

(P.N. A.B. 6-766

Malawi

Demographic and Health Survey 1992



National Statistical Office



Demographic and Health Surveys
Macro International Inc.

REPUBLIC OF MALAWI

**Malawi
Demographic and
Health Survey
1992**

National Statistical Office
Zomba, Malawi

Macro International Inc.
Calverton, Maryland USA

January 1994

This report summarises the findings of the 1992 Malawi Demographic and Health Survey (MDHS) conducted by the National Statistical Office, Zomba, Malawi. Macro International Inc. provided technical assistance. Funding was provided by the United States Agency for International Development (USAID).

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ABBREVIATIONS

ANC	Antenatal care
ARI	Acute respiratory infections
BCG	Bacille Bilié de Calmette et Guérin (vaccine)
BMI	Body mass index
CBR	Crude birth rate
CDC	Centers for Disease Control
CDD	Control of Diarrhoeal Diseases
CDR	Crude death rate
CEB	Children ever born
DC	Delivery care
DHS	Demographic and Health Surveys
DPT	Diphtheria - poliomyelitis - tetanus (vaccine)
EA	Enumeration area
EPI	Expanded Programme on Immunisation
FFS	Family Formation Survey
GDP	Gross domestic product
IEC	Information, education and communication
ISSA	Integrated system for survey analysis
IUCD	Intra-uterine cervical device
MDHS	Malawi Demographic and Health Survey
NCHS	National Center for Health Statistics (USA)
NGO	Non-governmental organisations
NPAC	National Population Advisory Committee
NSO	National Statistical Office
OPC	Office of the President and Cabinet
ORS	Oral rehydration salts
ORT	Oral rehydration therapy
PHC	Primary health care
SD	Standard deviation
TBA	Traditional birth attendant
TFR	Total fertility rate
UNICEF	United Nations Children's Fund
UN	United Nations
WHO	World Health Organisation

PREFACE

This final report presents the major findings of the Malawi Demographic and Health Survey (MDHS). The MDHS fieldwork was carried out by the National Statistical Office (NSO) from September to November 1992; the data were processed and ready for analysis by January 1993. The First Report, which provided a more limited set of demographic and health indices, was published in March 1993.

The primary objective of the Malawi Demographic and Health Survey was to provide up-to-date information for policymakers, planners and researchers that would allow guidance in the development and evaluation of health and population programmes. Specifically, the MDHS collected information on fertility levels, nuptiality, fertility preferences, knowledge and use of family planning methods, breastfeeding practices, nutritional status of mothers and children, early childhood morbidity and mortality, use of maternal and child health services, maternal mortality, AIDS awareness, and availability of basic health services.

The MDHS was a nationally representative sample survey designed to provide estimates of various demographic and health indices for the three regions of the country, urban and rural areas, and for the country as a whole. Three types of questionnaires were used: the Household Questionnaire, the Individual Female Questionnaire, and the Individual Male Questionnaire. The contents of these questionnaires were based on the DHS Model B Questionnaire, with modifications that were undertaken by the National Statistical Office in conjunction with the Ministry of Health and Macro International Inc. (Macro) of Columbia, Maryland (U.S.A).

I would like to thank Macro for providing technical assistance for the preparation, planning, implementation, and processing of the survey and for the printing of the first and this final report. I would also like to thank USAID for contracting Macro to carry out the MDHS and for providing the funding. Finally, I would like to thank all the members of the MDHS team at NSO who participated in this survey, and a special thanks goes to all of the many respondents who gave their time to make the survey a great success.

J. Nowa



Acting Commissioner for Census and Statistics

SUMMARY OF FINDINGS

The 1992 Malawi Demographic and Health Survey (MDHS) was a nationally representative sample survey designed to provide information on levels and trends in fertility, early childhood mortality and morbidity, family planning knowledge and use, and maternal and child health. The survey was implemented by the National Statistical Office during September to November 1992. In 5323 households, 4849 women age 15-49 years and 1151 men age 20-54 years were interviewed.

The findings indicate that fertility in Malawi has been declining over the last decade; at current levels a woman will give birth to an average of 6.7 children during her lifetime. Fertility in rural areas is 6.9 children per woman compared to 5.5 children in urban areas. Fertility is higher in the Central Region (7.4 children per woman) than in the Northern Region (6.7) or Southern Region (6.2). Over the last decade, the average age at which a woman first gives birth has risen slightly over the last decade from 18.3 to 18.9 years. Still, over one third of women currently under 20 years of age have either already given birth to at least one child or are currently pregnant.

Although 58 percent of currently married women would like to have another child, only 19 percent want one within the next two years. Thirty-seven percent would prefer to wait two or more years. Nearly one quarter of married women want no more children than they already have. Thus, a majority of women (61 percent) want either to delay their next birth or end childbearing altogether. This represents the proportion of women who are potentially in need of family planning. Women reported an average ideal family size of 5.7 children (i.e., wanted fertility), one child less than the actual fertility level measured in the survey—further evidence of the need for family planning methods.

Knowledge of contraceptive methods is high among all age groups and socioeconomic strata of women and men. Most women and men also know of a source to obtain a contraceptive method, although this varies by the type of method. The contraceptive pill is the most commonly cited method known by women; men are most familiar with condoms. Despite widespread knowledge of family planning, current use of contraception remains quite low. Only 7 percent of currently married women were using a modern method and another 6 percent were using a traditional method of family planning at the time of the survey. This does, however, represent an increase in the contraceptive prevalence rate (modern methods) from about 1 percent estimated from data collected in the 1984 Family Formation Survey. The modern methods most commonly used by women are the pill (2.2 percent), female sterilisation (1.7 percent), condoms (1.7 percent), and injections (1.5 percent). Men reported higher rates of contraceptive use (13 percent use of modern methods) than women. However, when comparing method-specific use rates, nearly all of the difference in use between men and women is explained by much higher condom use among men.

Early childhood mortality remains high in Malawi; the under-five mortality rate currently stands at 234 deaths per 1000 live births. The infant mortality rate was estimated at 134 per 1000 live births. This means that nearly one in seven children dies before his first birthday, and nearly one in four children does not reach his fifth birthday. The probability of child death is linked to several factors, most strikingly, low levels of maternal education and short intervals between births. Children of uneducated women are twice as likely to die in the first five years of life as children of women with a secondary education. Similarly, the probability of under-five mortality for children with a previous birth interval of less than 2 years is two times greater than for children with a birth interval of 4 or more years. Children living in rural areas have a higher rate of under-five mortality than urban children, and children in the Central Region have higher mortality than their counterparts in the Northern and Southern Regions.

Data were collected that allow estimation of maternal mortality. It is estimated that for every 100,000 live births, 620 women die due to causes related to pregnancy and childbearing.

The height and weight of children under five years old and their mothers were collected in the survey. The results show that nearly one half of children under age five are stunted, i.e., too short for their age; about half of these are severely stunted. By age 3, two-thirds of children are stunted. As with childhood mortality, chronic undernutrition is more common in rural areas and among children of uneducated women.

The duration of breastfeeding is relatively long in Malawi (median length, 21 months), but supplemental liquids and foods are introduced at an early age. By age 2-3 months, 76 percent of children are already receiving supplements.

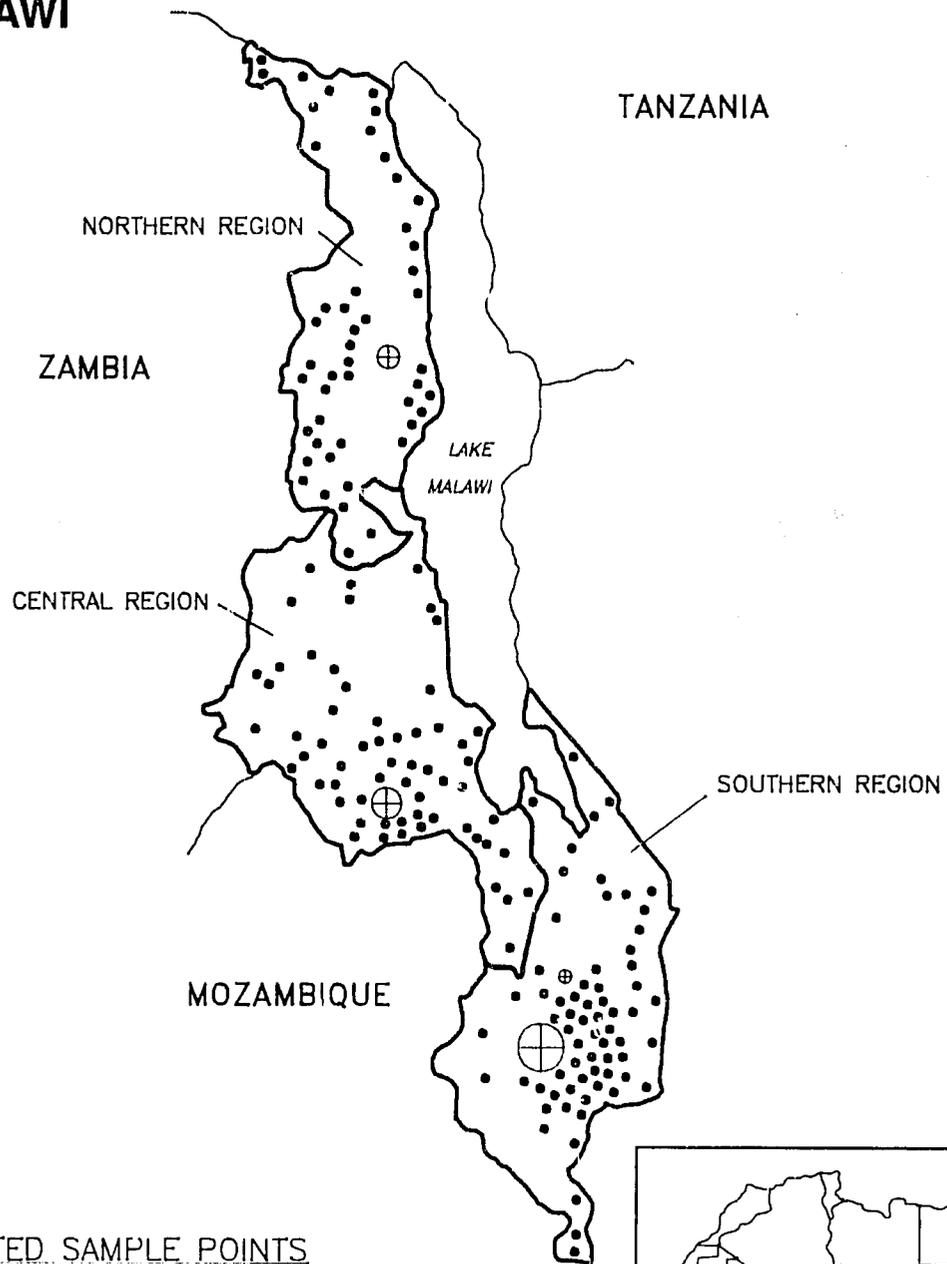
Mothers were asked to report on recent episodes of illness among their young children. The results indicate that children age 6-23 months are the most vulnerable to fever, acute respiratory infection (ARI), and diarrhoea. Over half of the children in this age group were reported to have had a fever, about 40 percent had a bout with diarrhoea, and 20 percent had symptoms indicating ARI in the two-week period before the survey. Less than half of recently sick children had been taken to a health facility for treatment. Sixty-three percent of children with diarrhoea were given rehydration therapy, using either prepackaged rehydration salts or a home-based preparation. However, one quarter of children with diarrhoea received less fluids than normal during the illness, and for 17 percent of children still being breastfed, breastfeeding of the sick child was reduced.

Use of basic, preventive maternal and child health services is generally high. For 90 percent of recent births, mothers had received antenatal care from a trained medical person, most commonly a nurse or trained midwife. For 86 percent of births, mothers had received at least one dose of tetanus toxoid during pregnancy. Over half of recent births were delivered in a health facility.

Child vaccination coverage is high; 82 percent of children age 12-23 months had received the full complement of recommended vaccines, 67 percent by exact age 12 months. BCG coverage and first dose coverage for DPT and polio vaccine were 97 percent. However, 9 percent of children age 12-23 months who received the first doses of DPT and polio vaccine failed to eventually receive the recommended third doses.

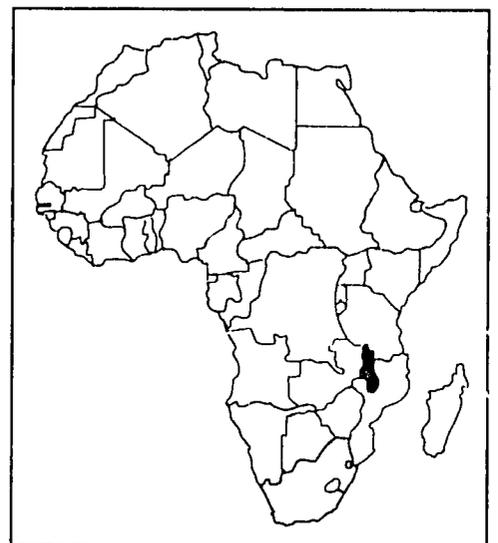
Information was collected on knowledge and attitudes regarding AIDS. General knowledge of AIDS is nearly universal in Malawi; 98 percent of men and 95 percent of women said they had heard of AIDS. Further, the vast majority of men and women know that the disease is transmitted through sexual intercourse. Men tended to know more different ways of disease transmission than women, and were more likely to mention condom use as a means to prevent spread of AIDS. Women, especially those living in rural areas, are more likely to hold misconceptions about modes of disease transmission. Thirty percent of rural women believe that AIDS can not be prevented.

MALAWI



SELECTED SAMPLE POINTS

- Rural and Small Urban Sample Points
- ⊕ 2 in Zomba Municipality
- ⊕ 7 in Mzuzu City
- ⊕ 15 in Lilongwe City (capital)
- ⊕ 17 in Blantyre City



CHAPTER 1

INTRODUCTION

1.1 Geography, History and the Economy

Geography

Malawi is a landlocked country 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 by the Republic of Zambia. It is 901 kilometres long and ranges in width from 80 to 161 kilometres. The country has a total area of 118,484 square kilometres, of which 94,276 square kilometres is land area. Fifty-six percent of the land area is arable.

Malawi's most striking topographic feature is the Rift Valley which runs through the entire length of the country, passing through Lake Malawi in the northern and central part of the country to the Shire Valley in the south. To the west and south of the lake are fertile plains and high mountain ranges whose main peaks range from 1,698 to 3,002 metres.

The country is divided into three administrative regions; Northern, Central and Southern. There are twenty-four districts, five in the Northern Region, nine in the Central Region and ten in the Southern Region. In each district there are Traditional Authorities (or chiefs) and the smallest administrative unit is the village. There are 43 Traditional Authorities in the Northern Region, 79 in the Central Region and 83 in the Southern Region.

Malawi experiences a tropical continental climate with some maritime influences. Rainfall and temperature are greatly influenced by the lake and altitude, which varies from 37 to 3,050 meters above sea level. From May to August, the climate is cool and dry. From September to November, average temperatures rise and the rainy season begins towards the end of this period. The rainy season extends to April or May.

History

Based on the examination of earliest human remains and stone-aged tools, people who are known as Abathwa, Akafula or Mwandionerakuti lived in Malawi since around 8000 BC. During the 9th Century AD, a group of people known by the name of Pule, Lenda or Katanga from the shores of Lake Tanganyika settled in Malawi. Between the 13th and 16th Century AD, Bantu speakers known as Maravi settled in central and southern Malawi. Those who eventually settled in central Malawi are known as Chewa while those who settled in southern Malawi are known as Mang'anja or Nyanja. The Tumbuka, Tonga, Ngonde, and Lambya eventually came to settle in northern Malawi. Later, during the 19th Century AD, the Ngoni, Yao, Lomwe and Sena settled in Malawi. It was also during this period that Europeans arrived in Malawi.

On 14th May 1891, the British declared the country a British Protectorate under the name of Nyasaland District Protectorate which was then changed to British Central African Protectorate in 1893. Opposition to colonial administration culminated in the uprising led by John Chilembwe in 1915. In 1953 the Federation of Rhodesia and Nyasaland, which was also known as the Central African Federation, was instituted comprising three countries, namely, Zimbabwe (then Southern Rhodesia), Zambia (then Northern Rhodesia) and Malawi (then Nyasaland) despite protests from Africans in Malawi through the Nyasaland African Congress, which was a nationalist movement founded in 1944. On 3rd March 1959 a state of emergency was declared by the colonial government and the Nyasaland African Congress, whose leaders

were arrested and detained, became a banned party. In September 1959 the Malawi Congress Party was formed and on 19th September 1959 the Malawi News was launched as the official organ of the Party.

On 15th August 1961 the first multiparty general election was held wherein four political parties contested. The Malawi Congress Party won all twenty seats on the lower roll plus two which it contested on the higher roll. As a result of the general election, the country formed an internal self-government. In April 1964 another general election was held wherein all candidates of the Malawi Congress Party were returned unopposed. On 6th July 1964 Nyasaland became the independent state of Malawi under the monarchical constitution which was replaced by a republican constitution as of 6th July 1966 when Malawi became a Republic and a one-party state. On 14th June 1993 a National Referendum was conducted which resulted in Malawi becoming a multiparty state.

The Economy

Malawi is predominantly an agricultural country. Agricultural produce accounts for 90 percent of Malawi's exports; tobacco, tea and cotton are the major export commodities. The country is largely self-sufficient in food.

The economy of Malawi improved in 1991 over performance in the three preceding years. Real gross domestic product (GDP) grew at a rate of 7.8 percent in 1991 compared to growth of 4.8 percent, 4.1 percent and 3.3 percent recorded in 1990, 1989 and 1988, respectively. The agricultural and distribution sectors accounted for most of the increase in real GDP.

1.2 Population and Family Planning Policies and Programmes

The major source of demographic data is the population census. Population censuses have been taken in Malawi during the years 1891, 1901, 1911, 1921, 1926, 1931, 1945, 1956, 1966, 1977 and 1987. Additional population data have been collected through nationwide demographic and other related surveys. These are the Malawi Population Change Survey in 1970-72, the Malawi Demographic Survey in 1982, the Malawi Labour Force Survey and the Survey of Handicapped Persons in 1983, and the Family Formation Survey in 1984. Table 1.1 provides some demographic indices for Malawi.

The population of Malawi is growing at a rate of around 3.2 percent per year based on the 1987 census, up from 2.9 percent in 1977 (this considers only natural or intrinsic growth and does not include refugee populations, estimated at about 1 million persons in 1992). The total Malawian population in the 1987 census was enumerated at around 8 million persons, having roughly doubled since the 1966 census. Given current growth rate estimates, the 1994 population will reach approximately 10 million

Table 1.1 Selected demographic indices for Malawi

Index	Census year		
	1966	1977	1987
Population ¹	4039583	5547460	7988507
Intercensal growth rate ²	-	2.9	3.2
Total area (sq. km.)	118484	118484	118484
Land area (sq. km.)	94079	94276	94276
Density (pop./sq. km.)	43	59	85
Percentage urban	5.0	8.5	10.7
Women of childbearing age as percentage of female population	47.6	45.1	44.2
Sex ratio	90	93	94
Crude birth rate	-	48.3	41.2
Total fertility rate	-	7.6	7.6 ³
Crude death rate	-	25.0	14.1
Infant mortality rate	-	165	151 ³
Life expectancy:			
Male	-	39.2	41.4
Female	-	42.4	44.6

¹De facto population

²Natural increase; excludes migration, refugees

³Based on the 1984 Family Formation Survey

persons. With a doubling of the size of Malawi's population over the last two decades has come a doubling of the population density from 43 to 85 persons per square kilometre during the period 1966 to 1987. By 1994, Malawi's population density will exceed 100 persons per square kilometre.

A national population policy for Malawi has been prepared. The policy aims at achieving lower population growth rates compatible with attainment of the country's social and economic objectives in addition to reducing morbidity and mortality among mothers and children. It aims at improving the status of mothers and children in all spheres of development as well as improving information, education and communication on the use of contraceptives and benefits of small family sizes. In the education sector, the policy will enhance the relevance of formal and informal education. The policy stresses the importance of the creation of employment and food self-sufficiency especially for pregnant and lactating mothers as well as children. Last but not least, the policy aims at improving the collection, analysis and dissemination of demographic, environment and employment data, by gender, and the utilisation of these data for social and economic planning.

A technical secretariat for the National Population Advisory Committee (NPAC) composed of all relevant ministries and non-government organisations (NGOs) was recently established in the Office of the President and Cabinet (OPC). The Secretariat's overall responsibility is to coordinate and monitor the implementation of population programmes and projects and to develop population guidelines for the country.

1.3 Health Priorities and Programmes

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

In Malawi, the provision of curative services takes a large proportion of the total government funds allocated to the health sector. The lack of an effective outreach capacity in the system has been recognised by the Ministry of Health, and strategies for creating a community-based distribution system are being implemented despite a severe lack of trained medical personnel in the country. Currently, the government is developing a health policy with the goal of achieving health for all by the year 2000.

1.4 Objectives, Organisation, and Design of the Survey

Objectives

The Malawi Demographic and Health Survey (MDHS) was a national sample survey of women and men of reproductive age designed to provide, among other things, information on fertility, family planning, child survival, and health of mothers and children. Specifically, the main objectives of the survey were to:

- Collect up-to-date information on fertility, infant and child mortality, and family planning
- Collect information on health-related matters, including breastfeeding, antenatal and maternity services, vaccinations, and childhood diseases and treatment
- Assess the nutritional status of mothers and children
- Collect information on knowledge and attitudes regarding AIDS

- Collect information suitable for the estimation of mortality related to pregnancy and childbearing
- Assess the availability of health and family planning services.

Organisation

The MDHS was conducted by the National Statistical Office (NSO) from September to November 1992. Financial support for the survey was provided by the United States Agency for International Development (USAID) while technical assistance was provided by Macro International Inc. (Macro) of Columbia, Maryland (USA) through its contract with USAID.

Survey Design

Based on the 1987 Malawi Population and Housing Census, the country is demarcated into 8,652 enumeration areas (EAs) of roughly equal population size. This sampling frame of census EAs was stratified by urban and rural areas within each of the three administrative regions, making six sampling strata in total. Within each sampling stratum, districts were geographically ordered, thereby providing additional implicit stratification.

The MDHS sample of households was selected in two stages. First, 225 EAs were selected from the 1987 census frame of EAs with probability proportional to population size. The distribution of selected sample points (EAs) is shown in the map of Malawi on page xx. The measure of EA size was based on the number of households enumerated during the 1987 census. NSO staff, after being trained in listing procedures and methods for updating maps, were sent to the selected EAs to list all households and produce maps which provided the orientation for later data collection teams in finding selected households. Households in refugee camps and institutional populations (army barracks, police camps, hospitals, etc.) were not listed. In the second stage, a systematic sample of households was selected from the above lists, with the sampling interval from each EA being proportional to its size based on the results of the household listing operation.

In these households, all women age 15-49 years were eligible for interview. Further, a one-in-three systematic subsample of households was drawn, within which both eligible men age 20-54 years and women age 15-49 years were interviewed.

Because the objective of the survey was to produce region-level and urban/rural estimates of some indicators, an oversample of households in the Northern Region and in urban areas was necessary. Thus the MDHS sample is not self-weighting at the national level, but it is self-weighting within each of the six region/urban-rural strata.

Four types of questionnaires were used: the Household Questionnaire, the Individual Female Questionnaire, the Individual Male Questionnaire, and the Health Services Availability Questionnaire. The contents of these questionnaires were based on the DHS Model B Questionnaire, which is designed for use in countries with a low level of contraceptive use. Modification of the questionnaires was undertaken by NSO in consultation with the Ministry of Health and Macro. The questionnaires were pretested in April 1992. Approximately 250 interviews were conducted over a two-week period, and further adjustments to the questionnaires were made based on lessons drawn from the interviews and analysis of the data.

The Household Questionnaire was used to list all the usual members and visitors of selected households. A household is defined as one that consists of one or more persons, related or unrelated, who make common provisions for food, or who regularly take all their food from the same pot or same grainstore (Nkhokwe), or who pool their incomes for the purpose of purchasing food. Persons in a household may live in one or more dwelling units. Information was collected on the characteristics of each person listed, including his/her age, sex, education, and relationship to the head of the household. The main purpose of the Household Questionnaire was to identify women who were eligible for individual interview, namely, those age 15-49 years.

For those women who were either absent or could not be interviewed during the first visit, a minimum of three visits were made before recording nonresponse. Women were interviewed with the individual female questionnaire. In the course of administering the household questionnaire, eligible men, namely, those age 20-54 were also identified. The individual male questionnaire was administered to all men age 20-54 living in every third household in the selected sample. The male questionnaire collected much of the same information found in the female questionnaire, but was considerably shorter because it did not contain questions on reproductive history, and maternal and child health.

During the household listing operation (i.e., before the main survey), one Health Services Availability Questionnaire was completed in each of the 225 MDHS sample points. Leaders in the community provided information that allowed an assessment of the availability of health and family planning services to persons living in the respective localities.

A three-week training course for the main survey was held in July and August of 1992. A total of 80 field staff was trained. The training course consisted of instruction in general interviewing techniques, field procedures, a detailed review of items on the questionnaires, instruction and practice in weighing and measuring children, mock interviews between participants in the classroom, and practice interviews in areas outside MDHS sample points. Only trainees who performed satisfactorily in the training programme were selected for fieldwork. Team leaders were NSO staff who had previously participated in the MDHS pretest.

1.5 Data Collection and Data Processing

The fieldwork for the MDHS was carried out by ten interviewing teams, each consisting of one team leader, one field editor, five female interviewers, one male interviewer and one driver. Additionally, senior NSO staff coordinated and supervised fieldwork activities. Data collection began 1 September and was completed on 10 November 1992.

Table 1.2 shows the results of household and individual interviews for the urban and rural sample and for Malawi as a whole. A more detailed presentation of interview results by region and urban-rural residence is given in Appendix A. A total of 5,811 households was selected in the MDHS sample, of which 5,396 were currently occupied. Of the 5,396 occupied households, 5,323 were interviewed, yielding a

Table 1.2 Results of the household and individual interviews

Number of households, number of interviews, and response rates, Malawi 1992

Result	Urban	Rural	Malawi
Households sampled	1413	4398	5811
Households occupied	1360	4036	5396
Households interviewed	1339	3984	5323
HOUSEHOLD RESPONSE RATE	98.5	98.7	98.6
Eligible women	1359	3661	5020
Eligible women interviewed	1316	3533	4849
ELIGIBLE WOMEN RESPONSE RATE	96.8	96.5	96.6
Eligible men	416	872	1288
Eligible men interviewed	364	787	1151
ELIGIBLE MEN RESPONSE RATE	87.5	90.3	89.4

household response rate of 98.6 percent. Rural and urban response rates at the household level did not differ significantly.

Within the interviewed households, 5020 eligible women (15-49 years) were identified of which 4849 were interviewed, yielding an individual female response rate of 96.6 percent. In the one-in-three subsample of households, 1,288 eligible men were identified, of which 1,151 were successfully interviewed (89.4 percent response). The principal reason for nonresponse among both eligible men and women was the failure to find them at home despite repeated visits to the household. The lower response rate among men than women was due to more frequent and longer-term absence of men. The refusal rate in the MDHS was extremely low (0.1 percent).

Response rates were marginally better in rural areas than in urban areas in the male survey (rural, 90.3 percent; urban, 87.5 percent), but nearly the same in the female survey (rural, 96.5 percent; urban, 96.8 percent).

Completed questionnaires were returned to NSO for data processing. The processing operation consisted of office editing, coding of open-ended questions, data entry and editing of errors found by the computer programs. Data entry, editing, and analysis were accomplished on personal computers, using a software program called ISSA (Integrated System for Survey Analysis). Data processing started on 14 September 1992 and was completed on 21 January 1993.

CHAPTER 2

CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS

2.1 Introduction

An understanding of the background characteristics of the households interviewed in the survey and the individual survey respondents is essential to the interpretation of the MDHS data and provides an indication of the representativeness of the survey sample. Information on age and educational level of household members, household composition, and household possessions and amenities was collected in the survey. This chapter presents this information in three parts:

- Demographic characteristics of households
- Economic and environmental characteristics of households
- Characteristics of survey respondents.

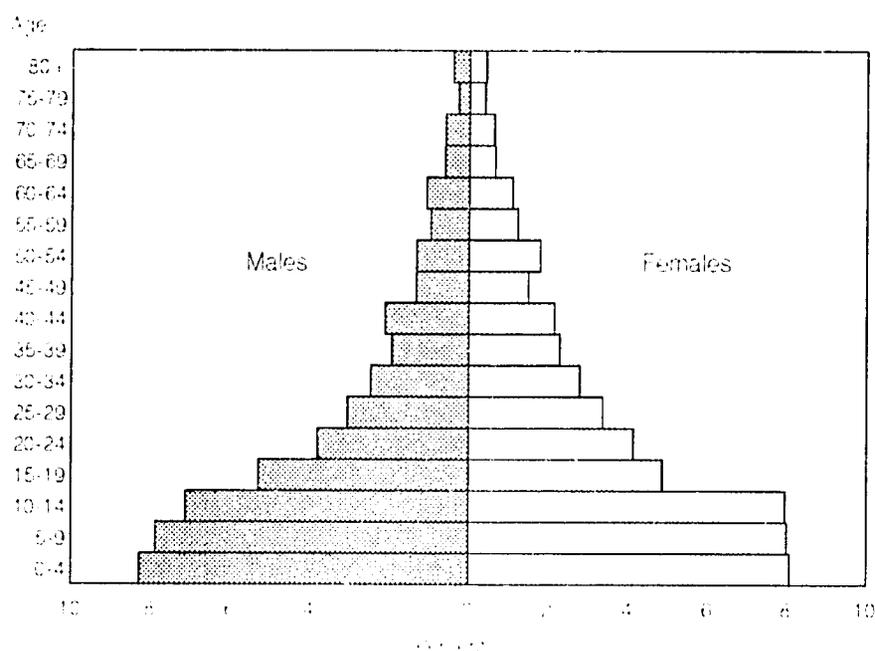
2.1 Demographic Characteristics of Households

Age Structure

The age distribution of the household population in the MDHS is shown in Table 2.1. The age structure, depicted by way of the population pyramid in Figure 2.1, is one typical of high-fertility populations,

Age group	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	14.8	15.3	15.0	17.3	15.7	16.5	17.0	15.7	16.3
5-9	15.1	15.3	15.2	16.4	15.6	16.0	16.2	15.5	15.9
10-14	12.3	19.0	15.5	15.0	15.0	15.0	14.7	15.5	15.1
15-19	12.6	9.7	11.2	10.6	9.4	10.0	10.9	9.4	10.2
20-24	9.9	10.1	10.0	7.5	7.8	7.6	7.8	8.0	7.9
25-29	8.8	9.0	8.9	5.9	6.3	6.1	6.3	6.6	6.4
30-34	7.7	6.3	7.0	4.7	5.3	5.0	5.1	5.4	5.3
35-39	4.9	4.7	4.8	3.9	4.4	4.2	4.0	4.5	4.2
40-44	4.5	3.0	3.7	4.3	4.4	4.3	4.3	4.2	4.3
45-49	2.8	1.9	2.4	2.7	3.1	2.9	2.7	2.9	2.8
50-54	2.5	2.2	2.3	2.7	3.7	3.2	2.7	3.5	3.1
55-59	1.3	1.1	1.2	2.1	2.6	2.4	2.0	2.4	2.2
60-64	1.4	0.9	1.2	2.3	2.3	2.3	2.2	2.1	2.2
65-69	0.4	0.6	0.5	1.4	1.4	1.4	1.3	1.3	1.3
70-74	0.4	0.3	0.3	1.4	1.3	1.4	1.2	1.2	1.2
75-79	0.2	0.4	0.3	0.6	0.8	0.7	0.6	0.7	0.7
80+	0.4	0.3	0.4	0.9	0.9	0.9	0.8	0.8	0.8
Don't know/Missing	0.1	0.0	0.1	0.2	0.1	0.1	0.2	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1464	1334	2798	9770	10518	20288	11234	11853	23087

Figure 2.1
Population Pyramid of Malawi



MDHS 1992

i.e., a very wide-based population pyramid indicating large numbers of recent births relative to the adult population. A comparison of urban and rural age distributions indicates an excess of adult males in the urban setting and an excess of adult females in the rural setting.

