motorcycle or motor scooter? A car or truck?	YES NO BICYCLE . . . . . 1 2 MOTORCYCLE/SCOOTER . . . 1 2 CAR/TRUCK 1 2	
29	Does your household have any mosquito nets that can be used while sleeping? IF YES ASK: How many?	YES . . . . . [ ] NO 2	→ 33
30	How many mosquito nets are white in color?	NUMBER . . . . . [ ] NONE 0	
33	Where do you usually wash your hands?	IN DWELLING/YARD/PLOT . . . . . 1 SOMEWHERE ELSE . . . . . 2 NOWHERE 3	 → 35 → 35
34	ASK TO SEE THE PLACE AND OBSERVE IF THE FOLLOWING ITEMS ARE PRESENT.	YES NO WATER/TAP . . . . . 1 2 SOAP, ASH OR OTHER CLEANSING AGENT . . . . . 1 2 BASIN 1 2	
35	ASK RESPONDENT FOR A TEASPOONFUL OF SALT. TEST SALT FOR IODINE. RECORD PPM (PARTS PER MILLION).	0 - 14 PPM . . . . . 1 15 - 20 PPM . . . . . 2 20 - 74 PPM . . . . . 3 75 + PPM 4	

CHILD LABOUR

Now I would like to ask you about any work children in this household may do.

36. LINE NO. COPY LINE NUMBER OF CHILDREN AGES 5 - 14 YEARS FROM THE HOUSEHOLD LISTING	37. CHILD'S NAME COPY THE NAMES OF CHILDREN AGES 5 - 14 YEARS FROM THE HOUSEHOLD LISTING	38. During the past week, did (NAME) do any kind of work for someone who is not a memeber of this household? IF YES: For pay?	39. Since last (DAY OF THE WEEK), about how many hours did he/she do this work for someone who is not a member of the household?*	40. During the past week, did (NAME) help with housekeeping chores such as cooking, shopping, cleaning, washing clothes, fetching water, or caring for children?	41.Since last (DAY OF THE WEEK), about how many hours did he/she spend doing these chores?	42. During the past week, did (NAME) do any other family work on the farm or in a business?	43. Since last (DAY OF THE WEEK), about how many hours did he/she do this work?
		PAID UNPAID NO 1 2 3 GO TO 40		YES NO 1 2 GO TO 42		YES NO 1 2 GO TO NEXT LINE	
		1 2 3 GO TO 40		1 2 GO TO 42		1 2 GO TO NEXT LINE	
		1 2 3 GO TO 40		1 2 GO TO 42		1 2 GO TO NEXT LINE	
		1 2 3 GO TO 40		1 2 GO TO 42		1 2 GO TO NEXT LINE	
		1 2 3 GO TO 40		1 2 GO TO 42		1 2 GO TO NEXT LINE	
		1 2 3 GO TO 40		1 2 GO TO 42		1 2 GO TO NEXT LINE	
		1 2 3 GO TO 40		1 2 GO TO 42		1 2 GO TO NEXT LINE	
		1 2 3 GO TO 40		1 2 GO TO 42		1 2 GO TO NEXT LINE	
		1 2 3 GO TO 40		1 2 GO TO 42		1 2 GO TO NEXT LINE	
		1 2 3 GO TO 40		1 2 GO TO 42		1 2 GO TO NEXT LINE	

* IF MORE THAN ONE JOB, INCLUDE ALL HOURS AT ALL JOBS.

WEIGHT AND HEIGHT MEASUREMENT

CHECK COLUMNS (8) AND (9): RECORD THE LINE NUMBER, NAME AND AGE OF ALL WOMEN AGE 15-49 AND ALL CHILDREN UNDER AGE 6.

WOMEN 15-49				WEIGHT AND HEIGHT MEASUREMENT OF WOMEN 15-49			
LINE NO. FROM COL.(8)	NAME FROM COL.(2)	AGE FROM COL.(7)	What is (NAME)'s date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)
		YEARS					

CHILDREN UNDER AGE 6				WEIGHT AND HEIGHT MEASUREMENT OF CHILDREN BORN IN 1995 OR LATER			
LINE NO. FROM COL.(9)	NAME FROM COL.(2)	AGE FROM COL.(7)	What is (NAME)'s date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
			DAY MO. YEAR			LYING STAND.	
				0		1 2	
				0		1 2	
				0		1 2	
				0		1 2	
				0		1 2	

				0 .	.	1 2	
TICK HERE IF CONTINUATION SHEET USED							

MALAWI DEMOGRAPHIC AND HEALTH SURVEY–II
MALAWI GOVERNMENT- NATIONAL STATISTICAL OFFICE
WOMAN'S QUESTIONNAIRE

IDENTIFICATION

VILLAGE/PLACE NAME _____

NAME OF HOUSEHOLD HEAD _____

MDHS CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

URBAN/RURAL (URBAN=1, RURAL=2) . . . . . .

NAME AND LINE NUMBER OF WOMAN _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR
INTERVIEWER'S NAME	_____	_____	_____	NAME
RESULT*	_____	_____	_____	RESULT
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS
TIME	_____	_____		

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

LANGUAGE OF QUESTIONNAIRE		LANGUAGE OF INTERVIEW	
ENGLISH	3	CHICHEWA	1
		TUMBUKA	2
		OTHER_____ (SPECIFY)	3

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	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 a city, in a town, or in a village?	CITY . . . . . 1 TOWN . . . . . 2 VILLAGE 3	
103	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→105
104	Just before you moved here, did you live in a city, in a town, or in a village?	CITY . . . . . 1 TOWN . . . . . 2 VILLAGE 3	
105	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
107	Have you ever attended school?	YES . . . . . 1 NO 2	→111
108	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER 3	
109	How many years of school did you complete at that level?	YEARS . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
110	CHECK 108: PRIMARY ☐ SECONDARY OR HIGHER ☐ ▼		→114
111	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE 3 NO CARD WITH REQUIRED LANGUAGE_____ 4 (SPECIFY LANGUAGE)	
112	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	
113	CHECK 111: CODE '2', '3' OR '4' ☐ CODE '1' CIRCLED ☐ CIRCLED ▼		→115
114	Do you read a newspaper or magazine almost every day, at least once a week, less often than that or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS OFTEN . . . . . 3 NOT AT ALL 4	
115	Do you listen to the radio almost every day, at least once a week, less often than that or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS OFTEN . . . . . 3 NOT AT ALL 4	
116	Do you watch television almost every day, at least once a week, less often than that or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS OFTEN . . . . . 3 NOT AT ALL 4	
117	What is your religion?	CATHOLIC . . . . . 01 CCAP . . . . . 02 ANGLICAN . . . . . 03 SEVENTH DAY ADVENT./BAPTIST 04 OTHER CHRISTIAN . . . . . 05 MUSLIM . . . . . 06 NO RELIGION . . . . . 07 OTHER _____ 96 (SPECIFY)	
118	What is your tribe or ethnic group?	CHEWA . . . . . 01 TUMBUKA . . . . . 02 LOMWE . . . . . 03 TONGA . . . . . 04 YAO . . . . . 05 SENA . . . . . 06 NKONDE . . . . . 07 NGONI . . . . . 08 OTHER_____96 (SPECIFY)	
119	Have you heard that when a child is born in Malawi, you can register that child with the government and receive a birth certificate?	YES . . . . . 1 NO 2	

SECTION 2: REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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 to whom you have given birth 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, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . [ ][ ]	
204	Do you have any sons or daughters to whom you have given birth 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, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE [ ][ ]	
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but survived only a few moments?	YES . . . . . 1 NO 2	→208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL . . . . . [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES [ ] ↓ NO [ ] → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS [ ] ↓ NO BIRTHS [ ]		→226

211	Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had. RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.

212 What name was given to your (first/next) baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME)?
01	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH YEAR	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER (NEXT BIRTH)	DAYS . . . . 1 MONTHS . 2 YEARS . . . 3	
02	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH YEAR	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER (GO TO 221)	DAYS . . . . 1 MONTHS . 2 YEARS . . . 3	YES . . . . . 1 NO 2
03	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH YEAR	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER (GO TO 221)	DAYS . . . . 1 MONTHS . 2 YEARS . . . 3	YES . . . . . 1 NO 2
04	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH YEAR	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER (GO TO 221)	DAYS . . . . 1 MONTHS . 2 YEARS . . . 3	YES . . . . . 1 NO 2
05	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH YEAR	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER (GO TO 221)	DAYS . . . . 1 MONTHS . 2 YEARS . . . 3	YES . . . . . 1 NO 2
06	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH YEAR	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER (GO TO 221)	DAYS . . . . 1 MONTHS . 2 YEARS . . . 3	YES . . . . . 1 NO 2
07	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH YEAR	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER (GO TO 221)	DAYS . . . . 1 MONTHS . 2 YEARS . . . 3	YES . . . . . 1 NO 2

212 What name was given to your next baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME)?
08	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH . [ ][ ] YEAR [ ][ ][ ][ ]	YES . 1 NO .. 2 → 220	AGE IN YEARS [ ][ ]	YES . 1 NO .. 2	LINE NUMBER [ ][ ] (GO TO 221)	DAYS ..... 1 [ ][ ] MONTHS .. 2 [ ][ ] YEARS .... 3 [ ][ ]	YES ..... 1 NO 2
09	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . 1 NO .. 2 → 220	AGE IN YEARS [ ][ ]	YES . 1 NO .. 2	LINE NUMBER [ ][ ] (GO TO 221)	DAYS .... 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS ... 3 [ ][ ]	YES ..... 1 NO 2
10	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . 1 NO .. 2 → 220	AGE IN YEARS [ ][ ]	YES . 1 NO .. 2	LINE NUMBER [ ][ ] (GO TO 221)	DAYS .... 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS ... 3 [ ][ ]	YES ..... 1 NO 2
11	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . 1 NO .. 2 → 220	AGE IN YEARS [ ][ ]	YES . 1 NO .. 2	LINE NUMBER [ ][ ] (GO TO 221)	DAYS .... 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS ... 3 [ ][ ]	YES ..... 1 NO 2
12	SING . 1 MULT 2	BOY . 1 GIRL . 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . 1 NO .. 2 → 220	AGE IN YEARS [ ][ ]	YES . 1 NO .. 2	LINE NUMBER [ ][ ] (GO TO 221)	DAYS .... 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS ... 3 [ ][ ]	YES ..... 1 NO 2

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
222	Have you had any live births since the birth of (NAME OF LAST BIRTH)?	YES . . . . . 1 NO 2	
223	COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME ☐ NUMBERS ARE DIFFERENT ☐ → (PROBE AND RECONCILE) CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED. FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS.		☐ ☐ ☐ ☐
224	CHECK 215 AND ENTER THE NUMBER OF BIRTHS IN 1995 OR LATER. IF NONE, RECORD '0'.		☐
225	FOR EACH BIRTH SINCE JANUARY 1995, ENTER 'B' IN THE MONTH OF BIRTH IN THE CALENDAR. FOR EACH BIRTH, ASK THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY. (NOTE: THE NUMBER OF 'P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.) WRITE THE NAME OF THE CHILD TO THE LEFT OF THE 'B' CODE.		
226	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	→229
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . ☐☐	
228	At the time you became pregnant did you want to become pregnant <u>then</u>, did you want to wait until <u>later</u>, or did you <u>not want</u> to have any (more) children at all?	THEN . . . . . 1 LATER . . . . . 2 NOT AT ALL 3	
229	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	→236
230	When did the last such pregnancy end?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	
231	CHECK 230: LAST PREGNANCY ENDED IN JAN. 1995 OR LATER ☐ → LAST PREGNANCY ENDED BEFORE JAN. 1995 ☐		→236
232	How many months pregnant were you when the last such pregnancy ended? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'T' IN THE CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . ☐☐	
233	Have you ever had any other pregnancies which did not result in a live birth?	YES . . . . . 1 NO 2	→236

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
234	ASK THE DATE AND THE DURATION OF PREGNANCY FOR EACH EARLIER NON-LIVE BIRTH PREGNANCY BACK TO JANUARY 1995. ENTER 'T' IN THE CALENDAR IN THE MONTH THAT EACH PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.		
234A	Did you have any pregnancies that terminated before 1995 which did not result in a live birth?	YES . . . . . 1 NO 2	→236
235	FILL IN THE MONTH AND YEAR OF TERMINATION OF THE LAST NON-LIVE BIRTH PREGNANCY PRIOR TO JANUARY 1995.	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
236	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ] IN MENOPAUSE/ HAS HAD HYSTERECTOMY . . 994 BEFORE LAST BIRTH . . . . . 995 NEVER MENSTRUATED 996	
237	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→301
238	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 3. CONTRACEPTION

Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.

301	Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had a partner who had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	PILL Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
05	INJECTIONS Women can have an injection by a health provider which stops them from becoming pregnant for three months.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
06	IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
07	CONDOM Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
09	DIAPHRAGM Women can place a thin flexible disk in their vagina before intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
10	FOAM OR JELLY Women can place a suppository, jelly, or cream in their vagina before intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
11	LACTATIONAL AMENORRHEA METHOD (LAM) Up to 6 months after childbirth, a woman can use a method that requires that she breastfeeds frequently, day and night, and that her menstrual period has not returned.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
12	RHYTHM, BILLINGS OR OTHER NATURAL METHODS Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
13	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
14	EMERGENCY CONTRACEPTION Women can take pills up to three days after sexual intercourse to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
15	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	YES . . . . . 1 NO . . . . . 2 YES . . . . . 1 NO 2
303	CHECK 302: NOT A SINGLE "YES" (NEVER USED) ▼ AT LEAST ONE "YES" (EVER USED)		→307

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	 →328
306	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
307	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN . [ ][ ]	
308	CHECK 302 (01): WOMAN NOT STERILIZED [ ] WOMAN STERILIZED [ ]		→311A
309	CHECK 226: NOT PREGNANT OR UNSURE [ ] PREGNANT [ ]		→320
310	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	 →320
311 311A	Which method are you using? CIRCLE 'A' FOR FEMALE STERILIZATION. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD ON LIST.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B PILL . . . . . C IUD . . . . . D INJECTIONS . . . . . E IMPLANTS . . . . . F CONDOM . . . . . G FEMALE CONDOM . . . . . H DIAPHRAGM . . . . . I FOAM/JELLY . . . . . J LACT. AMEN. METHOD . . . . . K PERIODIC ABSTINENCE . . . . . L WITHDRAWAL . . . . . M OTHER _____ X (SPECIFY)	→313 →319 →319A →319B
313	Where did the sterilization take place? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) IF BOTH CODE 'A' AND CODE 'B' ARE CIRCLED IN 311, ASK 313-317 ABOUT FEMALE STERILIZATION ONLY.	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . 13 OTHER PUBLIC _____ 16 (SPECIFY) MISSION HOSPITAL . . . . . 21 HEALTH CENTER . . . . . 22 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . 31 PRIVATE DOCTOR'S OFFICE . 32 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) BLM . . . . . 41 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
314	CHECK 311: CODE 'A' CIRCLED ☐ ▼ Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation? CODE 'B' CIRCLED ☐ ▼ Before the sterilization operation, was your husband/partner told that he would not be able to have any (more) children because of the operation?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
316	In what month and year was the sterilization performed?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	
317	CHECK 316: STERILIZED BEFORE 1995 ☐ ▼ 326 STERILIZED IN 1995 OR LATER ☐ ▼ 320		
319 319A	Where did you obtain (CURRENT METHOD) when you started using it? Where did you learn to use the lactational amenorrhea method? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . 13 MOBILE CLINIC . . . . . 14 CBDA/FIELD WORKER . . . . . 15 OTHER PUBLIC_____16 (SPECIFY) MISSION HOSPITAL . . . . . 21 HEALTH CENTER . . . . . 22 MOBILE CLINIC . . . . . 23 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . 31 PHARMACY . . . . . 32 PRIVATE DOCTOR . . . . . 33 MOBILE CLINIC . . . . . 34 CBDA/FIELD WORKER . . . . . 35 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) BLM . . . . . 41 OTHER SOURCE SHOP . . . . . 51 CHURCH . . . . . 52 FRIEND/RELATIVE . . . . . 53 OTHER _____ 96 (SPECIFY)	
319B	For how many months have you been using (METHOD) continuously? IF LESS THAN 1 MONTH RECORD '00'.	MONTHS . . . . . ☐☐ 8 YEARS OR LONGER 96	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
320	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTIONS . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . 11 PERIODIC ABSTINENCE . . . . . 12 WITHDRAWAL . . . . . 13 OTHER METHOD 96	→328 →330 →327 →325 →330
322	You obtained (CURRENT METHOD) from (SOURCE OF METHOD FROM 313 OR 319). At that time, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→323
322A	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→325
323	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
325	CHECK 322: CODE '1' CIRCLED → At that time, were you told about other methods of family planning which you could use? CODE '1' NOT CIRCLED → When you obtained (CURRENT METHOD) from (SOURCE OF METHOD FROM 313 OR 319), were you told about other methods of family planning which you could use?	YES . . . . . 1 NO 2	→326
325A	Were you ever told by a health or family planning worker about other methods of family planning which you could use?	YES . . . . . 1 NO 2	
326	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . 01 PILL . . . . . 03 IUD . . . . . 04 INJECTIONS . . . . . 05 IMPLANTS . . . . . 06 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . 11	→330 →330 →330 →330