Table 2.2 shows the percentage distribution of the de facto household population under age 15, 15-64 years old, and 65 years and older indicated by the 1966, 1977 and 1987 national censuses, and the 1992 MDHS. The percentage of the population under age 15 years has risen from 43.9 percent in 1966 to 47.3

Table 2.2 Population by age from selected sources

Percent distribution of the population by age group and dependency ratio, from 1992 MDHS and 1966, 1977, and 1987 censuses, Malawi 1992

Age group	MDHS 1992		Census		
	De jure	De facto	1987	1977	1966
Less than 15	46.6	47.3	46.0	44.6	43.9
15-64	49.2	48.6	50.0	50.9	52.1
65+	4.1	4.0	4.0	4.5	4.0
Don't know/Missing	0.1	0.1	-	-	-
Total	100.0	100.0	100.0	100.0	100.0
Dependency ratio		1.05	1.00	0.96	0.92

percent in 1992. Consequently, over the period 1966 to 1992, the dependency ratio¹ has risen from 0.92 in 1966, to 0.96 in 1977, to 1.00 in 1987, to 1.05 in 1992.

There exists a substantial difference in the dependency ratio between urban and rural settings, due to a larger proportion of the population in rural areas at ages under 15 and ages over 64. For each person 15-64 years old in rural areas, there are 1.08 dependents in the household; in urban areas the dependency ratio is 0.90.

Size of Households and Relationship Structure

Table 2.3 gives the percentage distribution of households by sex of the household head, size of the household, relationship structure within the household, and presence of foster children² in the household. Three-quarters of Malawian households are headed by a man. Thirteen percent of urban households are headed by a woman compared to 26 percent of rural households.

The average number of persons living in a household is 4.5. Urban households tend to be larger (4.8 persons) than rural households (4.4 persons). This pattern is typical of countries in this region and is evidently due to a greater percentage of urban households having a very large number (9+) of members. The most common relationship structure was one where two adults of the opposite sex lived together in the household (44 percent). Of the remaining households, most had 3 adult members who were related (29 percent). Interestingly, rural households were nearly 50 percent more likely than urban households to have only one adult resident. Urban households, on the other hand, were twice as likely as rural households to have an "other" arrangement, which in large part represents households with large numbers of adult residents. The MDHS also found that a greater percentage of urban households than rural households contained foster children.

Table 2.3 Household composition

Percent distribution of households by sex of head of household, household size, kinship structure, and presence of foster children, according to urban-rural residence, Malawi 1992

Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male	87.4	73.9	75.4
Female	12.6	26.1	24.6
Number of usual members			
1	9.1	7.9	8.1
2	14.2	15.4	15.3
3	13.7	17.2	16.8
4	14.2	16.5	16.3
5	12.2	14.1	13.8
6	11.0	10.9	10.9
7	8.3	7.1	7.3
8	6.6	4.7	4.9
9+	10.6	6.1	6.6
Mean size	4.8	4.4	4.5
Relationship structure			
One adult	12.8	18.8	18.1
Two related adults:			
Of opposite sex	41.5	44.8	44.4
Of same sex	4.5	4.2	4.2
Three or more related adults	32.3	28.0	28.5
Other	8.6	4.0	4.6
With foster children	24.0	19.2	19.8

¹The dependency ratio is the ratio of persons 0-14 years and 65 years and older over persons 15-64 years.

²A foster child is a child under 15 years, neither of whose parents live in the same household as the child.

Education Level of Household Members

Tables 2.4.1 and 2.4.2 present the distribution of the de facto population of household members by level of education by sex and five-year age group. For Malawi as a whole, 30 percent of males and 48 percent of females had never been to school. Once having attended school, males also tended to stay in school longer than females; 6 percent of males had been to secondary school compared with only 2 percent for females. Looking at changes by age group in the percentage never attending school, male non-attendance starts to rise only after age 35-39, whereas the same occurs to females starting at age 15-19, indicating a more recent improvement in school attendance for females. In the youngest age groups, which better reflect the current situation, attendance among boys and girls is nearly equal.

Background characteristic	Level of education				Total	Number of men	Median number of years
	None	Primary 1-4	Primary 5-8	Secondary+			
Age							
5-9	56.4	43.2	0.3	0.1	100.0	1815	0.0
10-14	22.3	65.0	12.6	0.2	100.0	1645	2.4
15-19	19.5	34.3	42.2	4.0	100.0	1224	4.6
20-24	23.0	26.2	36.2	14.6	100.0	876	5.1
25-29	20.1	20.8	43.6	15.5	100.0	702	5.9
30-34	20.2	21.2	43.6	15.0	100.0	566	6.2
35-39	20.1	23.2	41.6	15.0	100.0	448	5.8
40-44	24.0	29.4	35.8	10.8	100.0	488	4.6
45-49	22.1	25.3	45.2	7.3	100.0	305	5.3
50-54	26.2	35.8	29.9	8.1	100.0	303	4.2
55-59	34.7	36.4	26.6	2.3	100.0	224	3.2
60-64	40.0	30.0	26.4	3.5	100.0	247	2.6
65+	42.3	35.0	21.4	1.3	100.0	435	2.4
Don't know/Missing	85.6	0.0	3.9	10.5	100.0	12	0.0
Residence							
Urban	14.3	28.6	36.4	20.7	100.0	1241	6.1
Rural	32.7	39.2	24.3	3.8	100.0	8050	2.4
Region							
Northern	13.0	38.1	38.1	10.8	100.0	1108	4.9
Central	33.2	36.8	25.1	4.9	100.0	3611	2.5
Southern	32.1	38.5	23.6	5.8	100.0	4572	2.5
Total	30.2	37.8	25.9	6.1	100.0	9291	2.8

Tables 2.4.1 and 2.4.2 also show school attendance by urban-rural residence and region. Three-quarters of females and 86 percent of males in the urban areas have been to school; 11 percent of females and 21 percent of males go to secondary school or beyond. But for the nearly 90 percent of Malawi's population that live in rural areas, educational attainment is much lower, with over half of females and nearly one third

Table 2.4.2 Educational level of the household population - females

Percent distribution of the de facto female household population age five and over by highest level of education attended, according to selected background characteristics, Malawi 1992

Background characteristic	Level of education				Total	Number of women	Median number of years
	None	Primary 1-4	Primary 5-8	Secondary+			
Age							
5-9	52.7	46.9	0.3	0.0	100.0	1833	0.0
10-14	27.2	59.2	13.4	0.2	100.0	1832	2.2
15-19	30.3	32.1	33.5	4.1	100.0	1118	3.5
20-24	40.9	24.4	28.1	6.6	100.0	953	2.9
25-29	44.7	23.1	27.0	5.3	100.0	778	2.1
30-34	55.8	21.4	18.4	4.4	100.0	645	0.0
35-39	58.5	22.4	15.7	3.4	100.0	529	0.0
40-44	57.3	25.6	14.9	2.1	100.0	498	0.0
45-49	69.5	18.2	11.2	1.1	100.0	347	0.0
50-54	69.5	24.3	5.8	0.4	100.0	417	0.0
55-59	73.2	21.5	5.3	0.0	100.0	283	0.0
60-64	68.3	27.0	4.7	0.0	100.0	254	0.0
65+	77.1	18.5	4.5	0.0	100.0	479	0.0
Don't know/Missing	64.3	35.7	0.0	0.0	100.0	8	0.0
Residence							
Urban	24.8	34.7	29.2	11.2	100.0	1130	3.7
Rural	50.9	35.0	13.1	1.0	100.0	8847	0.0
Region							
Northern	25.2	40.3	30.4	4.1	100.0	1153	3.1
Central	49.2	35.9	13.0	1.9	100.0	3953	0.9
Southern	52.3	32.9	12.9	1.9	100.0	4870	0.0
Total	47.9	34.9	15.0	2.2	100.0	9976	1.0

of males never having attended school. Only 1 percent of females and 4 percent of males have reached secondary school level in rural Malawi. The MDHS data show that the Northern Region has significantly higher levels of school attendance than the Central and Southern Regions, which have roughly similar levels. Northern residents are half as likely as persons who live in the rest of the country to have never been to school and twice as likely to have ever attended secondary school. This pattern is exhibited among both males and females.

Current School Enrolment

Table 2.5 shows the percentage distribution of the de facto household population 6-24 years of age currently enrolled in school by age, sex and urban-rural residence.

According to the MDHS, 52 percent of children age 6-10 were enrolled in school at the survey date. The percentage enrolment rises to 66 percent in the age group 11-15 years and begins to fall thereafter, reaching 10 percent in the age group 21-24 years. About three-quarters of urban 6-10 year-olds are currently

Table 2.5 School enrolment

Percentage of the de facto household population age 6-24 years enrolled in school, by age group, sex, and urban-rural residence, Malawi 1992

Age group	Male			Female			Total		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
6-10	71.9	48.1	50.8	75.7	51.1	53.8	73.9	49.6	52.3
11-15	83.5	67.5	69.4	74.7	61.5	63.3	78.6	64.5	66.3
6-15	77.4	57.0	59.3	75.2	55.8	58.2	76.2	56.4	58.7
16-20	58.1	49.0	50.5	44.8	20.7	23.4	52.4	34.2	36.7
21-24	23.2	12.3	14.1	10.7	4.6	5.5	17.0	8.4	9.7

enrolled, compared with 50 percent in rural areas. Girls are only slightly less likely than boys to be enrolled in school in rural areas during ages 6-15. But for ages 16-20 and 21-24, percentage enrolment drops off much more sharply for females than males. In conclusion, while girls and boys apparently receive roughly the same opportunity to start school, boys have a greater chance to stay in school and reach more advanced levels. This gender-related differential is particularly marked in rural areas.

2.2 Economic and Environmental Characteristics of Households

In order to assess the economic and environmental characteristics of households, a series of questions was asked of household respondents regarding features of their dwelling units. In addition to reflecting the socioeconomic status of a household, source of water, method of excreta disposal, and crowding conditions are important determinants of the health status of household members.

Table 2.6 shows that about 20 percent of urban households and 1 percent of rural households have access to electricity in the home. Overall, 3 percent of Malawian households have electricity.

The vast majority of urban households (82 percent) have access to piped water, but most of these get water from a public tap (49 percent). Sixty-four percent of rural households, on the other hand, obtain their water from a well; 24 percent from a protected (covered) well, and 41 percent from an unprotected well. At the national level, over half (53 percent) of all households obtain their water from a source that can be considered unsafe (i.e., unprotected well or natural sources).

Over two-thirds of households use a traditional pit latrine; 82 percent of urban households and 68 percent of rural households. In urban areas, the second most common method of excreta disposal is a flush toilet (14 percent), either in one's own household (12 percent) or shared with other households (2 percent). In rural areas, nearly all of the households that do not use a traditional pit latrine do not use any toilet or latrine facility (31 percent).

The large majority of households live in dwellings with floors made of packed earth (87 percent). About 93 percent of rural households have mud/earth floors compared with 44 percent in urban households. Households having cement floors were much more common in urban areas (55 percent) than in rural areas (7.1 percent).

Table 2.6 Housing characteristics

Percent distribution of households by housing characteristics, according to urban-rural residence, Malawi 1992

Housing characteristic	Residence		Total
	Urban	Rural	
Electricity			
Yes	19.8	1.1	3.2
No	80.1	98.9	96.8
Total	100.0	100.0	100.0
Source of drinking water			
Piped into residence	11.1	0.6	1.8
Piped into yard/plot	22.5	1.2	3.6
Public tap	48.5	16.2	19.8
Protected well	8.8	23.6	21.9
Unprotected well	6.7	40.7	36.9
River/Stream/Spring	1.0	15.8	14.2
Lake/Pond/Dam	1.2	1.7	1.6
Don't know/Missing	0.2	0.1	0.1
Total	100.0	100.0	100.0
Sanitation facility			
Own flush	11.6	0.3	1.6
Shared flush	2.4	0.3	0.5
Traditional pit latrine	81.7	67.9	69.5
Vent. imp. pit latrine	1.2	0.6	0.7
No facility/Bush	3.1	30.8	27.7
Don't know/Missing	0.1	0.0	0.0
Total	100.0	100.0	100.0
Flooring			
Mud/Earth	43.7	92.6	87.1
Cement	54.7	7.1	12.5
Other	1.6	0.3	0.4
Total	100.0	100.0	100.0
Persons per sleeping room			
1-2	57.3	55.6	55.8
3-4	34.4	33.4	33.5
5-6	5.8	8.0	7.7
7+	1.5	2.5	2.3
Missing/Don't know	1.0	0.6	0.6
Total	100.0	100.0	100.0
Mean persons per room	2.7	2.8	2.8
Number of households	603	4720	5323

As a measure of household crowding and the potential for spread of infection among household members, the number of persons per the room used for sleeping was calculated. Crowding conditions varied little between urban and rural households. The mean number of household members per sleeping room was 2.8 in rural areas and 2.7 for urban areas. For the country as a whole, 56 percent of households sleep with 1 or 2 persons per room and 34 percent with 3-4 persons per room. About 10 percent of households have 5 or more persons per sleeping room.

Household Durable Goods

Table 2.7 gives the percentage of households possessing a radio, a paraffin lamp, a bicycle, a motorcycle, a car, or an oxcart. For the country as a whole, about 33 percent of households had radios in working condition; 65 percent in urban areas and 29 percent in rural areas.

The majority of the households (83 percent) reported possessing a paraffin lamp; this percentage did not vary substantially by urban-rural residence. Possession of a bicycle was slightly more common in rural households (22 percent) than in urban households (17 percent), but was more than offset by the much more frequent possession of motorised vehicles (motorcycles and cars) in urban households.

Table 2.7 Household durable goods

Percentage of households possessing specific durable consumer goods, by urban-rural residence, Malawi 1992

Durable goods	Residence		Total
	Urban	Rural	
Radio	65.1	28.6	32.8
Paraffin lamp	83.9	82.5	82.6
Bicycle	17.0	21.8	21.2
Motorcycle	2.6	0.7	0.9
Car	6.1	0.5	1.1
Oxcart	0.8	3.0	2.8
Number of households	603	4720	5323

2.3 Characteristics of Survey Respondents

A person's age, marital status, educational level, and residence have an important influence on decisions regarding health and family planning. Tables 2.8.1 and 2.8.2 show the percentage distribution of all women (15-49 years) and men (20-54 years) interviewed in the survey according to age group, marital status, education level, urban-rural residence, and region of the country.

Nearly a quarter of male respondents are in the youngest age group interviewed, 20-24 years, while 22 percent of female respondents are 15-19 years of age. As expected, the percentage of men and women in each age group declines with increasing age. Despite the older average age of males interviewed, a larger percentage of male respondents reported never having been married (19 percent) than female respondents (16 percent). Similarly, more men (7 percent) are in an informal union than women (3 percent). On the other hand, women respondents are more likely than men to be widowed (3 versus 1 percent), divorced (7 versus 3 percent), or separated (3 versus 2 percent).

All women and men interviewed in the MDHS were asked if they attended school. Those who had attended were further asked the highest level that they achieved according to Malawi's formal education system, and at that level, how many years had they completed. Respondents were grouped into four education categories: those with no education, those with 1-4 years of primary education, those with 5-8 years of primary education and those with at least some secondary education or above. The distribution of respondents by educational attainment parallels that already reported using the household data.³ That is, male respondents have more commonly attended school at all and have progressed to more advanced educational levels than female respondents. Only 4 percent of female respondents and 14 percent of males have had some secondary education.

³The figures differ slightly from those presented using the household data because here the information comes directly from the respondent, whereas in the household data, information concerning the respondent's education may be reported by someone else (i.e., any competent household member).

Table 2.8.1 Background characteristics of respondents - males

Percent distribution of men by selected background characteristics, Malawi 1992

Background characteristic	Weighted percent	Number of men	
		Weighted	Un-weighted
Age			
20-24	24.1	277	270
25-29	17.8	205	222
30-34	14.6	168	175
35-39	12.4	143	140
40-44	13.9	160	158
45-49	8.2	95	95
50-54	8.9	102	91
Marital status			
Never married	18.5	213	229
Married	68.1	784	777
Living together	7.1	81	69
Widowed	0.9	10	12
Divorced	3.2	37	36
Separated	2.2	26	28
Education			
No education	20.5	236	183
Primary 1-4	29.1	335	267
Primary 5-8	36.7	423	460
Secondary+	13.6	157	241
Residence			
Urban	15.8	181	364
Rural	84.2	970	787
Region			
Northern	12.0	139	345
Central	38.5	443	381
Southern	49.4	569	425
All men	100.0	1151	1151

Table 2.8.2 Background characteristics of respondents - females

Percent distribution of women by selected background characteristics, Malawi 1992

Background characteristic	Weighted percent	Number of women	
		Weighted	Un-weighted
Age			
15-19	22.3	1082	1105
20-24	19.5	944	990
25-29	16.0	777	804
30-34	13.5	656	664
35-39	11.1	537	517
40-44	10.5	510	458
45-49	7.1	343	311
Marital status			
Never married	15.7	761	839
Married	68.8	3335	3347
Living together	3.2	157	142
Widowed	2.5	121	121
Divorced	6.8	329	266
Separated	3.0	146	134
Education			
No education	47.2	2287	1834
Primary 1-4	24.6	1192	1117
Primary 5-8	23.9	1157	1515
Secondary+	4.4	212	382
Residence			
Urban	12.3	594	1316
Rural	87.7	4255	3533
Region			
Northern	11.9	578	1442
Central	38.6	1872	1606
Southern	49.5	2398	1801
All women	100.0	4849	4849

The data indicate that 12 percent of women age 15-49 years live in urban areas. There are slightly more men (16 percent) age 20-54 years that live in the urban areas, reflecting a pattern of rural-urban migration. About half of women live in the Southern Region, 39 percent in the Central Region, and 12 percent in the Northern Region. The distribution of interviewed men by region is the same as that for women.

Respondent Level of Education by Background Characteristics

Table 2.9 presents the percentage distribution of interviewed women and men by educational level attained according to age, urban-rural residence, and region. Education is inversely related to age, that is,

Table 2.9 Level of education						
Percent distribution of women and men by highest level of education attended, according to selected background characteristics, Malawi 1992						
Background characteristic	Level of education				Total	Number
	None	Primary 1-4	Primary 5-8	Secondary+		
MALES						
Age						
20-24	18.1	26.0	39.6	16.3	100.0	277
25-29	19.9	25.4	39.5	15.1	100.0	205
30-34	18.8	28.4	36.0	16.8	100.0	168
35-39	14.0	26.2	44.9	14.8	100.0	143
40-44	21.2	37.1	32.2	9.5	100.0	160
45-49	27.1	26.6	37.1	9.3	100.0	95
50-54	33.1	40.2	19.9	6.9	100.0	102
Residence						
Urban	9.2	11.5	37.1	42.1	100.0	181
Rural	22.6	32.4	36.7	8.3	100.0	970
Region						
Northern	7.7	15.0	52.7	24.6	100.0	139
Central	23.2	25.7	41.4	9.8	100.0	443
Southern	21.6	35.3	29.2	13.9	100.0	569
Total	20.5	29.1	36.7	13.6	100.0	1151
FEMALES						
Age						
15-19	28.9	32.8	33.8	4.5	100.0	1082
20-24	41.5	24.2	28.1	6.3	100.0	944
25-29	44.8	23.5	26.5	5.2	100.0	777
30-34	56.8	19.5	18.9	4.7	100.0	656
35-39	59.6	20.9	16.0	3.5	100.0	537
40-44	58.0	24.6	15.3	2.0	100.0	510
45-49	71.5	17.5	10.1	0.9	100.0	343
Residence						
Urban	22.7	17.6	38.8	20.9	100.0	594
Rural	50.6	25.6	21.8	2.1	100.0	4255
Region						
Northern	20.2	23.2	48.7	7.9	100.0	578
Central	48.7	25.2	22.1	4.0	100.0	1872
Southern	52.4	24.5	19.3	3.8	100.0	2398
Total	47.2	24.6	23.9	4.4	100.0	4849

older women and men are typically less educated than younger women and men. For example, 72 percent of women and 27 percent of men 45-49 years old have not been to school, compared to 42 percent and 18 percent for 20-24 year-old women and men, respectively.

Rural men and women are educationally disadvantaged compared to those in urban areas. Whereas 42 percent of urban men and 21 percent of urban women have been to secondary school, only 8 percent of rural men and 2 percent of rural women have done so. Rural men and women are twice as likely to have never been to school than their urban counterparts. Regional differentials also exist. Northern men and women tend to have much greater educational opportunities to attend school and then to be able to continue to more advanced levels than persons in other regions.

Access to Mass Media

Respondents were asked if they usually read a newspaper or listen to a radio at least once a week. This information can be useful to programme planners seeking to reach men and women with media messages concerning family health. Table 2.10 shows the percentage of men and women who have access to mass media by background characteristics. The MDHS shows that for Malawi as a whole, 75 percent of men and 52 percent of women listen to the radio and 41 percent of men and 19 percent of women read a newspaper at least once a week. Media contact is related to age of the respondent. Men and women in the older age groups tend to read the newspaper and listen to radio less frequently than younger men and women. This would be in part related to the fact that younger men and women in Malawi also tend to be better educated. Education leads to information-seeking behaviour, including following the media.

Both radio listening and especially newspaper reading are highly correlated with education of the respondent. Men and women without education have, for obvious reasons, very limited access to messages sent through

Table 2.10 Access to mass media

Percentage of women and men who usually read a newspaper once a week or listen to radio once a week, by selected background characteristics, Malawi 1992

Background characteristic	Read newspaper weekly	Listen to radio weekly	Number
MALES			
Age			
20-24	47.2	77.7	277
25-29	37.9	72.5	205
30-34	43.6	79.5	168
35-39	49.4	81.2	143
40-44	34.1	69.2	160
45-49	35.0	68.5	95
50-54	26.4	65.9	102
Education			
No education	4.7	62.5	236
Primary 1-4	33.2	69.6	335
Primary 5-8	49.4	77.3	423
Secondary+	86.8	95.5	157
Residence			
Urban	63.7	88.0	181
Rural	36.3	72.0	970
Region			
Northern	32.6	70.5	139
Central	32.1	67.7	443
Southern	49.2	80.8	569
Total	40.6	74.5	1151
FEMALES			
Age			
15-19	25.6	58.4	1082
20-24	21.7	54.9	944
25-29	20.0	58.0	777
30-34	14.5	49.3	656
35-39	13.9	48.1	537
40-44	12.0	45.2	510
45-49	7.7	35.6	343
Education			
No education	0.7	37.4	2287
Primary 1-4	16.6	54.3	1192
Primary 5-8	43.8	72.1	1159
Secondary+	81.9	92.8	212
Residence			
Urban	47.9	82.0	594
Rural	14.4	48.1	4255
Region			
Northern	26.8	55.9	578
Central	15.2	51.8	1872
Southern	19.0	51.7	2398
Total	18.5	52.3	4849

newspapers; only 5 percent of men and 1 percent of women without formal education reported reading the newspaper at least once a week. Yet over 80 percent of men and women who attended secondary school read the newspaper regularly. A similar, but less pronounced, relationship is observed between radio listening and education. In the interim before education is more nearly universal, important messages to the public will get widespread reception only through radio.

There are important geographic differences in media contact. Men and women in urban areas have vastly better use of newspapers and radios to receive information. This is especially true for women; for example, urban women are over three times more likely to read a newspaper weekly than women in rural areas. Of course, part of this association is due to differences in the educational level of rural and urban women. Women in the Northern Region have greater exposure to both printed media and radio messages than their counterparts in other regions. However, men in the Southern Region have greater access to radio and newspaper messages than men in the Northern and Central Regions.

CHAPTER 3

FERTILITY

Measures of current and completed fertility presented in this chapter are based on the reported reproductive histories of women age 15-49 who were interviewed during the survey. Each woman was asked about the number of sons and daughters living with her, the number living elsewhere and the number who had died. She was then asked for a complete history of all of her live-born children, including month and year of birth, name, sex, and if dead, the age at death and if alive the current age and whether she/he was living with the respondent. Current fertility (age-specific and total fertility) and completed fertility (number of children ever born) are examined below, and then in connection with various background characteristics.

3.1 Current Fertility Levels and Trends

The most widely used measures for current fertility are the total fertility rate and its component age-specific fertility rates. The total fertility rate is defined as the number of births a woman would have if she survived to age 50 and experienced the currently observed rates of age-specific fertility. To obtain the most recent estimate of fertility possible without compromising the statistical precision of estimates, the 3-year period immediately prior to the survey will be used.¹ For analysis of fertility trends, four-year rates will be used to avoid biases that could be introduced from birth date misreporting around the years 1986 and 1987 (Appendix C, Table C.4).

Current total and age-specific fertility rates are presented in Table 3.1. If fertility were to remain constant at the current levels measured in the MDHS (1-36 months before the survey), a woman would bear an average of 6.7 children in her lifetime. This is lower than the rate of 7.6 estimated for the 1980-83 period from the 1984 Family Formation Survey (FFS), implying a decline of about 12 percent over the last decade. Figure 3.1 shows that much of the decline in total fertility between the two surveys occurred in the peak childbearing ages, 20-34 years.

Table 3.1 Current fertility

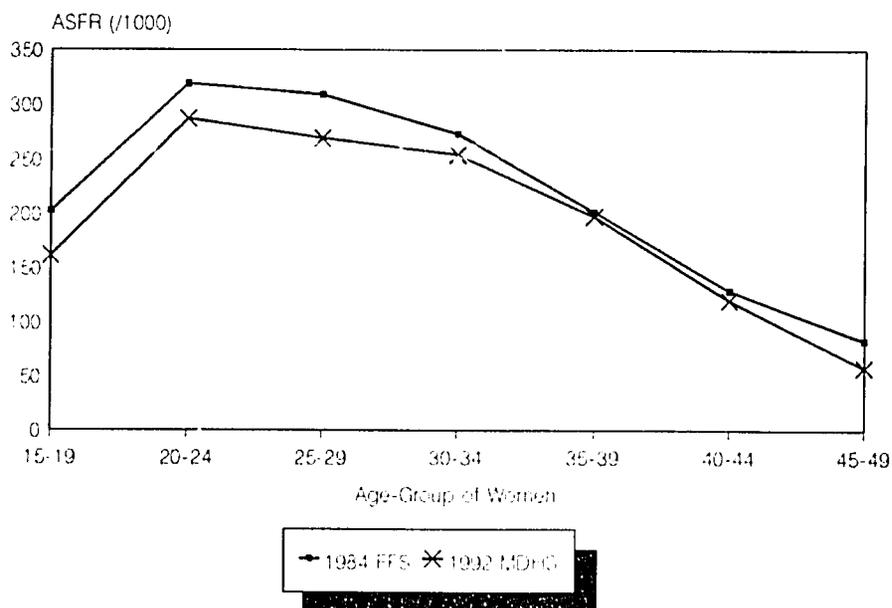
Age-specific and cumulative fertility rates and the crude birth rate for the three years preceding the survey, by urban-rural residence for 1992 MDHS and 1984 Family Formation Survey (FFS), Malawi 1992

Age group	MDHS 1992		Total	FFS 1984
	Urban	Rural		
15-19	135	165	161	202
20-24	268	291	287	319
25-29	242	273	269	309
30-34	210	261	254	273
35-39	149	202	197	201
40-44	86	123	120	129
45-49	12	62	58	83
TFR 15-49	5.51	6.88	6.73	7.58
TFR 15-44	5.45	6.57	6.44	7.29
GFR	201	226	223	264
CBR	40.5	43.2	42.9	52.0

Note: MDHS rates are for the period 1-36 months preceding the survey. FFS rates are for the 4 years preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation.
 TFR: Total fertility rate expressed as children per woman
 GFR: General fertility rate (births divided by number of women 15-44), expressed per 1,000 women
 CBR: Crude birth rate, expressed per 1,000 population

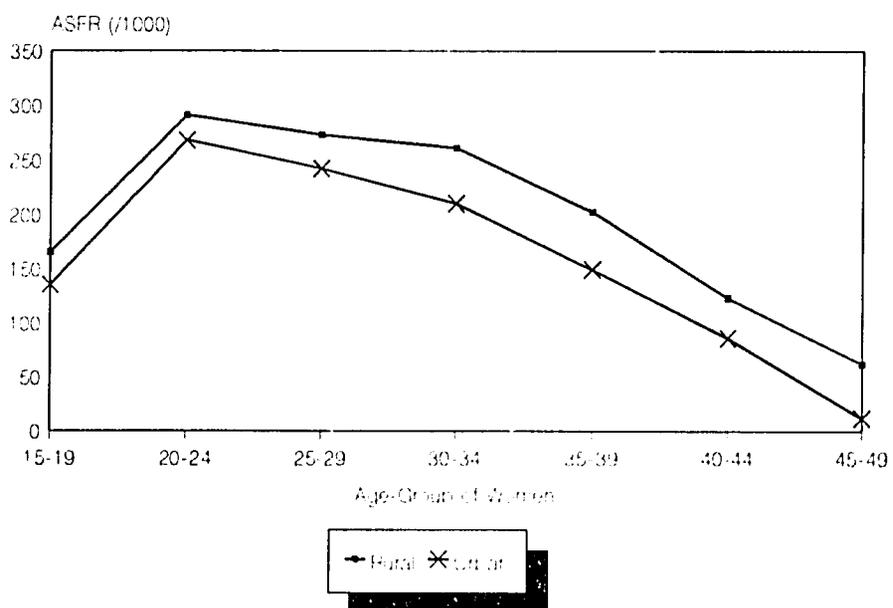
¹Numerators of the age-specific fertility rates from the MDHS data in Table 3.1 are calculated by summing the number of live births that occurred in the period 1-36 months preceding the survey (determined by the date of interview and date of birth of the child), and classifying them by the age (in five-year groups) of the mother at the time of birth (determined by the mother's date of birth). The denominators of the rates are the number of woman-years lived in each of the specified five-year age groups during the 1-36 months preceding the survey.

Figure 3.1
Age-Specific Fertility Rates
Malawi, 1984 FFS and 1992 MDHS



MDHS 1992

Figure 3.2
Age-Specific Fertility Rates
Urban and Rural Malawi



MDHS 1992

As expected, fertility among rural women is higher (6.9 children per woman) than among urban women (5.5 children per woman). Figure 3.2 shows that the urban-rural difference in total fertility is due to lower fertility in urban areas at all ages, but especially at age 30 years and above.

Table 3.2 presents total fertility rates and completed fertility (average number of children ever born to women at the end of their childbearing period, age 45-49) by selected background characteristics. In addition to the urban-rural difference, there exists notable variation in total fertility among the regions, ranging from 6.2 children per woman in the South, to 6.7 in the North, to 7.4 in the Centre. A woman's fertility is closely linked to her level of education. Women who have attended secondary school have 4.4 children compared to 7.2 for those without any education. The level of fertility among women with no education is about 0.5 children more than that among women with lower primary education, which is itself about 0.5 children more than that of women with higher primary education.

Table 3.2 also allows a crude assessment of differential trends in fertility over time among population subgroups. The mean number of children ever born to women age 45-49 years is a measure of fertility during the past. A comparison of current (total) fertility with past (completed) fertility shows that the largest differences occur in urban areas and among women with more education, suggesting that these groups have experienced the largest recent decline in fertility.

Table 3.2 Fertility by background characteristics		
Total fertility rate for the three years preceding the survey and mean number of children ever born to women age 45-49, by selected background characteristics, Malawi 1992		
Background characteristic	Total fertility rate ¹	Mean number of children ever born to women age 45-49
Residence		
Urban	5.51	7.39
Rural	6.88	7.29
Region		
Northern	6.74	7.51
Central	7.44	8.09
Southern	6.17	6.55
Education		
No education	7.16	7.36
Primary 1-4	6.70	7.04
Primary 5-8	6.17	7.48
Secondary+	4.37	*
Total	6.73	7.30

¹Rate for women age 15-49 years
 * Based on less than 25 cases

More direct evidence of fertility decline is obtained by looking at changes in age-specific fertility rates across the three four-year calendar periods before the survey using data from the respondents' birth histories (Table 3.3). Within each age group of women, fertility has declined steadily over the 8-11 year period before the survey to the 0-3 year period before the survey. Because of truncated observation, fertility declines in the older age groups are difficult to ascertain with precision.

Table 3.4 presents fertility rates for ever-married women by duration since first marriage for four-year periods preceding the survey. Though the table is analogous to Table 3.3, it is confined to ever-married women and age is replaced with duration since first marriage. Within each marriage duration group, one observes a decline in fertility with increasing proximity to the survey date. These marriage duration-specific estimates of fertility confirm the decline in fertility, and that the decline has occurred within marriage.

Table 3.3 Age-specific fertility rates

Age-specific fertility rates for four-year periods preceding the survey, by mother's age at the time of birth, Malawi 1992

Mother's age	Number of years preceding the survey			
	0-3	4-7	8-11	12-15
15-19	159	180	193	201
20-24	285	302	319	339
25-29	264	292	323	329
30-34	252	253	287	285
35-39	190	228	[232]	[270]
40-44	121	[128]	-	-
45-49	[64]	-	-	-

Note: Age-specific fertility rates are births per 1,000 women-years of exposure. Estimates enclosed in brackets are truncated.

Table 3.4 Fertility by marital duration

Fertility rates for ever-married women by duration since first marriage, in years, for four-year periods preceding the survey, Malawi 1992

Marriage duration at birth	Number of years preceding the survey			
	0-3	4-7	8-11	12-15
0-4	333	351	364	376
5-9	286	308	338	348
10-14	256	281	296	314
15-19	235	225	260	259
20-24	143	190	[199]	[231]
25-29	89	[99]	-	-

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

3.2 Children Ever Born

The distribution of women by number of children ever born is presented in Table 3.5 for all women and for 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 over seven children by the end of their childbearing years. Of the 7.3 children ever born to women 45-49, only 4.8 will have survived.

Table 3.5 Children ever born and living

Percent distribution of all women and of currently married women age 15-49 by number of children ever born (CEB) and mean number ever born and living, according to five-year age groups, Malawi 1992

Age group	Number of children ever born (CEB)											Total	Number of women	Mean no. of CEB	Mean no. of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
Age															
15-19	72.7	21.1	5.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1082	0.34	0.27
20-24	19.4	27.3	28.7	16.7	6.3	1.0	0.5	0.2	0.0	0.0	0.0	100.0	944	1.69	1.31
25-29	6.1	10.9	14.6	22.5	24.0	14.3	5.2	2.3	0.1	0.0	0.0	100.0	777	3.23	2.47
30-34	2.7	4.5	7.9	11.1	14.3	17.5	19.8	12.1	7.0	2.9	0.3	100.0	656	4.87	3.68
35-39	2.7	2.9	4.6	8.8	9.9	13.8	13.0	15.6	14.1	7.2	7.3	100.0	537	5.90	4.39
40-44	1.8	2.6	3.8	4.4	6.7	9.6	13.7	15.2	12.1	9.5	20.6	100.0	510	6.93	4.92
45-49	1.1	2.3	5.2	5.6	6.1	7.2	10.1	10.9	12.3	14.0	25.1	100.0	343	7.30	4.80
Total	21.9	13.1	11.4	10.4	9.2	7.9	7.2	6.1	4.7	3.2	4.8	100.0	4849	3.48	2.55
CURRENTLY MARRIED WOMEN															
Age															
15-19	43.0	41.5	13.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	388	0.75	0.58
20-24	13.8	26.1	32.0	18.5	7.7	1.1	0.6	0.2	0.0	0.0	0.0	100.0	743	1.87	1.44
25-29	4.3	10.1	12.9	24.1	25.7	15.1	5.3	2.5	0.1	0.0	0.0	100.0	661	3.36	2.61
30-34	2.5	4.0	7.8	9.8	14.7	18.1	20.4	11.9	7.3	3.3	0.3	100.0	584	4.95	3.73
35-39	2.7	2.4	5.1	8.4	9.1	12.9	12.6	15.7	15.6	7.9	7.7	100.0	455	6.01	4.47
40-44	1.8	2.9	4.4	4.8	5.1	8.1	15.1	14.8	11.1	9.2	22.8	100.0	408	7.01	4.98
45-49	1.5	1.4	4.6	3.8	5.4	7.7	8.8	10.4	10.7	16.0	29.7	100.0	253	7.69	5.06
Total	9.6	13.5	13.5	12.4	11.1	9.3	8.6	7.0	5.3	3.8	5.9	100.0	3492	4.10	3.02

The distribution of women by number of births indicates that over one-quarter of women age 15-19 have already borne at least one child, and that one-quarter of women age 45-49 have borne 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 minimal, generally reflect the impact of marital dissolution (either divorce or widowhood). Since desire for children is nearly universal in Malawi, the proportion of married women at 45-49 years who are childless is a rough measure of *primary infertility*, or the inability to bear children. The MDHS results suggest that primary infertility is low, with only 1.5 percent of Malawian women unable to bear children. It should be emphasised 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 (*secondary infertility*).

3.3 Birth Intervals

Research has shown that children born too soon after a previous birth are at increased risk of dying, particularly when the interval between births is less than 24 months. Table 3.6 shows the percent distribution of births in the five years before the survey by the number of months since the previous birth. More than one of every five births in Malawi occurs less than two years after the birth of the previous child. The overall median birth interval length is 32.7 months.

Table 3.6 Birth intervals

Percent distribution of births in the five years preceding the survey by number of months since previous birth, according to demographic and socioeconomic characteristics, Malawi 1992

Characteristic	Number of months since previous birth					Total	Median number of months since previous birth	Number of births
	7-17	18-23	24-35	36-47	48+			
Age of mother								
15-19	26.5	23.1	34.1	12.5	3.9	100.0	24.2	78
20-29	8.8	15.6	43.8	18.0	13.8	100.0	30.7	1692
30-39	6.4	10.9	37.2	23.5	22.0	100.0	34.6	1406
40+	7.9	8.1	33.1	21.3	29.6	100.0	36.5	563
Birth order								
2-3	8.9	15.3	40.3	18.5	16.9	100.0	31.6	1360
4-6	7.1	12.0	39.4	22.1	19.3	100.0	33.4	1429
7+	8.5	10.6	38.5	20.7	21.7	100.0	33.4	949
Sex of prior birth								
Male	7.7	13.3	39.0	20.8	19.2	100.0	33.0	1875
Female	8.6	12.4	40.0	20.1	18.9	100.0	32.4	1864
Survival of prior birth								
Living	4.5	10.5	42.1	22.8	20.1	100.0	34.0	2861
Dead	19.9	20.6	31.0	12.8	15.6	100.0	26.7	878
Residence								
Urban	9.7	12.7	37.9	19.8	19.8	100.0	32.1	404
Rural	7.9	12.9	39.7	20.5	19.0	100.0	32.8	3335
Region								
Northern	6.3	10.3	41.2	24.7	17.4	100.0	33.8	427
Central	9.5	14.5	38.6	18.7	18.6	100.0	31.2	1591
Southern	7.3	11.9	39.9	21.0	19.8	100.0	33.2	1720
Education								
No education	7.3	12.8	38.2	18.9	22.8	100.0	33.2	2005
Primary 1-4	10.4	13.2	40.3	22.3	13.8	100.0	31.7	863
Primary 5-8	8.0	11.8	43.0	22.8	14.4	100.0	32.2	774
Secondary+	6.2	19.5	31.5	18.0	24.8	100.0	34.8	97
Total	8.1	12.9	39.5	20.5	19.1	100.0	32.7	3739

Note: First-order births are excluded.

In Malawi, birth intervals tend to be shorter when the mother is young and at lower birth orders (second and third births). The median birth interval length is 7 months shorter when the previous child died than when the previous child survived. Whereas only 15 percent of children whose previous siblings were still alive were born after less than 24 months, 41 percent of children whose previous sibling was dead were born after less than 24 months. This is due to behavioural and biological mechanisms that operate to rapidly "replace" deceased children.

Although birth spacing varies little by urban-rural residence, regional differences do emerge in the MDHS data. On average, birth intervals in the Central Region are 2 months shorter than in the Southern region and 2.5 months shorter than in the Northern Region. Further, 24 percent of births follow a short interval in the Central Region versus 19 percent in the Southern and 17 percent in the Northern Regions. Not coincidentally, this characteristic of the Central Region is consistent with its relatively lower level of fertility regulation (Chapter 4) and higher level of childhood mortality (Chapter 7). The relationship between birth interval length and maternal education follows a U-shaped pattern, with the longest interval length associated with both no education and higher education. The shortest intervals occur when the mother has had only some primary education.

3.4 Age of the Mother at First Birth

The age at which women start childbearing is an important demographic and social indicator in society. Early childbearing generally leads to a large family size if not coupled with contraception, and is associated with increased health risks for the mother. It also tends to diminish a woman's educational and employment opportunities. A rise in the age at first birth is usually a reflection of a rise in the age at first marriage (see Chapter 6) and in many countries has contributed greatly to overall fertility decline.

Table 3.7 presents the distribution of women 15-49 by age at first birth. Two patterns are evident in the data. First, there is fairly clear evidence of a displacement of first births of older women from a period further to a period closer to the survey date, the result of which is that an implausibly large percentage of older women appear to have had their first birth at 25 years or older. This, of course, inflates the median age at first birth. This problem apparently is focused on women 35 years and older.

Second, among women currently under 35 years of age, there is clear evidence of an increase in the average age at first birth, from 18.3 years to 18.9 years over the last decade or so. In support of this, the percentage of births that occurred at a very young age (< 15 years) have decreased considerably from about 11 percent among women currently age 30-34 to 3 percent among women now age 15-19.

Table 3.7 Age at first birth

Percent distribution of women age 15-49 by age at first birth, according to current age, Malawi 1992

Current age	Women with no births	Age at first birth						Total	Number of women	Median age at first birth
		<15	15-17	18-19	20-21	22-24	25+			
15-19	72.7	3.0	17.3	7.0	NA	NA	NA	100.0	1082	a
20-24	19.4	8.9	28.6	25.8	13.9	3.4	NA	100.0	944	18.9
25-29	6.1	9.3	31.2	25.3	16.4	9.5	2.3	100.0	777	18.7
30-34	2.7	10.8	34.5	25.0	13.0	8.6	5.5	100.0	656	18.3
35-39	2.7	9.7	24.0	26.0	14.4	11.7	11.6	100.0	537	19.3
40-44	1.8	10.7	23.3	22.6	13.8	15.1	12.8	100.0	510	19.4
45-49	1.1	7.6	22.5	16.7	12.4	21.7	18.0	100.0	343	20.5

NA = Not applicable

^aLess than 50 percent of the women in the age group x to $x+4$ have had a birth by age x

Table 3.8 shows the median age at first birth by background characteristics of the woman. There is very little variation in the median age at first birth between women by urban-rural residence or by region. Age at first birth does, however, varies significantly with a woman's level of education, from about 19 years for women with no education or primary education to 21 years among women with secondary education or higher.

Table 3.8 Median age at first birth

Median age at first birth among women age 20-49 years, by current age and selected background characteristics, Malawi 1992

Background characteristic	Current age						Ages 20-49	Ages 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	19.4	19.5	19.0	18.9	19.1	19.2	19.2*	19.2
Rural	18.8	18.6	18.2	19.3	19.5	20.7	18.9	18.9
Region								
Northern	19.0	18.9	18.5	18.9	19.1	18.8	18.9	18.8
Central	19.3	19.1	18.5	19.4	18.8	20.4	19.1	19.1
Southern	13.5	18.3	18.2	19.2	20.0	21.1	18.8	18.9
Education								
No education	18.3	18.0	18.0	19.6	19.8	21.2	18.8	18.9
Primary 1-4	18.8	18.8	18.1	18.6	18.8	20.7	18.8	18.8
Primary 5-8	19.1	19.2	18.8	18.5	19.3	(18.5)	19.0	18.9
Secondary+	a	22.8	(20.8)	(20.7)	(19.9)	21.4*	a	21.4
Total	18.9	18.7	18.3	19.3	19.4	20.5	18.9	19.0

Note: The medians for cohort 15-19 could not be determined because half the women have not yet had a birth.

^aMedians were not calculated for these cohorts because less than 50 percent of women in the age group x to $x+4$ have had a birth by age x .

() Based on 25-49 cases

* Based on less than 25 cases

3.5 Adolescent Fertility

The issue of adolescent fertility is an important one on both health and social grounds. Children born to adolescent mothers are at increased risk of sickness and death. The young mothers themselves are more likely to experience adverse pregnancy outcomes and, in any case, are less able to pursue educational opportunities than their counterparts who delay childbearing.

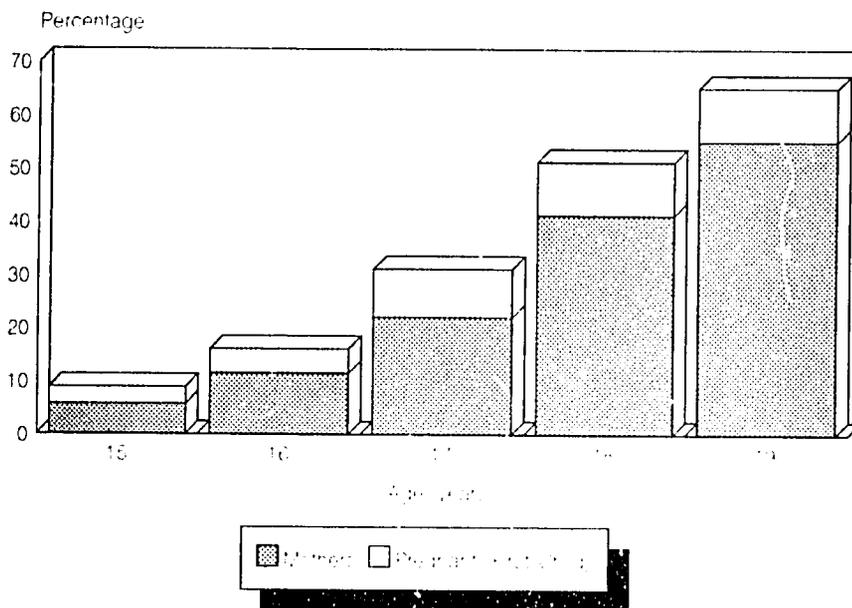
Table 3.9 shows the percentage of adolescents (under age 20) who are mothers or pregnant with their first child, by background characteristics. Among women under 20, over one-third have already entered the family formation pathway—and most are already mothers of at least one child. Motherhood increases sharply between ages 15 (6 percent) and 19 (55 percent). Two-thirds of 19-year-olds have either had a child or are pregnant with their first (Figure 3.3).

Table 3.9 Adolescent pregnancy and motherhood

Percentage of adolescents (age 15-19) who are mothers or pregnant with their first child, by selected background characteristics, Malawi 1992

Background characteristic	Percentage who are:		Percentage who have begun child-bearing	Number of adolescents
	Mothers	Pregnant with first child		
Age				
15	5.7	3.2	8.9	205
16	11.5	4.6	16.1	222
17	22.1	9.1	31.2	214
18	41.3	10.0	51.3	235
19	55.2	10.0	65.1	205
Residence				
Urban	23.4	5.2	28.6	127
Rural	27.8	7.7	35.5	956
Region				
Northern	18.9	8.6	27.5	148
Central	23.2	10.4	33.6	402
Southern	32.6	4.8	37.4	533
Education				
No education	36.0	6.8	42.8	313
Primary 1-4	29.2	9.3	38.5	355
Primary 5-8	19.0	7.0	26.0	365
Secondary+	18.6	1.0	19.6	49
Total	27.3	7.4	34.7	1082

Figure 3.3
Percentage of Adolescents (age 15-19) Who Have Begun Childbearing, by Age



MDHS 1992

In rural areas, 36 percent of adolescents have begun childbearing as compared to 29 percent in urban areas. Regional differences also exist—37 percent of adolescents in the South are either mothers or are pregnant with their first child versus 34 percent in the Centre and 28 percent in the North. A strong link between a woman's education and early childbearing is evidenced here. Although 43 percent of adolescents (15-19 years) without any education have started childbearing, only 20 percent of those with some secondary education have done so.

Table 3.10 shows the distribution of adolescents by number of children ever born. The MDHS shows that 21 percent of adolescents have had one child and 6 percent have had at least two children. About 18 percent of women age 19 years have had at least two children. The mean number of children ever born (CEB) to women 15-19 is 0.34.

Age	Number of children ever born			Total	Mean number of CEB	Number of adolescents
	0	1	2+			
15	94.3	5.0	0.8	100.0	0.06	205
16	88.5	10.5	1.0	100.0	0.12	222
17	77.9	19.5	2.6	100.0	0.25	214
18	58.7	32.3	9.0	100.0	0.52	235
19	44.8	37.7	17.5	100.0	0.76	205
Total	72.7	21.1	6.1	100.0	0.34	1082

CHAPTER 4

FERTILITY REGULATION

4.1 Knowledge of Contraception

Acquiring knowledge about fertility control is an important step towards gaining access to and then using a suitable method in a timely and effective manner. Information about knowledge of contraceptive methods 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 if she/he recognised it. Seven modern methods—the pill, IUCD, injection, vaginal methods (foaming tablets, jelly, sponge and diaphragm), condoms, female sterilisation and male sterilisation—were described, as well as two traditional methods—natural family planning (periodic abstinence or the rhythm method) and withdrawal. Any other methods mentioned by the respondent, such as herbs, strings or breastfeeding, were also recorded. For each method recognised, the respondent was asked if she/he knew where a person could go to get the method. If the respondent reported knowing about natural family planning, she/he was asked where a person could obtain the advice on how to use the method.

Table 4.1 indicates that nine of ten women age 15-49 years know at least one method of family planning. Knowledge of methods is slightly higher among currently married women than among all women. Since it is currently married women who are at greatest risk of pregnancy, they are the primary focus of this chapter.

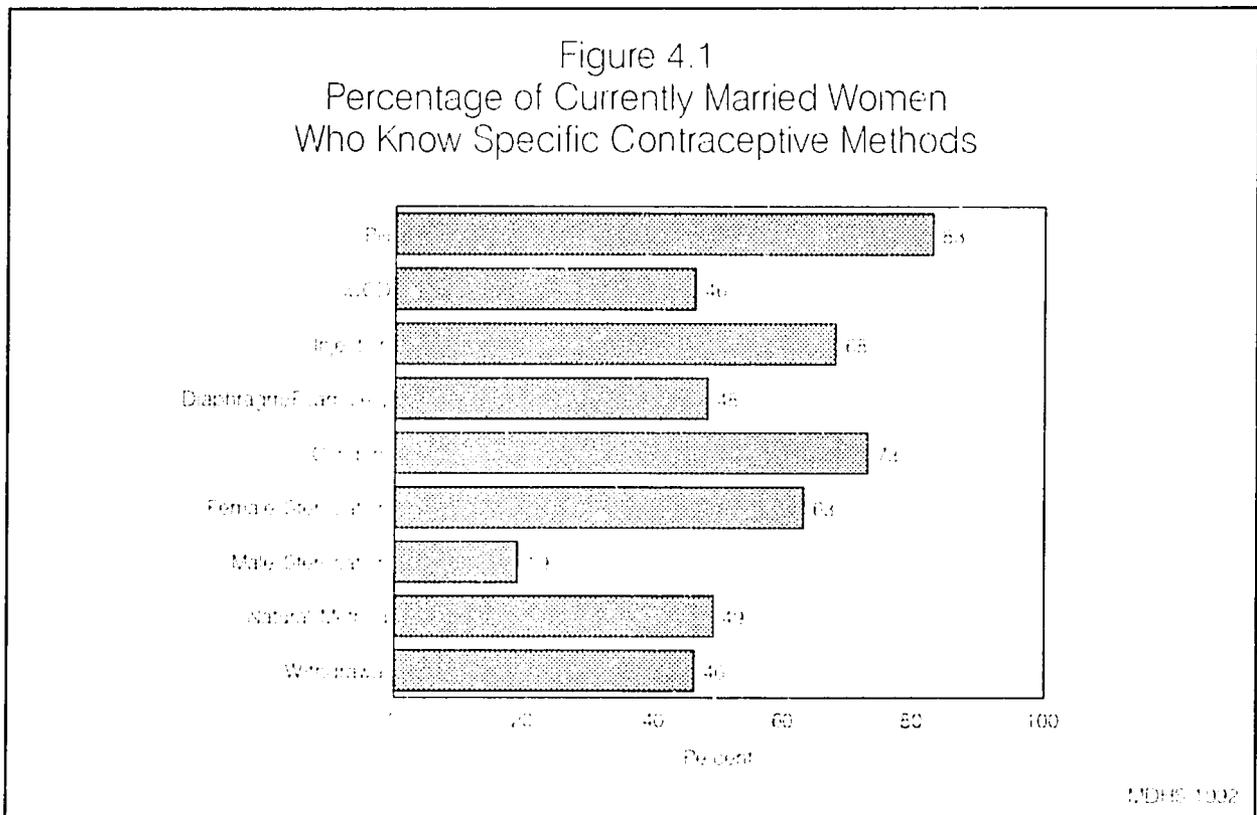
Table 4.1 Knowledge of contraceptive methods and source for methods

Percentage of all women and men and currently married women and men who know specific contraceptive methods and who know a source (for services), by specific methods, Malawi 1992

Contraceptive method	Know method		Know a source	
	All women/ men	Currently married women/ men	All women/ men	Currently married women/ men
FEMALES				
Any method	90.4	94.6	80.1	85.1
Any modern method	87.7	91.8	78.5	83.3
Modern method				
Pill	76.4	82.9	66.5	72.8
IUCD	41.5	46.3	35.3	39.6
Injection	61.6	68.3	54.8	61.1
Diaphragm/Foam/Jelly	42.6	47.8	35.5	39.9
Condom	70.1	73.2	58.6	61.9
Female sterilisation	58.0	63.1	48.9	53.5
Male sterilisation	17.3	18.8	14.0	15.3
Any traditional method				
Natural method	69.3	76.5	32.3	36.8
Withdrawal	43.9	49.1	32.3	36.8
Other	41.1	46.4	NA	NA
Other	46.0	52.0	NA	NA
Number of women	4849	3492	4849	3492
MALES				
Any method	95.8	97.3	85.6	86.8
Any modern method	93.7	94.6	84.0	85.1
Modern method				
Pill	70.0	72.1	56.0	58.6
IUCD	42.0	43.6	31.0	32.1
Injection	55.7	59.0	48.9	51.5
Diaphragm/Foam/Jelly	44.6	45.6	31.9	32.9
Condom	88.8	89.7	73.6	74.7
Female sterilisation	63.6	66.2	55.4	57.9
Male sterilisation	28.0	27.7	24.3	24.5
Any traditional method				
Natural method	78.7	80.7	45.6	46.7
Withdrawal	61.5	62.7	45.6	46.7
Other	54.1	55.7	NA	NA
Other	33.5	37.6	NA	NA
Number of men	1151	866	1151	866

NA = Not applicable

A high proportion of married women reported knowing a modern method (92 percent) and 77 percent of them have some knowledge about a traditional method. The most widely known methods among married women are the pill (83 percent), the condom (73 percent), injections (68 percent) and female sterilisation (63 percent) (Figure 4.1). Women are relatively unfamiliar with male sterilisation; only 19 percent said they knew of the method. Regarding traditional methods, about half of married women said they knew of natural family planning, withdrawal, and other traditional methods. Most of the other traditional methods cited by women were medicinal strings and herbal preparations of various types.



Knowledge of fertility regulation was also very high among men; 96 percent of all men and 97 percent of all married men knew of some method of family planning. Nearly all men who knew of a method knew of at least one modern method of contraception. Knowledge of specific family planning methods among men follows a pattern similar to that observed among women. Looking at modern methods, condoms and sterilisation are slightly better known by men than women; the other methods are better known by women. Regarding traditional methods, men reported knowing of natural family planning and withdrawal more commonly than women, but women tended to be more familiar with other traditional methods (i.e., strings and herbal preparations).

Knowledge of sources for obtaining family planning methods is widespread in Malawi. Eighty-three percent of currently married women and 85 percent of currently married men knew of a source for obtaining a modern method of contraception. Women responded more commonly than men that they knew where to obtain pills, the IUCD, injections, and barrier methods, whereas men reported more frequently than women that they knew a source of condoms and sterilisation services.

Table 4.2 shows that women in their 20s and 30s are more likely to know of at least one method, at least one modern method, and a source to obtain a modern method than adolescent women and women age 40 years or older. In the same way, men between 25 and 39 years tend to be more familiar with methods and method sources than younger and older men. In particular, knowledge of a source of modern contraception goes down sharply with increasing age of men. As expected, men and women living in urban areas are more likely to know of family planning methods and to know where to obtain them than their rural counterparts. Regional differences in contraceptive knowledge are negligible.

Formal education is related to a person's knowledge of contraception. About one-quarter of both men and women without any education do not know of a source of modern contraception, whereas source knowledge is nearly universal among men and women with at least some secondary education.

4.2 Ever Use of Contraception

All women and men who said that they had heard of a method of family planning were asked if they had ever used it. Forty-one percent of currently married women and 57 percent of men have used a method of family planning at some time in the past (Table 4.3). Ever-use of modern methods was reported by 19 percent of women and 30 percent of men. The difference between male and female ever-use of modern contraception is explained by far greater condom use among men.

Table 4.2 Knowledge of modern contraceptive methods and source for methods

Percentage of currently married women and men who know at least one modern contraceptive method and who know a source (for services), by selected background characteristics, Malawi 1992

Background characteristic	Know any method	Know a modern method ¹	Know a source for modern method	Number of women/men
FEMALES				
Age				
15-19	88.0	84.2	72.5	388
20-24	95.9	94.2	86.3	743
25-29	96.7	95.1	89.8	661
30-34	96.3	93.8	87.5	534
35-39	95.4	93.4	83.2	455
40-44	93.2	88.3	77.2	408
45-49	91.7	86.3	74.6	253
Residence				
Urban	97.2	96.3	91.4	411
Rural	94.2	91.2	82.2	3081
Region				
Northern	93.7	89.6	80.8	430
Central	94.3	92.3	84.8	1402
Southern	95.0	92.0	82.7	1660
Education				
No education	92.2	88.2	77.3	1815
Primary 1-4	95.4	93.7	85.5	819
Primary 5-8	98.5	97.5	93.3	750
Secondary+	99.6	99.6	98.9	107
Total	94.6	91.8	83.3	3492
MALES				
Age				
20-24	97.0	94.9	83.6	100
25-29	99.1	99.1	91.7	163
30-34	98.0	97.0	91.0	147
35-39	96.5	94.9	86.8	129
40-44	95.8	92.2	84.7	147
45-49	95.6	91.7	79.1	83
50-54	98.3	89.2	69.4	95
Residence				
Urban	98.9	98.7	90.4	126
Rural	97.0	93.9	84.2	739
Region				
Northern	99.5	97.3	88.0	99
Central	95.3	94.0	85.6	347
Southern	98.5	94.6	83.9	419
Education				
No education	95.7	90.1	74.8	183
Primary 1-4	95.8	91.5	78.3	255
Primary 5-8	98.6	98.0	92.5	330
Secondary+	100.0	100.0	97.1	97
Total	97.3	94.6	85.1	866

¹Includes pill, IUCD, injection, vaginal methods (foaming tablets/diaphragm/foam/jelly), condom, female sterilisation, and male sterilisation.

Table 4.3 Ever use of contraception

Percentage of currently married women and men who have ever used any contraceptive method, by specific method and age, Malawi 1992

Age	Any method	Any modern method	Pill	IUCD	Injection	Dia-phragm/ Foam/ Jelly	Condom	Female sterilisation	Male sterilisation	Any trad. method	Natural method	With- drawal	Other	Number of women/ men
CURRENTLY MARRIED WOMEN														
15-19	24.2	12.1	3.8	0.4	2.1	0.8	7.3	0.0	0.5	17.1	11.1	8.5	5.4	388
20-24	38.6	18.3	7.5	0.5	1.9	0.8	12.2	0.0	0.2	29.0	17.4	12.4	8.0	743
25-29	44.4	23.0	12.1	1.7	3.0	1.3	10.0	1.2	0.0	32.3	19.8	15.3	12.2	661
30-34	47.0	21.2	10.5	2.1	4.0	1.2	8.7	2.5	0.6	39.1	21.6	16.9	13.7	584
35-39	46.5	22.8	10.8	2.2	7.5	1.3	8.4	3.2	0.0	35.5	17.3	14.8	16.7	455
40-44	43.5	17.5	6.0	1.1	8.3	1.3	4.2	3.8	0.8	32.3	16.3	15.3	12.3	408
45-49	31.4	12.4	5.7	0.7	7.6	0.3	2.2	2.4	0.0	26.4	11.9	11.4	12.7	253
Total	40.6	19.1	8.6	1.3	4.4	1.0	8.5	1.7	0.3	31.1	17.3	13.9	11.4	3492
CURRENTLY MARRIED MEN														
20-24	50.4	30.3	8.5	0.2	1.0	1.7	26.8	0.7	0.0	33.8	27.1	12.2	3.2	100
25-29	55.4	33.3	9.1	0.9	2.1	1.2	27.6	0.0	0.0	40.1	26.0	24.4	7.2	163
30-34	64.7	42.3	9.4	3.4	3.2	0.0	32.8	1.0	0.3	43.7	32.2	23.3	9.0	147
35-39	66.7	35.7	12.3	1.1	3.8	0.4	25.8	1.3	0.0	49.8	27.6	33.4	16.8	129
40-44	55.2	22.6	8.0	1.3	6.0	0.5	15.6	2.3	0.0	42.2	34.0	18.7	12.3	147
45-49	57.0	23.8	7.6	2.9	8.3	0.8	10.0	5.4	0.9	45.2	33.4	24.1	12.2	83
50-54	45.0	18.3	9.1	1.6	10.6	0.7	6.6	2.0	0.7	42.1	30.7	16.4	15.2	95
Total	57.1	30.4	9.2	1.6	4.6	0.7	22.1	1.6	0.2	42.5	30.0	22.3	10.7	866

Ever-use of modern contraception peaks during ages 25-29 for women and during ages 30-34 for men. The most commonly reported modern methods ever used by women are the pill (9 percent) and condom (9 percent) followed by injections (4 percent) and female sterilisation (2 percent). The method-specific pattern reported by men follows a pattern very similar to women, except that condoms are much more commonly reported by men (22 percent) than women.

The age pattern of ever-use varies by the method used. Ever-use of injections and sterilisation increase steeply while condom use tends to decrease with increasing age. Ever-use of the pill is highest at ages 25-29 for married women and 35-39 for married men.

4.3 Current Use of Contraception

Although 90 percent of married women in Malawi have heard of and 41 percent have ever used a family planning method, only 13 percent reported that they were currently using a method at the time of the survey (Table 4.4). Only 7 percent of married women are using modern methods, whereas 6 percent are using traditional methods. The most popular modern methods are the pill, female sterilisation, condoms, and injections, each used by about 2 percent of women. Natural family planning is the most commonly used traditional method (2 percent).