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
327	Where did you obtain (CURRENT METHOD) the last time? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . 13 MOBILE CLINIC . . . . . 14 CBDA/FIELD WORKER . . . . . 15 OTHER PUBLIC_____16 (SPECIFY) MISSION HOSPITAL . . . . . 21 HEALTH CENTER . . . . . 22 MOBILE CLINIC . . . . . 23 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . 31 PHARMACY . . . . . 32 PRIVATE DOCTOR . . . . . 33 MOBILE CLINIC . . . . . 34 CBDA/FIELD WORKER . . . . . 35 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) BLM . . . . . 41 OTHER SOURCE SHOP . . . . . 51 CHURCH . . . . . 52 FRIEND/RELATIVE . . . . . 53 OTHER _____ 96 (SPECIFY)	▸330
328	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	▸330
329	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL MENTIONED.	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B FAMILY PLANNING CLINIC . . . . C MOBILE CLINIC . . . . . D CBDA/FIELD WORKER . . . . . E OTHER PUBLIC_____F (SPECIFY) MISSION HOSPITAL . . . . . G HEALTH CENTER . . . . . H MOBILE CLINIC . . . . . I PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . J PHARMACY . . . . . K PRIVATE DOCTOR . . . . . L MOBILE CLINIC . . . . . M CBDA\FIELD WORKER . . . . . N OTHER PRIVATE MEDICAL _____ O (SPECIFY) BLM . . . . . P OTHER SOURCE SHOP . . . . . Q CHURCH . . . . . R FRIEND/RELATIVE . . . . . S OTHER _____ X (SPECIFY)	
330	In the last 12 months, were you visited by a community-based distribution agent who talked to you about family planning?	YES . . . . . 1 NO 2	
331	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES . . . . . 1 NO 2	▸401
332	Did any staff member at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	

SECTION 4A. PREGNANCY, POSTNATAL CARE AND BREASTFEEDING

401	CHECK 224: ONE OR MORE BIRTHS IN 1995 OR LATER ☐ ▼ NO BIRTHS IN 1995 OR LATER ☐		→486
402	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 1995 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately.)		
403	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER . . . . . ☐☐	NEXT-TO-LAST BIRTH LINE NUMBER . . . . . ☐☐
404	FROM 212 AND 216	NAME _____ ALIVE ☐ ▼ DEAD ☐ ▼	NAME _____ ALIVE ☐ ▼ DEAD ☐ ▼
405	At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 (SKIP TO 407) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 407)	THEN . . . . . 1 (SKIP TO 422) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 422)
406	How much longer would you like to have waited?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ DON'T KNOW 998	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ DON'T KNOW 998
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR/CLINICAL OFFICER . . A NURSE/MIDWIFE . . . . . B WARD ATTENDANT . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . D OTHER _____ X (SPECIFY) NO ONE . . . . . Y (SKIP TO 415)	
408	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . . . ☐☐ DON'T KNOW 98	
409	How many times did you receive antenatal care during this pregnancy?	NO. OF TIMES . . . . . ☐☐ DON'T KNOW 98	
410	CHECK 409: NUMBER OF TIMES RECEIVED ANTENATAL CARE	ONCE ☐ ▼ (SKIP TO 412) MORE THAN ONCE OR DK ☐ ▼	

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
411	How many months pregnant were you the last time you received antenatal care?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	
412	During this pregnancy, were any of the following done at least once? Were you weighed? Was your height measured? Was your blood pressure measured? Did you give a urine sample? Did you give a blood sample?	YES NO WEIGHT . . . . . 1 2 HEIGHT . . . . . 1 2 BLOOD PRESSURE . . . 1 2 URINE SAMPLE . . . . . 1 2 BLOOD SAMPLE 1 2	
413	Were you told about the signs of pregnancy complications?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) DON'T KNOW 8	
414	Were you told where to go if you had these complications?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
415	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 416) DON'T KNOW 8	
415A	During this pregnancy, how many times did you get this injection?	TIMES . . . . . [ ][ ] DON'T KNOW 8	
416	During this pregnancy, were you given or did you buy any iron tablets? SHOW TABLET.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 418) DON'T KNOW 8	
417	During the whole pregnancy, for how many days did you take the tablets? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	NUMBER OF DAYS . . . . . [ ][ ][ ] DON'T KNOW 998	
418	During this pregnancy, did you have difficulty with your vision during the daylight?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
419	During this pregnancy, did you have difficulty with your vision at night?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
420	During this pregnancy, did you take any drugs in order to prevent you from getting malaria? Not considered here are instances where you took the drug because you had malaria.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 422) DON'T KNOW 8	

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
421	Which medicines did you take to prevent malaria? RECORD ALL MENTIONED. IF TYPE OF DRUG IS NOT DETERMINED, SHOW TYPICAL ANTIMALARIAL DRUGS TO RESPONDENT. FOR EACH DRUG CIRCLED ASK: How many times did you take the malaria medicine(s) during the pregnancy?	TIMES SP (NOVIDAR, FANSIDAR) . A [ ] QUININE . . . . . B [ ] CHLOROQUINE . . . . . C [ ] AMODIAQUINE . . . . . D [ ] HALAFAN . . . . . E [ ] OTHER_____X [ ] (SPECIFY)	
422	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8
423	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 425) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 425) DON'T KNOW 8
424	How much did (NAME) weigh? RECORD WEIGHT FROM HEALTH CARD, IF AVAILABLE.	GRAMS FROM CARD . . . . . 1 [ ][ ][ ][ ] GRAMS FROM RECALL . . . . 2 [ ][ ][ ][ ] DON'T KNOW 99998	GRAMS FROM CARD . . . . . 1 [ ][ ][ ][ ] GRAMS FROM RECALL . . . . 2 [ ][ ][ ][ ] DON'T KNOW 99998
425	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL DOCTOR/CLINICAL OFFICER . . A NURSE/MIDWIFE . . . . . B WARD ATTENDANT . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . D RELATIVE/FRIEND . . . . . E OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PROFESSIONAL DOCTOR . . . . . A NURSE/MIDWIFE . . . . . B WARD ATTENDANT . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . D RELATIVE/FRIEND . . . . . E OTHER _____ X (SPECIFY) NO ONE . . . . . Y

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
426	Where did you give birth to (NAME)?	HOME YOUR HOME . . . . . 11 (SKIP TO 428) OTHER HOME . . . . . 12 PUBLIC SECTOR GOVT. HOSPITAL . . . . . 21 GOVT. HEALTH CENTER . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) MISSION HOSPITAL . . . . . 31 HEALTH CENTER . . . . . 32 PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . 41 OTHER PVT. MEDICAL _____ 46 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 428)	HOME YOUR HOME . . . . . 11 (SKIP TO 428) OTHER HOME . . . . . 12 PUBLIC SECTOR GOVT. HOSPITAL . . . . . 21 GOVT. HEALTH CENTER . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) MISSION HOSPITAL . . . . . 31 HEALTH CENTER . . . . . 32 PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . 41 OTHER PVT. MEDICAL _____ 46 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 428)
427	Was (NAME) delivered by caesarian section?	YES . . . . . 1 (SKIP TO 432) NO 2	YES . . . . . 1 (SKIP TO 434) NO 2
428	After (NAME) was born, did a health professional or a traditional birth attendant check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 432)	YES . . . . . 1 NO 2
429	How many days or weeks after the delivery did the first check take place? RECORD '00' DAYS IF SAME DAY.	DAYS AFTER DEL . . . . 1 [ ][ ] WEEKS AFTER DEL . . 2 [ ][ ] DON'T KNOW 998	
430	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PROFESSIONAL DOCTOR/CLINICAL OFFICER . . 1 NURSE/MIDWIFE . . . . . 2 WARD ATTENDANT . . . . . 3 OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . 4 OTHER _____ 6 (SPECIFY)	

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
431	Where did this first check take place?	HOME YOUR HOME . . . . . 11 OTHER HOME . . . . . 12 PUBLIC SECTOR GOVT. HOSPITAL . . . . . 21 GOVT. HEALTH CENTER . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) MISSION HOSPITAL . . . . . 31 HEALTH CENTER . . . . . 32 PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . 41 OTHER PVT. MEDICAL_____46 (SPECIFY) OTHER _____ 96 (SPECIFY)	
431A	At that first check, did any health worker discuss use of family planning?	YES . . . . . 1 NO 2	
432	In the first two months after delivery, did you receive a vitamin A capsule like this? SHOW CAPSULE.	YES . . . . . 1 NO 2	
433	Has your period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 435) NO . . . . . 2 (SKIP TO 436)	
434	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 438)
435	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98
436	CHECK 226: RESPONDENT PREGNANT?	NOT PREG-NANT [ ] PREGNANT OR UNSURE [ ] (SKIP TO 438)	
437	Have you resumed sexual relations since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 439)	
438	For how many months after the birth of (NAME) did you not have sexual relations?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98
439	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 444)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 444)
440	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . . . 000 HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ]	IMMEDIATELY . . . . . 000 HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ]

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
440A	Within the first three days after delivery, before your milk began flowing regularly, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 441)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 441)
440B	What was (NAME) given to drink before your milk began flowing regularly? Anything else? RECORD ALL MENTIONED.	MILK (OTHER THAN BREAST MILK) . . . . . A PLAIN WATER . . . . . B SUGAR OR GLUCOSE WATER . . . C PHALA . . . . . D GRIPE WATER . . . . . E SALT AND SUGAR SOLUTION . . . F FRUIT JUICE . . . . . G INFANT FORMULA (E.G.LACTOGEN) . . . . . H TEA/INFUSIONS . . . . . I HONEY . . . . . J OTHER_____X (SPECIFY)	MILK (OTHER THAN BREAST MILK) . . . . . A PLAIN WATER . . . . . B SUGAR OR GLUCOSE WATER . . . C PHALA . . . . . D GRIPE WATER . . . . . E SALT AND SUGAR SOLUTION . . . F FRUIT JUICE . . . . . G INFANT FORMULA (E.G.LACTOGEN) . . . . . H TEA/INFUSIONS . . . . . I HONEY . . . . . J OTHER_____X (SPECIFY)
441	CHECK 404: CHILD ALIVE?	ALIVE ☐ DEAD ☐ (SKIP TO 443)	ALIVE ☐ DEAD ☐ (SKIP TO 443)
442	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 445) NO 2	YES . . . . . 1 (SKIP TO 445) NO 2
443	For how many months did you breastfeed (NAME)?	MONTHS . . . . . ☐☐ DON'T KNOW 98	MONTHS . . . . . ☐☐ DON'T KNOW 98
444	CHECK 404: CHILD ALIVE?	ALIVE ☐ (SKIP TO 447) DEAD ☐ (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 451)	ALIVE ☐ (SKIP TO 447) DEAD ☐ (GO BACK TO 405 IN LAST COLUMN OF NEW QUESTION-NAIRE; OR, IF NO MORE BIRTHS, GO TO 451)
445	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS . . ☐☐	NUMBER OF NIGHTTIME FEEDINGS . . ☐☐
446	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS . . . ☐☐	NUMBER OF DAYLIGHT FEEDINGS . . . ☐☐

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
447	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
447A	Was sugar added to any of the foods or liquids (NAME) ate yesterday?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
448	How many times did (NAME) eat solid, semi-solid or soft foods other than liquids yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES . . . . . [ ] DON'T KNOW 8	NUMBER OF TIMES . . . . . [ ] DON'T KNOW 8
450		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 451.	GO BACK TO 405 IN LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 451.

SECTION 4B. IMMUNIZATION, HEALTH, AND NUTRITION

451	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 1995 OR LATER. (IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL QUESTIONNAIRES).		
452	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER . . . . . [ ][ ]	NEXT-TO-LAST BIRTH LINE NUMBER . . . . . [ ][ ]
453	FROM 212 AND 216	NAME _____ ALIVE [ ] DEAD [ ] (GO TO 453 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 481)	NAME _____ ALIVE [ ] DEAD [ ] (GO TO 453 IN LAST COLUMN OF NEW QUESTION-NAIRE; OR, IF NO MORE BIRTHS, GO TO 481)
454	Did (NAME) receive a Vitamin A dose like this during the last 6 months? SHOW CAPSULE.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
455	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 457) YES, NOT SEEN . . . . . 2 (SKIP TO 459) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 457) YES, NOT SEEN . . . . . 2 (SKIP TO 459) NO CARD 3
456	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 (SKIP TO 459) NO 2	YES . . . . . 1 (SKIP TO 459) NO 2
457	(1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD. (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.	DAY MONTH YEAR	DAY MONTH YEAR
	BCG	BCG [ ][ ] [ ][ ] [ ][ ][ ][ ]	BCG [ ][ ] [ ][ ] [ ][ ][ ][ ]
	POLIO 0 (POLIO GIVEN AT BIRTH)	P0 [ ][ ] [ ][ ] [ ][ ][ ][ ]	P0 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	POLIO 1	P1 [ ][ ] [ ][ ] [ ][ ][ ][ ]	P1 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	POLIO 2	P2 [ ][ ] [ ][ ] [ ][ ][ ][ ]	P2 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	POLIO 3	P3 [ ][ ] [ ][ ] [ ][ ][ ][ ]	P3 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	DPT 1	D1 [ ][ ] [ ][ ] [ ][ ][ ][ ]	D1 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	DPT 2	D2 [ ][ ] [ ][ ] [ ][ ][ ][ ]	D2 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	DPT 3	D3 [ ][ ] [ ][ ] [ ][ ][ ][ ]	D3 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	MEASLES	MEA [ ][ ] [ ][ ] [ ][ ][ ][ ]	MEA [ ][ ] [ ][ ] [ ][ ][ ][ ]
	VITAMIN A (MOST RECENT)	VIT. A [ ][ ] [ ][ ] [ ][ ][ ][ ]	VIT. A [ ][ ] [ ][ ] [ ][ ][ ][ ]