Table 4.4 Current method use

Percent distribution of currently married women and men and all women and men by contraceptive method currently used, according to age, Malawi 1992

Age	Any method	Any modern method	Pill	IUCD	Injection	Dia-phragm/ Foam/ Jelly Condom	Female sterilisation	Male sterilisation	Any trad. method	Natural method	Withdrawal	Other	Not currently using	Total	Number of women/ men
CURRENTLY MARRIED WOMEN															
15-19	7.3	3.4	0.9	0.0	0.5	0.0	2.0	0.0	3.9	1.4	0.4	2.1	92.7	100.0	388
20-24	12.0	5.3	2.2	0.0	0.2	0.0	2.9	0.0	6.6	2.9	1.8	2.0	88.0	100.0	743
25-29	14.8	8.4	3.9	0.7	0.9	0.0	1.8	1.2	6.4	2.6	2.3	1.5	85.2	100.0	661
30-34	16.2	8.2	2.3	0.5	1.3	0.2	1.2	2.5	8.0	2.9	2.4	2.8	83.8	100.0	584
35-39	16.4	11.3	2.0	0.6	3.2	0.3	1.9	3.2	5.2	1.2	1.4	2.5	83.6	100.0	455
40-44	13.2	9.3	1.3	0.0	3.9	0.4	0.0	3.8	3.9	2.2	0.0	1.6	86.8	100.0	408
45-49	6.4	4.6	0.6	0.0	1.6	0.0	0.0	2.4	1.8	0.8	0.4	0.7	93.6	100.0	253
Total	13.0	7.4	2.2	0.3	1.5	0.1	1.6	1.7	5.6	2.2	1.5	2.0	87.0	100.0	3492
CURRENTLY MARRIED MEN															
20-24	15.9	9.3	0.7	0.0	0.5	0.2	7.8	0.2	6.6	6.6	0.0	0.0	84.1	100.0	100
25-29	23.4	13.5	2.8	0.0	0.0	0.0	10.7	0.0	9.9	7.7	1.3	0.9	76.6	100.0	163
30-34	27.0	15.8	3.4	0.5	1.5	0.0	9.1	1.0	11.2	6.9	2.1	2.2	73.0	100.0	147
35-39	33.2	14.3	4.6	0.0	0.8	0.0	7.7	1.2	19.0	8.2	5.1	5.6	66.8	100.0	129
40-44	26.2	10.9	4.1	0.3	2.4	0.0	2.2	1.9	15.2	9.6	0.8	4.9	73.8	100.0	147
45-49	31.8	16.2	1.5	1.5	5.3	0.2	2.4	4.6	15.5	9.5	3.2	2.8	68.2	100.0	83
50-54	15.9	5.3	2.5	1.6	0.0	0.0	0.5	0.0	10.6	7.0	3.6	0.0	84.1	100.0	95
Total	25.1	12.5	3.0	0.5	1.3	0.0	6.3	1.1	12.6	7.9	2.2	2.5	74.9	100.0	866
ALL WOMEN															
15-19	3.5	1.8	0.5	0.0	0.3	0.0	1.0	0.0	1.7	0.6	0.1	0.9	96.5	100.0	1082
20-24	11.1	5.8	2.4	0.0	0.3	0.0	2.9	0.2	5.3	2.4	1.4	1.6	88.9	100.0	944
25-29	13.5	8.0	3.7	0.6	0.7	0.0	1.8	1.2	5.5	2.3	1.9	1.3	86.5	100.0	777
30-34	15.5	8.3	2.2	0.6	1.2	0.1	1.2	2.8	7.1	2.6	2.1	2.5	84.5	100.0	656
35-39	15.3	10.1	1.9	0.5	3.0	0.3	1.6	2.7	5.2	1.3	1.2	2.7	84.7	100.0	537
40-44	11.5	8.4	1.3	0.0	3.1	0.3	0.0	3.7	3.1	1.8	0.0	1.3	88.5	100.0	510
45-49	6.1	4.8	0.4	0.5	1.6	0.0	0.0	2.3	1.4	0.6	0.3	0.5	93.9	100.0	343
Total	10.5	6.3	1.8	0.3	1.2	0.1	1.4	1.5	4.3	1.7	1.1	1.5	89.5	100.0	4849
ALL MEN															
20-24	14.8	11.5	0.9	0.0	0.2	0.1	10.3	0.1	3.3	3.3	0.0	0.0	85.2	100.0	277
25-29	23.0	12.6	2.5	0.0	0.0	0.0	10.1	0.0	10.4	8.6	1.0	0.7	77.0	100.0	205
30-34	26.3	16.5	3.3	0.4	1.3	0.0	10.3	0.9	9.8	6.0	1.8	2.0	73.7	100.0	168
35-39	30.0	12.9	4.2	0.0	0.7	0.0	6.9	1.0	17.1	7.4	4.7	5.1	70.0	100.0	143
40-44	24.0	10.1	3.8	0.3	2.2	0.0	2.0	1.8	14.0	8.8	0.7	4.5	76.0	100.0	160
45-49	27.9	14.3	1.3	1.3	4.6	0.2	2.1	4.0	13.7	8.4	2.8	2.5	72.1	100.0	95
50-54	14.8	4.9	2.3	1.5	0.0	0.0	0.5	0.0	9.8	6.5	3.4	0.0	85.2	100.0	102
Total	22.2	12.0	2.5	0.3	1.0	0.0	7.2	0.9	10.2	6.6	1.7	1.9	77.8	100.0	1151

Reported current use among married men (25 percent) is higher than among married women (13 percent), largely because of much higher reported use of condoms (6 percent) and of natural family planning (8 percent). Otherwise, the method-specific pattern of use for men follows closely that observed for women.

Contraceptive use is highest among married women age 35-39 and lowest among women age 15-19 and 45-49 years. Lower use among younger women is related to having just begun childbearing and thus having fewer than their desired number of children. For the same reason, younger women who do use family planning tend to use less effective methods such as withdrawal or temporary methods such as the condom, whereas older women are more likely to use more effective, long-term methods such as female sterilisation. About three percent of married women age 35 years or older have been sterilised. Use among the oldest women (i.e., 45-49) may be lower because they perceive themselves as unable to have more children and thus not in need of family planning.

Among married men, current use of contraception is highest during ages 35-39 and lowest during ages 20-24 and 50-54. As among women, condom use is more frequent at younger ages, while more effective, longer-term methods such as sterilisation and injections are more commonly used at older ages.

4.4 Differentials in Current Use of Family Planning

While overall use of family planning is quite low, the data indicate that some married women and men are more likely to be using contraception than others. Table 4.5 and Figure 4.2 show the percentages of currently married women and men using specific methods by background characteristics. The use of family planning increases with increasing parity of the woman, suggesting that demand for methods to space or limit births increases as a woman reaches her desired number of children. This pattern is especially pronounced regarding modern method use, presumably because modern methods are recognised by couples to be more effective in achieving their desired family size.

Large differences are observed between urban and rural women in the current use of any method of family planning (23 percent in urban areas and 12 percent in rural areas). The difference is explained wholly by the much higher use of modern methods by urban women; current use of traditional methods varies little between urban and rural women. The largest urban-rural differentials occur regarding female sterilisation, the IUCD, and the pill. The most commonly used methods in rural areas are natural family planning and other traditional methods, whereas pills and female sterilisation are the most popular methods among urban women. Regional differences in use of modern contraception are negligible. However, traditional methods are more commonly practiced in the Northern Region. Interestingly, this pattern of relatively higher use of traditional methods in the North is explained by the much more common practice of withdrawal among couples in that Region. This finding is supported by an even more pronounced difference reported by males.

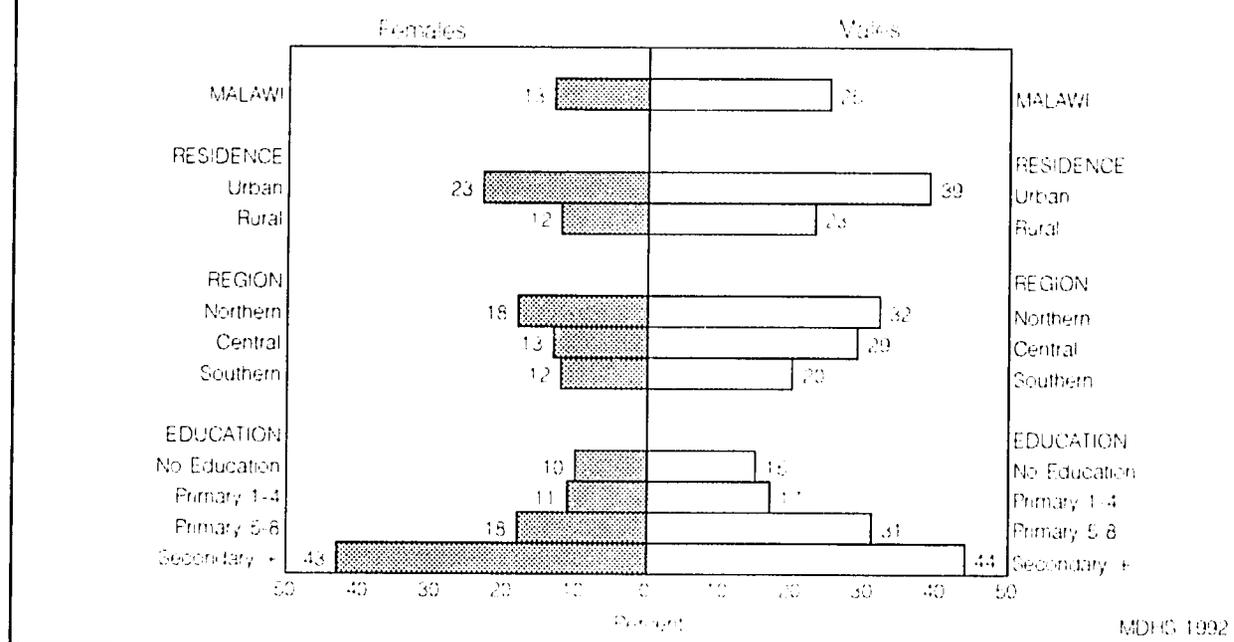
Use of contraception, especially use of modern methods, is also related to a persons's level of education. Use of a modern method was reported by 5 percent of married women without schooling, 6 percent of women with 1-4 years of primary school, 11 percent of women with 5-8 years of primary school, and 38 percent of women with at least some secondary schooling. A very similar pattern of results was obtained when looking at information obtained from males.

Table 4.5 Current method use by background characteristics

Percent distribution of currently married women and men by contraceptive method currently used, according to background characteristics, Malawi 1992

Background characteristic	Any method	Any modern method	Pill	IUCD	Injection	Dia-phragm/ Foam/ Jelly Condom	Female sterilisation	Male sterilisation	Any method	Natural method	Withdrawal	Other	Not currently using	Total	Number of women/men	
CURRENTLY MARRIED WOMEN																
Residence																
Urban	22.9	17.2	5.7	1.3	2.2	0.3	2.9	4.9	0.0	5.6	2.1	0.8	2.7	77.1	100.0	411
Rural	11.7	6.0	1.7	0.1	1.4	0.1	1.5	1.2	0.1	5.6	2.2	1.5	1.9	88.3	100.0	3081
Region																
Northern	17.9	6.9	1.1	0.0	0.7	0.0	3.9	1.1	0.0	11.0	2.5	7.2	1.3	82.1	100.0	430
Central	13.1	8.2	2.4	0.2	2.6	0.1	1.3	1.6	0.0	4.8	2.6	0.5	1.8	86.9	100.0	1402
Southern	11.7	6.8	2.2	0.4	0.7	0.2	1.3	1.8	0.1	4.9	1.8	0.8	2.3	88.3	100.0	1660
Education																
No education	10.0	4.8	1.3	0.0	1.4	0.1	0.6	1.4	0.0	5.2	2.0	1.2	2.0	90.0	100.0	1815
Primary 1-4	11.1	6.0	1.6	0.0	1.6	0.0	1.7	1.1	0.0	5.1	2.3	1.0	1.8	88.9	100.0	819
Primary 5-8	18.0	10.6	3.4	0.6	1.3	0.1	3.3	1.9	0.0	7.4	2.6	2.6	2.2	82.0	100.0	750
Secondary+	43.0	37.9	11.4	5.4	3.0	1.9	5.7	9.0	1.5	5.1	2.4	1.7	1.1	57.0	100.0	107
No. of living children																
None	3.0	1.6	0.1	0.0	0.0	0.0	1.1	0.3	0.0	1.5	0.5	0.4	0.6	97.0	100.0	464
1	10.9	5.3	1.9	0.3	0.2	0.0	2.3	0.6	0.0	5.6	2.5	1.3	1.9	89.1	100.0	600
2	11.4	6.3	2.1	0.2	0.9	0.0	2.4	0.7	0.0	5.1	1.5	1.1	2.5	88.6	100.0	615
3	14.9	7.8	2.5	0.4	0.8	0.0	1.6	2.0	0.3	7.1	3.6	1.8	1.7	85.1	100.0	494
4+	17.5	10.7	2.9	0.4	3.0	0.3	1.1	2.9	0.0	6.8	2.5	2.0	2.4	82.5	100.0	1319
Total	13.0	7.4	2.2	0.3	1.5	0.1	1.6	1.7	0.0	5.6	2.2	1.5	2.0	87.0	100.0	3492
CURRENTLY MARRIED MEN																
Residence																
Urban	38.9	23.8	7.6	1.9	3.3	0.3	8.0	1.3	1.5	15.0	9.4	2.3	3.3	61.1	100.0	126
Rural	22.7	10.5	2.2	0.2	1.0	0.0	6.0	1.1	0.0	12.2	7.7	2.2	2.3	77.3	100.0	739
Region																
Northern	31.6	12.0	2.3	0.0	0.2	0.4	8.3	0.9	0.0	19.6	8.1	11.1	0.4	68.4	100.0	99
Central	28.8	13.0	2.3	0.7	2.9	0.0	5.5	1.4	0.1	15.8	11.7	1.7	2.4	71.2	100.0	347
Southern	20.4	12.1	3.7	0.3	0.3	0.0	6.5	1.0	0.3	8.3	4.8	0.5	3.0	79.6	100.0	419
Education																
No education	15.1	5.1	0.0	0.0	1.9	0.0	1.7	0.8	0.7	10.0	6.8	1.5	1.7	84.9	100.0	183
Primary 1-4	17.4	7.7	1.9	0.2	0.6	0.0	4.2	0.9	0.0	9.7	7.4	0.2	2.1	82.6	100.0	255
Primary 5-8	30.9	15.7	4.1	0.5	1.2	0.1	8.0	1.8	0.2	15.1	8.7	3.4	3.0	69.1	100.0	330
Secondary+	44.3	27.5	7.9	2.0	2.7	0.2	14.6	0.2	0.0	16.8	8.6	4.8	3.3	55.7	100.0	97
Total	25.1	12.5	3.0	0.5	1.3	0.0	6.3	1.1	0.2	12.6	7.9	2.2	2.5	74.9	100.0	866

Figure 4.2
Percentages of Currently Married Women and Men
Using a Contraceptive Method



4.5 Number of Children at First Use of Contraception

In many cultures, family planning is used only when couples have already had as many children as they want. However, as the concept of family planning gains more general acceptance, couples may choose to use contraception for spacing births as well as for limiting family size. In addition, unmarried young women may be particularly motivated to use family planning to avoid an unwanted pregnancy. By looking at differences in the number of living children at first use of family planning by current age of women, one can assess time trends in fertility control behaviour.

Table 4.6 shows the number of children ever-married women had when they first used contraception, by age group. For the older cohorts (35-49 years), well over half of those women who have ever used a

Table 4.6 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, according to current age, Malawi 1992

Current age	Never used contraception	Number of living children at time of first use of contraception					Missing	Total	Number of women
		0	1	2	3	4+			
15-19	75.5	10.7	11.8	1.5	0.0	0.0	0.5	100.0	446
20-24	62.0	5.9	22.7	6.3	1.7	0.9	0.4	100.0	850
25-29	57.3	3.1	15.8	12.9	7.0	3.3	0.6	100.0	759
30-34	53.8	1.4	11.7	12.2	8.1	12.3	0.5	100.0	651
35-39	54.3	1.7	9.0	8.9	5.6	20.2	0.3	100.0	531
40-44	56.7	0.8	7.5	8.7	6.2	19.6	0.6	100.0	507
45-49	69.0	0.9	7.6	5.6	4.1	12.2	0.6	100.0	343
Total	60.2	3.6	13.5	8.5	4.8	8.8	0.5	100.0	4088

method started using only after they had three or more children. For the younger cohorts (15-29 years), women are more likely to have started using family planning after their first or second child. For instance, while 45 percent of ever-users currently age 25-29 first used a method before their second child was born, only 19 percent of ever-users age 40-44 had first used contraception by that point in their reproductive lives. Also, use of family planning before the first birth has risen sharply from 1 percent in the 40-49 year-old cohort to 11 percent among 15-19 year-olds. These findings reflect a clear trend in Malawi towards earlier use of family planning for delaying childbearing and for spacing purposes.

4.6 Knowledge of Fertile Period

A basic knowledge of reproductive physiology is useful for the successful practice of coitus-dependent methods such as withdrawal, the condom, or barrier methods, but it is especially important for users of natural family planning (periodic abstinence). The successful practice of natural family planning depends on an understanding of when during the ovulatory cycle a woman is most likely to conceive. Table 4.7 presents the percent distribution of all female respondents and those who have ever used natural family planning by reported knowledge of the fertile period in the ovulatory cycle.

Twenty-seven percent of the women interviewed said they did not know when a woman is most likely to conceive and an additional 39 percent said that there is no particular time when coitus is most likely to result in pregnancy. Only 12 percent of women gave the *correct* response: that a woman is most likely to conceive in the middle of her ovulatory cycle. Ever-users of natural family planning are only slightly more knowledgeable about the ovulatory cycle than women in general. Although fewer ever-users of natural family planning responded "don't know" or "no particular time," still only 14 percent gave the correct response, i.e. "middle of the cycle." In conclusion, while these findings may understate genuine knowledge of the fertile period by Malawian women, it is also apparent that many women who claimed to be using natural family planning as a means to avoid pregnancy are either using it ineffectively or really do not understand what the method involves.

4.7 Sources of Family Planning Methods

All current users of modern methods of family planning were asked to report the source from which they most recently obtained their methods. Since respondents often do not know exactly which category the source they use falls into (e.g., government hospital, primary health centre, etc.), interviewers were instructed to write the name of the source. Supervisors and field editors were instructed to verify that the reported name and the type of source were consistent, asking cluster informants for the names of local family planning sources if necessary. This practice was designed to improve the reporting of data on sources of family planning.

Table 4.7 Knowledge of fertile period

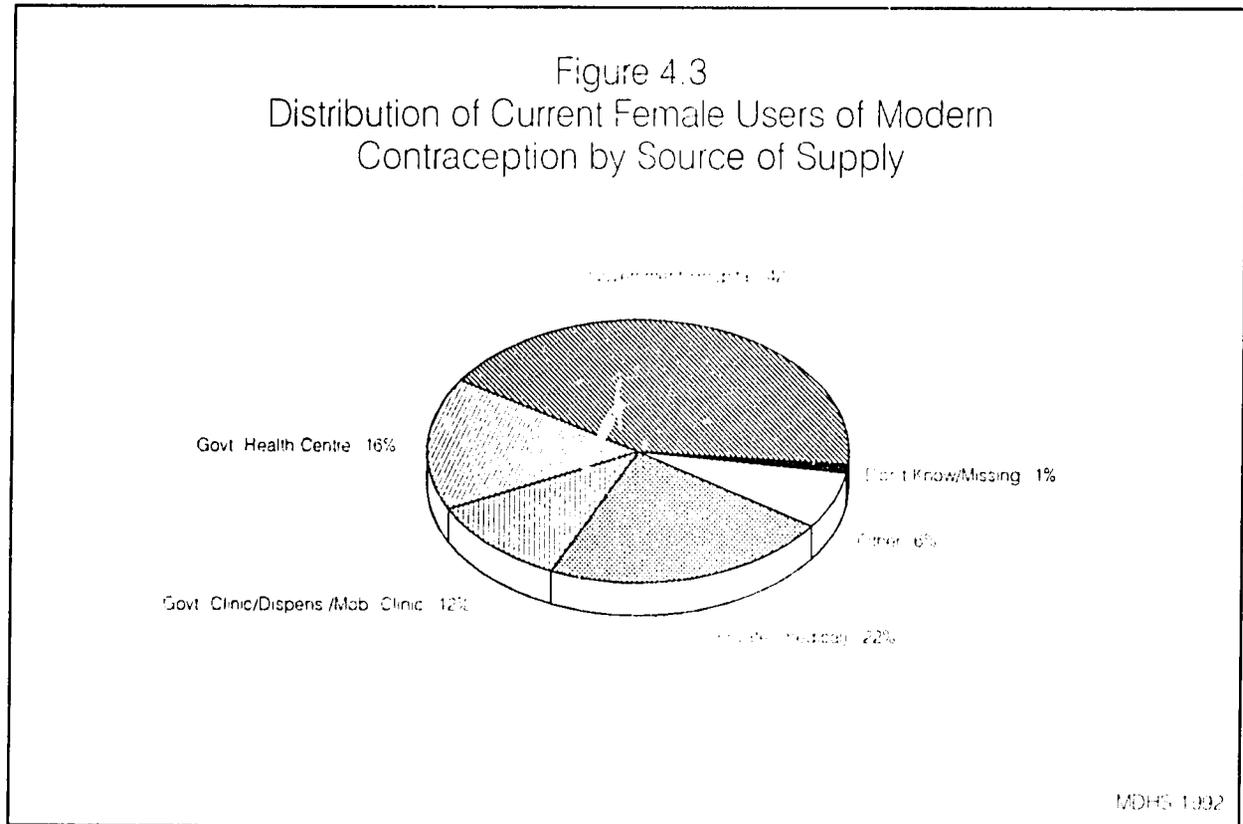
Percent distribution of all women and of women who have ever used the natural method by knowledge of the fertile period during the ovulatory cycle, Malawi 1992

Perceived fertile period	All women	Ever users of the natural method
During menstrual period	0.4	0.7
Right after period has ended	13.7	17.4
In the middle of the cycle	12.1	14.4
Just before period begins	7.6	19.9
No particular time	38.9	30.3
Don't know	27.0	17.3
Missing	0.3	0.0
Total	100.0	100.0
Number	4849	708

Table 4.8 and Figure 4.3 indicate that a large majority of female users of modern contraception (70 percent) obtained their methods from government sources—42 percent from government hospitals, 16 percent from government primary health centres, and 11 percent from government dispensaries/maternity clinics. Twenty-two percent of current users reported the private medical sector as their source of current method. Half of these women obtained their method at a private hospital or clinic. Lastly, six percent of current users, mostly those using condoms, reported their source as a shop, pharmacy, or friends and relatives.

Table 4.8 Source of supply for modern contraceptive methods						
Percent distribution of current users of modern contraceptive methods by most recent source of supply or information, according to specific methods, Malawi 1992						
Source of supply	Pill	IUCD	Con- dom	Female sterili- sation	Other	Total
FEMALES						
Public	77.7	75.9	62.1	62.8	69.0	69.9
Government hospital	40.2	27.3	34.2	62.8	50.3	42.3
Primary health centre	25.4	30.5	6.8	0.0	11.8	15.5
Dispensary/Maternity clinic	12.1	15.5	16.1	0.0	6.9	10.5
Mobile clinic	0.0	2.5	5.0	0.0	0.0	1.6
Private (medical)	18.8	24.1	12.8	32.0	31.0	22.3
Private hospital/Clinic	6.1	7.2	4.2	26.9	19.2	11.5
Private health centre	4.1	5.9	4.7	0.7	8.3	4.0
Dispensary/Maternity clinic	5.0	8.4	4.0	4.4	3.5	5.2
Mobile clinic	0.7	2.5	0.0	0.0	0.0	0.7
Private doctor	2.9	0.0	0.0	0.0	0.0	0.9
Other private	2.9	0.0	24.9	0.0	0.0	6.4
Shop/Pharmacy	1.5	0.0	22.6	0.0	0.0	5.5
Friends/Relatives	1.5	0.0	2.3	0.0	0.0	0.9
Other	0.5	0.0	0.0	0.0	0.0	0.2
Don't know	0.0	0.0	0.3	0.0	0.0	0.1
Missing	0.0	0.0	0.0	5.2	0.0	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	89	58	68	71	19	304
MALES						
Public	83.9		49.9		66.4	60.2
Government hospital	61.7		23.1		42.3	34.9
Primary health centre	5.2		10.3		13.4	9.9
Dispensary/Maternity clinic	17.0		12.8		5.4	12.2
Mobile clinic	0.0		3.6		29.2	3.2
Private (medical)	11.9		24.1		23.8	22.6
Private hospital/Clinic	0.0		3.9		0.0	7.1
Private health centre	3.4		8.6		5.4	5.8
Dispensary/Maternity clinic	8.5		10.4		0.0	9.0
Mobile clinic	0.0		0.6		0.0	0.4
Private doctor	0.0		0.6		0.0	0.4
Other private	4.2		24.2		0.0	15.3
Shop/Pharmacy	2.5		19.7		0.0	12.2
Friends/Relatives	1.7		4.5		0.0	3.0
Missing	0.0		1.8		4.4	2.0
Total	100.0		100.0		100.0	100.0
Number	29		82		28	139

Figure 4.3
Distribution of Current Female Users of Modern
Contraception by Source of Supply



The distribution of male users by source of modern method shows a different pattern than that of female users, largely because over half of current male users report using the condom. Half of the condom users report having obtained their last supply in the public sector, most commonly at a government hospital. The remaining half are split equally between those who obtained their condoms from the medical private sector and those who obtained them from shops, pharmacies, and friends.

The source a woman uses to obtain contraceptive methods depends on many things, one of which is the type of method she has chosen. About two-thirds of sterilisation procedures are done in government hospitals. The source of pills is much more varied, but government hospitals, health centres and clinics together account for over three-quarters of reported user sources. While condoms are also obtained from many sources, 38 percent of women users and 48 percent of male users report getting their condoms from non-governmental sources, the most common single source of which is shops.

Women and men who were currently using a modern contraceptive method were asked how long it takes to travel from their home to the place where they obtain the method. Non-users were asked if they knew a place where they could obtain a modern method and, if so, how long it would take to travel there. The results are presented in Table 4.9.

Among the women currently using a modern method, 19 percent are within 30 minutes (one-way travel time) of the place to which they go to get their method, while 13 percent are 30 minutes to one hour from their source. Fifty-nine percent of users of modern methods are one hour or more from their source of supply. Nearly 10 percent could not provide a quantitative estimate of time to their source. As expected, urban users are generally closer than rural users to their supply sources. Thirty-six percent of urban users are within 30 minutes of their supply sources as compared to only 12 percent of the rural users. Two-thirds of the latter have to travel for one hour or more to get their supplies.

Table 4.9 Time to source of supply for modern contraceptive methods

Percent distribution of women and men who are currently using a modern contraceptive method, who are not using a modern method, and who know a method, by time to reach a source of supply, according to urban-rural residence, Malawi 1992

Time to source (minutes)	Currently using a modern method			Not currently using a modern method			Know a contraceptive method		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
FEMALES									
0-14	22.6	9.3	13.0	9.5	5.2	5.7	11.9	5.9	6.7
15-29	12.9	2.9	5.7	12.0	2.8	3.9	12.7	3.1	4.3
30-59	24.2	8.8	13.0	21.4	6.9	8.6	22.7	7.7	9.6
60 or more	35.2	67.2	58.5	39.3	53.8	52.2	40.3	59.4	56.9
Does not know time	4.4	10.2	8.6	2.9	5.2	4.9	3.3	5.9	5.6
Does not know source	0.0	0.0	0.0	14.6	25.7	24.5	8.8	17.6	16.4
Not stated	0.8	1.4	1.2	0.2	0.3	0.3	0.3	0.4	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	83	221	304	511	4033	4545	568	3817	4385
MALES									
0-14	25.1	17.5	19.7	14.6	6.7	7.9	17.2	8.2	9.7
15-29	22.3	4.3	9.6	8.9	3.1	3.9	12.1	5.2	4.6
30-59	29.9	11.1	16.6	23.8	13.6	15.0	25.5	13.9	15.7
60 or more	18.6	63.9	50.8	27.1	50.1	46.9	25.3	53.2	48.7
Does not know time	1.8	1.0	1.2	1.4	1.1	1.1	1.5	1.1	1.2
Does not know source	0.0	0.0	0.0	22.5	25.1	24.7	16.6	19.9	19.4
Not stated	2.2	2.2	2.2	1.6	0.2	0.4	1.8	0.5	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	40	98	139	141	871	1012	179	924	1103

Among women who are not using a modern method, almost one-quarter do not know a source for a modern contraceptive method. It should be noted that this question was asked of all nonusers and thus includes the 10 percent of women who do not know any method. Since these women presumably do not know of a source for family planning, they would account for almost half of those nonusers who do not know of a source.

The last panel of Table 4.9 is based on all women who know a contraceptive method. Among women who know at least one family planning method, 11 percent are within 30 minutes of a source for a modern method, but 16 percent say they do not know of a place to get a modern method.

4.8 Intention to Use Family Planning Among Nonusers

Women and men who were not using a contraceptive method at the time of the survey were asked if they thought they would do something to prevent pregnancy at any time in the future. The results are shown in Tables 4.10.1 and 4.10.2 by whether or not the woman/man had ever used a method in the past.

Table 4.10.1 Future use of contraception - females

Percent distribution of currently married women who are not using a contraceptive method by past experience with contraception and intention to use in the future, according to number of living children, Malawi 1992

Past experience with contraception and future intentions	Number of living children ¹					Total
	0	1	2	3	4+	
Never used contraception						
Intends to use in next 12 months	13.8	28.6	25.3	29.0	25.7	25.4
Intends to use later	19.2	13.5	7.7	6.7	5.0	8.8
Unsure as to timing	4.2	1.1	1.2	1.2	0.7	1.3
Unsure as to intention	7.9	8.7	8.1	4.6	6.1	6.9
Does not intend to use	38.6	26.6	23.5	21.9	24.2	25.7
Missing	0.0	0.0	0.3	0.3	0.0	0.1
Previously used contraception						
Intends to use in next 12 months	6.0	9.9	17.5	17.6	22.8	16.9
Intends to use later	4.8	4.0	5.9	5.5	3.9	4.6
Unsure as to timing	1.3	0.6	1.0	0.6	0.7	0.8
Unsure as to intention	0.6	1.6	2.3	2.5	1.3	1.6
Does not intend to use	3.5	5.0	7.1	9.9	9.7	7.7
Missing	0.0	0.3	0.0	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
All currently married nonusers						
Intends to use in next 12 months	19.9	38.6	42.8	46.6	48.5	42.3
Intends to use later	24.0	17.5	13.6	12.2	8.8	13.4
Unsure as to timing	5.6	1.7	2.2	1.8	1.4	2.1
Unsure as to intention	8.5	10.3	10.5	7.1	7.4	8.6
Does not intend to use	42.1	31.6	30.6	31.7	33.9	33.4
Missing	0.0	0.3	0.3	0.4	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	330	558	542	456	1151	3038

¹Includes current pregnancy

Among all currently married female nonusers, 42 percent reported intending to use a method within the next 12 months, while another 13 percent intend to use family planning but only at a later time. Nine percent were not sure whether they would ever use a method, but a third of women said that they do not intend to ever use contraception. Intention to use family planning in the future is closely tied to the number of children a woman has. Intent to use in the next 12 months jumps from 20 percent among women with no living children to 49 percent among women with 4 or more living children. Also, while 42 percent of women without children say they will never use family planning, 34 percent of women with 4 or more children say the same.

Sixty-one percent of women who intend to use contraception in the future have not used it in the past. If constraints to use (i.e., cost, access, etc.) are minimised, and thus intentions to use are manifest in future behaviour, the contraceptive prevalence rate in Malawi will increase substantially over the ensuing years.

Overall, intent to use in the next twelve months is only slightly higher among men (46 percent) than women (42 percent). More significant male-female differences do, however, emerge when looking at the relationship between reproductive history and intention to use. Whereas among women, one observes a fairly strong increase in intention to use associated with the current number of living children, this pattern is not observed among male respondents; in fact, the inverse may be true. The results for males however must be interpreted cautiously because they are based on small numbers.

Table 4.10.2 Future use of contraception - males

Percent distribution of currently married men who are not using a contraceptive method by past experience with contraception and intention to use in the future, according to number of living children, Malawi 1992

Past experience with contraception and future intentions	Number of living children					Total
	0	1	2	3	4+	
Never used contraception						
Intends to use in next 12 months	26.4	15.9	23.5	25.3	19.7	21.2
Intends to use later	17.3	15.9	8.6	8.8	8.5	10.7
Unsure as to timing	1.4	0.0	2.1	0.0	1.5	1.2
Unsure as to intention	9.4	2.9	0.4	7.0	4.1	4.2
Does not intend to use	10.4	16.7	18.4	20.6	23.0	19.5
Missing	0.0	0.0	1.7	0.8	0.0	0.4
Previously used contraception						
Intends to use in next 12 months	19.4	31.6	23.7	24.8	23.2	24.5
Intends to use later	4.3	8.6	5.1	4.2	4.3	5.1
Unsure as to timing	4.5	2.0	4.3	0.6	1.8	2.4
Unsure as to intention	1.4	3.0	1.7	4.2	1.9	2.3
Does not intend to use	5.6	3.2	10.2	3.7	11.9	8.4
Missing	0.0	0.0	0.2	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
All currently married nonusers						
Intends to use in next 12 months	45.7	47.5	47.2	50.2	42.9	45.7
Intends to use later	21.6	24.5	13.7	13.0	12.8	15.8
Unsure as to timing	5.9	2.0	6.4	0.6	3.3	3.6
Unsure as to intention	10.8	5.9	2.2	11.2	6.0	6.5
Does not intend to use	15.9	20.0	28.7	24.3	34.9	28.0
Missing	0.0	0.0	1.9	0.8	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	69	104	115	86	274	649

4.9 Reasons for Non-use

Table 4.11 presents the main reasons for not using contraception given by married women and men who are not using any contraceptive method and do not intend to use it in the future. Thirty percent of women say they do not intend to use because they want children, while another 35 percent cite infecundity (either "difficult to get pregnant" or "menopausal") as the reason. Other reasons commonly given are concerns about side effects or other more serious health effects (10 percent) and lack of knowledge (9 percent). The younger cohort of women (under age 30) are much more likely to say they do not to intend to use contraception in the future because they want more children or because they lack knowledge, while those age 30 and over are more likely to cite reasons such as being menopausal or infecund.