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
458	Has (NAME) received any vaccinations that are not recorded on this card, including vaccinations received in a national immunization day campaign? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO 0-3, DPT 1-3, AND/OR MEASLES VACCINE(S).	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 457) (SKIP TO 461) NO . . . . . 2 (SKIP TO 461) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 457) (SKIP TO 461) NO . . . . . 2 (SKIP TO 461) DON'T KNOW 8
459	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization day campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463) DON'T KNOW 8
460	Please tell me if (NAME) received any of the following vaccinations:		
460A	A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
460B	Polio vaccine, that is, drops in the mouth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 460E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 460E) DON'T KNOW 8
460C	When was the first polio vaccine received, just after birth or later?	JUST AFTER BIRTH . . . . . 1 LATER 2	JUST AFTER BIRTH . . . . . 1 LATER 2
460D	How many times was the polio vaccine received?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
460E	DPT vaccination, that is, an injection given in the thigh or buttocks, sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 460G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 460G) DON'T KNOW 8
460F	How many times?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
460G	An injection to prevent measles?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
461	Were any of the vaccinations (NAME) received during the last two years given as a part of a national immunization day campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463) NO VACCINATION IN THE LAST 2 YEARS . . . . . 3 (SKIP TO 463) DON'T KNOW . . . . . 8 (SKIP TO 463)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463) NO VACCINATION IN THE LAST 2 YEARS . . . . . 3 (SKIP TO 463) DON'T KNOW . . . . . 8 (SKIP TO 463)
462	At which national immunization day campaigns did (NAME) receive vaccinations? RECORD ALL MENTIONED.	MEASLES 1998 . . . . . A MEASLES 1999 . . . . . B MEASLES 2000 . . . . . C POLIO 1999 . . . . . D POLIO 2000 . . . . . F	MEASLES 1998 . . . . . A MEASLES 1999 . . . . . B MEASLES 2000 . . . . . C POLIO 1999 . . . . . D POLIO 2000 . . . . . F
463	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 464) DON'T KNOW . . . . . 8 (SKIP TO 464)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 464) DON'T KNOW . . . . . 8 (SKIP TO 464)

		LAST BIRTH NAME_____					NEXT-TO-LAST BIRTH NAME_____				
463A	Does (NAME) have a fever now?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8					YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8				
463B	I would like to know what things were done in response to (NAME'S) fever. What was done first? What was done after that? NOTE: CIRCLE ONE CODE IN EACH COLUMN FOR FIRST FOUR ACTIONS. EACH COLUMN SHOULD HAVE ONLY ONE CODE CIRCLED. ALL COLUMNS SHOULD CONTAIN AN ACTION.		1st	2nd	3rd	4th		1st	2nd	3rd	4th
		GAVE MEDICINE FROM HOME	01	01	01	01	GAVE MEDICINE FROM HOME	01	01	01	01
		GAVE MEDICINE FROM A PHARMACIST/ SHOPKEEPER (WITHOUT A PRESCRIP-TION)	02	02	02	02	GAVE MEDICINE FROM A PHARMACIST/ SHOPKEEPER (WITHOUT A PRESCRIP-TION)	02	02	02	02
		TAKEN TO A GOVERNMENT-RUN HEALTH CENTER	03	03	03	03	TAKEN TO A GOVERNMENT-RUN HEALTH CENTER	03	03	03	03
		TAKEN TO A MISSION HEALTH CENTER	04	04	04	04	TAKEN TO A MISSION HEALTH CENTER	04	04	04	04
		TAKEN TO A PRIVATE HEALTH CENTER	05	05	05	05	TAKEN TO A PRIVATE HEALTH CENTER	05	05	05	05
		CONSULTED TRADITIONAL HEALER	06	06	06	06	CONSULTED TRADITIONAL HEALER	06	06	06	06
		CONSULTED A CHW	07	07	07	07	CONSULTED A CHW	07	07	07	07
		GAVE TEPID SPONGING	08	08	08	08	GAVE TEPID SPONGING	08	08	08	08
		GAVE HERBS AT HOME	09	09	09	09	GAVE HERBS AT HOME	09	09	09	09
		OTHER	96	96	96	96	OTHER	96	96	96	96
		DID NOTHING (ELSE)	10	10	10	10	DID NOTHING (ELSE)	10	10	10	10
		DON'T KNOW	98	98	98	98	DON'T KNOW	98	98	98	98
463C		CHECK 463B: CODE "01" OR "02" CIRCLED IN ANY COLUMN ☐ ▼ CODE "01" OR "02" NOT CIRCLED ☐ └▸(SKIP TO 463E)					CHECK 463B: CODE "01" OR "02" CIRCLED IN ANY COLUMN ☐ ▼ CODE "01" OR "02" NOT CIRCLED ☐ └▸(SKIP TO 463E)				

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME_____
463D	Which medicines were given to (NAME)? ASK TO SEE MEDICINE(S). IF NOT SEEN, SHOW MEDICINE(S) TO RESPONDENT. FOR EACH ANTI-MALARIAL MEDICINE: How long after the fever started did (NAME) start taking the medicine? RECORD ALL MENTIONED. DAY CODES: SAME DAY = 0 NEXT DAY AFTER THE FEVER = 1 TWO DAYS AFTER THE FEVER = 2 THREE OR MORE DAYS AFTER THE FEVER = 3	ANTI-MALARIAL SP (FANSIDAR, NOVIDAR) . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z	ANTI-MALARIAL SP (FANSIDAR, NOVIDAR) . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z
463E		CHECK 463B: CODE “03" CIRCLED IN ANY COLUMN CODE “03" NOT CIRCLED (SKIP TO 463J)	CHECK 463B: CODE “03" CIRCLED IN ANY COLUMN CODE “03" NOT CIRCLED (SKIP TO 463J)
463F	How long after you noticed the fever was (NAME) taken to a government-run health center?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . . . . . 2 THREE OR MORE DAYS AFTER THE FEVER 3	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . . . . . 2 THREE OR MORE DAYS AFTER THE FEVER 3
463G	Were any drugs or prescriptions for drugs given at the government-run health center for (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463I) DON’T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463I) DON’T KNOW 8
463H	Which medicines were given to (NAME)? ASK TO SEE MEDICINE(S). IF NOT SEEN, SHOW MEDICINE(S) TO RESPONDENT. FOR EACH ANTI-MALARIAL MEDICINE: How long after the fever started did (NAME) start taking the medicine? RECORD ALL MENTIONED. DAY CODES: SAME DAY = 0 NEXT DAY AFTER THE FEVER = 1 TWO DAYS AFTER THE FEVER = 2 THREE OR MORE DAYS AFTER THE FEVER = 3	ANTI-MALARIAL SP (FANSIDAR, NOVIDAR) . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z	ANTI-MALARIAL SP (FANSIDAR, NOVIDAR) . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME_____
463I	Did (NAME) receive any injection at the government-run health center?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
463J		CHECK 463B: CODE "04" CIRCLED IN ANY COLUMN [ ] CODE "04" NOT CIRCLED [ ] (SKIP TO 463O)	CHECK 463B: CODE "04" CIRCLED IN ANY COLUMN [ ] CODE "04" NOT CIRCLED [ ] (SKIP TO 463O)
463K	How long after you noticed the fever was (NAME) taken to a mission health center?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . . . . . 2 THREE OR MORE DAYS AFTER THE FEVER 3	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . . . . . 2 THREE OR MORE DAYS AFTER THE FEVER 3
463L	Were any drugs or prescriptions for drugs given at the mission health center for (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463N) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463N) DON'T KNOW 8
463M	Which medicines were given to (NAME)? ASK TO SEE MEDICINE(S). IF NOT SEEN, SHOW MEDICINE(S) TO RESPONDENT. FOR EACH ANTI-MALARIAL MEDICINE: How long after the fever started did (NAME) start taking the medicine? RECORD ALL MENTIONED. DAY CODES: SAME DAY = 0 NEXT DAY AFTER THE FEVER = 1 TWO DAYS AFTER THE FEVER = 2 THREE OR MORE DAYS AFTER THE FEVER = 3	ANTI-MALARIAL SP (FANSIDAR, NOVIDAR) . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z	ANTI-MALARIAL SP (FANSIDAR, NOVIDAR) . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z
463N	Did (NAME) receive any injection at the mission health center?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
463O		CHECK 463B: CODE "05" CIRCLED IN ANY COLUMN [ ] CODE "05" NOT CIRCLED [ ] (SKIP TO 463T)	CHECK 463B: CODE "05" CIRCLED IN ANY COLUMN [ ] CODE "05" NOT CIRCLED [ ] (SKIP TO 463T)
463P	How long after you noticed the fever was (NAME) taken to a private health center?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . . . . . 2 THREE OR MORE DAYS AFTER THE FEVER 3	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . . . . . 2 THREE OR MORE DAYS AFTER THE FEVER 3
463Q	Were any medicines or prescriptions for medicines given at the private health center for (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463S) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463S) DON'T KNOW 8

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME_____
463R	Which medicines were given to (NAME)? ASK TO SEE MEDICINE(S). IF NOT SEEN, SHOW MEDICINE(S) TO RESPONDENT. FOR EACH ANTI-MALARIAL MEDICINE: How long after the fever started did (NAME) start taking the medicine? RECORD ALL MENTIONED. DAY CODES: SAME DAY = 0 NEXT DAY AFTER THE FEVER = 1 TWO DAYS AFTER THE FEVER = 2 THREE DAYS OR MORE AFTER THE FEVER = 3	ANTI-MALARIAL SP (FANSIDAR, NOVIDAR) . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z	ANTI-MALARIAL SP (FANSIDAR, NOVIDAR) . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z
463S	Did (NAME) receive any injection during the visit to the private health center?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
463T		CHECK 463B: CODE "07" CIRCLED IN ANY COLUMN CODE "07" NOT CIRCLED (SKIP TO 464)	CHECK 463B: CODE "07" CIRCLED IN ANY COLUMN CODE "07" NOT CIRCLED (SKIP TO 464)
463U	How long after you noticed the fever did (NAME) see the community health worker?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . . . . . 2 THREE OR MORE DAYS AFTER THE FEVER 3	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . . . . . 2 THREE OR MORE DAYS AFTER THE FEVER 3
463V	What did the community health worker do? RECORD ALL MENTIONED.	GAVE MEDICINE . . . . . A RECOMMENDED PURCHASE OF MEDICINE . . . . . B REFERRED TO HEALTH CENTER/DOCTOR . . . . . C OTHER_____X (SPECIFY)	GAVE MEDICINE . . . . . A RECOMMENDED PURCHASE OF MEDICINE . . . . . B REFERRED TO HEALTH CENTER/DOCTOR . . . . . C OTHER_____X (SPECIFY)
463W		CHECK 463V: CODE "A" AND/OR CODE "B" CIRCLED NEITHER CODE "A" NOR CODE "B" CIRCLED (SKIP TO 464)	CHECK 463V: CODE "A" AND/OR CODE "B" CIRCLED NEITHER CODE "A" NOR CODE "B" CIRCLED (SKIP TO 464)

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME_____
463X	Which medicines were given to (NAME) by the community health worker? ASK TO SEE MEDICINE(S). IF NOT SEEN, SHOW MEDICINE(S) TO RESPONDENT. FOR EACH ANTI-MALARIAL MEDICINE: How long after the fever started did (NAME) start taking the medicine? RECORD ALL MENTIONED. DAY CODES: SAME DAY = 0 NEXT DAY AFTER THE FEVER = 1 TWO DAYS AFTER THE FEVER = 2 THREE DAYS OR MORE AFTER THE FEVER = 3	ANTI-MALARIAL SP (FANSIDAR, NOVIDAR) . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z	ANTI-MALARIAL SP (FANSIDAR, NOVIDAR) . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
464	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 472) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 472) DON'T KNOW 8
465	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, fast breaths?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
467	Did you seek advice or treatment for the cough?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 472)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 472)
468	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . B GOVT. HEALTH POST . . . . . C MOBILE CLINIC . . . . . D FIELD WORKER . . . . . E OTHER PUBLIC _____ F (SPECIFY) MISSION HOSPITAL . . . . . G HEALTH CENTER . . . . . H MOBILE CLINIC . . . . . I PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . J PHARMACY . . . . . K PRIVATE DOCTOR . . . . . L MOBILE CLINIC . . . . . M FIELD WORKER . . . . . N OTHER PVT. MEDICAL _____ O (SPECIFY) OTHER SOURCE SHOP . . . . . P TRAD. PRACTITIONER . . . . . Q OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . B GOVT. HEALTH POST . . . . . C MOBILE CLINIC . . . . . D FIELD WORKER . . . . . E OTHER PUBLIC _____ F (SPECIFY) MISSION HOSPITAL . . . . . G HEALTH CENTER . . . . . H MOBILE CLINIC . . . . . I PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . J PHARMACY . . . . . K PRIVATE DOCTOR . . . . . L MOBILE CLINIC . . . . . M FIELD WORKER . . . . . N OTHER PVT. MEDICAL _____ O (SPECIFY) OTHER SOURCE SHOP . . . . . P TRAD. PRACTITIONER . . . . . Q OTHER _____ X (SPECIFY)
472	Has (NAME) had diarrhea in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480) DON'T KNOW 8
472A	Did [NAME]'s stool contain blood?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
473	Now I would like to know how much (NAME) was offered to drink during the diarrhea. Was he/she offered less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she offered much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 NOTHING TO DRINK . . . . . 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 NOTHING TO DRINK . . . . . 5 DON'T KNOW 8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
474	When (NAME) had diarrhea, was he/she offered less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she offered much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 STOPPED FOOD . . . . . 5 NEVER GAVE FOOD . . . . . 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 STOPPED FOOD . . . . . 5 NEVER GAVE FOOD . . . . . 6 DON'T KNOW 8
475	Was he/she given a drink made from a special packet called ORS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
476	Was anything (else) given to treat the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 478) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 478) DON'T KNOW 8
477	What was given to treat the diarrhea? Anything else? RECORD ALL MENTIONED.	PILL OR SYRUP . . . . . A INJECTION . . . . . B (I.V.) INTRAVENOUS . . . . . C HOME REMEDIES/ HERBAL MEDICINES . . . . . D OTHER _____ X (SPECIFY)	PILL OR SYRUP . . . . . A INJECTION . . . . . B (I.V.) INTRAVENOUS . . . . . C HOME REMEDIES/ HERBAL MEDICINES . . . . . D OTHER _____ X (SPECIFY)
478	Did you seek advice or treatment for the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480)
479	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . B GOVT. HEALTH POST . . . . . C MOBILE CLINIC . . . . . D FIELD WORKER . . . . . E OTHER PUBLIC _____ F (SPECIFY) MISSION HOSPITAL . . . . . G HEALTH CENTER . . . . . H MOBILE CLINIC . . . . . I PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . J PHARMACY . . . . . K PRIVATE DOCTOR . . . . . L MOBILE CLINIC . . . . . M FIELD WORKER . . . . . N OTHER PRIVATE MEDICAL _____ O (SPECIFY) OTHER SOURCE SHOP . . . . . P TRAD. PRACTITIONER . . . . . Q OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . B GOVT. HEALTH POST . . . . . C MOBILE CLINIC . . . . . D FIELD WORKER . . . . . E OTHER PUBLIC _____ F (SPECIFY) MISSION HOSPITAL . . . . . G HEALTH CENTER . . . . . H MOBILE CLINIC . . . . . I PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . J PHARMACY . . . . . K PRIVATE DOCTOR . . . . . L MOBILE CLINIC . . . . . M FIELD WORKER . . . . . N OTHER PRIVATE MEDICAL _____ O (SPECIFY) OTHER SOURCE SHOP . . . . . P TRAD. PRACTITIONER . . . . . Q OTHER _____ X (SPECIFY)

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME_____
480	Do you have any mosquito nets in your house?	YES . . . . . 1 NO . . . . . 2 480G ◂—┘	CHECK FIRST COLUMN: HAS MOSQUITO NETS DOES NOT HAVE MOSQUITO NETS ▸480G
480A	Does (NAME) usually sleep under a mosquito net?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
480B	Did (NAME) sleep under a mosquito net last night?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480G)◂—┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480G)◂—┤ DON'T KNOW 8
480C	Where was the mosquito net (NAME) slept under bought or obtained?	SHOP . . . . . 1 VENDOR . . . . . 2 NGO OR OTHER ORGANIZATION . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	SHOP . . . . . 1 VENDOR . . . . . 2 NGO OR OTHER ORGANIZATION . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW 8
480D	How long ago was the mosquito net bought or obtained? WRITE THE ANSWER IN MONTHS (LESS THAN 1 MONTH = 00) IF MORE THAN 7 YEARS, RECORD '95'.	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98
480E	Since you got the mosquito net was it ever soaked or dipped in an insecticide to repel mosquitoes or bugs?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480G)◂—┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480G)◂—┤ DON'T KNOW 8
480F	How long ago was the mosquito net last soaked or dipped? WRITE THE ANSWER IN MONTHS (LESS THAN 1 MONTH = 00)	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98
480G		GO BACK TO 451 IN NEXT COLUMN, OR, IF NO MORE CHILDREN, GO TO 481.	GO BACK TO 451 IN NEXT COLUMN, OR, IF NO MORE CHILDREN, GO TO 481.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
481	CHECK 453, ALL COLUMNS: NUMBER OF LIVING CHILDREN BORN IN 1995 OR LATER ONE OR MORE ▼ / NONE		→486
482	The last time you fed your child(ren), did you wash your hands immediately before feeding (him/her/them)?	YES . . . . . 1 NO . . . . . 2 NEVER FED CHILD(REN) 3	
483	The last time you had to clean (your child/one of your children) after he/she defecated, did you wash your hands immediately afterwards?	YES . . . . . 1 NO . . . . . 2 NEVER CLEANED CHILD(REN) 3	
484	What is usually done to dispose of your (youngest) child's stools when he/she does not use any toilet facility?	ALWAYS USE TOILET/LATRINE . . . 01 THROW IN THE TOILET/LATRINE . 02 THROW OUTSIDE THE DWELLING 03 THROW OUTSIDE THE YARD . . . . . 04 BURY IN THE YARD . . . . . 05 RINSE AWAY . . . . . 06 NOT DISPOSED OF . . . . . 07 OTHER _____ 96 (SPECIFY)	
485	CHECK 475, ALL COLUMNS: NO CHILD RECEIVED FLUID FROM ORS PACKET ▼ / ANY CHILD RECEIVED FLUID FROM ORS PACKET		→487
486	Have you ever heard of a special product called ORS you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	
487	CHECK 218: HAS ONE OR MORE CHILDREN LIVING WITH HER ▼ / HAS NO CHILDREN LIVING WITH HER		→489
488	When (your child/one of your children) is seriously ill, can you decide by yourself whether or not the child should be taken for medical treatment? IF SAYS NO CHILD EVER SERIOUSLY ILL, ASK: If (your child/one of your children) became seriously ill, could you decide by yourself whether the child should be taken for medical treatment?	YES . . . . . 1 NO . . . . . 2 DEPENDS 3	
489	Now I would like to ask you some questions about medical care for you yourself. Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?	BIG PROBLEM / NOT A BIG PROBLEM	
	Knowing where to go.	1 / 2	
	Getting permission to go.	1 / 2	
	Getting money needed for treatment.	1 / 2	
	The time required to cover distance to facility.	1 / 2	
	The availability of means of transport.	1 / 2	
	The cost of transport.	1 / 2	
	Not wanting to go alone.	1 / 2	
	Concern that there may not be a female health provider.	1 / 2	

489A	CHECK 215 AND 218: HAS AT LEAST ONE CHILD BORN IN 1997 OR LATER ☐ AND LIVING WITH HER ▾ RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE TO 489B) _____ (NAME) DOES NOT HAVE ANY CHILDREN BORN IN 1997 OR LATER AND ☐ LIVING WITH HER	→491

489B	Now I would like to ask you about liquids (NAME FROM Q. 489A) drank over the last seven days, including yesterday. How many days during the last seven days did (NAME FROM Q. 489A) drink each of the following? FOR EACH ITEM GIVEN AT LEAST ONCE IN LAST SEVEN DAYS, BEFORE PROCEEDING TO THE NEXT ITEM, ASK: In total, how many times yesterday during the day or at night did (NAME FROM Q. 489A) drink (ITEM)?		LAST 7 DAYS NUMBER OF DAYS		YESTERDAY/ LAST NIGHT NUMBER OF TIMES
a	Plain water?	a		a	
b	Commercially produced infant formula? (e.g. Lactogen)	b		b	
c	Any other milk such as tinned, powdered, or fresh animal milk?	c		c	
d	Fruit juice?	d		d	
e	Thobwa?	e		e	
f	Any other liquids such as tea, coffee, carbonated drinks, “freezes,” or soup broth?	f		f	
	Now I would like to ask you about the types of foods (NAME FROM Q. 489A) ate over the last seven days, including yesterday. How many days during the last seven days did (NAME FROM Q. 489A) eat each of the following foods either separately or combined with other food? FOR EACH ITEM GIVEN AT LEAST ONCE IN LAST SEVEN DAYS, BEFORE PROCEEDING TO THE NEXT ITEM, ASK: In total, how many times yesterday during the day or at night did (NAME FROM Q. 489A) eat (ITEM)?				
g	Any food, such as bread or nsima, made from grains [e.g., millet, sorghum, maize, rice, wheat, or other local grains]?	g		g	
h	Plain porridge?	h		h	
i	Porridge enriched with foods such as legumes, vegetables, fruits, ground nut flour, fish, or meat?	i		i	
j	Pumpkin, yellow squash, carrots, or yellow sweet potatoes?	j		j	
k	Any other food made from roots or tubers [e.g., white potatoes, cassava, or other local roots/tubers]?	k		k	
l	Any green leafy vegetables?	l		l	
m	Mango or papaya?	m		m	
n	Any other fruits and vegetables [e.g., oranges, bananas, guava, green beans, avocados, tomatoes]?	n		n	
o	Meat, poultry, fish, termites, or eggs?	o		o	
p	Any food made from legumes [e.g., peas, beans, cowpeas, pulses, or groundnuts]?	p		p	
q	Cheese or yoghurt?	q		q	
r	Any food made with oil, fat, margarine, or butter?	r		r	
	IF 7 OR MORE TIMES, RECORD ‘7'. IF DON’T KNOW, RECORD ‘8'.				

491	The last time you prepared a meal for your family, before starting did you wash your hands?	YES . . . . . 1 NO . . . . . 2 NEVER PREPARED MEAL 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
492	Do you currently smoke cigarettes or tobacco? IF YES: What type of tobacco do you smoke? RECORD ALL MENTIONED.	YES, CIGARETTES . . . . . A YES, PIPE . . . . . B YES, OTHER TOBACCO . . . . . C NO . . . . . Y	
492A	CHECK 492: CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐		→493A
493	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . ☐☐	
493A	Have you ever drunk an alcohol-containing beverage?	YES . . . . . 1 NO 2	→493F
493B	Have you ever gotten "drunk" from drinking an alcohol-containing beverage?	YES . . . . . 1 NO 2	
493C	In the last 3 months, on how many days did you drink an alcohol-containing beverage?	NUMBER OF DAYS . . . . . ☐☐ NONE/NEVER 97	→493F
493D	CHECK 493B: YES ☐ NO ☐		→493F
493E	In the last 3 months, on how many occasions did you get "drunk"?	NUMBER OF TIMES . . . . . ☐☐ NONE/NEVER 97	
493F	Have you had any kind of injection In the last 3 months?	YES . . . . . 1 NO 2	→494F
493G	How many times did you have an injection in the last 3 months?	NUMBER OF INJECTIONS . ☐☐ EVERY DAY 96	
493H	The last time you had an injection, who was the person who gave you the injection?	HEALTH PROFESSIONAL . . . . . 1 PHARMACIST . . . . . 2 TRADITIONAL HEALER . . . . . 3 FRIEND/RELATIVE . . . . . 4 SELF . . . . . 5 OTHER _____ 6 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
494F	CHECK 226: CURRENTLY PREGNANT ☐ NOT PREGNANT OR UNSURE ☐		→494K
494G	Did you have a fever at any time in the last two weeks?	YES . . . . . 1 NO 2	→494K
494H	Did you take any medicine for the fever?	YES . . . . . 1 NO 2	→494K
494I	Which medicines did you take? ASK TO SEE MEDICINE(S). IF NOT SEEN, SHOW MEDICINE(S) TO RESPONDENT. FOR EACH ANTI-MALARIAL MEDICINE: How long after the fever started did you start taking the medicine? RECORD ALL MENTIONED. DAY CODES: SAME DAY = 0 NEXT DAY AFTER THE FEVER = 1 TWO DAYS AFTER THE FEVER = 2 THREE DAYS OR MORE AFTER THE FEVER = 3	ANTI-MALARIAL SP (FANSIDAR, NOVIDAR) . . . . . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z	
494J	How many times did you take this medicine(s)?	NO OF TIMES . . . . . ☐☐	
494K	Did you sleep under a mosquito net last night?	YES . . . . . 1 NO 2	→501
494L	Where was the mosquito net you slept under bought or obtained?	SHOP . . . . . 1 NGO OR OTHER ORGANIZATION . . 2 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
494M	How long ago was the mosquito net bought or obtained? WRITE THE ANSWER IN MONTHS (LESS THAN 1 MONTH = 00) IF MORE THAN 84 MONTHS, WRITE 95.	NO OF MONTHS . . . . . ☐☐ DON'T KNOW 8	
494N	Since you got the mosquito net, was it ever soaked or dipped in an insecticide to repel mosquitoes or bugs?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→501
494O	How long ago was the mosquito net last soaked or dipped? WRITE THE ANSWER IN MONTHS (LESS THAN 1 MONTH = 00) IF MORE THAN 84 MONTHS, WRITE 95.	MONTHS . . . . . ☐☐ DON'T KNOW 98	

SECTION 5. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	Are you currently married or living with a man?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A MAN . . . . . 2 NO, NOT IN UNION 3	→505
502	Have you ever been married or lived with a man?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A MAN . . . . . 2 NO 3	→510 →514
504	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→510
505	Is your husband/partner living with you now or is he staying elsewhere?	LIVING WITH HER . . . . . 1 STAYING ELSEWHERE 2	
506	RECORD THE HUSBAND'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO. . . . . [ ][ ]	
507	Does your husband/partner have any other wives besides yourself?	Yes . . . . . 1 No 2	→510
508	How many other wives does he have?	NUMBER . . . . . [ ][ ] DON'T KNOW 98	
510	Have you been married or lived with a man only once, or more than once?	ONCE . . . . . 1 MORE THAN ONCE 2	
511	CHECK 510: MARRIED/ LIVED WITH A MAN ONLY ONCE → In what month and year did you start living with your husband/partner? MARRIED/ LIVED WITH A MAN MORE THAN ONCE → Now we will talk about your first husband/partner. In what month and year did you start living with him?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→514
512	How old were you when you started living with him?	AGE . . . . . [ ][ ]	
514	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you first had sexual intercourse (if ever)?	NEVER . . . . . 00 AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER 96	→524
515	When was the last time you had sexual intercourse? RECORD 'YEARS AGO' ONLY IF LAST INTERCOURSE WAS ONE OR MORE YEARS AGO	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	→524
516	The last time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	→517

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
516A	What was the main reason you used a condom on that occasion?	OWN CONCERN PREVENT STD/HIV 1 OWN CONCERN TO PREVENT PREGNANCY . . . . . 2 OWN CONCERN TO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 3 DID NOT TRUST PARTNER/FEELS PARTNER HAS OTHER PARTNERS . . . . . 4 PARTNER INSISTED . . . . . 5 DON'T KNOW . . . . . 6 OTHER _____ 7 (SPECIFY)	
517	What is your relationship to the man with whom you last had sex? IF "BOYFRIEND" OR "FIANCE", ASK: Was your boyfriend/fiance living with you when you last had sex? IF 'YES' RECORD '1' IF 'NO' RECORD '2'	HUSBAND/COHABITING PARTNER 01 BOYFRIEND/FIANCE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX CUSTOMER . . . 06 OTHER _____ 96 (SPECIFY)	→519
518	For how long have you had sexual relations with this man?	DAYS . . . . . 1 [ ][ ] WEEKS . . . . . 2 [ ][ ] MONTHS . . . . . 3 [ ][ ] YEARS . . . . . 4 [ ][ ]	
519	Have you had sex with any other man in the last 12 months?	YES . . . . . 1 NO 2	→524
520	The last time you had sexual intercourse with this other man, was a condom used?	YES . . . . . 1 NO 2	→521
520A	What was the main reason you used a condom on that occasion?	OWN CONCERN PREVENT STD/HIV 1 OWN CONCERN TO PREVENT PREGNANCY . . . . . 2 OWN CONCERN TO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 3 DID NOT TRUST PARTNER/FEELS PARTNER HAS OTHER PARTNERS . . . . . 4 PARTNER INSISTED . . . . . 5 DON'T KNOW . . . . . 6 OTHER _____ 7 (SPECIFY)	
521	What is your relationship to this man? IF "BOYFRIEND" OR "FIANCE", ASK: Was your boyfriend/fiance living with you when you last had sex? IF 'YES' RECORD '1' IF 'NO' RECORD '2'	HUSBAND/COHABITING PARTNER 01 BOYFRIEND/FIANCE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX CUSTOMER . . . 06 OTHER _____ 96 (SPECIFY)	→522A
522	For how long have you had sexual relations with this man?	DAYS . . . . . 1 [ ][ ] WEEKS . . . . . 2 [ ][ ] MONTHS . . . . . 3 [ ][ ] YEARS . . . . . 4 [ ][ ]	
522A	Other than these two men, have you had sex with anyone else in the last 12 months?	YES . . . . . 1 NO 2	→523