Table 4.11 Reasons for not using contraception

Percent distribution of currently married women and men who are not using a contraceptive method and who do not intend to use in the future by main reason for not using, according to age, Malawi 1992

Reason for not using contraception	Age		Total
	Less than 30 years	30 or more years	
FEMALES			
Wants children	47.3	21.3	30.3
Lack of knowledge	15.9	5.9	9.4
Partner opposed	4.4	1.8	2.7
Costs too much	0.1	0.2	0.2
Side effects	3.4	4.6	4.2
Health concerns	6.4	5.2	5.6
Hard to get methods	0.1	0.0	0.0
Religion	0.7	0.1	0.3
Opposed to family planning	0.8	1.2	1.1
Fatalistic	5.6	3.9	4.5
Other people opposed	0.0	0.6	0.4
Infrequent sex	0.7	1.2	1.0
Difficult to get pregnant	7.1	36.3	26.2
Menopausal/Had hysterectomy	0.1	14.2	9.3
Inconvenient	0.6	0.5	0.5
Not married	0.4	0.1	0.2
Other	0.8	1.1	1.0
Don't know	5.4	1.7	3.0
Total	100.0	100.0	100.0
Number	352	664	1016
MALES			
Wants children	51.8	19.8	24.6
Lack of knowledge	24.9	8.6	11.1
Partner opposed	0.0	2.0	1.7
Side effects	0.0	3.9	3.3
Health concerns	1.8	2.5	2.4
Opposed to family planning	0.0	0.4	0.4
Fatalistic	0.0	3.2	2.8
Other people opposed	0.0	1.9	1.6
Infrequent sex	5.5	2.0	2.6
Difficult to get pregnant	5.5	36.8	32.1
Menopausal/Had hysterectomy	6.1	16.1	14.6
Inconvenient	1.8	0.1	0.4
Other	0.0	0.5	0.4
Don't know	2.6	1.9	2.0
Total	100.0	100.0	100.0
Number	27	154	181

The results for men are very similar to those obtained for women, except that men tend to cite desire for more children less often and infecundity and lack of knowledge more often than women do. The results for men should be viewed with caution since they are based on a small number of respondents.

4.10 Preferred Method

Non-users who said that they *did* intend to use family planning in the future were asked which method they preferred to use. The results are presented in Table 4.12. Most women said they preferred to use the pill (51 percent), and injections were the next most preferred method (16 percent). The same pattern of method preference is noted among women regardless of whether they intend to use in the next 12 months or later. There is a tendency for women who are unsure about the timing of future use to also be unsure of which method they might use. The preferred method among men is the condom (40 percent) followed by the pill (28 percent).

Table 4.12 Preferred method of contraception for future use				
Percent distribution of currently married women and men who are not using a contraceptive method but who intend to use in the future by preferred method, according to whether they intend to use in the next 12 months or later, Malawi 1992				
Preferred method of contraception	Intend to use			Total
	In next 12 months	After 12 months	Unsure as to timing	
FEMALES				
Pill	51.9	51.8	41.2	51.4
IUCD	1.2	1.6	0.0	1.2
Injection	17.3	13.5	13.6	16.3
Diaphragm/Foam/Jelly	1.6	0.9	2.3	1.5
Condom	6.3	8.3	3.3	6.6
Female sterilisation	5.2	3.5	7.3	4.8
Male sterilisation	0.1	0.0	0.0	0.1
Natural method	6.1	4.2	4.8	5.6
Withdrawal	1.8	1.7	2.2	1.8
Other	4.3	4.1	5.6	4.3
Unsure	4.3	10.5	19.7	6.3
Total	100.0	100.0	100.0	100.0
Number	1284	408	65	1757
MALES				
Pill	27.4	32.9	15.5	28.0
IUCD	1.4	0.5	0.0	1.1
Injection	6.9	3.1	5.0	5.8
Diaphragm/Foam/Jelly	1.3	0.0	0.0	0.9
Condom	42.1	38.7	24.1	40.2
Female sterilisation	7.3	0.0	19.3	6.2
Male sterilisation	0.0	1.6	0.0	0.4
Natural method	8.2	15.5	10.6	10.0
Withdrawal	0.5	1.1	10.5	1.2
Other	3.4	4.7	10.0	0
Unsure	1.6	1.9	5.0	2.1
Total	100.0	100.0	100.0	100.0
Number	296	103	23	422

4.11 Exposure to Family Planning Messages on Radio

All respondents were asked if they had heard a message about family planning on radio in the month preceding the interview. Only one-quarter of women and about half of men said that they had heard a message on the radio (Table 4.13). The percentage who had heard family planning messages in the month prior to the survey varied widely by background characteristics. Rural men and women and those with little or no education were less likely to have heard a family planning message.

Table 4.14 presents the results from a question on whether women and men believe it is acceptable or not acceptable to air family planning messages over the radio. Eighty-four percent of women and 93 percent of men said that such messages are acceptable to them. Young women (15-19 years) were much more likely than others to respond "don't know," and men and women 45 years of age or older were more likely to say that family planning messages on the radio were unacceptable. Patterns of acceptability across region, urban-rural residence and education were small or negligible.

4.12 Approval of Family Planning

An indication of the acceptability of family planning is the extent to which couples discuss the topic with each other. Table 4.15 shows the results obtained by asking married, non-sterilised women and men who know of a contraceptive method questions concerning communication about family planning with their spouse. Fifty-seven percent of these women and 63 percent of these men said they had discussed family planning with their spouse in the year prior to the survey. Not only are men more likely to have said they have discussed family planning with their spouse, but they report having discussed it more often than women report. While 38 percent of men said they discussed family planning three or more times over the last year, only 24 percent of women said the same. Men and women age 35-39 years were most likely to have recently discussed family planning with their spouse, with such communication becoming increasingly less common among the older and younger age groups.

Table 4.13 Family planning messages on radio

Percent distribution of all women and men by whether they have heard a family planning message on radio in the month preceding the survey, according to selected background characteristics, Malawi 1992

Background characteristic	Heard family planning message on radio	Number of women/men
FEMALES		
Residence		
Urban	48.3	594
Rural	23.7	4255
Region		
Northern	28.8	578
Central	25.0	1872
Southern	27.6	2398
Education		
No education	19.0	2287
Primary 1-4	24.6	1192
Primary 5-8	38.2	1159
Secondary+	60.1	212
Total	26.8	4849
MALES		
Residence		
Urban	61.3	181
Rural	46.3	970
Region		
Northern	52.7	139
Central	44.9	443
Southern	50.7	569
Education		
No education	42.8	236
Primary 1-4	36.3	335
Primary 5-8	51.8	423
Secondary+	75.8	157
Total	48.7	1151

Table 4.14 Acceptability of the use of radio for disseminating family planning messages

Percentage of women and men who believe that it is acceptable to have messages about family planning on radio, by age and selected background characteristics, Malawi 1992

Background characteristic	Acceptable	Not acceptable	Don't know/ Missing	Total	Number of women/ men
FEMALES					
Age					
15-19	76.8	13.2	10.0	100.0	1082
20-24	88.6	7.9	3.5	100.0	944
25-29	88.0	8.7	3.3	100.0	777
30-34	83.9	11.4	4.7	100.0	656
35-39	86.4	10.0	3.6	100.0	537
40-44	83.1	9.9	7.0	100.0	510
45-49	77.3	16.0	6.7	100.0	343
Residence					
Urban	88.3	9.0	2.7	100.0	594
Rural	83.0	10.9	6.1	100.0	4255
Region					
Northern	80.4	10.0	9.6	100.0	578
Central	83.8	11.6	4.6	100.0	1872
Southern	84.3	10.1	5.6	100.0	2398
Education					
No education	78.7	14.7	6.5	100.0	2287
Primary 1-4	85.6	7.7	6.7	100.0	1192
Primary 5-8	89.8	6.3	3.8	100.0	1159
Secondary+	91.2	8.0	0.8	100.0	212
Total	83.6	10.7	5.7	100.0	4849
MALES					
Age					
20-24	93.4	3.2	3.3	100.0	277
25-29	94.9	2.4	2.6	100.0	205
30-34	94.6	3.6	1.8	100.0	168
35-39	93.9	3.4	2.7	100.0	143
40-44	94.4	3.7	1.8	100.0	160
45-49	86.7	10.3	3.0	100.0	95
50-54	87.7	10.3	1.9	100.0	102
Residence					
Urban	90.0	6.9	3.1	100.0	181
Rural	93.6	4.0	2.4	100.0	970
Region					
Northern	85.8	7.2	7.1	100.0	139
Central	95.1	3.5	1.4	100.0	443
Southern	93.1	4.5	2.4	100.0	569
Education					
No education	92.8	2.9	4.4	100.0	236
Primary 1-4	93.9	4.0	2.2	100.0	335
Primary 5-8	93.8	3.9	2.3	100.0	423
Secondary+	89.5	9.3	1.2	100.0	157
Total	93.0	4.4	2.5	100.0	1151

Table 4.15 Discussion of family planning by couples

Percent distribution of currently married, non-sterilised women and men who know a contraceptive method by the number of times family planning was discussed with spouse in the year preceding the survey, according to current age, Malawi 1992

Age	Number of times family planning discussed				Total	Number
	Never	Once or twice	Three or more	Missing		
FEMALES						
15-19	50.4	37.2	11.9	0.6	100.0	341
20-24	42.3	33.8	23.3	0.7	100.0	713
25-29	37.7	34.0	28.0	0.2	100.0	632
30-34	39.1	34.2	25.7	0.9	100.0	546
35-39	34.7	34.9	29.4	1.0	100.0	419
40-44	49.3	24.5	25.8	0.4	100.0	364
45-49	59.9	20.4	18.1	1.6	100.0	226
Total	42.7	32.4	24.1	0.7	100.0	3242
MALES						
20-24	50.9	19.2	29.8	0.2	100.0	97
25-29	34.2	30.4	35.2	0.1	100.0	162
30-34	26.3	26.1	46.6	1.0	100.0	144
35-39	24.2	22.6	52.0	1.2	100.0	125
40-44	36.6	24.6	36.8	2.0	100.0	141
45-49	31.5	25.6	37.9	5.0	100.0	79
50-54	58.1	18.5	23.4	0.0	100.0	92
Total	36.1	24.5	38.3	1.2	100.0	840

In order to obtain more direct information about the acceptability of family planning, respondents were asked if they approved or disapproved of couples using a method to avoid pregnancy. Although all women and men were asked this question, the data presented in Tables 4.16.1 and 4.16.2 are confined to currently married, non-sterilised respondents and exclude those who had never heard of a contraceptive method. Currently married, non-sterilised women and men were also asked if they thought that their spouse approved of the use of family planning. It should be noted that the respondent's opinions of their spouse's attitudes may be incorrect, either because they have misconstrued their spouse's attitudes or because of a tendency to report their spouse's attitudes as similar to their own.

Table 4.16.1 Attitudes of couples toward family planning - female respondents

Among currently married, non-sterilised women who know a contraceptive method, the percentage who approve of family planning, by their perception of their husband's attitude and selected background characteristics, Malawi 1992

Characteristic	Respondent approves			Respondent disapproves			Respondent unsure	Percent	Total
	Both approve	Husband disapproves	Unsure of husband	Husband approves	Husband disapproves	Unsure of husband			
Age									
15-19	69.2	8.6	15.9	0.2	2.3	2.5	1.3	100.0	341
20-24	73.1	7.2	10.7	1.9	2.0	3.5	1.6	100.0	713
25-29	74.1	10.4	10.1	1.1	1.1	2.6	0.6	100.0	632
30-34	69.4	12.9	10.3	2.2	1.4	2.8	1.1	100.0	546
35-39	70.3	8.5	9.6	3.1	2.5	4.5	1.4	100.0	419
40-44	69.9	8.6	14.3	0.4	1.5	4.8	0.5	100.0	364
45-49	62.0	9.0	15.8	2.3	2.0	7.4	1.6	100.0	226
Residence									
Urban	74.8	9.9	9.5	1.5	0.8	2.6	1.0	100.0	380
Rural	70.2	9.3	12.0	1.6	1.9	3.8	1.2	100.0	2862
Region									
Northern	69.8	10.1	11.8	1.7	3.0	2.1	1.5	100.0	398
Central	72.5	9.6	10.2	1.7	1.4	3.8	0.8	100.0	1299
Southern	69.5	9.0	13.0	1.5	1.7	3.9	1.4	100.0	1545
Education									
No education	67.5	9.1	13.4	1.9	2.2	5.0	0.8	100.0	1648
Primary 1-4	71.6	9.7	10.8	1.6	1.9	2.9	1.4	100.0	773
Primary 5-8	75.2	9.9	9.8	1.2	0.8	1.8	1.3	100.0	725
Secondary+	86.2	7.0	3.0	0.5	0.0	0.0	3.3	100.0	96
Total	70.8	9.4	11.7	1.6	1.8	3.6	1.1	100.0	3242

Overall, 92 percent of married women and 96 percent of married men who know a contraceptive method approve of family planning. Women are more likely than men to report that they do not know their spouse's view on family planning or that their spouse disapproves. Less educated men and women are more likely to disapprove of family planning themselves, and are also more likely to say that their spouses disapprove or that they do not know their spouse's views. Comparison of results among regions and between urban and rural respondents suggest that only very small to negligible differences in attitudes towards family planning exist across these lines. Further, only very small differences exist in attitudes by age of the respondents, although there is a slight tendency for older men and women to disapprove of family planning.

Table 4.16.2 Attitudes of couples toward family planning - male respondents

Among currently married, non-sterilised men who know a contraceptive method, the percentage who approve of family planning, by their perception of their wife's attitude and selected background characteristics, Malawi 1992

Characteristic	Respondent approves			Respondent disapproves			Respondent unsure	Percent	Total
	Both approve	Wife disapproves	Unsure of wife	Wife approves	Wife disapproves	Unsure of wife			
Age									
20-24	90.0	0.0	7.4	0.0	2.4	0.0	0.2	100.0	97
25-29	92.3	1.2	4.6	0.0	0.0	1.8	0.1	100.0	162
30-34	90.3	2.3	4.2	2.2	0.0	0.0	1.0	100.0	144
35-39	92.4	1.0	1.7	3.0	0.6	0.1	1.2	100.0	125
40-44	87.0	2.3	5.2	0.4	1.1	2.0	2.0	100.0	141
45-49	88.2	1.3	0.6	0.2	1.9	2.7	5.0	100.0	79
50-54	80.3	8.7	6.0	0.6	3.4	1.1	0.0	100.0	92
Residence									
Urban	85.1	2.8	5.2	1.7	1.2	2.4	1.6	100.0	123
Rural	89.8	2.2	4.1	0.8	1.1	0.9	1.2	100.0	717
Region									
Northern	89.2	2.5	5.0	0.4	0.0	1.7	1.2	100.0	98
Central	88.3	1.1	4.5	2.1	1.4	1.1	1.5	100.0	330
Southern	89.7	3.1	3.9	0.2	1.1	1.0	1.0	100.0	411
Education									
No education	85.7	6.1	4.0	0.9	1.7	0.7	0.9	100.0	174
Primary 1-4	84.1	2.0	7.5	1.4	2.0	2.2	1.0	100.0	244
Primary 5-8	93.0	0.4	2.9	0.8	0.2	0.7	1.8	100.0	325
Secondary+	94.5	2.1	1.3	0.5	0.7	0.5	0.4	100.0	97
Total	89.1	2.2	4.3	1.0	1.1	1.1	1.2	100.0	840

CHAPTER 5

OTHER PROXIMATE DETERMINANTS OF FERTILITY

This chapter addresses two of the principal factors other than contraception that affect a woman's risk of becoming pregnant: nuptiality and postpartum amenorrhoea. Nuptiality (marriage) is a primary factor influencing the exposure of a woman to the risk of pregnancy and therefore is important in understanding fertility dynamics. Populations in which age at first marriage is low tend to be populations with early childbearing and high fertility. One of the first signs of a transition from high to lower fertility levels is a rise in the age at first marriage.

Postpartum amenorrhoea is another factor that directly influences exposure to the risk of pregnancy. A woman is normally amenorrhoeic for a few weeks or months following the termination of a pregnancy. During this time, she is less susceptible to the risk of pregnancy and, although the correlation is not an exact one, this period of amenorrhoea can be lengthened by breastfeeding. Inversely, by curtailing the length of breastfeeding without adopting other fertility control measures, a woman will become susceptible to the risk of pregnancy at an earlier postpartum date.

5.1 Marital Status

Table 5.1 shows the distribution of women and men by age and marital status at the time of the survey. The term "married" refers to legal or formal marriage, whereas "living together" refers to informal unions. In this report, these two categories are combined and referred to collectively as "currently married"

Table 5.1 Current marital status								
Percent distribution of women and men by current marital status, according to age, Malawi 1992								
Age (years)	Marital status						Total	Number of women/men
	Never married	Married	Living together	Widowed	Divorced	Not living together		
FEMALES								
15-19	58.8	34.6	1.2	0.3	3.6	1.5	100.0	1082
20-24	10.0	74.4	4.3	1.2	7.9	2.3	100.0	944
25-29	2.2	82.2	3.0	2.4	7.1	3.2	100.0	777
30-34	0.6	84.8	4.3	2.9	4.9	2.5	100.0	656
35-39	1.1	80.6	4.1	3.8	6.1	4.4	100.0	537
40-44	0.6	76.3	3.7	3.9	11.4	4.2	100.0	510
45-49	0.0	70.4	3.4	8.6	11.2	6.4	100.0	343
Total	15.7	68.8	3.2	2.5	6.8	3.0	100.0	4849
MALES								
20-24	60.8	32.8	3.4	0.0	1.2	1.8	100.0	277
25-29	14.5	72.5	7.3	0.9	3.5	1.3	100.0	205
30-34	5.5	77.0	10.3	1.0	4.0	2.2	100.0	168
35-39	1.8	77.4	13.0	1.0	1.2	5.6	100.0	143
40-44	0.6	85.2	6.7	2.3	4.5	0.7	100.0	160
45-49	0.0	79.8	8.1	0.5	8.1	3.5	100.0	95
50-54	1.6	90.4	2.3	1.0	3.1	1.6	100.0	102
Total	18.5	68.1	7.1	0.9	3.2	2.2	100.0	1151

or "currently in union." Along with the currently married, respondents who are widowed, divorced, or no longer living together (separated) make up the remainder of the "ever-married" or "ever in union" category.

Marriage is almost universal in Malawi; in other words, nearly everyone is married at some time in his/her life, and the majority of people are currently married. By the time women reach ages 25-29 and men reach ages 35-39, 98 percent have been married. More women than men marry in their adolescent years (before 20 years), and more men than women remain married at older ages. Among women, the percentage currently married declines after age 35, so that approximately 7 out of 10 women are currently married by the age of 45-49. Among men, 90 percent are currently married in the age group 50-54. The percentage of respondents who are not currently married (but were at one time) is twice as high among women than among men.

5.2 Polygyny

Married women were asked whether their husbands have other wives and, if so, how many other wives. Married men were asked whether they have more than one wife and, if so, how many other wives. Table 5.2 shows the percentage of currently married women and men who are in polygynous unions, by age

Table 5.2 Polygyny

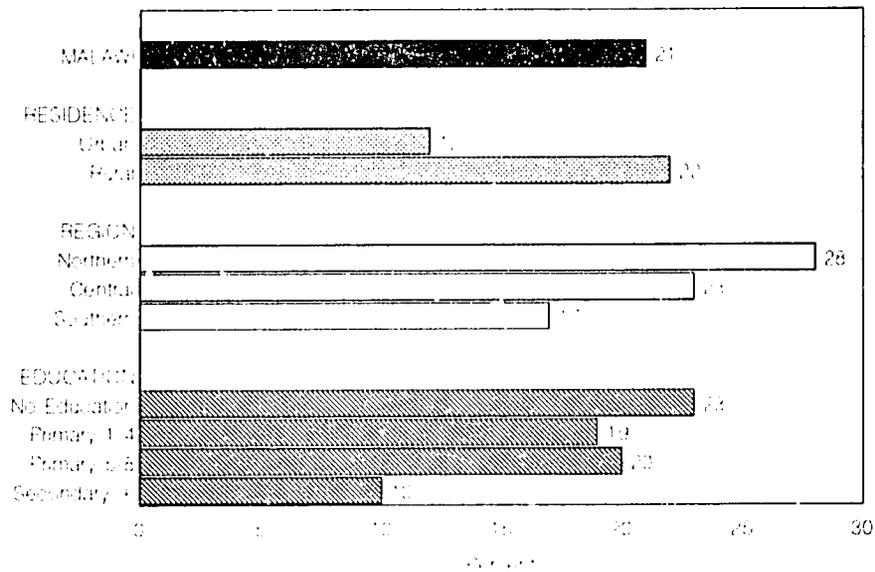
Percentage of currently married women and men in a polygynous union, by age and selected background characteristics, Malawi 1992

Background characteristic	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Urban	12.5	11.2	8.3	14.6	13.4	16.2	13.6	12.0
Rural	10.4	13.2	24.5	24.9	24.8	29.5	34.0	21.9
Region								
Northern	14.8	18.8	29.2	40.2	31.2	30.0	46.5	28.3
Central	12.9	13.1	20.0	24.1	27.8	34.4	41.2	22.7
Southern	8.0	10.9	22.0	19.1	18.5	23.4	20.5	17.2
Education								
No education	10.9	14.6	21.5	25.7	23.8	30.0	32.8	22.7
Primary 1-4	12.0	12.9	22.1	19.5	19.0	27.5	31.3	18.9
Primary 5-8	8.6	10.2	24.9	25.3	30.1	24.5	(30.4)	19.5
Secondary+	*	(13.1)	8.6	(7.9)	(7.4)	*	*	10.2
Total	10.6	12.9	22.1	23.6	23.4	28.5	32.2	20.8
Background characteristic	Age of man							Total
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	
Residence								
Urban	*	(0.9)	2.0	(3.9)	(9.0)	(10.4)	*	4.3
Rural	4.0	2.1	9.9	17.6	10.6	15.2	13.9	9.8
Total	3.8	1.9	8.4	15.2	10.4	14.3	12.6	9.0

() Based on 25-49 persons

* Based on less than 25 persons

Figure 5.1
 Percentage of Currently Married Women
 Whose Husbands Have at least One Other Wife



MDHS 1992

and background characteristics. Figure 5.1 shows the polygyny prevalence data for married women. Overall, 21 percent of currently married women are in a polygynous union, and 9 percent of currently married men have more than one wife. Polygyny exists in all regions and among all socioeconomic groups, although the prevalence varies.

Among women, polygyny increases with age, from 11 percent among women age 15-19 to 32 percent of women age 45-49. Women and men in rural areas are about twice as likely to be in a polygynous union as their urban counterparts. Polygyny is more common in the Northern Region (28 percent of women) than in the Central Region (23 percent) and Southern Region (17 percent). Education among women is associated with a lower prevalence of polygyny; 23 percent of uneducated women are in a polygynous union versus only 10 percent of women with some secondary education.

Of those women in polygynous unions (21 percent), 60 percent have a single co-wife (Table 5.3). This means that 8 percent of all currently married women have at least two other co-wives. The likelihood of a woman having more than one co-wife increases with age, from 2 percent among women age 15-19 to 16 percent of women age 45-49. Women living in urban areas, in the Southern Region, and those with secondary education are least likely to have multiple co-wives.

Only two percent of men have more than two wives (Table 5.4). As among female respondents, polygyny among males is much less common in urban areas, in the Southern Region, and among men with more formal education.

Table 5.3 Number of co-wives

Percent distribution of currently married women by number of co-wives, according to selected background characteristics, Malawi 1992

Background characteristic	Number of co-wives				Total	Number of women
	0	1	2+	Missing		
Age						
15-19	89.4	7.4	2.2	0.9	100.0	388
20-24	87.1	9.1	3.4	0.4	100.0	743
25-29	77.9	13.8	8.2	0.1	100.0	661
30-34	76.4	14.4	8.9	0.2	100.0	584
35-39	76.6	13.8	9.6	0.0	100.0	455
40-44	71.5	19.0	9.4	0.0	100.0	408
45-49	67.8	15.7	15.9	0.6	100.0	253
Residence						
Urban	88.0	7.1	4.5	0.4	100.0	411
Rural	78.1	13.7	7.9	0.3	100.0	3081
Region						
Northern	71.7	17.3	10.7	0.3	100.0	430
Central	77.3	11.4	11.0	0.3	100.0	1402
Southern	82.8	13.1	3.7	0.3	100.0	1660
Education						
No education	77.3	14.4	7.9	0.4	100.0	1815
Primary 1-4	81.1	11.7	7.0	0.2	100.0	819
Primary 5-8	80.5	11.6	7.8	0.1	100.0	750
Secondary+	89.8	6.6	2.6	1.1	100.0	107
Total	79.2	12.9	7.5	0.3	100.0	3492

Table 5.4 Number of wives

Percent distribution of currently married men by number of wives, according to selected background characteristics, Malawi 1992

Background characteristic	Number of wives			Total	Number of men
	1	2	3+		
Age					
20-24	96.2	3.8	0.0	100.0	100
25-29	98.1	1.9	0.0	100.0	163
30-34	91.6	7.1	1.2	100.0	147
35-39	84.8	13.7	1.5	100.0	129
40-44	89.6	6.0	4.4	100.0	147
45-49	85.7	9.8	4.5	100.0	83
50-54	87.4	9.4	3.2	100.0	95
Residence					
Urban	95.7	4.2	0.1	100.0	126
Rural	90.2	7.5	2.3	100.0	739
Region					
Northern	85.1	13.2	1.7	100.0	99
Central	87.4	9.6	3.0	100.0	347
Southern	95.3	3.5	1.2	100.0	419
Education					
No education	95.0	3.9	1.1	100.0	183
Primary 1-4	89.2	7.5	3.3	100.0	255
Primary 5-8	89.0	9.0	2.6	100.0	330
Secondary+	94.6	5.2	0.2	100.0	97
Total	91.0	7.1	2.0	100.0	866

5.3 Age at First Marriage

Women marry for the first time, on average, 5 to 6 years earlier in life than men (Table 5.5). The median age at first marriage is 18 years for women and about 24 years for men. By age 20, three-quarters of women are married, whereas fewer than one in five men are married by this age. Nearly all women are married by age 25.

Table 5.5 Age at first marriage								
Percentage of women and men ever married by specific exact ages and median age at first marriage, according to current age, Malawi 1992								
Current age	Percentage ever married by specific exact age:					Percentage who had never married	Number	Median age at first marriage
	15	18	20	22	25			
FEMALES								
15-19	7.8	NA	NA	NA	NA	58.8	1082	a
20-24	14.8	54.8	76.6	NA	NA	10.0	944	17.7
25-29	16.3	53.7	76.9	88.1	95.2	2.3	777	17.7
30-34	20.8	61.0	80.3	89.3	95.3	0.6	656	17.2
35-39	16.4	51.2	73.3	85.0	92.5	1.1	537	17.9
40-44	18.0	49.4	69.0	79.9	93.3	0.6	510	18.1
45-49	17.8	44.9	65.9	79.9	93.1	0.0	343	18.4
20-49	17.1	53.5	74.8	85.9	93.1	3.3	3767	17.7
MALES								
20-24	1.3	4.8	13.7	NA	NA	60.8	277	a
25-29	2.2	5.5	18.0	38.1	58.2	14.5	205	24.0
30-34	1.9	4.8	14.0	37.1	67.6	5.5	168	23.0
35-39	0.0	7.0	20.7	43.2	64.4	1.8	143	23.1
40-44	0.9	4.8	21.4	40.4	65.9	0.6	160	23.3
45-49	2.2	11.1	20.5	31.5	56.6	0.0	95	24.5
50-54	1.6	11.4	22.0	33.9	67.0	1.6	102	23.5
25-54	1.5	6.8	19.0	38.0	63.3	5.0	874	23.5

NA = Not applicable
^aOmitted because less than 50 percent of the women in the age group x to $x+4$ were first married by age x

Trends in age at marriage can be described by comparing the cumulative distribution married for successive five-year age groups.¹ The data show that there has been a decline in the proportion of women and men marrying at early ages. The proportion of women marrying before age 15 has declined from 21 percent of the 30-34 year-olds to 8 percent of the 15-19 year-olds. The decline in age at first marriage is not quite as marked among men; the percentage married by age 20 has dropped from 21 among men currently age 35-49 to 14 percent among men aged 20-24.

¹For each age-group cohort, the accumulated percentages stop at the lower age boundary of the cohort to avoid censoring problems. For instance, for women currently age 15-19, accumulation stops with the percentage married by exact age 15.

Although the decline in marriage at early ages has not been sufficient to change substantially the national median age at first marriage, there are differentials between subgroups of the population. Table 5.6 presents median ages at first marriage by background characteristics. Only the results for women are presented due to the small male sample. Urban women under age 35 marry for the first time one year later than rural women. Regional differences in age at marriage are small, although recent cohorts of women in the Southern Region are marrying at a slightly earlier age than women of the same age in the Northern and Central Regions. The association between greater education and later age at marriage, witnessed in countries around the world, is also seen among Malawian women. As an example, in the cohort age 25-29 years, women with secondary education have a median age at marriage of 22 compared to age 17 for women without education.

Table 5.6 Median age at first marriage							
Median age at first marriage for women by current age and selected background characteristics, Malawi 1992							
Background characteristic	Age of woman						Women age 20-49
	20-24	25-29	30-34	35-39	40-44	45-49	
Residence							
Urban	18.9	18.6	18.2	18.0	18.1	18.3	18.5
Rural	17.5	17.6	17.0	17.9	18.1	18.4	17.6
Region							
Northern	17.9	17.8	17.2	17.9	17.7	17.7	17.7
Central	17.9	18.0	17.4	17.8	17.9	18.1	17.8
Southern	17.3	17.4	16.9	18.0	18.4	18.7	17.6
Education							
No education	16.8	17.3	16.6	18.0	18.0	18.5	17.4
Primary 1-4	17.6	17.2	17.1	17.0	18.0	18.4	17.5
Primary 5-8	18.2	18.4	17.8	17.5	18.0	(17.4)	18.1
Secondary+	a	22.4	(20.5)	(20.6)	*	*	a
Total	17.7	17.7	17.2	17.9	18.1	18.4	17.7

^aOmitted because less than 50 percent in the age group were first married by age 20.
 () Based on 25-49 cases
 * Based on less than 25 cases

5.4 Postpartum Amenorrhoea

Postpartum amenorrhoea is defined as the time between the birth of a child and the return of the menstrual cycle. During this time without menses, a woman is normally not ovulating, and is therefore insusceptible to the risk of pregnancy. This period of insusceptibility can be prolonged by breastfeeding. Once her menses returns, a woman is once again susceptible to the risk of becoming pregnant. Table 5.7 shows the percentage of mothers who are postpartum amenorrhoeic at the time of the survey by number of months since birth.

More than three-quarters of women remain amenorrhoeic for at least six months following a birth. After six months, the percentage remaining amenorrhoeic drops significantly, so that by the time a child is 18-19 months old, only 22 percent of mothers are still insusceptible. Overall, more than one-half of women become susceptible to the risk of pregnancy within one year of the birth of a child.

Table 5.7 Postpartum amenorrhoea

Percentage of births whose mothers are postpartum amenorrhoeic, by number of months since birth, and median and mean durations, Malawi 1992

Months since birth	Amenorrhoeic	Number of births
< 2	88.7	171
2-3	89.8	173
4-5	83.0	189
6-7	81.6	156
8-9	64.9	210
10-11	51.8	160
12-13	47.3	178
14-15	42.4	135
16-17	34.1	115
18-19	21.9	161
20-21	19.7	156
22-23	8.9	152
24-25	12.5	147
26-27	1.9	122
28-29	2.5	142
30-31	6.3	147
32-33	2.6	136
34-35	2.1	14
Total	39.7	2800
Median	11.9	-
Mean	13.5	-
Prevalence/Incidence Mean	14.1	-

Table 5.8 shows the median durations of amenorrhoea by background characteristics of the mother. Mothers age 30 and over are amenorrhoeic 3.2 months longer than younger mothers. Urban mothers have shorter durations of amenorrhoea, reflecting in large part differences in breastfeeding durations and patterns. Regional differentials are negligible. The duration of amenorrhoea decreases steadily with increasing education, from a length of 15 months among women with no education, to 7 months among women with secondary schooling. It is interesting to note that the differential by education is larger than the educational differential in duration of breastfeeding (see Table 9.4). This suggests that a diminution in the frequency as well as the overall duration of breastfeeding is associated with higher education levels.