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
522B	The last time you had sexual intercourse with this other man, was a condom used?	YES . . . . . 1 NO 2	 →522D
522C	What was the main reason you used a condom on that occasion?	OWN CONCERN PREVENT STD/HIV 1 OWN CONCERN TO PREVENT PREGNANCY . . . . . 2 OWN CONCERN TO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 3 DID NOT TRUST PARTNER/FEELS PARTNER HAS OTHER PARTNERS . . . . . 4 PARTNER INSISTED . . . . . 5 DON'T KNOW . . . . . 6 OTHER _____ 7 (SPECIFY)	
522D	What is your relationship to this man? IF "BOYFRIEND" OR "FIANCE", ASK: Was your boyfriend/fiance living with you when you last had sex? IF 'YES' RECORD '1' IF 'NO' RECORD '2'	HUSBAND/COHABITING PARTNER 01 BOYFRIEND/FIANCE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX CUSTOMER . . . 06 OTHER _____ 96 (SPECIFY)	→523
522E	For how long have you had a sexual relationship with this man?	DAYS . . . . . 1 [ ][ ] WEEKS . . . . . 2 [ ][ ] MONTHS . . . . . 3 [ ][ ] YEARS . . . . . 4 [ ][ ]	
523	Altogether, with how many different men have you had sex in the last 12 months?	NUMBER OF PARTNERS . . [ ][ ]	
524	Do you know of a place where one can get condoms?	YES . . . . . 1 NO 2	 →527
525	Where is that? RECORD FIRST RESPONSE ONLY. IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 FIELD WORKER . . . . . 15 OTHER PUBLIC_____16 (SPECIFY) MISSION HOSPITAL . . . . . 21 HEALTH CENTER . . . . . 22 MOBILE CLINIC . . . . . 23 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . 31 PHARMACY . . . . . 32 PRIVATE DOCTOR . . . . . 33 MOBILE CLINIC . . . . . 34 FIELD WORKER . . . . . 35 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) BLM . . . . . 41 OTHER SOURCE SHOP . . . . . 51 CHURCH . . . . . 52 FRIEND/RELATIVE . . . . . 53 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
526	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
527	Do you know of a place where one can get female condoms?	YES . . . . . 1 NO 2	→530
528	Where is that? RECORD FIRST RESPONSE ONLY. IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 FIELD WORKER . . . . . 15 OTHER PUBLIC_____16 (SPECIFY) MISSION HOSPITAL . . . . . 21 HEALTH CENTER . . . . . 22 MOBILE CLINIC . . . . . 23 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . 31 PHARMACY . . . . . 32 PRIVATE DOCTOR . . . . . 33 MOBILE CLINIC . . . . . 34 FIELD WORKER . . . . . 35 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) BLM . . . . . 41 OTHER SOURCE SHOP . . . . . 51 CHURCH . . . . . 52 FRIEND/RELATIVE . . . . . 53 OTHER _____ 96 (SPECIFY)	
529	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
530	Have you heard of a condom called "Chishango"?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 311/311A: NEITHER STERILIZED ☐ ▼ HE OR SHE STERILIZED ☐		→614
602	CHECK 226: NOT PREGNANT OR UNSURE ☐ ▼ Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? PREGNANT ☐ ▼ Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT . 3 UNDECIDED/DON'T KNOW AND PREGNANT . . . . . 4 AND NOT PREGNANT OR UNSURE 5	 →604 →614 →610 →608
603	CHECK 226: NOT PREGNANT OR UNSURE ☐ ▼ How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ ▼ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT 994 AFTER MARRIAGE . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	 →609 →614 →609
604	CHECK 226: NOT PREGNANT OR UNSURE ☐ ▼ PREGNANT ☐		→610
605	CHECK 310: USING A METHOD? NOT ASKED ☐ ▼ NOT CURRENTLY USING ☐ ▼ CURRENTLY USING ☐		→608
606	CHECK 603: NOT ASKED ☐ ▼ 24 OR MORE MONTHS OR 02 OR MORE YEARS ☐ ▼ 00-23 MONTHS OR 00-01 YEAR ☐		→610

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
607	CHECK 602: WANTS TO HAVE A/ANOTHER CHILD ☐ You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy. Can you tell me why? Any other reason? WANTS NO MORE/ NONE ☐ You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy. Can you tell me why? Any other reason? RECORD ALL MENTIONED.	NOT MARRIED . . . . . A FERTILITY-RELATED REASONS NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY. . D SUBFECUND/INFECUND . . . . . E POSTPARTUM AMENORRHEIC . . . F BREASTFEEDING . . . . . G FATALISTIC . . . . . H OPPOSITION TO USE RESPONDENT OPPOSED . . . . . I HUSBAND/PARTNER OPPOSED . . . J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N METHOD-RELATED REASONS HEALTH CONCERNS . . . . . O FEAR OF SIDE EFFECTS . . . . . P LACK OF ACCESS/TOO FAR . . . . . Q COST TOO MUCH . . . . . R INCONVENIENT TO USE . . . . . S INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . T OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
608	In the next few weeks, if you discovered that you were pregnant, would that be a big problem, a small problem, or no problem for you?	BIG PROBLEM . . . . . 1 SMALL PROBLEM . . . . . 2 NO PROBLEM . . . . . 3 SAYS SHE CAN'T GET PREGNANT/ NOT HAVING SEX 4	
609	CHECK 310: USING A METHOD? NOT ASKED ☐ NO, NOT CURRENTLY USING ☐ YES, CURRENTLY USING ☐		→614
610	Do you think you will use a method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→612
611	Which method would you prefer to use?	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTIONS . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACT. AMEN. METHOD . . . . . 11 PERIODIC ABSTINENCE . . . . . 12 WITHDRAWAL . . . . . 13 OTHER _____ 96 (SPECIFY) UNSURE 98	→614

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
612	What is the main reason that you think you will not use a method at any time in the future?	NOT MARRIED . . . . . 11 FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX . . . . . 22 MENOPAUSAL/HYSTERECTOMY 23 SUBFECUND/INFECUND . . . . . 24 WANTS AS MANY CHILDREN AS POSSIBLE . . . . . 26 OPPOSITION TO USE RESPONDENT OPPOSED . . . . . 31 HUSBAND/PARTNER OPPOSED . 32 OTHERS OPPOSED . . . . . 33 RELIGIOUS PROHIBITION . . . . . 34 LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . 41 KNOWS NO SOURCE . . . . . 42 METHOD-RELATED REASONS HEALTH CONCERNS . . . . . 51 FEAR OF SIDE EFFECTS . . . . . 52 LACK OF ACCESS/TOO FAR . . . . 53 COST TOO MUCH . . . . . 54 INCONVENIENT TO USE . . . . . 55 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→614
613	Would you ever use a method if you were married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
614	CHECK 216: 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? NO LIVING CHILDREN ☐ ▼ If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NUMBER . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→616
615	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	
616	Would you say that you approve or disapprove of couples using a method to avoid getting pregnant?	APPROVE . . . . . 1 DISAPPROVE . . . . . 2 DON'T KNOW/UNSURE 3	
617	In the last few months have you seen or heard about family planning: On the radio? On the television? In a newspaper or magazine? On a poster? On clothing (i.e. cap, chitenji, t-shirt) In a drama?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE . 1 2 POSTER . . . . . 1 2 CLOTHING . . . . . 1 2 DRAMA 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
618	In the last few months, have you listened to any of the following program series about family planning or health on the radio?	YES NO	
	Uchembere Wabwino?	UCHEMBERE WABWINO . . 1 2	
	Phukusi la Moyo?	PHUKUSI LA MOYO 1 2	
	Pa Mtondo?	PA MTONDO 1 2	
	Women's Talking Point?	WOMEN'S TALKING PT 1 2	
	Window Through Health?	WINDOW THRU HEALTH . . 1 2	
	Umoyo M'Malawi?	UMOYO M'MALAWI 1 2	
	Tinkanena?	TINKANENA 1 2	
	Radio Doctor?	RADIO DOCTOR 1 2	
	Chitukuku M'Malawi?	CHITUKUKU M'MALAWI . . . 1 2	
	Women's Forum?	WOMEN'S FORUM 1 2	
	Tichitenji?	TICHITENJI 1 2	
	Kulera?	KULERA 1 2	
619	In the last few months, have you discussed the practice of family planning with your friends, neighbors, or relatives?	YES . . . . . 1 NO 2	→621
620	With whom? Anyone else? RECORD ALL MENTIONED.	HUSBAND/PARTNER . . . . . A MOTHER . . . . . B FATHER . . . . . C SISTER(S) . . . . . D BROTHER(S) . . . . . E DAUGHTER . . . . . F SON . . . . . G MOTHER-IN-LAW . . . . . H FRIENDS/NEIGHBORS . . . . . I OTHER _____ X (SPECIFY)	
621	CHECK 501: YES, CURRENTLY MARRIED ▾ / YES, LIVING WITH A MAN ▾ / NO, NOT IN UNION		→624A
621A	CHECK 311/311A: ANY CODE CIRCLED ▾ / NO CODE CIRCLED		→622
621B	You have told me that you are currently using contraception. Would you say that using contraception is mainly your decision, mainly your husband's/partner's decision or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY HUSBAND/PARTNER . . . . . 2 JOINT DECISION . . . . . 3 OTHER _____ 6 (SPECIFY)	
622	Now I want to ask you about your husband's/partner's views on family planning. Do you think that your husband/partner approves or disapproves of couples using a method to avoid pregnancy?	APPROVES . . . . . 1 DISAPPROVES . . . . . 2 DON'T KNOW 8	
623	How often have you talked to your husband/partner about family planning in the past year?	NEVER . . . . . 1 ONCE OR TWICE . . . . . 2 MORE OFTEN 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
623A	CHECK 311/311A: NEITHER STERILIZED ☐ HE OR SHE STERILIZED ☐		→624A
624	Do you think your husband/partner wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	
624A	CHECK 501 & 502: EVER IN UNION CODE '3' NOT CIRCLED IN 501 OR 502 ☐ NEVER IN UNION CODE '3' CIRCLED IN 501 AND 502 ☐		→701
625	Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband when:	YES NO DK	
	She knows her husband has a sexually transmitted disease?	HAS STD 1 2 8	
	She knows her husband has sex with other women?	OTHER WOMEN 1 2 8	
	She has recently given birth?	RECENT BIRTH 1 2 8	
	She is tired or not in the mood?	TIRED/MOOD 1 2 8	

SECTION 7. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 501 AND 502: CURRENTLY ☐ FORMERLY ☐ MARRIED/ LIVING WITH A MAN ☐ ▼ MARRIED/ LIVED WITH A MAN ☐	NEVER MARRIED AND NEVER LIVED WITH A MAN ☐	→703 →707
702	How old was your husband/partner on his last birthday?	AGE IN COMPLETED YEARS ☐☐	
703	Did your (last) husband/partner ever attend school?	YES . . . . . 1 NO 2	→706
704	What was the highest level of school he attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER . . . . . 3 DON'T KNOW 8	→706
705	How many years of school did he complete at that level?	YEARS . . . . . ☐☐ DON'T KNOW 98	
706	CHECK 701: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ▼ What is your husband's/partner's occupation? That is, what kind of work does he mainly do? FORMERLY MARRIED/ LIVED WITH A MAN ☐ ▼ What was your (last) husband's/ partner's occupation? That is, what kind of work did he mainly do?	☐☐ _____ _____ _____	
707	Aside from your own housework, are you currently working?	YES . . . . . 1 NO 2	→710
708	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. Are you currently doing any of these things or any other work?	YES . . . . . 1 NO 2	→710
709	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→719
710	What is your occupation, that is, what kind of work do you mainly do?	☐☐ _____ _____ _____	
711	CHECK 710: WORKS IN FARMING ☐ ▼ DOES NOT WORK IN FARMING ☐		→713
712	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
713	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
713A	Do you usually work at home or away from home?	HOME . . . . . 1 AWAY 2	
714	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . 2 ONCE IN A WHILE 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
715	Are you paid or do you earn in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	▸719
716	Who mainly decides how the money you earn will be used?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY 5	
717	On average, how much of your household's expenditures do your earnings pay for: almost none, less than half, about half, more than half, or all?	ALMOST NONE . . . . . 1 LESS THAN HALF . . . . . 2 ABOUT HALF . . . . . 3 MORE THAN HALF . . . . . 4 ALL . . . . . 5 NONE, HER INCOME IS ALL SAVED. 6	
719	Who in your family usually has the final say on the following decisions:	RESPONDENT = 1 HUSBAND/PARTNER = 2 RESPONDENT & HUSBAND/PARTNER JOINTLY = 3 SOMEONE ELSE = 4 RESPONDENT & SOMEONE ELSE JOINTLY = 5 DECISION NOT MADE/NOT APPLICABLE = 6	
	Your own health care?	1 2 3 4 5 6	
	Making large household purchases?	1 2 3 4 5 6	
	Making household purchases for daily needs?	1 2 3 4 5 6	
	Visits to family or relatives?	1 2 3 4 5 6	
	What food should be cooked each day?	1 2 3 4 5 6	
	The number of children you should bear?	1 2 3 4 5 6	
720	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING OR NOT PRESENT)	PRES/ LISTEN. / PRES/ NOT LISTEN. / NOT PRS CHILDREN <10 . . . . . 1 2 8 HUSBAND . . . . . 1 2 8 OTHER MALES . . . . 1 2 8 OTHER FEMALES . . 1 2 8	
721	Sometimes a husband is annoyed or angered by things which his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES / NO / DK	
	If she goes out without telling him?	GOES OUT 1 2 8	
	If she neglects the children?	NEGL. CHILDREN . . 1 2 8	
	If she argues with him?	ARGUES 1 2 8	
	If she refuses to have sex with him?	REFUSES SEX 1 2 8	
	If she burns the food?	BURNS FOOD 1 2 8	

SECTION 8: AIDS AND OTHER SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→818
802	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→809
803	What can a person do? Anything else? RECORD ALL MENTIONED.	ABSTAIN FROM SEX . . . . . A USE CONDOMS . . . . . B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER . . . C LIMIT NUMBER OF SEXUAL PARTNERS . . . . . D AVOID SEX WITH PROSTITUTES . . . E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS . . . . . F AVOID SEX WITH HOMOSEXUALS . G AVOID SEX WITH PERSONS WHO INJECT DRUGS INTRAVENOUSLY . . . . . H AVOID BLOOD TRANSFUSIONS . . . . . I AVOID INJECTIONS . . . . . J AVOID KISSING . . . . . K AVOID MOSQUITO BITES . . . . . L SEEK PROTECTION FROM TRADITIONAL HEALER . . . . . M AVOID SHARING RAZORS, BLADES N OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
804	Can people protect themselves from getting the AIDS virus by having just one uninfected sex partner who has no other partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
805	Can a person get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
806	Can people protect themselves from getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
807	Can a person get the AIDS virus from sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
808	Can people protect themselves from getting the AIDS virus by not having sex at all?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
809	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
811	Do you know someone personally who has the virus that causes AIDS or someone who died from AIDS?	YES . . . . . 1 NO 2	
812	Can the virus that causes AIDS be transmitted from a mother to a child?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→814
813	Can the virus that causes AIDS be transmitted from a mother to a child: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREGNANCY . . 1 2 8 DURING DELIVERY . . . . . 1 2 8 BY BREASTFEEDING . . . 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
814	CHECK 501: YES, CURRENTLY MARRIED/ LIVING WITH A MAN ☐ NO, NOT IN UNION ☐		→815A
815	Have you ever talked about ways to prevent getting the virus that causes AIDS with (your husband/the man you are living with)?	YES . . . . . 1 NO 2	
815A	In your opinion, is it acceptable or unacceptable for AIDS to be discussed: On the radio? On the TV? In newspapers?	ACCEP-TABLE / NOT ACCEP-TABLE ON THE RADIO . . . . . 1 2 ON THE TV . . . . . 1 2 IN NEWSPAPERS 1 2	
816	If a person learns that he/she is infected with the virus that causes AIDS, should the person be allowed to keep this fact private or should this information be available to the community?	CAN BE KEPT PRIVATE . . . . . 1 AVAILABLE TO COMMUNITY . . . . . 2 DK/NOT SURE 8	
817	If a relative of yours became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
817A	Should persons with the AIDS virus who work with other persons such as in a shop, office, or farm be allowed to continue their work or not?	CAN CONTINUE WORK . . . . . 1 SHOULD NOT CONTINUE WORK . . . 2 DK/NOT SURE/DEPENDS 8	
817B	Should children aged 12-14 be taught about using a condom to avoid AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
817BX	Do you think that condoms are safe to use?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
817BY	Do you think that men and women who intend to marry should be tested for the AIDS virus before marriage?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
817C	Have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→817FX
817D	Would you want to be tested for the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
817E	Do you know a place where you could go to get an AIDS test?	YES . . . . . 1 NO 2	→818
817F 817FX	Where can you go for the test? Where did you go for the test? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 OTHER PUBLIC_____16 (SPECIFY) MISSION HOSPITAL . . . . . 21 HEALTH CENTER . . . . . 22 MOBILE CLINIC . . . . . 23 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . 31 PRIVATE DOCTOR . . . . . 32 MOBILE CLINIC . . . . . 33 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) BLM . . . . . 41 MACRO . . . . . 51 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
818	Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	 →820C
820A	CHECK 514: HAS HAD SEXUAL INTERCOURSE ☐ HAS NOT HAD SEXUAL INTERCOURSE ☐		→901
820B	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a sexually-transmitted disease?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
820C	Sometimes, women experience an abnormal genital discharge. During the last 12 months, have you had an abnormal genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
820D	Sometimes, women experience a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
820E	CHECK 820B, 820C, 820D: HAS HAD AN INFECTION ☐ HAS NOT HAD AN INFECTION ☐		→901
820F	The last time you had (INFECTION FROM 820B/820C/820D), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	 →820H
820G	The last time you had (INFECTION FROM 820B/820C/820D) did you do any of the following? Did you.... Go to a clinic, hospital, or private doctor? Consult a traditional healer? Seek advice or buy medicines in a shop or pharmacy? Ask for advice from friends or relatives?	YES NO 1 2 1 2 1 2 1 2	
820H	When you had (INFECTION FROM 820B/820C/820D), did you inform the persons with whom you were having sex?	YES . . . . . 1 NO . . . . . 2 SOME/ NOT ALL 3	
820I	When you had (INFECTION FROM 820B/820C/820D) did you do something to avoid infecting your sexual partner(s)?	YES . . . . . 1 NO . . . . . 2 PARTNER ALREADY INFECTED 3	 →901
820J	What did you do to avoid infecting your partner(s)? Did you.... Stop having sex? Use a condom when having sex? Use medicine?	YES NO 1 2 1 2 1 2	

SECTION 9. MATERNAL MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. How many children did your mother give birth to, including you?	NUMBER OF BIRTHS TO NATURAL MOTHER . . . . [ ][ ]	
902	CHECK 901: TWO OR MORE BIRTHS ▾ [ ] ONLY ONE BIRTH [ ] (RESPONDENT ONLY)		→916
903	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS . . . . . [ ][ ]	

904	Please tell me the names of all your brothers and sisters starting with the oldest.	[1] _____	[2] _____	[3] _____	[4] _____	[5] _____	[6] _____
905	Is (NAME) male or female?	MALE . . . . 1 FEMALE . . 2	MALE . . . . 1 FEMALE . . 2	MALE . . . . 1 FEMALE . . 2	MALE . . . . 1 FEMALE . . 2	MALE . . . . 1 FEMALE . . 2	MALE . . . . 1 FEMALE . . 2
906	Is (NAME) still alive?	YES . . . . . 1 NO . . . . . 2 →GO TO 908 DK . . . . . 8 →GO TO [2]	YES . . . . . 1 NO . . . . . 2 →GO TO 908 DK . . . . . 8 →GO TO [3]	YES . . . . . 1 NO . . . . . 2 →GO TO 908 DK . . . . . 8 →GO TO [4]	YES . . . . . 1 NO . . . . . 2 →GO TO 908 DK . . . . . 8 →GO TO [5]	YES . . . . . 1 NO . . . . . 2 →GO TO 908 DK . . . . . 8 →GO TO [6]	YES . . . . . 1 NO . . . . . 2 →GO TO 908 DK . . . . . 8 →GO TO [7]
907	How old is (NAME)?	[ ][ ] GO TO [2]	[ ][ ] GO TO [3]	[ ][ ] GO TO [4]	[ ][ ] GO TO [5]	[ ][ ] GO TO [6]	[ ][ ] GO TO [7]
908	In what year did (NAME) die?	[ ][ ][ ][ ] GO TO 910 DK 9998	[ ][ ][ ][ ] GO TO 910 DK 9998	[ ][ ][ ][ ] GO TO 910 DK 9998	[ ][ ][ ][ ] GO TO 910 DK 9998	[ ][ ][ ][ ] GO TO 910 DK 9998	[ ][ ][ ][ ] GO TO 910 DK 9998
909	How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
910	How old was (NAME) when he/she died?	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [2]	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [3]	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [4]	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [5]	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [6]	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [7]
911	Was (NAME) pregnant when she died?	YES . . . . . 1 GO TO 915 NO 2	YES . . . . . 1 GO TO 915 NO 2	YES . . . . . 1 GO TO 915 NO 2	YES . . . . . 1 GO TO 915 NO 2	YES . . . . . 1 GO TO 915 NO 2	YES . . . . . 1 GO TO 915 NO 2
912	Did (NAME) die during childbirth?	YES . . . . . 1 GO TO 915 NO 2	YES . . . . . 1 GO TO 915 NO 2	YES . . . . . 1 GO TO 915 NO 2	YES . . . . . 1 GO TO 915 NO 2	YES . . . . . 1 GO TO 915 NO 2	YES . . . . . 1 GO TO 915 NO 2
913	Did (NAME) die within 2 months after the end of a pregnancy or childbirth?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
915	How many children did (NAME) give birth to during her lifetime?	[ ][ ] GO TO [2]	[ ][ ] GO TO [3]	[ ][ ] GO TO [4]	[ ][ ] GO TO [5]	[ ][ ] GO TO [6]	[ ][ ] GO TO [7]

IF NO MORE BROTHERS OR SISTERS, GO TO 916

904	Please tell me the names of all your brothers and sisters starting with the oldest.	[7] _____	[8] _____	[9] _____	[10] _____	[11] _____	[12] _____
905	Is (NAME) male or female?	MALE . . . . 1 FEMALE . . 2	MALE . . . . 1 FEMALE . . 2	MALE . . . . 1 FEMALE . . 2	MALE . . . . 1 FEMALE . . 2	MALE . . . . 1 FEMALE . . 2	MALE . . . . 1 FEMALE . . 2
906	Is (NAME) still alive?	YES . . . . . 1 NO . . . . . 2 └→GO TO 908 DK . . . . . 8 └→GO TO [8]	YES . . . . . 1 NO . . . . . 2 └→GO TO 908 DK . . . . . 8 └→GO TO [9]	YES . . . . . 1 NO . . . . . 2 └→GO TO 908 DK . . . . . 8 └→GO TO [10]	YES . . . . . 1 NO . . . . . 2 └→GO TO 908 DK . . . . . 8 └→GO TO [11]	YES . . . . . 1 NO . . . . . 2 └→GO TO 908 DK . . . . . 8 └→GO TO [12]	YES . . . . . 1 NO . . . . . 2 └→GO TO 908 DK . . . . . 8 └→GO TO [13]
907	How old is (NAME)?	[ ][ ] GO TO [8]	[ ][ ] GO TO [9]	[ ][ ] GO TO [10]	[ ][ ] GO TO [11]	[ ][ ] GO TO [12]	[ ][ ] GO TO [13]
908	In what year did (NAME) die?	[ ][ ][ ][ ] GO TO 910◄┘ DK 9998	[ ][ ][ ][ ] GO TO 910◄┘ DK 9998	[ ][ ][ ][ ] GO TO 910◄┘ DK 9998	[ ][ ][ ][ ] GO TO 910◄┘ DK 9998	[ ][ ][ ][ ] GO TO 910◄┘ DK 9998	[ ][ ][ ][ ] GO TO 910◄┘ DK 9998
909	How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
910	How old was (NAME) when he/she died?	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [8]	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [9]	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [10]	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [11]	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [12]	[ ][ ] IF (1) MALE OR (2) FEMALE & DIED BEFORE 12 YEARS OF AGE GO TO [13]
911	Was (NAME) pregnant when she died?	YES . . . . . 1 GO TO 915◄┘ NO 2	YES . . . . . 1 GO TO 915◄┘ NO 2	YES . . . . . 1 GO TO 915◄┘ NO 2	YES . . . . . 1 GO TO 915◄┘ NO 2	YES . . . . . 1 GO TO 915◄┘ NO 2	YES . . . . . 1 GO TO 915◄┘ NO 2
912	Did (NAME) die during childbirth?	YES . . . . . 1 GO TO 915◄┘ NO 2	YES . . . . . 1 GO TO 915◄┘ NO 2	YES . . . . . 1 GO TO 915◄┘ NO 2	YES . . . . . 1 GO TO 915◄┘ NO 2	YES . . . . . 1 GO TO 915◄┘ NO 2	YES . . . . . 1 GO TO 915◄┘ NO 2
913	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
915	How many children did (NAME) give birth to during her lifetime?	[ ][ ] GO TO [8]	[ ][ ] GO TO [9]	[ ][ ] GO TO [10]	[ ][ ] GO TO [11]	[ ][ ] GO TO [12]	[ ][ ] GO TO [13]

IF NO MORE BROTHERS OR SISTERS, GO TO 916

916	RECORD THE TIME.	HOURS . . . . . [ ][ ] MINUTES . . . . . [ ][ ]

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SIGNATURE OF THE INTERVIEWER:_____DATE: _____

SUPERVISOR'S OBSERVATIONS

NAME OF THE SUPERVISOR:_____DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR:_____DATE: _____

INSTRUCTIONS:
ONLY ONE CODE SHOULD APPEAR IN ANY BOX.

BIRTHS AND PREGNANCIES

B BIRTHS
P PREGNANCIES
T TERMINATIONS

	12 DEC	01	
	11 NOV	02	
	10 OCT	03	
	09 SEP	04	
2	08 AUG	05	
0	07 JUL	06	
0	06 JUN	07	
0	05 MAY	08	
	04 APR	09	
	03 MAR	10	
	02 FEB	11	
	01 JAN	12	
	12 DEC	13	
	11 NOV	14	
	10 OCT	15	
	09 SEP	16	
1	08 AUG	17	
9	07 JUL	18	
9	06 JUN	19	
9	05 MAY	20	
	04 APR	21	
	03 MAR	22	
	02 FEB	23	
	01 JAN	24	
	12 DEC	25	
	11 NOV	26	
	10 OCT	27	
	09 SEP	28	
1	08 AUG	29	
9	07 JUL	30	
9	06 JUN	31	
8	05 MAY	32	
	04 APR	33	
	03 MAR	34	
	02 FEB	35	
	01 JAN	36	
	12 DEC	37	
	11 NOV	38	
	10 OCT	39	
	09 SEP	40	
1	08 AUG	41	
9	07 JUL	42	
9	06 JUN	43	
7	05 MAY	44	
	04 APR	45	
	03 MAR	46	
	02 FEB	47	
	01 JAN	48	
	12 DEC	49	
	11 NOV	50	
	10 OCT	51	
	09 SEP	52	
1	08 AUG	53	
9	07 JUL	54	
9	06 JUN	55	
6	05 MAY	56	
	04 APR	57	
	03 MAR	58	
	02 FEB	59	
	01 JAN	60	
	12 DEC	61	
	11 NOV	62	
	10 OCT	63	
	09 SEP	64	
1	08 AUG	65	
9	07 JUL	66	
9	06 JUN	67	
5	05 MAY	68	
	04 APR	69	
	03 MAR	70	
	02 FEB	71	
	01 JAN	72	

MALAWI DEMOGRAPHIC AND HEALTH SURVEY–II
MALAWI GOVERNMENT- NATIONAL STATISTICAL OFFICE
MAN'S QUESTIONNAIRE

IDENTIFICATION	
VILLAGE/PLACE NAME _____	
NAME OF HOUSEHOLD HEAD _____	
MDHS CLUSTER NUMBER	
HOUSEHOLD NUMBER	
URBAN/RURAL (URBAN=1, RURAL=2)	
NAME AND LINE NUMBER OF MAN _____	

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR
INTERVIEWER'S NAME	_____	_____	_____	NAME
RESULT*	_____	_____	_____	RESULT
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS
TIME	_____	_____		

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

LANGUAGE OF QUESTIONNAIRE		LANGUAGE OF INTERVIEW	
ENGLISH	3	CHICHEWA	1
		TUMBUKA	2
		OTHER_____ (SPECIFY)	3

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	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 a city, in a town, or in a village?	CITY . . . . . 1 TOWN . . . . . 2 VILLAGE 3	
102A	In the last 12 months, have you been away from your home community for more than 1 month at a time?	YES . . . . . 1 NO 2	
102B	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away? IF "NO OCCASIONS", RECORD '00	NO. TRIPS AWAY . . . . . [ ][ ]	
103	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→105
104	Just before you moved here, did you live in a city, in a town, or in a village?	CITY . . . . . 1 TOWN . . . . . 2 VILLAGE 3	
105	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
107	Have you ever attended school?	YES . . . . . 1 NO 2	→111
108	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER 3	
109	How many years of school did you complete <u>at that level</u>?	YEARS . . . . . [ ][ ]	
110	CHECK 108: PRIMARY [ ] SECONDARY OR HIGHER [ ]		→114
111	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE 3 NO CARD WITH REQUIRED LANGUAGE_____ 4 (SPECIFY LANGUAGE)	
112	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
113	CHECK 111: CODE '2', '3' OR '4' CIRCLED ▾ CODE '1' CIRCLED		→115
114	Do you read a newspaper or magazine almost every day, at least once a week, less often than that or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS OFTEN . . . . . 3 NOT AT ALL 4	
115	Do you listen to the radio almost every day, at least once a week, less often than that or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS OFTEN . . . . . 3 NOT AT ALL 4	
116	Do you watch television almost every day, at least once a week, less often than that or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS OFTEN . . . . . 3 NOT AT ALL 4	
117	What is your religion?	CATHOLIC . . . . . 01 CCAP . . . . . 02 ANGLICAN . . . . . 03 SEVENTH DAY ADVENT./BAPTIST 04 OTHER CHRISTIAN . . . . . 05 MUSLIM . . . . . 06 NO RELIGION . . . . . 07 OTHER _____ 96 (SPECIFY)	
118	What is your tribe or ethnic group?	CHEWA . . . . . 01 TUMBUKA . . . . . 02 LOMWE . . . . . 03 TONGA . . . . . 04 YAO . . . . . 05 SENA . . . . . 06 NKONDE . . . . . 07 NGONI . . . . . 08 OTHER_____96 (SPECIFY)	
119	Have you heard that when a child is born in Malawi, you can register that child with the government and receive a birth certificate?	YES . . . . . 1 NO 2	

SECTION 2: REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about your children. I am interested only in the children that are biologically yours. Have you ever had children?	YES . . . . . 1 NO 2	→206
202	Do you have any sons or daughters 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, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . [ ][ ]	
204	Do you have any sons or daughters 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, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE [ ][ ]	
206	Have you ever had a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but survived only a few moments?	YES . . . . . 1 NO 2	→208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL . . . . . [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ children during your life. Is that correct? YES [ ] ↓ NO [ ] → PROBE AND CORRECT 201-208 AS NECESSARY.		

SECTION 3. CONTRACEPTION

Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.