5.5 Termination of Exposure to Pregnancy

Later in life, the risk of pregnancy begins to decline with age, typically beginning around age 30. While the onset of infertility is difficult to determine for any individual woman, there are ways of estimating it for a population. Table 5.9 presents an indicator of decreasing exposure to the risk of pregnancy for women age 30 and above—the percentage of women who have entered menopause. Here, a woman is considered menopausal if

Table 5.8 Median duration of postpartum amenorrhoea

Median number of months of postpartum amenorrhoea, by selected background characteristics, Malawi 1992

Background characteristics	Amenorrhoeic (months)	Number of births
Age (years)		
<30	11.3	1705
30+	14.5	109
Residence		
Urban	10.0	315
Rural	12.3	2485
Region		
Northern	11.9	331
Central	11.5	1170
Southern	12.3	1299
Education		
No education	14.6	1410
Primary 1-4	11.5	675
Primary 5-8	9.2	628
Secondary+	7.4	86
Total	11.9	2800

Note: Medians are based on current status.

she is not pregnant or postpartum amenorrhoeic, and she has not had a menstrual period in the six months preceding the survey. As expected, the percent of women who are menopausal (based on this definition) steadily increases with age, from 7 percent of women age 30-34 to nearly a third of women age 48-49.

Table 5.9 Menopause

Percentage of non-pregnant, non-amenorrhoeic married women age 30-49 whose last menstrual period occurred six or more months preceding the survey or who report that they are menopausal, by age, Malawi 1992

Age	Percentage menopausal	Number of women
30-34	7.2	314
35-39	5.2	272
40-41	14.9	113
42-43	16.1	134
44-45	20.3	99
46-47	31.5	84
48-49	32.5	84
Total	13.5	1101

CHAPTER 6

FERTILITY PREFERENCES

Women and men were asked several questions in order to ascertain their fertility preferences: their desire to have another child, the length of time they wanted to wait before having a child, and the number of children they considered to be ideal. These data make the quantification of fertility preferences possible and, in combination with data on contraceptive use, allow an estimation of the demand for family planning, either to space or to limit births.

6.1 Desire for More Children

Table 6.1 presents fertility desires among women and men by the number of living children. Although 58 percent of currently married women would like to have another child, only 19 percent want one within two years. Thirty-seven percent would prefer to wait two or more years. Nearly a quarter of married women want no more children than they already have. Thus, a majority of women (61 percent) want either to space their next birth or end childbearing altogether (Figure 6.1). This represents the proportion of women who are potentially in need of some method of family planning.

Table 6.1 Fertility preferences

Percent distribution of currently married women and men by desire for more children, according to number of living children, Malawi 1992

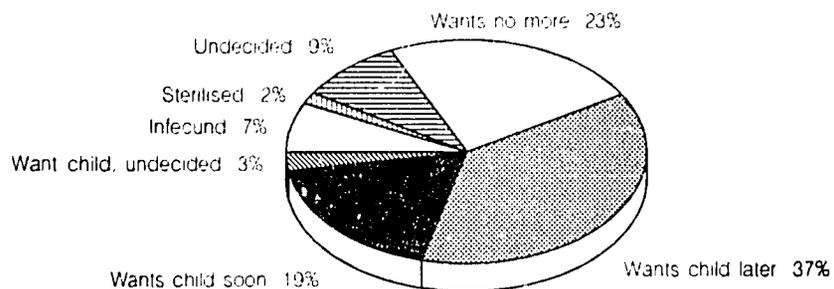
Desire for children	Number of living children ¹							Total
	0	1	2	3	4	5	6+	
FEMALES								
Have another soon ²	58.9	23.4	22.4	12.7	11.6	6.6	3.2	18.5
Have another later ³	12.6	56.5	49.8	47.4	36.8	26.5	17.0	37.3
Have another, undecided when	11.6	3.3	1.8	2.0	1.8	0.2	0.1	2.6
Undecided	6.7	5.4	8.2	11.8	10.0	13.6	11.2	9.4
Wants no more	1.2	5.2	11.3	16.0	31.9	42.6	56.0	23.3
Sterilised	0.5	0.6	0.7	2.2	2.5	2.0	3.6	1.7
Declared infecund	8.5	5.4	5.8	7.9	5.4	8.5	8.6	7.1
Missing	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	344	623	613	530	403	396	584	3492
MALES								
Have another soon	42.0	18.5	21.9	21.1	19.6	14.2	3.5	17.7
Have another later	45.1	66.2	52.9	42.8	37.5	35.8	27.7	43.3
Have another, undecided when	5.1	0.9	1.7	2.8	0.9	0.0	1.3	1.7
Undecided	4.8	3.0	3.8	5.2	3.6	3.6	3.8	3.9
Wants no more	2.9	6.7	12.5	20.4	29.1	35.2	50.8	25.1
Sterilised	0.0	0.1	1.3	1.2	2.9	1.7	1.8	1.4
Declared infecund	0.0	4.6	5.8	6.6	6.5	9.6	11.2	6.9
Missing	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	75	127	149	121	110	82	202	866

¹Includes current pregnancy

²Wants next birth within 2 years

³Wants to delay next birth for 2 or more years

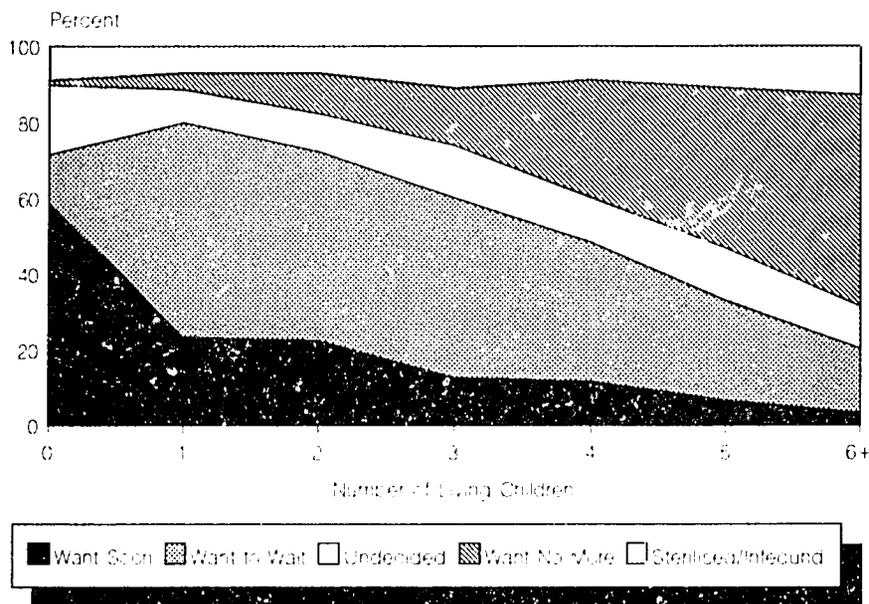
Figure 6.1
Fertility Preferences among
Currently Married Women 15-49



Note: Soon = within 2 years, later = after 2 years

MDHS 1992

Figure 6.2
Fertility Preferences among Currently
Married Women by Number of Living Children



MDHS 1992

As expected, the desire to discontinue childbearing increases sharply with increasing number of living children, from 1 percent among married women without a child to 56 percent among women with 6 or more children (Figure 6.2). A similar pattern of changing fertility desires with number of living children is also observed among men.

Table 6.2 shows similar data according to the age of women and men. The desire to limit births rises rapidly with age, from 4 percent of married women age 15-19 to 45 percent of those age 45-49. Conversely, the desire to space births declines with age. In other words, the potential need for family planning services is greatest among older women for limiting childbearing and among younger women for spacing births. The net effect of these two opposing patterns is that the proportion of women falling into one of these two groups is roughly constant at between 50-60 percent. This pattern of a shift in spacing and limiting desires with increasing age is also observed among men. However, the overall desire to space or limit is greater among men than women. About one-third of both men and women at older ages (women 45-49, men 50-54) declared themselves infecund.

Table 6.2 Fertility preferences by age

Percent distribution of currently married women and men by desire for more children, according to age, Malawi 1992

Desire for children	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Have another soon ¹	26.7	25.7	21.6	15.7	14.6	7.8	7.0	18.5
Have another later ²	56.2	56.2	47.7	31.3	23.8	12.9	4.0	37.3
Have another, undecided when	7.3	2.6	2.9	2.1	1.5	1.0	0.0	2.6
Undecided	5.4	7.5	7.6	15.0	10.6	10.4	9.5	9.4
Wants no more	4.0	7.6	17.1	28.8	37.5	43.3	45.1	23.3
Sterilised	0.0	0.0	1.2	2.7	3.2	3.8	2.4	1.7
Declared infecund	0.4	0.5	2.0	4.3	8.8	20.6	31.3	7.1
Missing	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	388	743	661	584	455	408	253	3492

Desire for children	Age of man							Total
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	
Have another soon ¹	27.1	23.0	23.5	18.8	12.0	10.5	3.2	17.7
Have another later ²	60.1	60.4	44.7	38.8	41.2	32.8	12.1	43.3
Have another, undecided when	1.6	2.4	1.0	1.3	1.6	2.0	1.7	1.7
Undecided	4.1	1.0	6.8	2.8	6.6	3.3	2.1	3.9
Wants no more	6.9	11.2	22.3	32.9	29.8	35.0	46.1	25.1
Sterilised	0.2	0.0	1.4	1.2	1.9	5.4	0.7	1.4
Declared infecund	0.0	2.0	0.3	4.0	6.8	10.8	33.9	6.9
Missing	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	100	163	147	129	147	83	95	866

¹Wants next birth within 2 years

²Wants to delay next birth for 2 or more years

Table 6.3 presents the percentage of currently married women and men who want no more children by number of living children and selected background characteristics. Women living in urban areas more frequently reported wanting no more children (32 percent) than did women in rural areas (24 percent). This difference becomes more pronounced as the number of living children increases; 80 percent of urban women with 6 or more living children want no more children, compared to 57 percent of rural women. Interestingly, the widening of the urban-rural differential at a higher number of living children is not as marked for men.

Regional differences in the desire for no more children are not large, especially at lower parities. At higher parities, however, women from the Central Region more frequently report that they prefer no more children than women from the Northern and Southern Regions.

The desire to have no more children is related to the education of the woman; however, only at the level of secondary education is a greater desire to limit births clearly observed.

Table 6.3 Desire to limit (stop) childbearing								
Percentage of currently married women and men who want no more children, by number of living children and selected background characteristics, Malawi 1992								
Background characteristic	Number of living children ¹							Total
	0	1	2	3	4	5	6+	
FEMALES								
Residence								
Urban	(1.2)	5.2	18.1	25.8	36.6	(59.9)	79.6	31.5
Rural	1.7	5.8	11.2	17.2	34.1	42.7	57.1	24.2
Region								
Northern	(1.2)	3.9	10.9	20.7	28.0	(45.2)	61.9	25.5
Central	1.7	5.2	11.0	22.6	41.3	48.4	70.7	29.5
Southern	1.6	6.8	13.1	13.3	30.6	40.9	48.2	21.2
Education								
No education	3.5	5.7	11.7	18.1	35.8	41.4	54.9	25.7
Primary 1-4	0.0	7.2	10.9	16.2	30.9	39.3	61.3	22.4
Primary 5-8	0.0	4.3	12.6	16.1	27.2	54.6	66.8	23.6
Secondary+	0.0*	6.2*	24.4*	45.8*	73.5*	80.7*	95.6*	44.6
Total	1.6	5.8	12.1	18.2	34.4	44.6	59.6	25.0
MALES								
Residence								
Urban	(4.3)	(4.9)	(20.3)	(17.9)	(46.8)	(43.5)	58.4	30.7
Rural	2.6	7.2	13.1	22.5	29.3	35.6	51.6	25.8
Total	2.9	6.8	13.9	21.7	31.9	36.9	52.5	26.5

Note: Women and men who have been sterilised are considered to want no more children.
¹Includes current pregnancy for women
 () Based on 25-49 cases
 * Based on less than 25 cases

6.2 Demand for Family Planning Services

Women who are currently married and 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 and met need together constitute the *total demand* for family planning. Table 6.4 presents data on unmet need, met need and total demand for family planning, according to whether the need is for spacing or limiting births.

Over one-third of married women have an unmet need for family planning services, 20 percent for spacing purposes and 17 percent for limiting births. Combined with the 13 percent of married women who are currently using a contraceptive method, the total demand for family planning comprises half the married women in Malawi. Thus, if all women who say they want to space or limit their children were to use methods, the contraceptive prevalence rate could be increased from 13 percent to 50 percent of married women. At present, only about one-quarter of the potential demand for family planning is being met (next-to-last column in Table 6.4).

Table 6.4 Need for family planning services

Percentage of currently married women with unmet need for family planning, met need for family planning, and the total demand for family planning services, by selected background characteristics, Malawi 1992

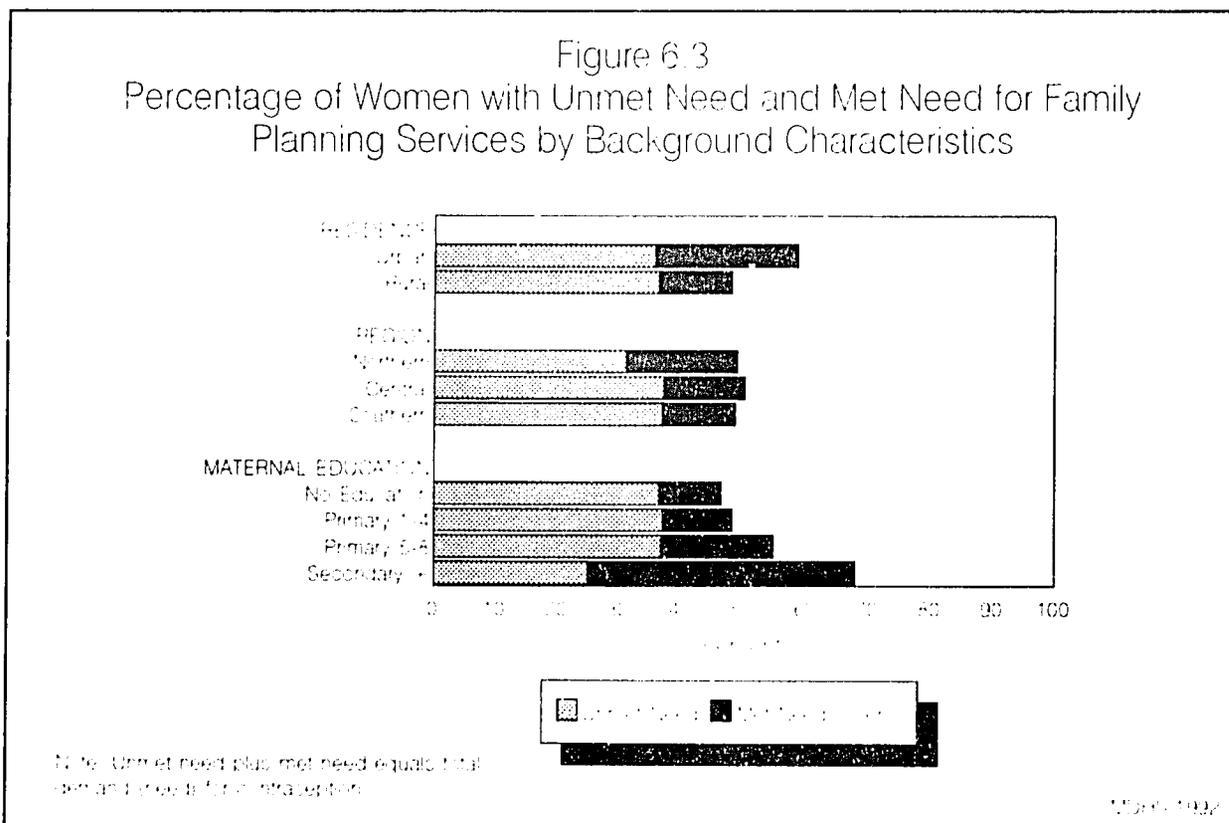
Background characteristic	Unmet need for family planning ¹			Met need for family planning (currently using) ²			Total demand for family planning			Percentage of demand satisfied	
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		Total
Age											
15-19	20.1	6.4	26.5	6.9	0.4	7.3	27.0	6.8	33.8	21.5	388
20-24	27.5	4.6	32.1	10.9	1.1	12.0	38.4	5.7	44.0	27.2	743
25-29	24.2	12.3	36.5	11.3	3.5	14.8	35.5	15.8	51.3	28.8	661
30-34	19.8	17.1	37.0	7.8	8.4	16.2	27.6	25.5	53.2	30.4	584
35-39	18.2	24.0	42.2	5.2	11.2	16.4	23.4	35.3	58.7	28.0	455
40-44	10.6	32.8	43.5	1.2	11.9	13.2	11.9	44.8	56.6	23.3	408
45-49	3.2	36.6	39.8	0.0	6.4	6.4	3.2	43.1	46.2	13.9	253
Residence											
Urban	16.3	19.5	35.8	10.9	11.9	22.9	27.2	31.4	58.6	39.0	411
Rural	20.3	16.1	36.4	6.9	4.8	11.7	27.2	20.9	48.1	24.3	3081
Region											
Northern	18.6	12.4	31.1	10.6	7.2	17.9	29.3	19.6	48.9	36.5	430
Central	18.2	19.0	37.2	6.6	6.5	13.1	24.7	25.5	50.3	26.0	1402
Southern	21.5	15.4	37.0	7.2	4.5	11.7	28.7	20.0	48.7	24.0	1660
Education											
No education	19.1	17.4	36.5	5.5	4.5	10.0	24.6	21.9	46.5	21.6	1815
Primary 1-4	21.3	15.7	37.1	6.7	4.4	11.1	28.0	20.2	48.2	23.0	819
Primary 5-8	21.2	15.6	36.8	11.3	6.7	18.0	32.4	22.3	54.8	32.9	750
Secondary+	11.4	13.6	25.0	16.2	26.8	43.0	27.5	40.5	68.0	63.2	107
Total	19.8	16.5	36.3	7.4	5.7	13.0	27.2	22.2	49.3	26.4	3492

¹Unmet need for spacing refers to 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. 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. Also excluded are menopausal women, defined in Table 5.9.

²Using for spacing refers to women who are using some method of family planning and who say they want to wait two or more years for their next child. Using for limiting refers to women who are using and who want no more children. Note that the specific methods used are not taken into account.

¹ For an exact description of the calculation, see footnote 1, Table 6.4.

The overall unmet need for family planning increases with age. As expected, unmet need for spacing purposes is higher among younger women, while unmet need for limiting childbearing is higher among older women. There is almost no difference in the level of unmet need among urban and rural women, although there is a slightly higher unmet need in the Southern and Central Regions than in the Northern Region. Unmet need is lower among women with some secondary education than among other women, even though there is a greater overall demand in this group of women. This is primarily due to the fact that a much larger proportion of secondary educated women are currently using family planning, leading to a larger percent of their demand being satisfied (i.e., met need), as shown in Figure 6.3.



6.3 Ideal Family Size

Information on what women and men feel is the 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 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, may have had some difficulty in answering this hypothetical question.

The data in Table 6.5 indicate that the majority of women and men were able to give a numeric answer to this question; nevertheless, 13 percent of women and 8 percent of men gave a non-numeric answer, such as "it is up to God," "any number" or "do not know." Those who gave numeric responses generally want to have large families. Over one-quarter (29 percent) of all women said they would choose to have six or more children, with an average numeric response of 5.1 children. There is a possibility that some women may report their actual number of children as their ideal number, since they may find it difficult to admit that they would not choose to have so many children if they could start afresh. Indeed, women who have fewer

Table 6.5 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 1992

Ideal number of children	Number of living children ¹							Total
	None	1	2	3	4	5	6+	
FEMALES								
0	0.5	0.1	0.2	0.3	0.1	0.1	0.0	0.2
1	1.7	2.5	0.6	0.3	0.0	0.3	0.3	1.0
2	11.5	6.0	5.8	4.1	4.5	3.2	2.2	6.0
3	14.9	12.9	8.9	8.4	5.3	3.7	3.0	9.2
4	25.2	28.7	28.8	20.6	16.2	14.6	10.4	21.8
5	21.7	21.8	22.3	22.6	15.6	18.8	12.3	19.7
6+	13.7	17.5	22.3	31.2	42.6	41.7	51.5	28.5
Non-numeric response	10.8	10.6	11.1	12.5	15.6	17.5	20.3	13.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1086	829	718	607	474	465	670	4849
Mean ideal number	4.2	4.5	4.8	5.2	5.6	6.0	6.4	5.1
Number of women	969	741	638	531	400	384	534	4197
Mean for married women	4.6	4.5	4.8	5.2	5.6	6.0	6.4	5.3
Number of married women	313	552	541	462	334	323	461	2985
MALES								
0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	1.2	2.0	1.0	0.0	0.0	0.0	0.0	0.7
2	9.9	6.0	4.3	0.9	4.9	2.9	3.2	5.3
3	20.9	14.2	8.2	10.5	5.1	5.6	4.3	11.3
4	30.7	35.9	35.3	31.3	30.2	15.4	10.4	27.2
5	17.5	19.9	15.1	19.5	10.1	18.2	4.0	14.6
6+	15.1	15.3	28.6	31.7	40.1	47.8	63.9	32.7
Non-numeric response	4.7	6.6	7.6	6.0	9.5	10.1	14.1	8.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	293	159	159	128	115	89	208	1151
Mean ideal number	4.1	4.3	4.9	5.0	5.3	6.2	7.3	5.2
Number of men	279	149	147	120	104	80	178	1057
Mean for married men	4.3	4.4	4.9	5.0	5.3	6.2	7.2	5.4
Number of married men	72	119	141	113	99	75	173	791

Note: The means exclude respondents who gave non-numeric responses.

¹Includes current pregnancy for women

children do report smaller ideal family sizes than women with more children. For example, the average ideal family size is 4.5 among women with one child, compared to 6.4 among women with six or more children. Many of the women with fewer children are young and, to the extent that their fertility preferences do not increase over time and that they can realise their ideal number of children, fertility in Malawi may decline. The data show evidence of unwanted fertility; for example, more than one-quarter of the women with six or more children said that they would ideally like to have had fewer than 6 children.

Interviewed men reported very similar family size ideals as women, with the ideal number of children only slightly higher (5.2) than among women (5.1)

Table 6.6 shows the mean ideal number of children for all women and men by age according to selected background characteristics. The mean ideal family size increases with age of the respondent from 4.3 to 6.4 children, from the youngest age group of women (15-19) and men (20-24) to the oldest age group of women (45-49) and men (50-54). At every age, rural women and men have higher family-size norms than urban women and men. Very little regional variation in ideal family size is observed. However, ideal family size is negatively related to education level attained; as the education of a woman increases, her desired family size decreases.

Table 6.6 Mean ideal number of children by background characteristics								
Mean ideal number of children for all women and men, by age and selected background characteristics, Malawi 1992								
Background characteristic	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Urban	4.1	3.9	4.4	5.1	5.3	5.9	(5.5)	4.6
Rural	4.3	4.5	5.0	5.6	5.7	6.3	6.5	5.1
Region								
Northern	4.3	4.6	5.0	5.7	5.8	6.4	6.8	5.1
Central	4.0	4.2	5.2	5.7	5.6	5.9	6.3	5.0
Southern	4.5	4.4	4.7	5.5	5.7	6.5	6.5	5.1
Education								
No education	4.5	4.6	5.0	5.8	5.5	6.5	6.4	5.4
Primary 1-4	4.4	4.5	5.1	5.8	6.1	5.8	6.8	5.1
Primary 5-8	4.2	4.3	4.9	5.1	5.8	6.4	6.3	4.7
Secondary+	4.1	3.5	4.1	(4.1)	(4.5)	*	*	4.0
Total	4.3	4.4	4.9	5.6	5.6	6.3	6.4	5.1
Background characteristic	Age of man							Total
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	
Residence								
Urban	3.9	3.9	4.3	(5.2)	(5.2)	(5.2)	(5.9)	4.5
Rural	4.4	4.5	4.9	5.9	6.3	6.9	6.5	5.3
Total	4.3	4.4	4.8	5.8	6.2	6.6	6.4	5.2

() Based on 25-49 cases
* Based on less than 25 cases

6.4 Wanted and Unwanted Fertility

There are two ways of estimating levels of unwanted fertility from MDHS data. One is based on responses to a question on whether each birth in the five years before the survey was planned (wanted then), mistimed (wanted, but at a later time), or unwanted (wanted no more children). These data are likely to result in underestimates of unplanned childbearing, since women may rationalise unplanned births and declare them as planned once they are born. The other method of measuring unwanted fertility utilises the data on ideal

family size to calculate "wanted" fertility rates. These too may suffer from underestimation to the extent that women are reluctant to report an ideal family size lower than their actual family size.

Table 6.7 shows the percent distribution of births in the five years before the survey (including current pregnancies) by whether a birth was wanted then, wanted later, or not wanted. Fourteen percent of recent births were reported to be unwanted and 27 percent were reported as mistimed (wanted later). The percentage of births that was mistimed or unwanted goes up with birth order, from 31 percent of first births to 52 percent of 6th and higher births. Similarly, a much larger proportion of births to older women are unwanted than are those to younger women. While less than 10 percent of births to women under age 25 are unwanted, one-third of births to women 40 and older are unwanted.

Table 6.7 Wanted and unwanted births

Percent distribution of births in the five years preceding the survey (including current pregnancies) by whether birth was wanted and when, according to birth order and mother's age, Malawi 1992

Birth order and mother's age	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
Birth order						
1	68.1	21.0	9.8	1.1	100.0	949
2	66.4	25.3	7.5	0.8	100.0	811
3	62.1	28.6	9.1	0.2	100.0	708
4	59.3	29.6	10.4	0.7	100.0	640
5	58.0	28.3	13.3	0.4	100.0	537
6+	47.6	28.0	24.1	0.4	100.0	1523
Age of mother at birth						
<20	62.4	26.7	9.7	1.2	100.0	943
20-24	63.4	26.4	9.6	0.6	100.0	1372
25-29	61.7	26.2	11.5	0.6	100.0	1109
30-34	53.7	30.5	15.6	0.2	100.0	792
35-39	52.9	25.6	21.3	0.2	100.0	570
40-44	46.4	20.4	32.8	0.5	100.0	303
45-49	39.4	26.3	34.4	0.0	100.0	79
Total	58.8	26.6	14.0	0.6	100.0	5168

Note: Birth order includes current pregnancy.

Table 6.8 presents *wanted fertility rates*. The wanted fertility rate 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. (Note: Women who did not report a numeric ideal family size were assumed to want all their births.) This rate represents the level of fertility that would have prevailed in the three years preceding the survey if all unwanted births had been prevented. A comparison of the total wanted fertility rate and the actual total fertility rate suggests the potential demographic impact of the elimination of unwanted births.

The wanted total fertility rate was 5.7 for Malawi as a whole, one child lower than the actual total fertility rate. Moreover, this difference of one child between the wanted and actual total fertility rates is uniformly exhibited across all population subgroups.

Table 6.8 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by selected background characteristics, Malawi 1992

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	4.38	5.51
Rural	5.92	6.88
Region		
Northern	5.76	6.74
Central	6.39	7.44
Southern	5.23	6.17
Education		
No education	6.19	7.16
Primary 1-4	5.75	6.70
Primary 5-8	5.12	6.17
Secondary+	3.26	4.37
Total	5.74	6.73

Note: Rates are based on births to women 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 3.2.

CHAPTER 7

CHILDHOOD MORTALITY

One of the major objectives of the survey was to estimate rates of childhood mortality. Information on past and current levels of childhood mortality is an integral part of an overall demographic assessment and crucial to the evaluation of health and population programmes. Furthermore, through estimation of mortality by age group and across characteristics of households and women, this chapter aims to identify sectors of the population that are at high risk of poor health and survival.

7.1 Data Quality and Mortality Estimation

The childhood mortality rates presented here were calculated using information collected in the birth histories of female respondents. For each child who died, the respondent was asked to provide an age at death. If the child died in the first month after birth, the age at death data was recorded in units of days. If the death was before the second birthday, the age at death was collected in units of months, in order to minimise age heaping at "1 year." If the death occurred at 24 months of age or later, the age at death was recorded in years. From these data, period-specific, age-specific probabilities of mortality were estimated using a conventional life-table approach. The rates, actually true probabilities, presented in this report are:

- Neonatal mortality rate—the probability of dying within the first month of life
- Post-neonatal mortality rate—the difference between infant and neonatal mortality
- Infant mortality rate—the probability of dying before the first birthday
- Child mortality rate—the probability of dying between the first and fifth birthday
- Under-five mortality rate—the probability of dying between birth and the fifth birthday.

The term *childhood mortality* is used here simply to speak generally of mortality during childhood and carries no specific meaning regarding age period of risk.

Unreported birth dates are a potential problem in this type of data, but were uncommon in the MDHS; only 0.1 percent of births lacked a year of birth. A further 3.7 percent of births had a year of birth but lacked a month of birth, thus requiring imputation of a birth date within a fairly short 12-month range. Furthermore, only 0.2 percent of deaths recorded in the birth histories lacked an age at death. In the case of missing age at death a "hot deck" procedure was used to impute this information.¹

Misreporting of age at death will bias estimates of the age pattern of mortality if the net result of the misreporting is the transference of deaths between age segments for which rates are calculated. For example, an overestimate of child mortality (1-4 years) and an underestimate of infant mortality may result if children dying during the first year of life (say, month 10 or 11) are reported as having died at 12 months of age or 1 year. This phenomenon of reporting preferred digits is called "heaping." There was surprisingly little heaping on particular *months* of death in the MDHS and, due to strong emphasis during training and field supervision, very few deaths were reported to have occurred at age one year (see Appendix C, Table C.6), making any adjustment in infant and child mortality rates unnecessary.

Underreporting of childhood deaths is a potentially serious problem in data of this type and is thought most likely to occur for deaths during the first few days after birth. If early neonatal deaths are selectively

¹This procedure assigns an age at death equal to that of the last death in the data file of the same birth order.

underreported, the result would be an abnormally low ratio of deaths under seven days to all neonatal deaths. Moreover, if such underreporting is more common for deaths occurring in less recent periods or is related to the sex of the child, then this ratio would also be differentially affected. It should, however, be borne in mind that this type of internal consistency check will be insensitive to all but large- scale underreporting.

Table 7.1 shows the ratio of deaths in the first week after birth (0-6 days) to all neonatal deaths (0-30 days) by sex of the child and calendar period of death. There is only minor variation in the ratio among the three time periods and between males and females. The ratios for females tend to be more variable—still, the lowest (0.63) and highest (0.72) ratios are very similar and are at an acceptable overall level. This suggests that gross underreporting of early neonatal deaths is not a problem in these data, and that selective underreporting, if it has occurred, is minor.

Table 7.1 Neonatal deaths

Ratio of deaths in the first week (0-6 days) to all neonatal deaths (0-30 days), by sex of child, Malawi 1992

Sex of child	Years before survey		
	0-4	5-9	10-14
Male	0.67	0.66	0.68
Female	0.72	0.63	0.65
Both sexes	0.70	0.64	0.67

These checks on the quality of the MDHS mortality data indicate that the data are of reasonably good quality and that there is no serious underreporting of deaths during the time periods for which the mortality rates are estimated. Although there is some evidence of heaping in age at death at certain ages, the bias in infant and child mortality rates arising from this heaping is negligible.

Finally, it is important to note that any method of measuring childhood mortality that relies on mothers' reports (e.g., birth histories) rests on the assumption that adult female mortality is not very 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 female mortality rates, these assumptions do not hold and the resulting childhood mortality rates will be understated to some degree.