301	Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had a partner who had an operation to avoid having any more children? YES . . . . . 1 NO 2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	PILL Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
05	INJECTIONS Women can have an injection by a health provider which stops them from becoming pregnant for three months.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
06	IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
07	CONDOM Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
09	DIAPHRAGM Women can place a thin flexible disk in their vagina before intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
10	FOAM OR JELLY Women can place a suppository, jelly, or cream in their vagina before intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
11	LACTATIONAL AMENORRHEA METHOD (LAM) Up to 6 months after childbirth, a woman can use a method that requires that she breastfeeds frequently, day and night, and that her menstrual period has not returned.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
12	RHYTHM, BILLINGS OR OTHER NATURAL METHODS Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
13	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
14	EMERGENCY CONTRACEPTION Women can take pills up to three days after sexual intercourse to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
15	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	YES . . . . . 1 NO . . . . . 2 YES . . . . . 1 NO 2

303	CHECK 302: NOT A SINGLE "YES" (NEVER USED)	AT LEAST ONE "YES" (EVER USED)	→ 325A

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Have you or any of your partners ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	 →325A
306	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
325A	Were you ever told by a health or family planning worker about methods of family planning which you could use?	YES . . . . . 1 NO 2	
328	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	 →492
329	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL MENTIONED.	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B FAMILY PLANNING CLINIC . . . . . C MOBILE CLINIC . . . . . D CBDA/FIELD WORKER . . . . . E OTHER PUBLIC_____F (SPECIFY) MISSION HOSPITAL . . . . . G HEALTH CENTER . . . . . H MOBILE CLINIC . . . . . I PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . J PHARMACY . . . . . K PRIVATE DOCTOR . . . . . L MOBILE CLINIC . . . . . M CBDA/FIELD WORKER . . . . . N OTHER PRIVATE MEDICAL _____ O (SPECIFY) BLM . . . . . P OTHER SOURCE SHOP . . . . . Q CHURCH . . . . . R FRIEND/RELATIVE . . . . . S OTHER _____ X (SPECIFY)	

SECTION 4. HEALTH CONCERNS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
492	Do you currently smoke cigarettes or tobacco? IF YES: What type of tobacco do you smoke? RECORD ALL MENTIONED.	YES, CIGARETTES . . . . . A YES, PIPE . . . . . B YES, OTHER TOBACCO . . . . . C NO . . . . . Y	
492A	CHECK 492: CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐		→493A
493	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . ☐☐	
493A	Have you ever drunk an alcohol-containing beverage?	YES . . . . . 1 NO 2	→493F
493B	Have you ever gotten "drunk" from drinking an alcohol-containing beverage?	YES . . . . . 1 NO 2	
493C	In the last 3 months, on how many days did you drink an alcohol-containing beverage?	NUMBER OF DAYS . . . . . ☐☐ NONE/NEVER 97	→493F
493D	CHECK 493B: YES ☐ NO ☐		→493F
493E	In the last 3 months, on how many occasions did you get "drunk"?	NUMBER OF TIMES . . . . . ☐☐ NONE/NEVER 97	
493F	Have you had any kind of injection In the last 3 months?	YES . . . . . 1 NO 2	→494G
493G	How many times did you have an injection in the last 3 months?	NUMBER OF INJECTIONS . ☐☐ EVERY DAY 96	
493H	The last time you had an injection, who was the person who gave you the injection?	HEALTH PROFESSIONAL . . . . . 1 PHARMACIST . . . . . 2 TRADITIONAL HEALER . . . . . 3 FRIEND/RELATIVE . . . . . 4 SELF . . . . . 5 OTHER _____ 6 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
494G	Did you have a fever at any time in the last two weeks?	YES . . . . . 1 NO 2	 →494K
494H	Did you take any medicine for the fever?	YES . . . . . 1 NO 2	 →494K
494I	Which medicines did you take? ASK TO SEE MEDICINE(S). IF NOT SEEN, SHOW MEDICINE(S) TO RESPONDENT. FOR EACH ANTI-MALARIAL MEDICINE: How long after the fever started did you start taking the medicine? RECORD ALL MENTIONED. DAY CODES: SAME DAY = 0 NEXT DAY AFTER THE FEVER = 1 TWO DAYS AFTER THE FEVER = 2 THREE DAYS OR MORE AFTER THE FEVER = 3	ANTI-MALARIAL SP (NOVIDAR, FANSIDAR) . . . . . A 0 1 2 3 QUININE . . . . . B 0 1 2 3 CHLOROQUINE . . . . . C 0 1 2 3 AMODIAQUINE . . . . . D 0 1 2 3 HALAFAN . . . . . E 0 1 2 3 OTHER DRUGS ASPIRIN . . . . . F PANADOL . . . . . G OTHER _____ X (SPECIFY) UNKNOWN . . . . . Z	
494J	How many occaisions did you take this medicine(s)?	NO OF TIMES . . . . . [ ][ ]	
494K	Did you sleep under a mosquito net last night?	YES . . . . . 1 NO 2	 →501
494L	Where was the mosquito net you slept under bought or obtained?	SHOP . . . . . 1 VENDOR . . . . . 2 NGO OR OTHER ORGANIZATION . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
494 M	How long ago was the mosquito net bought or obtained? WRITE THE ANSWER IN MONTHS (LESS THAN 1 MONTH = 00) IF MORE THAN 84 MONTHS, WRITE 95.	NO OF MONTHS . . . . . [ ][ ] DON'T KNOW 8	
494N	Since you got the mosquito net, was it ever soaked or dipped in an insecticide to repel mosquitoes or bugs?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	 →501
494O	How long ago was the mosquito net last soaked or dipped? WRITE THE ANSWER IN MONTHS (LESS THAN 1 MONTH = 00) IF MORE THAN 84 MONTHS, WRITE 95.	MONTHS . . . . . [ ][ ] DON'T KNOW 98	

SECTION 5. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	Are you currently married or living with a woman?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A WOMAN . . . . 2 NO, NOT IN UNION 3	→504
502	Do you have more than one wife or live-in partner? IF YES: How many wives or live- in partners do you have?	ONE WIFE OR PARTNER . . . . . 01 NUMBER OF WIVES/PARTNERS . . . . . [ ][ ]	→506 →506A
504	Have you ever been married or lived with a woman?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A WOMAN . . . . . 2 NO 3	→514
505	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→507
506	What is your wife's/partner's name? NAME OF WIFE/PARTNER _____	LINE NO. . . . . [ ][ ]	
506A	Which of your current wives did you marry first? Which of your current wives did you marry second?..... FIRST RECORD ALL OF THE WIVES'/PARTNERS' NAMES AND THEN CHECK IN THE HOUSEHOLD SCHEDULE AND RECORD THE NUMBER FROM THE HOUSEHOLD SCHEDULE FOR EACH WIFE/PARTNER MENTIONED. IF SHE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'. NAME OF WIFE/PARTNER _____	LINE NO. . . . . [ ][ ]	
	NAME OF WIFE/PARTNER _____	LINE NO. . . . . [ ][ ]	
	NAME OF WIFE/PARTNER _____	LINE NO. . . . . [ ][ ]	
	NAME OF WIFE/PARTNER _____	LINE NO. . . . . [ ][ ]	
	NAME OF WIFE/PARTNER _____	LINE NO. . . . . [ ][ ]	
	CHECK THAT THE NUMBER OF WIVES LISTED IS EQUAL TO THE NUMBER IN 502.		
507	Have you been married or lived with a woman only once, or more than once?	ONCE . . . . . 1 MORE THAN ONCE 2	
508	CHECK 507: MARRIED/ LIVED WITH A WOMAN ONCE → In what month and year did you start living with your wife/partner? MARRIED/LIVED WITH A WOMAN MORE THAN ONCE → Now we will talk about your first wife/partner. In what month and year did you start living with her?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→514
509	How old were you when you started living with her?	AGE . . . . . [ ][ ]	
514	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you first had sexual intercourse (if ever)?	NEVER . . . . . 00 AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE/PARTNER . . . 96	→524

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
515	When was the last time you had sexual intercourse? RECORD 'YEARS AGO' ONLY IF LAST INTERCOURSE WAS ONE OR MORE YEARS AGO	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	→524
516	The last time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	→516C
516A	What was the main reason you used a condom on that occasion?	OWN CONCERN PREVENT STD/HIV 1 OWN CONCERN TO PREVENT PREGNANCY . . . . . 2 OWN CONCERN TO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 3 DID NOT TRUST PARTNER/FEELS PARTNER HAS OTHER PARTNERS . . . . . 4 PARTNER INSISTED . . . . . 5 DON'T KNOW . . . . . 6 OTHER _____ 7 (SPECIFY)	
516B	On that occasion, in addition to the condom, did you or your partner do something or use any other method to avoid pregnancy?	YES . . . . . 1 NO 2	→516DX →516DY
516C	On that occasion, did you or your partner do something or use anything to avoid pregnancy?	YES . . . . . 1 NO 2	→517
516D 516DX 516DY CIRCLE 'G', THEN CONTINUE TO 516E	Which method did you or your partner use? CIRCLE 'G', THEN ASK: In addition to the condom, which method did you or your partner use?	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B PILL . . . . . C IUD . . . . . D INJECTIONS . . . . . E IMPLANTS . . . . . F CONDOM . . . . . G FEMALE CONDOM . . . . . H DIAPHRAGM . . . . . I FOAM/JELLY . . . . . J LACT. AMEN. METHOD . . . . . K PERIODIC ABSTINENCE . . . . . L WITHDRAWAL . . . . . M OTHER _____ X (SPECIFY)	→517

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
516E	Where did you or your partner obtain (HIGHEST METHOD: 516D) the last time? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . 13 MOBILE CLINIC . . . . . 14 FIELD WORKER . . . . . 15 OTHER PUBLIC_____16 (SPECIFY) MISSION HOSPITAL . . . . . 21 HEALTH CENTER . . . . . 22 MOBILE CLINIC . . . . . 23 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . 31 PHARMACY . . . . . 32 PRIVATE DOCTOR . . . . . 33 MOBILE CLINIC . . . . . 34 FIELD WORKER . . . . . 35 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) BLM . . . . . 41 OTHER SOURCE SHOP . . . . . 51 CHURCH . . . . . 52 FRIEND/RELATIVE . . . . . 53 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
517	What is your relationship to the woman with whom you last had sex? IF "GIRLFRIEND" OR "FIANCEE", ASK: Was your girlfriend/fiance living with you when you last had sex? IF 'YES' RECORD '1' IF 'NO' RECORD '2'	WIFE/COHAB. PARTNER . . . . . 01 GIRLFRIEND/FIANCEE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX WORKER . . . . 06 OTHER _____ 96 (SPECIFY)	→519
518	For how long have you had sexual relations with this woman?	DAYS . . . . . 1 [ ][ ] WEEKS . . . . . 2 [ ][ ] MONTHS . . . . . 3 [ ][ ] YEARS . . . . . 4 [ ][ ]	
519	Have you had sex with any other woman in the last 12 months?	YES . . . . . 1 NO 2	→523A
520	The last time you had sexual intercourse with this other woman, was a condom used?	YES . . . . . 1 NO 2	→521
520A	What was the main reason you used a condom on that occasion?	OWN CONCERN PREVENT STD/HIV 1 OWN CONCERN TO PREVENT PREGNANCY . . . . . 2 OWN CONCERN TO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 3 DID NOT TRUST PARTNER/FEELS PARTNER HAS OTHER PARTNERS . . . . . 4 PARTNER INSISTED . . . . . 5 DON'T KNOW . . . . . 6 OTHER _____ 7 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
521	What is your relationship to this woman? IF "GIRLFRIEND" OR "FIANCEE", ASK: Was your girlfriend/fiancee living with you when you last had sex? IF 'YES' RECORD '1' IF 'NO' RECORD '2'	WIFE/COHAB. PARTNER . . . . . 01 GIRLFRIEND/FIANCEE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX WORKER . . . . 06 OTHER _____ 96 (SPECIFY)	→522A
522	For how long have you had sexual relations with this woman?	DAYS . . . . . 1 [ ][ ] WEEKS . . . . . 2 [ ][ ] MONTHS . . . . . 3 [ ][ ] YEARS . . . . . 4 [ ][ ]	
522A	Other than these two women, have you had sex with anyone else in the last 12 months?	YES . . . . . 1 NO 2	→523A
522B	The last time you had sexual intercourse with this other woman, was a condom used?	YES . . . . . 1 NO 2	→522D
522C	What was the main reason you used a condom on that occasion?	OWN CONCERN PREVENT STD/HIV 1 OWN CONCERN TO PREVENT PREGNANCY . . . . . 2 OWN CONCERN TO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 3 DID NOT TRUST PARTNER/FEELS PARTNER HAS OTHER PARTNERS . . . . . 4 PARTNER INSISTED . . . . . 5 DON'T KNOW . . . . . 6 OTHER _____ 7 (SPECIFY)	
522D	What is your relationship to this woman? IF "GIRLFRIEND" OR "FIANCEE", ASK: Was your girlfriend/fiancee living with you when you last had sex? IF 'YES' RECORD '1' IF 'NO' RECORD '2'	WIFE/COHAB. PARTNER . . . . . 01 GIRLFRIEND/FIANCEE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX WORKER . . . . 06 OTHER _____96 (SPECIFY)	→523
522E	For how long have you had a sexual relationship with this woman?	DAYS . . . . . 1 [ ][ ] WEEKS . . . . . 2 [ ][ ] MONTHS . . . . . 3 [ ][ ] YEARS . . . . . 4 [ ][ ]	
523	Altogether, with how many different women have you had sex in the last 12 months?	NUMBER OF PARTNERS . [ ][ ]	
523A	Have you ever paid for sex?	YES . . . . . 1 NO 2	→524
523B	How long ago was the last time you paid for sex?	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
523C	The last time that you paid for sex, was a condom used on that occasion?	YES . . . . . 1 NO 2	
524	Do you know of a place where one can get condoms?	YES . . . . . 1 NO 2	→530
525	Where is that? RECORD FIRST RESPONSE ONLY. IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . 13 MOBILE CLINIC . . . . . 14 FIELD WORKER . . . . . 15 OTHER PUBLIC_____16 (SPECIFY) MISSION HOSPITAL . . . . . 21 HEALTH CENTER . . . . . 22 MOBILE CLINIC . . . . . 23 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . 31 PHARMACY . . . . . 32 PRIVATE DOCTOR . . . . . 33 MOBILE CLINIC . . . . . 34 FIELD WORKER . . . . . 35 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) BLM . . . . . 41 OTHER SOURCE SHOP . . . . . 51 CHURCH . . . . . 52 FRIEND/RELATIVE . . . . . 53 OTHER _____ 96 (SPECIFY)	
526	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
530	Have you heard of a condom called "Chishango"?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601A	CHECK 302 (02): NOT STERILIZED ☐ ▼ STERILIZED ☐		→614
601B	CHECK 501: CURRENTLY IN UNION CODE '1' OR '2' CIRCLED ☐ ▼ NOT CURRENTLY IN UNION CODE '3' CIRCLED ☐		→614
601C	Is your wife or one of your wives or partners pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 3	
602	CHECK 601C: NONE OF WIVES/PARTNERS PREGNANT OR UNSURE ☐ ▼ Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? ONE OF WIVES/PARTNERS PREGNANT ☐ ▼ Now I have some questions about the future. After the child your wife/partner is expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS HIS WIFE/PARTNER CAN'T GET PREGNANT . . . . . 3 UNDECIDED/DON'T KNOW 4	 →614 →614 →614
603	CHECK 601C: NONE OF WIVES/PARTNERS PREGNANT OR UNSURE ☐ ▼ How long would you like to wait from now before the birth of (a/another) child? ONE OF WIVES/PARTNERS PREGNANT ☐ ▼ After the birth of the child your wife/partner is expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 SAYS HIS WIFE/PARTNER CAN'T GET PREGNANT . . . . . 994 AFTER MARRIAGE . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	
614	CHECK 203 & 205: 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? NO LIVING CHILDREN ☐ ▼ If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NUMBER . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	 →616
615	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	
616	Would you say that you approve or disapprove of couples using a method to avoid getting pregnant?	APPROVE . . . . . 1 DISAPPROVE . . . . . 2 DON'T KNOW/UNSURE 3	
617	In the last few months have you seen or heard about family planning: On the radio? On the television? In a newspaper or magazine? On a poster? On clothing (i.e., cap, chitenji, t-shirt)? In a drama?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE . 1 2 POSTER . . . . . 1 2 CLOTHING . . . . . 1 2 DRAMA 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
618	In the last few months, have you listened to any of the following program series about family planning or health on the radio?	YES NO	
	Uchembere Wabwino?	UCHEMBERE WABWINO 1 2	
	Phukusi la Moyo?	PHUKUSI LA MOYO 1 2	
	Pa Mtondo?	PA MTONDO 1 2	
	Women's Talking Point?	WOMEN'S TALKING PT 1 2	
	Window Through Health?	WINDOW THRU HEALTH . . 1 2	
	Umoyo M'Malawi?	UMOYO M'MALAWI 1 2	
	Tinkanena?	TINKANENA 1 2	
	Radio Doctor?	RADIO DOCTOR 1 2	
	Chitukuku M'Malawi?	CHITUKUKU M'MALAWI . . . 1 2	
	Women's Forum?	WOMEN'S FORUM 1 2	
	Tichitenji?	TICHITENJI 1 2	
	Kulera?	KULERA 1 2	
619	In the last few months, have you discussed the practice of family planning with your friends, neighbors, or relatives?	YES . . . . . 1 NO 2	→621
620	With whom? Anyone else? RECORD ALL MENTIONED.	WIFE/PARTNER . . . . . A MOTHER . . . . . B FATHER . . . . . C SISTER(S) . . . . . D BROTHER(S) . . . . . E DAUGHTER . . . . . F SON . . . . . G MOTHER-IN-LAW . . . . . H FRIENDS/NEIGHBORS . . . . . I OTHER _____ X (SPECIFY)	
621	CHECK 501: YES, CURRENTLY MARRIED ▾ / YES, LIVING WITH A WOMAN ▾ / NO, NOT IN UNION		→624A
621A	CHECK 516D: ANY CODE CIRCLED ▾ / NO CODE CIRCLED		→622
621B	You told me that you used a contraceptive method the last time you had sex. Would you say that using contraception was mainly your decision, mainly your wife's/partner's decision or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY WIFE/PARTNER . . . . . 2 JOINT DECISION . . . . . 3 OTHER _____ 6 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
622	Now I want to ask you about your (last) wife's/partner's views on family planning. Do you think that your wife/partner approves or disapproves of couples using a method to avoid pregnancy?	APPROVES . . . . . 1 DISAPPROVES . . . . . 2 DON'T KNOW 8	
623	How often have you talked to your (last) wife/partner about family planning in the past year?	NEVER . . . . . 1 ONCE OR TWICE . . . . . 2 MORE OFTEN 3	
623A	CHECK 302 (02): NOT STERILIZED ☐ STERILIZED ☐		→624A
624	Do you think your wife/partner wants the same number of children that you want, or does she want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	
624A	CHECK 501 & 504: EVER IN UNION CODE '3' NOT CIRCLED IN 501 OR 504 ☐ NEVER IN UNION CODE '3' CIRCLED IN 501 AND 504 ☐		→707
625	Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband when: She knows her husband has a sexually transmitted disease? She knows her husband has sex with other women? She has recently given birth? She is tired or not in the mood?	YES NO DK HAS STD . . . . . 1 2 8 OTHER WOMEN . . . . . 1 2 8 RECENT BIRTH . . . . . 1 2 8 TIRED/MOOD 1 2 8	

SECTION 7. WORK AND HOUSEHOLD DECISIONS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
707	Are you currently working?	YES . . . . . 1 NO 2	→710
709	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→719
710	What is your occupation, that is, what kind of work do you mainly do?	_____ [ ][ ] _____ _____	
711	CHECK 710: WORKS IN FARMING [ ] DOES NOT WORK IN FARMING [ ]		→713
712	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
713	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
713A	Do you usually work at home or away from home?	HOME . . . . . 1 AWAY 2	
714	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . . 2 ONCE IN A WHILE 3	
715	Are you paid or do you earn in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	→719
716	Who mainly decides how the money you earn will be used?	RESPONDENT . . . . . 1 WIFE/PARTNER . . . . . 2 RESPONDENT AND WIFE/PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY 5	
717	On average, how much of your household's expenditures do your earnings pay for: almost none, less than half, about half, more than half, or all?	ALMOST NONE . . . . . 1 LESS THAN HALF . . . . . 2 ABOUT HALF . . . . . 3 MORE THAN HALF . . . . . 4 ALL . . . . . 5 NONE, HIS INCOME IS ALL SAVED. . . 6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
719	Who in your family usually has the final say on the following decisions:	RESPONDENT = 1 WIFE/PARTNER = 2 RESPONDENT & WIFE/PARTNER JOINTLY = 3 SOMEONE ELSE = 4 RESPONDENT & SOMEONE ELSE JOINTLY = 5 DECISION NOT MADE/NOT APPLICABLE = 6	
	Your own health care?	1 2 3 4 5 6	
	Making large household purchases?	1 2 3 4 5 6	
	Making household purchases for daily needs?	1 2 3 4 5 6	
	Visits to family or relatives?	1 2 3 4 5 6	
	What food should be cooked each day?	1 2 3 4 5 6	
	The number of children you should have?	1 2 3 4 5 6	
720	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING OR NOT PRESENT)	PRES/ LISTEN. / PRES/ NOT LISTEN. / NOT PRS CHILDREN <10 . . . . . 1 2 8 OTHER MALES . . . . 1 2 8 WIFE . . . . . 1 2 8 OTHER FEMALES . . 1 2 8	
721	Sometimes a husband is annoyed or angered by things which his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES NO DK	
	If she goes out without telling him?	GOES OUT 1 2 8	
	If she neglects the children?	NEGL. CHILDREN . . 1 2 8	
	If she argues with him?	ARGUES 1 2 8	
	If she refuses to have sex with him?	REFUSES SEX 1 2 8	
	If she burns the food?	BURNS FOOD 1 2 8	

SECTION 8: AIDS AND OTHER SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→818
802	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→809
803	What can a person do? Anything else? RECORD ALL MENTIONED.	ABSTAIN FROM SEX . . . . . A USE CONDOMS . . . . . B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER . . . . . C LIMIT NUMBER OF SEXUAL PARTNERS . . . . . D AVOID SEX WITH PROSTITUTES . . E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS . . . . . F AVOID SEX WITH HOMOSEXUALS G AVOID SEX WITH PERSONS WHO INJECT DRUGS INTRAVENOUSLY . . . . . H AVOID BLOOD TRANSFUSIONS . . . . I AVOID INJECTIONS . . . . . J AVOID KISSING . . . . . K AVOID MOSQUITO BITES . . . . . L SEEK PROTECTION FROM TRADITIONAL HEALER . . . . . M AVOID SHARING RAZORS, BLADES N OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
804	Can people protect themselves from getting the AIDS virus by having just one uninfected sex partner who has no other partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
805	Can a person get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
806	Can people protect themselves from getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
807	Can a person get the AIDS virus from sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
808	Can people protect themselves from getting the AIDS virus by not having sex at all?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
809	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
811	Do you know someone personally who has the virus that causes AIDS or someone who died from AIDS?	YES . . . . . 1 NO 2	
812	Can the virus that causes AIDS be transmitted from a mother to a child?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→814

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
813	Can the virus that causes AIDS be transmitted from a mother to a child: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREGNANCY . . 1 2 8 DURING DELIVERY . . . . . 1 2 8 BY BREASTFEEDING . . . 1 2 8	
814	CHECK 501: YES, CURRENTLY MARRIED/ LIVING WITH A WOMAN ☐ NO, NOT IN UNION ☐		→815A
815	Have you ever talked about ways to prevent getting the virus that causes AIDS with (your wife/the woman you are living with)?	YES . . . . . 1 NO 2	
815A	In your opinion, is it acceptable or unacceptable for AIDS to be discussed: On the radio? On the TV? In newspapers?	ACCEP-TABLE / NOT ACCEP-TABLE ON THE RADIO . . . . . 1 2 ON THE TV . . . . . 1 2 IN NEWSPAPERS 1 2	
816	If a person learns that he/she is infected with the virus that causes AIDS, should the person be allowed to keep this fact private or should this information be available to the community?	CAN BE KEPT PRIVATE . . . . . 1 AVAILABLE TO COMMUNITY . . . . . 2 DK/NOT SURE 8	
817	If a relative of yours became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
817A	Should persons with the AIDS virus who work with other persons such as in a shop, office, or farm be allowed to continue their work or not?	CAN CONTINUE WORK . . . . . 1 SHOULD NOT CONTINUE WORK . . 2 DK/NOT SURE/DEPENDS 8	
817B	Should children aged 12-14 be taught about using a condom to avoid AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
817BX	Do you think that condoms are safe to use?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
817BY	Do you think that men and women who intend to marry should be tested for the AIDS virus before marriage?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
817C	Have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→817FX
817D	Would you want to be tested for the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
817E	Do you know a place where you could go to get an AIDS test?	YES . . . . . 1 NO 2	→818

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
817F 817FX	Where can you go for the test? Where did you go for the test? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . 13 MOBILE CLINIC . . . . . 14 OTHER PUBLIC_____16 (SPECIFY) MISSION HOSPITAL . . . . . 21 HEALTH CENTER . . . . . 22 MOBILE CLINIC . . . . . 23 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . 31 PRIVATE DOCTOR . . . . . 32 MOBILE CLINIC . . . . . 33 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) BLM . . . . . 41 MACRO . . . . . 51 OTHER _____ 96 (SPECIFY)	
818	Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	→820C
820A	CHECK 514: HAS HAD SEXUAL INTERCOURSE ☐ HAS NOT HAD SEXUAL INTERCOURSE ☐		→821
820B	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a sexually-transmitted disease?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
820C	Sometimes, men experience a discharge from their penis. During the last 12 months, have you had a discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
820D	Sometimes, men experience a sore or ulcer on or near their penis. During the last 12 months, have you had a sore or ulcer on or near your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
820E	CHECK 820B, 820C, 820D: HAS HAD AN INFECTION ☐ HAS NOT HAD AN INFECTION ☐		→821
820F	The last time you had (INFECTION FROM 820B/820C/820D), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→820H
820G	The last time you had (INFECTION FROM 820B/820C/820D) did you do any of the following? Did you.... Go to a clinic, hospital, or private doctor? Consult a traditional healer? Seek advice or buy medicines in a shop or pharmacy? Ask for advice from friends or relatives?	YES NO 1 2 1 2 1 2 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
820H	When you had (INFECTION FROM 820B/820C/820D), did you inform the persons with whom you were having sex?	YES . . . . . 1 NO . . . . . 2 SOME/ NOT ALL 3	
820I	When you had (INFECTION FROM 820B/820C/820D) did you do something to avoid infecting your sexual partner(s)?	YES . . . . . 1 NO . . . . . 2 PARTNER ALREADY INFECTED . . . 3	→821
820J	What did you do to avoid infecting your partner(s)? Did you.... Stop having sex? Use a condom when having sex? Use medicine?	YES NO 1 2 1 2 1 2	
821	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SIGNATURE OF THE INTERVIEWER:_____DATE: _____

SUPERVISOR'S OBSERVATIONS

NAME OF THE SUPERVISOR:_____DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR:_____DATE: _____

UNICEF WORLD SUMMIT FOR CHILDREN: END-DECADE INDICATORS

APPENDIX **F**

World Summit for Children, End-Decade Indicators: Malawi 2000

		Value
	BASIC INDICATORS	
Childhood mortality	Under-five mortality rate (per 1,000 births)	188.6
	Infant mortality rate (per 1,000 births)	103.8
Maternal mortality	Maternal mortality ratio (deaths per 100,000 live births)	1,120
Childhood malnutrition	Percent underweight (children under 5 years)	
	Moderate (< -2 standard deviations)	25.4
	Severe (< -3 standard deviations)	5.9
	Percent stunted (children under 5 years)	
	Moderate (< -2 standard deviations)	49.0
	Severe (< -3 standard deviations)	24.4
	Percent wasted (children under 5 years)	
	Moderate (< -2 standard deviations)	5.5
	Severe (< -3 standard deviations)	1.2
Clean water supply	Percent of household residents with safe water supply	65.6
Sanitary excreta disposal	Percent of household residents with latrine or toilet	81.4
Basic education	Percent of children entering first grade of primary school who eventually reach standard 5	79.4
	Percent of children of primary-school age currently attending primary school	78.2
	Percent of children of school-entry age who are currently attending standard 1	42.9
	Female literacy rate	48.6
	Male literacy rate	72.1
	SUPPORTING INDICATORS	
Family planning	Contraceptive prevalence (married women)	30.6
	Contraceptive prevalence (all women)	25.0
Safe motherhood	Percent of births with medical prenatal care (1)	91.4
	Percent of births with medical assistance at delivery (2)	55.6
Low birth weight	Percent of births at low birth weight (below 2500 grams) (3)	13.1
Micronutrient intake	Percent of households with iodised salt	48.9
	Percent of children receiving vitamin A supplements	70.6
	Percent of mothers who received vitamin A supplements after birth (1)	41.7
	Percent of women who had night blindness while pregnant with last child (1)	4.3
Breastfeeding	Percent of infants less than 4 months of age exclusively breastfed	62.7
	Percent of infants 12-15 months still breastfeeding	97.8
	Percent of infants 20-23 months still breastfeeding	71.5
	Percent of infants 6-9 months receiving breast milk and complementary foods	93.4
Vaccinations	Percent of children 12-23 months receiving tuberculosis vaccine before 1st birthday	89.7
	Percent of children 12-23 months receiving DPT vaccine before 1st birthday	78.6
	Percent of children 12-23 months receiving polio vaccine before 1st birthday	72.7
	Percent of children 12-23 months receiving measles vaccine before 1st birthday	64.2
	Percent of children under one year, whose mother received at least two doses of tetanus toxoid vaccination (2)	61.0
Diarrhoea treatment	Percent of children with diarrhoea in preceding 2 weeks who received ORT (4)	62.1
	Percent of children with diarrhoea in preceding 2 weeks who received more fluids and continued eating somewhat less/the same/or more food	30.4
Acute respiratory infection	Percent of children with acute respiratory infection taken to a health facility	26.7
Childcare	Percent of children 0-14 years not living with both biological parents	38.9
	Percent of children 0-14 years who are orphans (both parents dead)	1.9
	Percent of children 5-14 years who are currently working	27.0
Malaria control	Percent of children who slept under a bednet the night before the survey	7.6
	Percent of children who had fever in previous 2 weeks who were treated with an appropriate antimalarial	27.0
HIV/AIDS	Percent of women who correctly stated 3 ways of avoiding HIV infection	48.9
	Percent of women who identified 3 misconceptions about HIV/AIDS	53.7
	Percent of women who correctly identified all 3 means of mother-to-child HIV transmission	56.2
	Percent of women expressing a discriminatory attitude towards people with HIV or AIDS	48.7
	Percent of women who stated knowledge of a place to be tested for HIV	70.0
	Percent of women who reported being tested for HIV	8.5

(1) Refers to last birth in the five years preceding the survey
(2) Refers to all births in the five years preceding the survey
(3) Based on recorded and recalled birth weight and perceived size at birth
(4) Includes ORS and/or increased fluids