7.2 Levels and Trends in Childhood Mortality

Table 7.2 presents childhood mortality rates for period. 0-4, 5-9, and 10-14 years before the survey. Under-five mortality has declined slowly over the last decade from 258 deaths per 1000 live births during the 1978-1982 period to 234 deaths per 1000 live births for the 1988-1992 period. This means that, currently,

Table 7.2 Childhood mortality

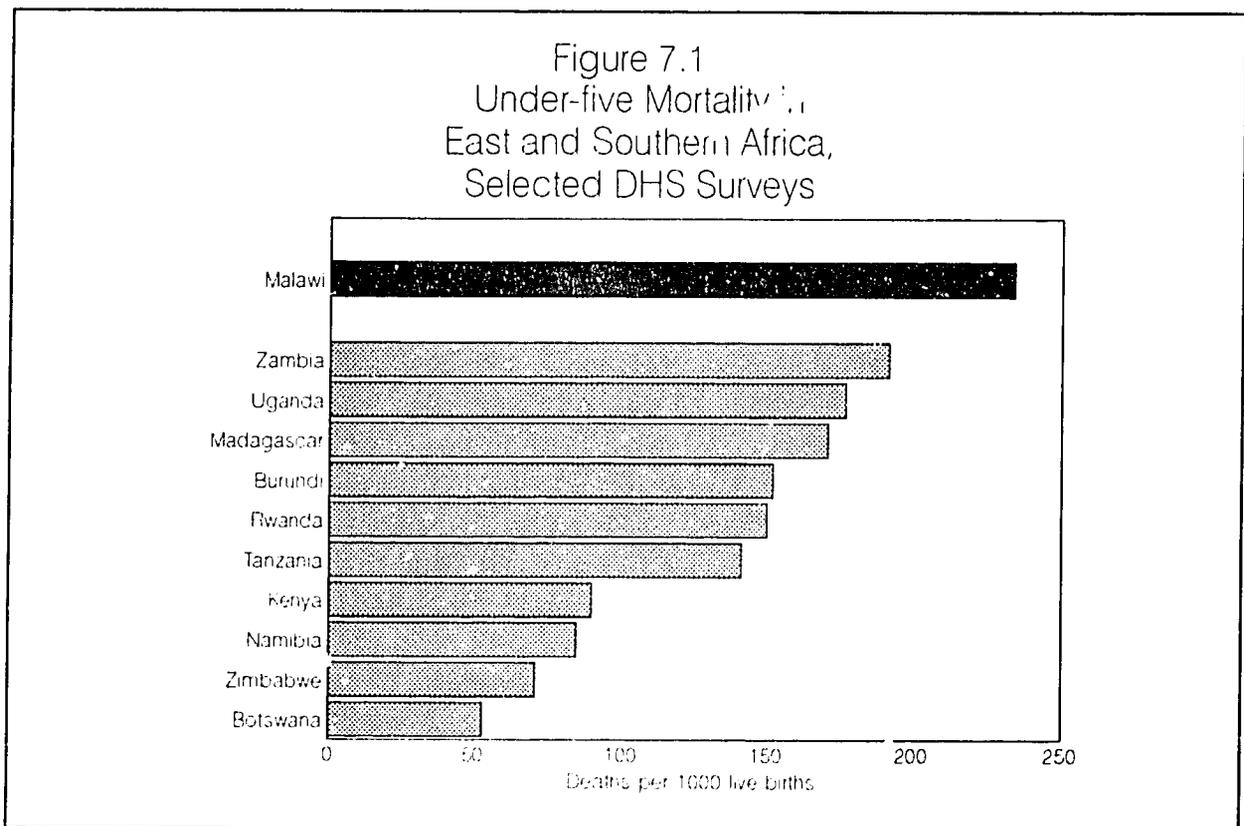
Childhood mortality rates by five-year periods preceding the survey, Malawi 1992

Years preceding survey	Approximate calendar period	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality (${}_1q_0$)	Child mortality (${}_4q_1$)	Under-five mortality (${}_5q_0$)
0-4	1988-1992	40.8	93.5	134.3	114.9	233.8
5-9	1983-1987	57.5	80.0	137.5	126.1	246.3
10-14	1978-1982	62.1	74.3	136.4	140.8	258.0
0-9	1983-1992	48.8	86.9	135.7	120.1	239.5

Note: Month of interview excluded from analysis

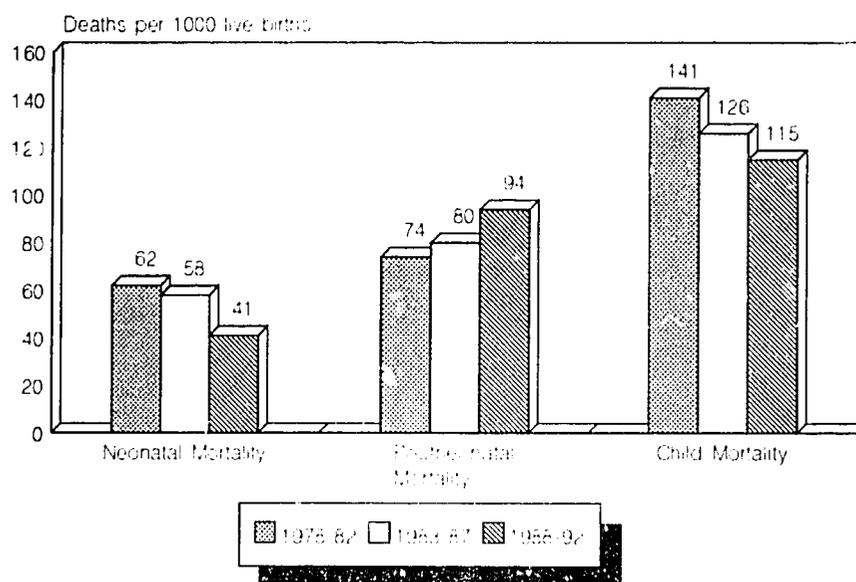
about 1 in 4 Malawian children do not live to see their fifth birthday. Figure 7.1 shows that Malawi has the highest level of under-five mortality among the 11 countries of Eastern and Southern Africa where DHS surveys have been undertaken.

During 1978-1982, roughly half of under-five mortality occurred during infancy and half during ages 1-4 years. A nearly constant infant mortality rate, combined with an 18 percent decline in child mortality since 1978-1982, has led to change in the age pattern of under-five mortality, so that in 1988-1992 60 percent occurs during infancy. Current infant mortality stands at 134 deaths per thousand, and child mortality (1-4 years) at 115 deaths per thousand.



While the level of infant mortality has remained fairly constant over the last decade, the age pattern of infant mortality has undergone changes. Over the 1978-1982 to 1988-1992 period, neonatal mortality fell by one-third from 62 to 41 per 1000, but was effectively offset by a 25 percent increase in postneonatal mortality from 74 to 94 over the same period (Figure 7.2). The observed rise in postneonatal rates signals a need for more detailed analysis of its cause(s).

Figure 7.2
Trends in Neonatal (< 1 month),
Postneonatal (1-11 months),
and Child (12-59 months) Mortality



MDHS 1992

7.3 Socioeconomic Differentials in Childhood Mortality

The following section presents information on differences in mortality risk across population subgroups. In order to maintain adequate numbers of events and thus ensure statistically reliable estimates, the calendar period on which covariate estimates are based is the 10-year period before the survey.

Place of Residence

Table 7.3 and Figure 7.3 show that childhood mortality rates in rural areas are generally higher than those in urban areas. The urban-rural difference is especially pronounced in the 1-4 year age period, when rural children are 24 percent more likely to die than their urban counterparts. During the neonatal period, mortality risk does not vary substantially between urban and rural areas.

The MDHS demonstrates regional variation in childhood mortality. Under-five mortality in the Central Region is 262 per 1000 compared to 230 in the South and 202 in the Northern Region. Nearly all of the regional variation in under-five mortality is explained by variation during ages 1-4 years; infant rates do not vary as much regionally. Child mortality (1-4 years), on the other hand, is more than 50 percent higher in the Central Region than in the rest of the country.

Mother's Education

Table 7.3 shows that a mother's education is strongly related to her children's chances of survival. Under-five mortality is twice as high among children of women without any education than among children of mothers with some secondary education. This education-mortality link is clearly demonstrated during all age segments, but is most pronounced during ages 1-4 years.

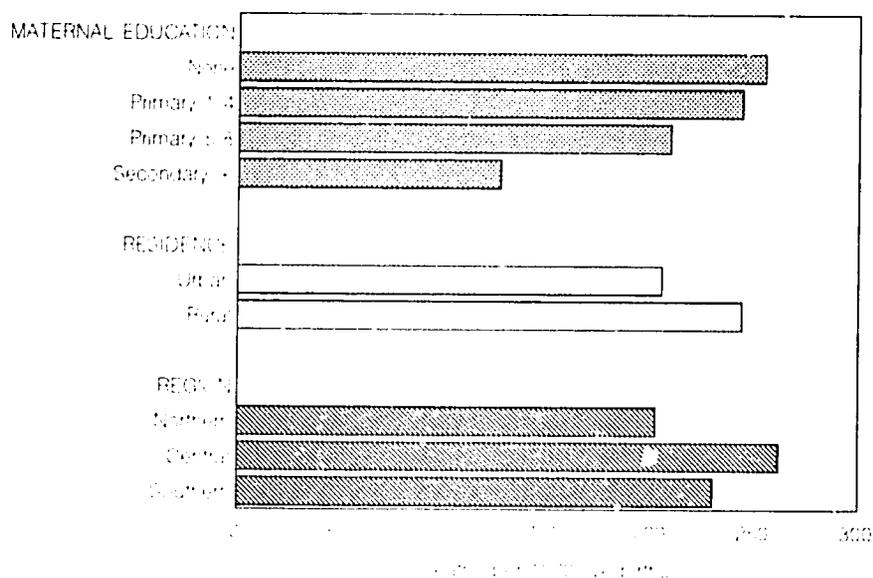
Table 7.3 Childhood mortality by socioeconomic characteristics

Childhood mortality rates for the ten-year period preceding the survey, by selected socioeconomic characteristics, Malawi 1992

Socioeconomic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality (₁ Q ₀)	Child mortality (₄ Q ₁)	Under-five mortality (₅ Q ₀)
Residence					
Urban	50.9	67.3	118.1	98.9	205.4
Rural	48.6	89.4	138.0	122.9	243.9
Region					
Northern	47.7	73.0	120.7	92.3	201.9
Central	44.3	85.9	130.2	151.0	261.6
Southern	53.1	91.2	144.3	100.1	230.0
Education					
No education	51.5	91.3	142.8	130.8	254.9
Primary 1-4	49.7	85.9	135.6	124.9	243.6
Primary 5-8	43.1	80.4	123.6	97.1	208.7
Secondary+	(35.1)	(61.2)	(96.3)	(34.2)	(127.3)
Total	48.8	86.9	135.7	120.1	239.5

Note: Month of interview excluded from analysis
() Based on 250-499 cases

Figure 7.3
Under-five Mortality by
Selected Background Characteristics



MDHS 1992

7.4 Biodemographic Differentials in Childhood Mortality

Due to heritable factors, mortality among male children tends to be higher than among females. Table 7.4 shows that under-five mortality is about 10 percent higher among boys than girls. The excess male mortality is observed during all age periods.

Table 7.4 Childhood mortality by biodemographic characteristics					
Childhood mortality rates for the ten-year period preceding the survey, by selected biodemographic characteristics, Malawi 1992					
Biodemographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality (${}_1Q_0$)	Child mortality (${}_4Q_1$)	Under-five mortality (${}_5Q_0$)
Sex of child					
Male	49.8	91.2	141.0	125.9	249.1
Female	47.9	82.5	130.4	114.4	229.8
Age of mother at birth					
< 20	79.1	100.2	179.3	143.9	297.4
20-29	43.5	81.9	125.5	117.2	228.0
30-39	38.3	85.0	123.3	111.2	220.8
40-49	(38.2)	(91.4)	(129.6)	92.1*	(209.7)
Birth order					
1	76.8	98.3	175.1	126.8	279.7
2-3	47.5	86.5	134.0	132.5	248.8
4-6	39.6	78.9	118.5	110.8	216.1
7+	40.0	89.7	129.6	109.7	225.1
Previous birth interval					
< 2 yrs	65.9	116.0	181.9	161.4	313.9
2-3 yrs	35.1	75.5	110.6	108.5	207.1
4 yrs +	31.1	65.0	96.1	76.6	165.3
Size at birth¹					
Very small	188.1*	128.9*	317.0*	102.2*	386.8*
Small	42.7	(108.5)	(151.2)	(107.6)	(242.5)
Average or larger	30.2	91.1	121.4	106.2	214.7
Medical maternity care¹					
No antenatal/delivery care	(68.0)	(127.0)	(195.0)	193.3*	(350.6)
Either antenatal or delivery	42.3	111.6	154.0	(116.3)	252.4
Both antenatal & delivery	35.7	81.7	117.4	93.9	200.3
Total	48.8	86.9	135.7	120.1	239.5

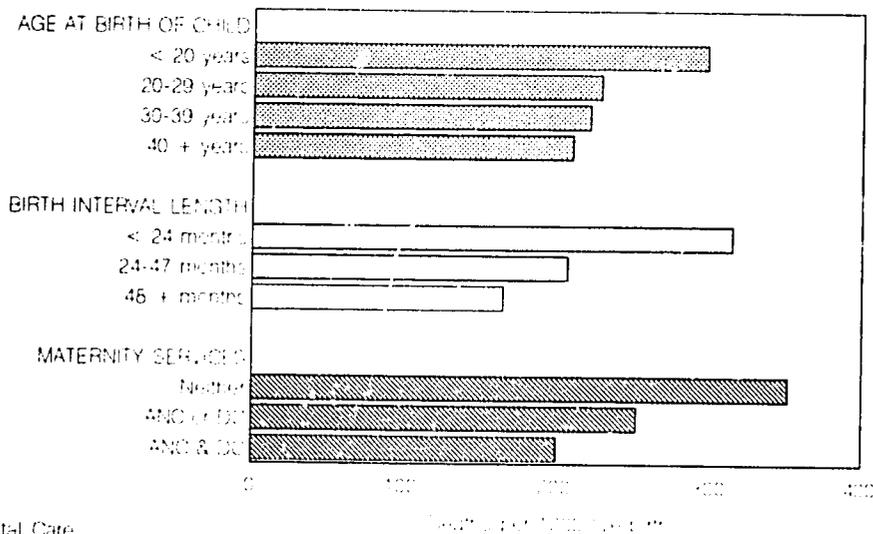
Note: Month of interview excluded from analysis
¹Rates for the five-year period preceding the survey.
 () Based on 250-499 cases
 * Based on less than 250 cases

In Chapter 3, it was noted that a significant proportion of women in Malawi were entering childbearing at early ages, i.e., before age 20. Table 7.4 and Figure 7.4 show that this pattern of early childbearing is associated with significantly higher risks of childhood death. The neonatal period is especially sensitive to this effect. Children of mothers under age 20 are twice as likely to die in the first month of life as children of mothers age 30 or older.

First births carry a higher risk of mortality due to both biological and social factors. The data show that first births are 92 percent more likely to die in the neonatal period than children of birth order 4 or more. The vulnerability of first births diminishes considerably after the neonatal period, so that during the 1-4 year age period first births are only 15 percent more likely to die than children of birth order 4 or more.

Table 7.4 also shows that short birth intervals are associated with higher mortality during and after the first year of life. The harmful effects of short birth intervals are especially pronounced during the neonatal period and the 1-4 year age period; periods during which children born within 24 months of a previous child are more than twice as likely to die as children born after an interval of 4 years or more. That the effect of short birth intervals on mortality risk remains so pronounced after infancy suggests that maternal depletion and poor pregnancy outcome are not the only factors mediating the birth interval/mortality relationship. The finding does point to the conclusion that intra-household competition between similar age children for scarce resources (time, food, etc.) also plays a very important role. In any case, the enormity of this relationship demonstrates the potential for mortality reduction that could result from successful efforts to better space children in Malawi.

Figure 7.4
Under-five Mortality by
Selected Biodemographic Characteristics



ANC=Antenatal Care
DC=Delivery Care

MDG 1999

For each child born in the last five years, mothers were asked whether they thought the child was "very large, large, average size, small, or very small" at birth. Previous studies have shown that "small" and "very small" responses to this question are highly correlated with the incidence of low birth weight, which is in turn highly related to infant mortality, especially during the neonatal period. The data demonstrate this association (Table 7.4). Neonatal mortality is six times higher among children who were "very small" at birth than those who were judged average or above average in size. "Small" size at birth was associated with a 41 percent excess neonatal mortality. This effect continues to prevail during the postneonatal period but at a weaker level, and vanishes altogether after the first birthday. These findings suggest an opportunity to bring down infant mortality associated with low birth weight through the targeting of high-risk pregnancies for close medical supervision.

Table 7.4 further shows the relationship between use of basic maternity services and childhood mortality. Under-five mortality is 75 percent higher among children whose mothers received neither antenatal care nor medically-supervised delivery services as compared to children whose mothers received both services. Maternity services are apparently most protective during the 1-4 year age period. This indicates that this variable is linked not only to pregnancy outcome (and thus neonatal mortality), but probably serves as a proxy for the use of other health services that would be expected to impact survival after the first birthday (e.g., vaccination services, treatment of childhood illnesses, etc.).

7.5 High-Risk Fertility Behaviour

Numerous studies have demonstrated a strong relationship between a mother's pattern of fertility and her children's survival chances. Results presented in the previous section bear this out. Typically, infants and young children have a higher risk of dying if they are born to very young mothers or older mothers, if they are born after a short interval, or if their mothers have already had many children. In the following analysis, mothers are classified as too young if they are less than 18 years old at the time of birth, and too old if they are age 35 years or more at the time of birth. A short birth interval is defined as one less than 24 months, and a high birth order as one occurring after five or more previous births (i.e., birth order 6 or higher). Births are also cross-classified by combinations of these characteristics. Thus, a birth may have from zero to three potentially high-risk characteristics.

Column one of Table 7.5 shows the percentage of births during the five years before the survey that fall into various risk categories. More than half of births fall into at least one risk category, with about 20 percent having multiple risk characteristics. Risk ratios are presented in column two; the risk ratio is the ratio of the proportion of live births in a risk category who have died to the proportion dead among those who do not fall into any risk category. Two points need emphasis. First, high birth order is not associated with higher mortality risk in Malawi unless coupled with older age and short interval length. Since such a large percentage of births are of high birth order in Malawi, this operates to reduce the risk ratios for "any single high-risk" category to 1.1 and "any multiple high-risk" category to 1.0. Second, the main factors leading to heightened mortality risk in Malawi are young age or old age at birth as single risk factors, and short birth interval length, especially when coupled with any other risk factor(s). The latter finding again underscores the need to reduce, through greater use of contraception, the number of closely spaced births in Malawi.

Column three of Table 7.5 shows the distribution of currently married, non-sterilised women by the risk category into which a currently conceived birth would fall. A comparison of this percentage with the distribution of actual births in the last five years indicates that, without fertility control, the percentage of births falling into each of the multiple risk categories could rise. Overall, the percentage of births with multiple risk characteristics could rise from 20 to 34 percent.

Table 7.5 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey who are at elevated risk of mortality, and the percent distribution of currently married women at risk of conceiving a child with an elevated risk of mortality, by category of increased risk, Malawi 1992

Risk category	Births in 5 years preceding the survey		Percentage of currently married women ^a
	Percentage of births	Risk ratio	
Not in any high-risk category	49.0	1.0	34.0 ^b
Single high-risk category			
Mother's age < 18	7.5	1.3	1.2
Mother's age > 34	2.4	(1.3)	6.8
Birth interval < 24	10.6	1.1	18.0
Birth order > 5	11.1	0.8	6.3
Any single high-risk category	31.6	1.1	32.3
Multiple high-risk category			
Age <18 & birth interval <24 ^c	0.6	(1.8)	0.8
Age >34 & birth interval <24	0.3	(1.2)	0.6
Age >34 & birth order >5	12.9	0.8	19.3
Age >34 & birth interval <24 & birth order >5	2.6	(1.5)	6.6
Birth interval <24 & birth order >5	3.0	(1.2)	6.4
Any multiple high-risk category	19.5	1.0	33.7
In any risk category	51.0	1.0	66.0
Total	100.0	NA	100.0
Number	4513	NA	3492

Note: Risk ratio is the ratio of the proportion dead of births in a specific risk category to the proportion dead of births not in any risk category. Figures in parentheses are ratios based on fewer than 200 cases.

NA = Not applicable

() Based on 250-499 cases

^aWomen were assigned to risk categories according to the status they would have at the birth of a child, if the child were conceived at the time of the survey: age less than 17 years and 3 months, age older than 34 years and 2 months, latest birth less than 15 months ago, and latest birth of order 5 or higher.

^bIncludes sterilised women

^cIncludes the combined category *age <18 and birth order >5*.

CHAPTER 8

MATERNAL AND CHILD HEALTH

This chapter presents the MDHS findings in three areas of importance to maternal and child health: maternal care and characteristics of the newborn, childhood vaccinations, and common childhood illnesses and their treatment. Coupled with information on childhood mortality, this information can be used to identify subgroups of women whose babies are "at risk" because of nonuse of maternal health services, and to provide information to assist in the planning of appropriate improvements in services. Data were obtained for all live births that occurred in the five years preceding the survey.

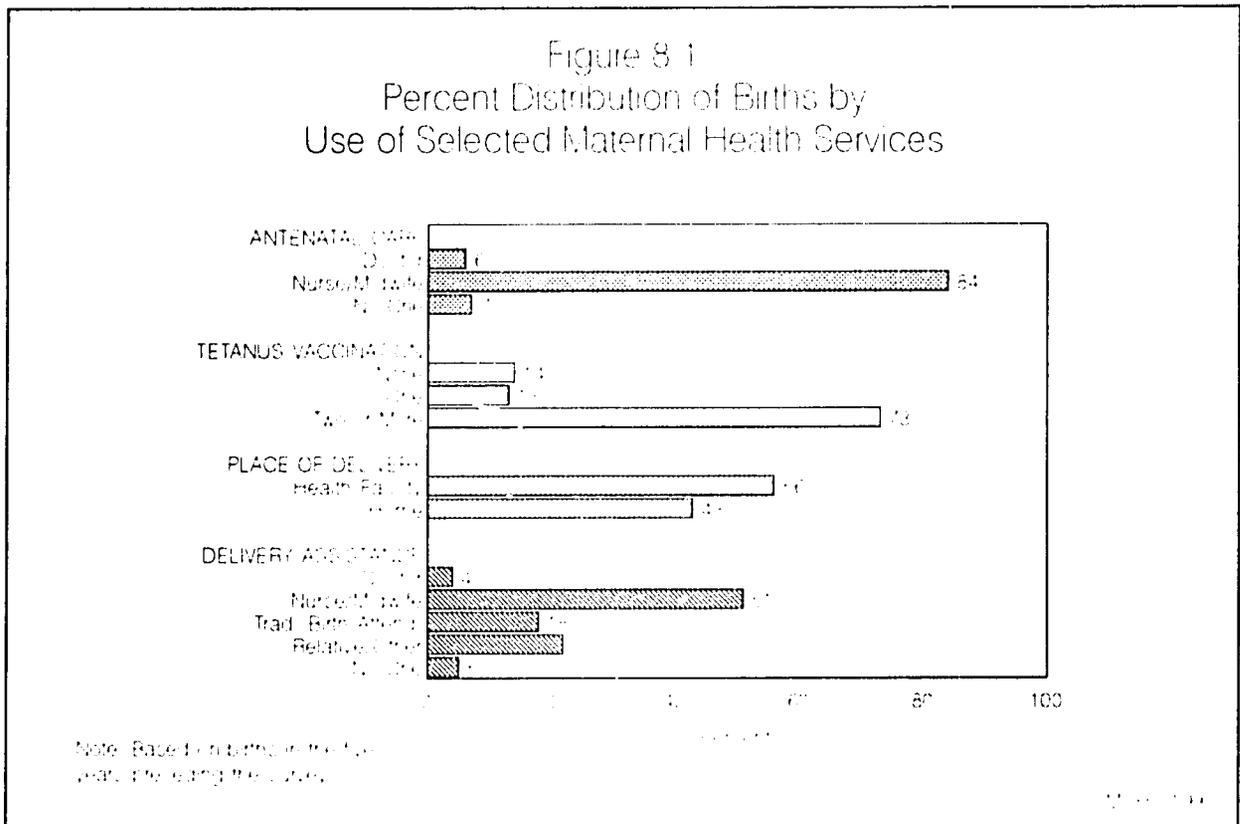
8.1 Antenatal Care and Delivery Assistance

Table 8.1 shows the percent distribution of births in the five years preceding the survey by source of antenatal care received during pregnancy, according to maternal and background characteristics. Inter-

Background characteristic	Antenatal care provider ¹						Total	Number of births
	Doctor	Trained nurse/ Midwife	Traditional birth attendant	Relative/ Other	No One	Don't know/ Missing		
Mother's age at birth								
< 20	5.8	85.6	0.5	2.8	4.6	0.7	100.0	834
20-34	7.0	83.7	0.5	1.9	6.7	0.3	100.0	2858
35+	3.8	81.0	0.3	3.2	11.6	0.1	100.0	820
Birth order								
1	5.8	85.8	0.5	2.5	4.6	0.8	100.0	825
2-3	7.7	84.4	0.7	1.7	5.4	0.1	100.0	1342
4-5	6.0	83.8	0.2	2.1	7.5	0.5	100.0	1009
6+	4.9	81.1	0.4	3.0	10.4	0.2	100.0	1335
Residence								
Urban	16.5	79.8	0.3	0.3	2.8	0.3	100.0	512
Rural	4.9	84.0	0.5	2.6	7.7	0.4	100.0	4000
Region								
Northern	3.9	89.0	0.1	0.9	6.0	0.1	100.0	521
Central	5.5	80.8	0.9	4.0	8.5	0.4	100.0	1890
Southern	7.4	84.6	0.2	1.2	6.3	0.4	100.0	2101
Mother's education								
No education	4.9	80.2	0.8	3.4	10.4	0.3	100.0	2308
Primary 1-4	6.6	86.4	0.1	1.4	4.9	0.6	100.0	1071
Primary 5-8	6.8	89.2	0.0	0.9	2.9	0.2	100.0	997
Secondary+	20.4	75.9	0.6	1.5	0.7	0.8	100.0	136
All births	6.2	83.5	0.5	2.3	7.2	0.4	100.0	4512

Note: Figures are for births in the period 1-59 months preceding the survey.
¹If the respondent mentioned more than one provider, only the most qualified provider is considered

viewers were instructed to record all persons a woman may have seen for care, but in the table, only the provider with the highest qualification is considered (if more than one person was seen). For nine in ten births, mothers received antenatal care from a doctor, trained nurse or midwife, or trained clinical officer. Women received antenatal care from a traditional birth attendant (TBA) for less than 1 percent of births and no antenatal care at all for 7 percent of births (Figure 8.1). Thus, most women receive some antenatal care, relying largely on a nurse or midwife (84 percent) or a doctor (6 percent). It should be borne in mind, however, that the type and quality of care are not reflected in these figures.



Maternal age and the birth order of the child are related to use of antenatal care. Increasing age of the woman at birth and higher birth order of the child is associated with lower use of medically-trained personnel during pregnancy. For instance, women with 6 or more previous births are more than twice as likely as women with fewer previous births to have had no antenatal consultation.

There are differences in the use of antenatal services between urban and rural areas. Whereas nearly all the births to urban women receive antenatal care from medically trained providers (96 percent), 8 percent of births to rural women receive no antenatal care at all. Also, urban women are four times more likely than rural women to have received antenatal care from a doctor. Regional differences in the use of antenatal services are small, although women in the Central Region are more likely than women in the rest of the country to have used a TBA and also more likely to have not seen anyone for care.

The use of antenatal services is strongly associated with a mother's education. Women with no education are about 10 times more likely than women with some secondary education to have received no antenatal care and more than four times less likely to have received care from a doctor.

Antenatal care can be more effective in avoiding adverse pregnancy outcome when it is sought early in the pregnancy and continues through to delivery. Obstetricians generally recommend that antenatal visits be made on a monthly basis to the 28th week (7th month), fortnightly to the 36th week (8th month) and then weekly until the 40th week (until birth). If the first antenatal visit is made at the third month of pregnancy, this optimum schedule translates to a total of at least 12 to 13 visits during the pregnancy.

Information about the number and timing of visits made by pregnant women is presented in Table 8.2. For 63 percent of births, mothers made four or more antenatal care visits, indicating that women are aware of the importance of regular attendance. For a large proportion of births (35 percent), mothers made fewer than four visits; the median number of antenatal care visits was 4.8, far fewer than the recommended number of 12.

By the start of the sixth month of pregnancy, one half of Malawian women have not made a single antenatal visit (see Table 8.2). The median duration of gestation at which the first antenatal care visit was made was 5.8 months. This delayed use of services, whether because of poor access or poor knowledge by mothers, makes it difficult for the optimum benefits of antenatal care to be realised.

An important component of antenatal care in Malawi is ensuring that pregnant women are adequately protected against tetanus. Tetanus toxoid injections are given during pregnancy for prevention of neonatal tetanus, one of the principal causes of death among infants in many developing countries. For full protection, a pregnant woman should receive two doses of the toxoid. However, if a woman has been vaccinated during a previous pregnancy, she may only require one dose for a current pregnancy. Table 8.3 presents data on tetanus toxoid coverage during pregnancy for all births in the five years preceding the MDHS.

Nearly three-quarters of births received the protection of two or more doses of tetanus toxoid during pregnancy, 13 percent received protection from one dose and 14 percent were not protected by any tetanus toxoid vaccination. As was seen with use of antenatal care, tetanus toxoid coverage is related to age of the mother and birth order. Older women and women of higher parity are more likely not to have received any tetanus vaccination during the pregnancy. These latter findings, however, may not represent genuine differentials in protection against tetanus since older, higher parity women might have received tetanus toxoid in previous pregnancies.

Births occurring in rural areas are about twice as likely as those in urban areas to have received no protection by the vaccination. There are no marked regional differentials in tetanus toxoid coverage. Education of the woman, however, is linked to the use of tetanus toxoid. For example, women without formal education are 2.5 times more likely than women with some secondary schooling not to have received any vaccination. Educated women may have greater accessibility to modern medical care, may have a better understanding of the benefits of vaccinations, or may be better able to take advantage of the available services.

Table 8.2 Number of antenatal care visits and stage of pregnancy

Percent distribution of live births in the five years preceding the survey by number of antenatal care visits, and by the stage of pregnancy at the time of the first visit, Malawi 1992

Characteristic	Percent
Number of ANC visits	
None	7.2
1 visit	2.0
2-3 visits	25.7
4+ visits	62.8
Don't know/Missing	2.3
Total	100.0
Median	4.8
Number of months pregnant at time of first ANC visit	
No antenatal care	7.2
<= 5 months	49.7
6-7 months	38.8
8+ months	3.4
Don't know/Missing	1.0
Total	100.0
Median	5.8
Total	4512

Table 8.3 Tetanus toxoid vaccination

Percent distribution of live births in the five years preceding the survey, by number of tetanus toxoid injections given to the mother during pregnancy and whether the respondent received an antenatal card, according to selected background characteristics, Malawi 1992

Background characteristic	Number of tetanus toxoid injections				Total	Percentage given antenatal card	Number of births
	None	One dose	Two doses or more	Don't know/ Missing			
Mother's age at birth							
< 20	11.6	14.8	73.2	0.4	100.0	91.1	834
20-34	12.4	12.9	74.2	0.5	100.0	90.8	2858
35+	21.1	11.6	66.4	0.9	100.0	85.9	820
Birth order							
1	12.0	13.2	74.1	0.7	100.0	91.9	825
2-3	10.2	14.9	74.5	0.4	100.0	92.2	1342
4-5	13.7	10.7	74.8	0.7	100.0	89.5	1009
6+	18.8	12.7	68.1	0.4	100.0	86.9	1335
Residence							
Urban	7.3	12.9	78.3	1.5	100.0	96.4	512
Rural	14.7	13.0	71.9	0.4	100.0	89.2	4000
Region							
Northern	13.2	13.0	73.5	0.3	100.0	92.3	521
Central	15.9	10.5	73.2	0.4	100.0	87.3	1890
Southern	12.2	15.3	71.8	0.7	100.0	91.8	2101
Mother's education							
No education	18.3	12.5	68.6	0.5	100.0	85.9	2308
Primary 1-4	10.3	15.1	74.5	0.2	100.0	92.5	1071
Primary 5-8	8.2	12.6	78.3	0.8	100.0	95.6	997
Secondary+	7.1	8.7	83.4	0.8	100.0	97.6	136
All births	13.8	13.0	72.6	0.5	100.0	90.0	4512

Note: Figures are for births in the period 1-59 months preceding the survey.

Mothers in Malawi received antenatal cards for nine in ten births in the five years preceding the survey. However, rural women, women living in the Central Region, and less educated women were less likely to possess an antenatal card.

Another important component of efforts to reduce the health risks of mothers and children is increasing the proportion of babies that are delivered in medical facilities. 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 either the mother or the baby. Respondents were asked to report the place of birth of all children born in the five years before the survey (Table 8.4).

At the national level, 43 percent of births are delivered at home, 41 percent at government health facilities, and 14 percent at private facilities. Women age 35 years or older are more likely than younger women to deliver at home. Similarly, higher birth order of the child is associated with a higher likelihood of having been delivered at home. A child born in a rural area is three times more likely than an urban child to have been delivered at home. Delivery in a health facility is more common in the Northern Region (68 percent) than in either the Southern Region (56 percent) or the Central Region (51 percent).

Table 8.4 Place of delivery

Percent distribution of live births in the five years preceding the survey, by place of delivery, according to selected background characteristics, Malawi 1992

Background characteristic	At home	Government health facility	Private health facility	Other	Don't know/ Missing	Total	Number of births
Mother's age at birth							
< 20	40.2	40.7	16.8	1.0	1.3	100.0	834
20-34	40.5	43.3	14.1	1.5	0.5	100.0	2858
35+	52.4	34.6	11.5	1.3	0.1	100.0	820
Birth order							
1	36.6	46.1	15.7	0.7	1.0	100.0	825
2-3	41.4	43.0	13.7	1.3	0.6	100.0	1342
4-5	44.0	39.0	14.9	1.4	0.6	100.0	1009
6+	46.5	38.2	13.2	1.8	0.3	100.0	1335
Residence							
Urban	13.1	71.1	14.7	0.6	0.5	100.0	512
Rural	46.4	37.5	14.1	1.5	0.6	100.0	4000
Region							
Northern	31.1	50.3	17.2	1.2	0.2	100.0	521
Central	47.0	40.4	10.8	1.2	0.6	100.0	1890
Southern	41.5	39.8	16.5	1.6	0.7	100.0	2101
Mother's education							
No education	53.4	33.9	10.8	1.4	0.4	100.0	2308
Primary 1-4	38.7	42.5	15.8	2.0	1.0	100.0	1071
Primary 5-8	26.6	53.8	18.5	0.5	0.6	100.0	997
Secondary+	6.7	64.5	26.0	2.0	0.8	100.0	136
Antenatal care visits							
None	91.7	5.1	1.9	1.1	0.1	100.0	322
1-3 visits	44.9	40.4	12.8	1.8	0.1	100.0	1250
4 or more visits	36.7	45.6	16.4	1.2	0.1	100.0	2835
Don't know/Missing	22.5	46.5	8.0	1.5	21.5	100.0	104
All births	42.6	41.3	14.2	1.4	0.6	100.0	4512

Note: Figures are for births in the period 1-59 months preceding the survey.

There is a marked relationship between education of the mother and place of delivery. The proportion of births delivered in a health facility increases from 45 percent among women with no education to 91 percent among women with secondary education or higher. Women who have visited health professionals during pregnancy are much more likely to deliver at a health facility than women who have no such contact. Only 7 percent of women who received no antenatal care delivered in a health facility compared to 62 percent of women with 4 or more antenatal visits.

The type of assistance a woman receives during the birth of her child also 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 8.5 shows that 55 percent of births were delivered under the supervision of personnel with medical training, mostly nurses or trained midwives. Traditional birth attendants assisted in 18 percent of births, while relatives provided the primary assistance in 21 percent of births. Five percent of births were delivered without any assistance.

Table 8.5 Assistance during delivery

Percent distribution of live births in the five years preceding the survey, by type of assistance during delivery, according to selected background characteristics, Malawi 1992

Background characteristic	Attendant during delivery ¹								Total	Number of births
	Doctor	Trained nurse/ Midwife	Clinical officer	Traditional birth attendant	Relative	Other	No one	Don't know/ Missing		
Mother's age at birth										
< 20	5.5	51.0	0.6	16.9	22.9	0.0	2.1	0.9	100.0	834
20-34	4.6	52.2	0.2	17.7	19.8	0.5	4.5	0.5	100.0	2858
35+	2.5	43.4	0.2	18.3	24.8	1.1	9.7	0.1	100.0	820
Birth order										
1	6.3	53.7	0.4	17.8	17.9	0.1	2.9	0.8	100.0	825
2-3	4.4	51.6	0.4	16.9	22.7	0.2	3.3	0.4	100.0	1342
4-5	4.4	49.7	0.1	17.7	22.6	0.8	4.3	0.8	100.0	1009
6+	3.2	47.8	0.2	18.3	20.9	0.9	8.4	0.2	100.0	1335
Residence										
Urban	14.7	71.1	0.3	5.0	6.0	0.3	2.2	0.3	100.0	512
Rural	3.1	47.7	0.3	19.3	23.2	0.6	5.3	0.5	100.0	4000
Region										
Northern	4.3	63.3	0.1	11.8	14.0	0.2	6.3	0.1	100.0	521
Central	4.4	45.9	0.4	22.6	19.6	0.5	6.0	0.5	100.0	1890
Southern	4.4	51.2	0.2	14.6	24.6	0.6	3.7	0.7	100.0	2101
Mother's education										
No education	3.0	41.4	0.3	20.2	27.6	0.8	6.3	0.3	100.0	2308
Primary 1-4	4.8	52.3	0.4	18.1	18.2	0.5	4.9	0.8	100.0	1071
Primary 5-8	5.8	65.4	0.1	12.9	12.4	0.0	2.7	0.7	100.0	997
Secondary+	14.0	77.1	0.0	5.2	2.9	0.0	0.0	0.8	100.0	136
Antenatal care visits										
None	0.2	6.2	0.0	17.5	59.0	1.3	15.8	0.0	100.0	324
1-3 visits	3.7	49.5	0.3	21.2	20.6	0.5	4.0	0.1	100.0	1250
4 or more visits	4.8	56.2	0.3	16.3	17.5	0.4	4.2	0.2	100.0	2835
Don't know/Missing	14.3	37.7	0.0	11.8	15.9	1.5	3.5	15.2	100.0	104
Total	4.4	50.4	0.3	17.7	21.3	0.5	5.0	0.5	100.0	4512

Note: Figures are for births in the period 1-59 months preceding the survey.

¹If the respondent mentioned more than one attendant, only the most qualified attendant is considered.

Age of the woman and birth order of the child is 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, whereas first births and births to younger women tend to receive better care during delivery, including more frequent supervision by a physician.

Urban women are more likely than rural women and women living in the Northern Region are more likely than women living in the Central and Southern Regions to have received assistance from a medically-trained person during delivery. Maternal education is closely tied to better supervision at delivery. Women with some secondary education are 2 times more likely to receive medical assistance and nearly 5 times more likely to receive assistance from a doctor than women without any education.

If a woman received antenatal care during pregnancy, she will more commonly deliver with medical assistance. Strikingly, only 6 percent of women not receiving antenatal care delivered their babies under medical supervision, compared with 61 percent of women with at least 4 antenatal visits. The combination of poor antenatal care and inadequate medical supervision at delivery places children and mothers at high risk of serious illness and death.

Three percent of babies born in Malawi are delivered by caesarean section and 4 percent are reported by their mothers to have been born prematurely (Table 8.6). Respondents were asked if their baby had been weighed at birth and if so, how much the baby weighed. In addition, the mother was asked for her own subjective assessment of whether the baby was very large, larger than average, average, smaller than average, or very small size at birth. For almost two-thirds of births, a birth weight was not reported. Of those births for whom a birth weight was reported, 10 percent (3.6 percent of all births) were reported to be less than 2.5 kilograms. Eighteen percent of all births were reported by their mothers to be either small (14 percent) or very small (4 percent).

8.2 Vaccinations

In order to assist in the evaluation of the Expanded Programme of Immunisation (EPI), the MDHS 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 EPI follows the World Health Organisation (WHO) guidelines for vaccinating children. In order to be considered fully vaccinated, a child should receive the following vaccinations: BCG, measles and three doses each of DPT and polio. BCG is for protection against tuberculosis and DPT is for protection against diphtheria, pertussis, and tetanus; both DPT and polio require three vaccinations at intervals of several weeks. Currently, a dose of polio vaccine may be given right after birth. WHO recommends that children receive the complete schedule of vaccinations by 12 months of age.

Information on vaccination coverage was collected in two ways: from vaccination cards shown to the interviewer and from mothers' verbal reports. The majority of health centres and clinics in Malawi provide cards on which vaccinations are recorded. If a mother was able to present such a card to the interviewer, it 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 that particular vaccine had been given. If the mother was not able to provide a card for the child at all, she was asked to recall whether the child had received BCG, polio (including the number of doses for polio), or measles vaccinations. DPT coverage was not asked for children without a written record as it was assumed to be the same as the mother's report for polio vaccine (polio and DPT are usually given at the same time).

Table 8.6 Characteristics of delivery

Percent distribution of live births in the five years preceding the survey by whether the delivery was by caesarean section, whether premature, and by birth weight and the mother's estimate of baby's size at birth, Malawi 1992

Characteristic	Percent
C-section	
Yes	3.4
No	95.3
Missing	1.3
Total	100.0
Premature birth	
Yes	3.7
No	95.6
Don't know/Missing	0.7
Total	100.0
Birth weight	
Less than 2.5 kg	3.6
2.5 kg or more	31.8
Not weighed/Missing	64.6
Total	100.0
Size at birth	
Very large	3.4
Larger than average	15.2
Average	61.8
Smaller than average	13.5
Very small	4.3
Don't know/Missing	1.8
Total	100.0
Number	4512

Note: Figures are for births in the period 1-59 months preceding the survey.

Information on vaccination coverage is presented in Table 8.7, according to the source of information used to determine coverage, i.e., the vaccination card or mother's report. Data are presented for children age 12-23 months, thereby including only those children who have reached the age by which they should be fully vaccinated. According to the information from vaccination cards, 86 percent of children received a BCG vaccination. However, not all children who are vaccinated have cards available; 11 percent of children did not have a card but were reported by their mothers to have received the BCG vaccine. Thus, overall, 97 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; according to the card information, 95 percent of children receive the BCG vaccine by 12 months of age. Figure 8.2 presents coverage figures as assessed from both vaccination cards and mothers' reports.

Table 8.7 Vaccinations by source of information

Percentage of children 12-23 months who had received specific vaccines at any time before the survey and the percentage vaccinated by 12 months of age, by whether the information was from a vaccination card or from the mother, Malawi 1992

Source of information	Percentage of children who received:										Number of children
	BCG	Polio			DPT			Measles	All ¹	None	
		1	2	3+	1	2	3+				
Vaccinated at any time before the survey											
Vaccination card	85.9	86.1	84.2	80.2	86.1	84.4	80.6	77.1	74.9	0.0	772
Mother's report	11.2	10.3	10.0	8.0	10.8	10.0	8.0	8.8	7.0	2.5	772
Either source	97.0	96.9	94.2	88.1	96.9	94.3	88.6	85.8	81.8	2.5	772
Vaccinated by 12 months of age	94.7	94.9	91.5	83.7	94.8	91.3	83.6	70.1	67.1	4.8	772

Note: The DPT coverage rate for children without a written record is assumed to be the same as that for polio vaccine since mothers were specifically asked whether the child had received polio vaccine. For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.

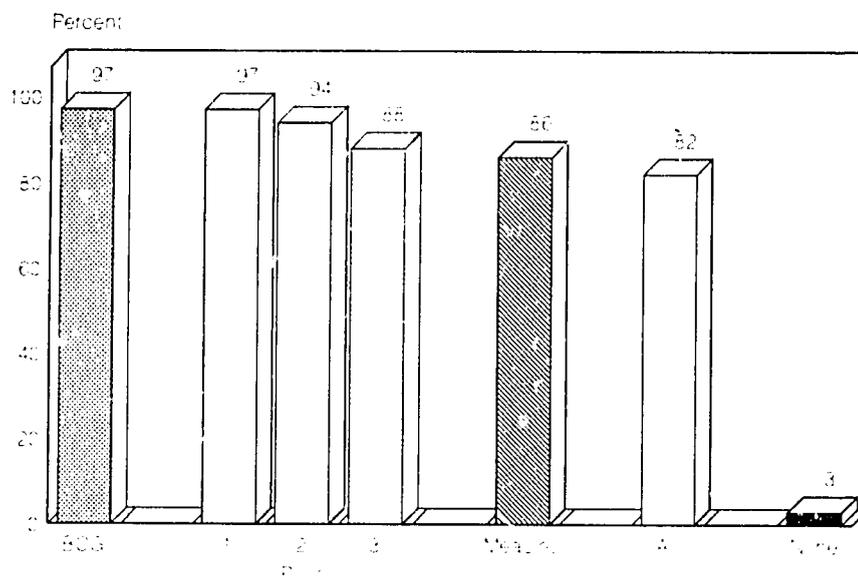
¹Children who are fully vaccinated (i.e., those who have received BCG, measles and three doses of DPT and polio).

Coverage for the first dose of polio and the first dose of DPT is virtually the same as for BCG; 97 percent received the first dose, with 95 percent receiving it by 12 months of age. Coverage declines after the first dose, with about 94 and 88 percent receiving the second and third doses, respectively. This yields a dropout rate¹ of about 9 percent for DPT and polio vaccine. The proportion vaccinated by 12 months of age also falls to about 92 percent at the second dose and 84 percent at the third dose.

Eighty-six percent of children age 12-23 months were vaccinated against measles; 70 percent before their first birthday. Overall, 82 percent of all children age 12-23 months had all the recommended vaccinations; 67 percent before their first birthday. Less than 3 percent of children age 12-23 months have never received any vaccinations.

¹ The dropout rate (%) is calculated as (DPT1-DPT3)/(DPT1) x 100.

Figure 8.2
 Percentage of Children Age 12-23 Months
 With Certain Vaccinations



Note: Based on mothers' reports and children's records.

MOHS 1994

Table 8.8 presents vaccination coverage (according to card information and mothers' reports) of children 12-23 months old at the time of the survey by selected background characteristics. The differentials in coverage are very similar irrespective of vaccine type. Thus, the focus here is on differentials in complete coverage (i.e., all vaccines received). There is virtually no difference in coverage between boys and girls. First births and lower birth order children have better coverage than higher birth order children. Children from urban areas have a slightly better coverage rate (87 percent) than rural children (81 percent). Regional differentials are negligible. Complete coverage increases with increasing maternal education, from 76 percent among children of uneducated mothers to 96 percent among children of mothers with some secondary education. Figure 8.3 shows the percentage of children age 12-23 months who are fully vaccinated by selected background characteristics of the mother.

Table 8.8 Vaccinations by background characteristics

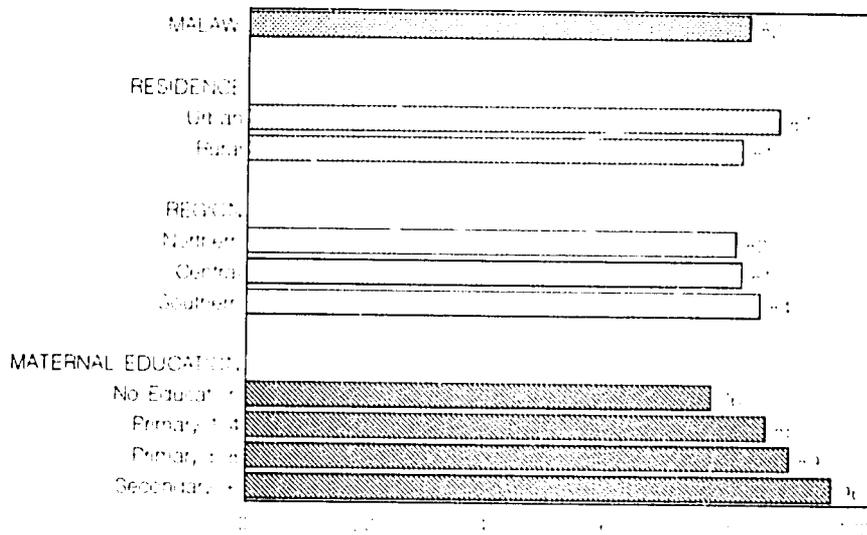
Percentage of children 12-23 months who had received specific vaccines by the time of the survey (according to the vaccination card or the mother's report) and the percentage with a vaccination card, by selected background characteristics, Malawi 1992

Background characteristic	Percentage of children who received:										Per-centage with a card	Number of children
	BCG	Polio			DPT			Measles	All ¹	None		
		1	2	3+	1	2	3+					
Sex												
Male	95.8	95.8	93.6	87.7	95.8	93.7	38.2	86.2	81.7	3.4	84.6	404
Female	98.3	98.2	94.8	88.6	98.2	95.0	89.0	85.4	81.9	1.5	88.2	368
Birth order												
1	99.6	99.6	97.2	91.1	99.6	97.2	92.6	96.5	89.8	0.4	88.7	127
2-3	98.5	98.5	96.5	91.6	98.5	96.5	92.2	88.5	85.3	1.5	86.9	228
4-5	96.3	96.3	95.5	89.9	96.3	95.8	90.1	83.3	81.3	3.7	85.6	176
6+	94.8	94.6	89.5	82.1	94.6	89.7	81.9	79.6	74.6	3.7	85.0	241
Residence												
Urban	97.9	97.9	96.5	93.9	97.9	96.5	93.3	90.7	87.2	1.3	81.9	84
Rural	96.9	96.8	93.9	87.4	96.8	94.0	88.0	85.3	81.1	2.7	86.9	688
Region												
Northern	98.2	97.7	95.2	87.2	97.7	96.1	88.1	83.8	80.1	1.8	82.8	104
Central	95.7	95.7	90.9	85.4	95.7	90.9	85.7	83.6	80.5	3.8	89.2	320
Southern	97.8	97.8	96.9	90.9	97.8	96.9	91.4	88.6	83.5	1.5	84.7	348
Mother's education												
No education	95.4	94.8	89.7	83.7	94.8	89.8	84.2	79.7	76.3	4.3	86.5	393
Primary 1-4	98.7	98.8	98.8	89.3	98.8	98.8	90.2	92.1	84.5	0.9	82.2	175
Primary 5-8	98.5	99.4	98.7	95.1	99.4	99.0	95.4	91.5	89.2	0.6	89.7	178
Secondary+	100.0	100.0	100.0	100.0	100.0	100.0	98.2	98.2	96.3	0.0	88.2	26
All children	97.0	96.9	94.2	88.1	96.9	94.3	88.6	85.8	81.8	2.5	86.3	772

Note: The DPT coverage rate for children without a written record is assumed to be the same as that for polio vaccine since mothers were specifically asked whether the child had received polio vaccine.

¹Children who are fully vaccinated (i.e., those who have received BCG, measles and three doses of DPT and polio).

Figure 8.3
Percentage of Children 12-23 Months Who
Are Fully Vaccinated



Thus far, the discussion has focused on children age 12-23 months. Information on the proportion of children age 12-59 months who had been vaccinated by 12 months of age, by their current age is presented in Table 8.9 and can be used to assess trends; the table also shows the percentage with a vaccination card shown to the interviewer. The coverage figures are based on both card information and mothers' reports.

Cards were shown to interviewers by mothers for 65 percent of the children age 12-59 months. The percentage of children with vaccination cards decreases with increasing age, from 86 percent for children age 12-23 months to 45 percent among those age 48-59 months. A large part of the decrease in card possession is probably due to greater card loss among the older cohorts. Mothers may be inclined to retain cards only as long as they need them to present to health staff; once children are fully vaccinated and/or reach a certain age, there may be a tendency to discard the cards.

By comparing vaccination coverage among the various age cohorts of children, it is possible to obtain a picture of changes in the success of the vaccination programme over time. The proportion vaccinated by 12 months of age among children 12-23 months old refers, on average, to the EPI performance during late 1991 to late 1992, coverage among the 24-35 month old children refers to performance during late 1990 to late 1991, etc. This analysis suggests that the EPI programme has improved vaccination coverage during the period 1988-1992. The improvement is especially pronounced when considering third dose coverage by the first birthday, e.g., polio3 coverage has increased from 66 to 84 percent. Further, whereas 15 percent of children had received not a single vaccination by the first birthday in the 48-59 month cohort, only 5 percent of the 12-23 month cohort is so characterised.

Table 8.9 Vaccinations in the first year of life

Percentage of children one to four years of age for whom a vaccination card was shown to the interviewer and the percentage vaccinated for BCG, DPT, polio, and measles during the first year of life, by current age of the child, Malawi 1992

Vaccine	Current age of child in months				All children 12-59 months
	12-23	24-35	36-47	48-59	
Vaccination card shown to interviewer	86.3	71.3	56.5	44.8	65.3
Percent vaccinated at 0-11 months^a					
BCG	94.7	92.3	87.2	84.7	89.8
Polio 1	94.9	91.7	85.9	83.0	89.0
Polio 2	91.5	88.3	82.3	77.4	85.0
Polio 3	83.7	79.8	70.7	65.6	75.2
DPT 1 ^b	94.8	91.8	85.9	82.8	89.0
DPT 2	91.3	87.9	81.3	77.7	84.7
DPT 3	83.6	81.3	70.9	68.7	76.3
Measles	70.1	65.5	58.0	60.3	63.7
All vaccinations ^c	67.1	60.4	51.9	52.2	58.2
No vaccinations	4.8	6.8	12.3	14.6	9.5
Number of children	772	679	667	701	2819

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

^bThe DPT coverage rate for children without a written record is assumed to be the same as that for polio vaccine, since mothers were specifically asked whether the child had received polio vaccine.

^cChildren who have received BCG, measles and three doses of DPT and polio vaccines.

8.3 Acute Respiratory Infection

Pneumonia is a leading cause of childhood mortality in Malawi. The prevalence of severe respiratory infection was estimated by asking mothers if their children under age five had been ill with coughing accompanied by short, rapid breathing, in the two weeks preceding the survey. These symptoms are compatible with pneumonia. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths due to pneumonia. It should be borne in mind that morbidity data collected in surveys are subjective—i.e., mother's perception of illness—and are not validated by medical personnel. Similarly, accuracy in reporting of treatment practices depends on how much a mother knows about the medicines that her children may receive. For instance, a mother may not know whether the pills or syrups that her children receive contain antibiotics or not. Thus, reporting may vary within the country due to sociocultural differences.

Table 8.10 shows that 15 percent of children under five years of age were ill with a cough and rapid breathing at some time in the two weeks preceding the survey. Prevalence of respiratory illness varied by age of the child; older children were less commonly ill than younger children. Regional and urban-rural differences were small or negligible. Children of women with secondary education were less frequently ill than other children, but the number of children on which this estimate is based is small.

Table 8.10 Prevalence and treatment of acute respiratory infection

Percentage of children under five years who were ill with a cough accompanied by rapid breathing during the two weeks preceding the survey, and the percentage of ill children who were treated with specific remedies, by selected background characteristics, Malawi 1992

Background characteristic	Among children with cough and rapid breathing								Number of children
	Percentage of children with cough and rapid breathing	Percentage taken to a health facility or provider ¹	Percentage treated with:					No treatment	
			Antibiotic pill or syrup	Injection	Cough syrup	Home remedy	Other		
Child's age									
< 6 months	18.4	54.2	16.6	5.2	35.4	2.5	52.7	9.5	449
6-11 months	22.7	46.9	21.1	10.4	17.9	2.9	59.1	11.6	462
12-23 months	17.7	48.4	25.3	4.6	17.8	13.0	55.8	13.4	772
24-35 months	14.0	55.8	25.5	6.1	19.6	6.0	56.5	13.5	679
36-47 months	9.5	49.3	27.3	6.2	17.7	3.0	57.2	14.8	667
48-59 months	8.6	35.3	28.0	0.8	20.0	5.0	41.1	15.4	701
Sex									
Male	14.2	47.2	21.6	6.0	19.9	6.7	55.1	14.6	1869
Female	14.9	50.6	25.8	5.6	22.2	5.7	54.1	11.2	1862
Birth order									
1	16.5	43.5	22.8	3.8	16.8	5.8	57.9	14.0	629
2-3	13.8	57.6	30.7	5.4	23.5	4.2	57.0	11.7	1118
4-5	14.5	47.8	23.6	5.1	24.6	3.2	57.8	8.4	856
6+	14.2	44.9	17.7	8.1	18.7	10.6	47.7	16.7	1127
Residence									
Urban	14.9	54.8	37.9	4.6	31.1	1.8	57.4	1.3	422
Rural	14.5	48.2	21.9	6.0	19.7	6.7	54.3	14.4	3308
Region									
Northern	14.3	51.2	28.6	8.2	20.6	9.9	48.6	10.4	442
Central	12.8	43.9	20.8	8.3	14.9	3.9	47.8	20.1	1552
Southern	16.2	52.0	24.7	3.6	25.5	6.9	60.8	8.3	1736
Mother's education									
No education	14.4	50.9	23.0	5.0	14.4	7.7	53.5	16.0	1912
Primary 1-4	15.1	36.6	20.9	2.6	23.4	6.3	62.3	11.7	880
Primary 5-8	15.1	57.4	28.1	10.4	30.9	3.1	48.8	8.4	819
Secondary+	9.8	53.3	27.4	13.3	46.7	0.0	53.8	0.0	120
All children	14.6	48.9	23.7	5.8	21.1	6.2	54.6	12.9	3730

Note: Figures are for children born in the period 1-59 months preceding the survey

¹Includes health post, health centre, hospital, and private doctor.

Forty-nine percent of children with respiratory illness visited a health facility of some kind. Differentials in use of health facilities are small, although children in rural areas and in the Central Region are less frequently taken to a health facility when sick. Twenty-four percent of children received an antibiotic treatment, 6 percent received an injection, 21 percent received cough syrup, and 6 percent received some type of home remedy. Over one half of sick children also received "other" treatment, which most often consisted of Panadol, aspirin, etc. purchased at pharmacies. Thirteen percent of ill children, however, received no treatment at all. A much larger percentage of children in rural areas than in urban areas and in the Central Region than in the Southern and Northern Regions received no treatment at all.

8.4 Fever

Malaria is endemic throughout Malawi and is by far the most common cause of hospital admission for all age groups. Since the major manifestation of malaria is fever, mothers were asked whether their children under age five had a fever in the two weeks preceding the survey, and what type of treatment was sought, if any.

Table 8.11 shows that 41 percent of children under five years of age were reported to have had fever in the two weeks prior to the survey. Fever is more common at the younger ages, especially during 6-23 months. Children in the Northern Region have a higher prevalence of fever (48 percent) than children in the Central Region (43 percent) or Southern Region (37 percent). Other differentials in fever prevalence are small or negligible.

Table 8.11 Prevalence and treatment of fever

Percentage of children under five years who had a fever during the two weeks preceding the survey, and the percentage of children with a fever who were treated with specific remedies, by selected background characteristics, Malawi 1992

Background characteristic	Percentage of children with fever	Percentage taken a health facility or provider ¹	Among children with fever							Number of children
			Percentage treated with:					No treatment	Don't know/ Missing	
			Anti-malarial	Antibiotic pill or syrup	Injection	Home remedy	Other			
Child's age										
< 6 months	42.8	45.3	26.4	17.3	4.0	5.0	47.0	18.8	0.8	449
6-11 months	59.0	47.2	27.1	16.4	5.3	3.4	48.9	13.9	0.5	462
12-23 months	52.1	46.9	28.3	21.0	3.5	4.2	46.0	12.8	0.5	772
24-35 months	42.1	51.0	31.6	16.1	5.6	4.2	49.5	11.6	0.8	679
36-47 months	30.1	40.4	29.7	18.2	3.9	6.5	38.4	17.9	1.6	667
48-59 months	22.5	42.0	30.5	20.3	0.9	5.8	36.2	15.7	2.9	701
Sex										
Male	40.8	46.7	29.1	19.0	3.8	4.9	44.0	14.7	0.9	1869
Female	40.2	45.6	28.7	17.7	4.3	4.3	46.5	14.4	1.1	1862
Birth order										
1	38.4	42.2	25.4	16.0	4.0	6.5	48.3	14.6	0.8	629
2-3	39.9	48.1	29.2	20.8	4.8	4.2	45.5	14.1	1.2	1118
4-5	42.6	46.8	31.9	17.9	3.1	2.8	46.9	12.5	1.1	856
6+	40.8	45.9	28.0	17.5	4.2	5.5	42.2	16.5	0.8	1127
Residence										
Urban	37.0	54.5	45.1	22.0	4.2	2.3	47.8	5.5	1.7	422
Rural	41.0	45.2	27.0	17.9	4.0	4.9	45.0	15.6	0.9	3308
Region										
Northern	48.0	50.4	25.2	21.8	3.6	7.4	48.0	12.6	0.0	442
Central	42.9	40.4	23.4	16.5	5.0	3.9	45.5	19.2	0.7	1552
Southern	36.5	50.8	35.9	19.1	3.3	4.5	44.0	10.3	1.7	1736
Mother's education										
No education	41.0	44.0	29.0	15.4	3.5	4.8	40.0	19.1	1.5	1912
Primary 1-4	41.8	43.4	27.9	17.8	2.7	5.7	52.5	10.9	0.9	880
Primary 5-8	39.5	53.7	28.0	24.9	6.0	3.6	49.8	9.0	0.1	819
Secondary+	30.5	53.7	44.0	27.4	11.3	0.0	46.3	1.3	0.0	120
All children	40.5	46.2	28.9	18.3	4.1	4.6	45.3	14.5	1.0	3730

Note: Figures are for children born in the period 1-59 months preceding the survey.

¹Includes health post, health centre, hospital, and private doctor.

Among children with fever, 46 percent were taken to a health facility; 29 percent were reported to have received an antimalarial treatment, 18 percent received an antibiotic, 4 percent an injection, and 5 percent some sort of home remedy. Forty-five percent of febrile children received treatment classified as "other" (aspirin, Panadol, etc.), and nearly 15 percent received no treatment at all.

Differentials in treatment patterns were not very pronounced. Febrile children were less likely to be taken to a health facility in rural areas than in urban areas and in the Central Region compared to the Southern and Northern Regions. These same children were also more likely to have received no treatment at all for fever. These patterns may well reflect general patterns of access to health services. In addition to having fever more frequently, children of less educated mothers were less likely to be taken to a health facility and much more likely to have received no treatment at all for the fever.

Children with fever are treated with antimalarial pills and syrups more commonly in urban areas than in rural areas, and more in the Southern Region than in the Northern and Central Regions.

8.5 Diarrhoea

Dehydration caused by severe diarrhoea is a major cause of morbidity and mortality among young children. One treatment for dehydration is oral rehydration therapy (ORT). In Malawi, ORT is promoted by way of three interventions: through preparation and use of oral rehydration solution (ORS) made in the home from commercially packaged packets of oral rehydration salts (sold in shops) and water, through health facility-based provision of pre-mixed ORS, and through preparation and use in the home of various grain-based rehydration fluids (i.e., rice water, maize water, etc.). ORT has been actively promoted in Malawi since the mid-1980s.

Table 8.12 presents the prevalence of diarrhoea in children under five years of age. Twenty-two percent of children had experienced diarrhoea at some time in the two weeks preceding the survey; 4 percent of children had experienced bloody diarrhoea. Seven percent of children were still having an episode of diarrhoea at the time of the survey (i.e., within the last 24 hours).

Table 8.12 Prevalence of diarrhoea

Percentage of children under five years who had diarrhoea and diarrhoea with blood in the two weeks preceding the survey, and the percentage of children who had diarrhoea in the preceding 24 hours, by selected background characteristics, Malawi 1992

Background characteristic	Diarrhoea in the preceding 2 weeks ¹		All diarrhoea in the preceding 24 hours ²	Number of children
	All diarrhoea	Diarrhoea with blood		
Child's age (months)				
< 6	17.4	2.6	7.8	449
6-11	41.7	6.1	13.5	462
12-23	36.2	5.8	13.2	772
24-35	21.2	4.8	7.0	679
36-47	10.1	3.2	3.0	667
48-59	8.1	2.2	1.4	701
Sex				
Male	23.6	4.2	8.6	1869
Female	20.2	4.1	6.2	1862
Birth order				
1	22.3	3.1	8.5	629
2-3	20.8	3.4	7.8	1118
4-5	20.5	4.2	6.7	856
6+	23.9	5.4	6.9	1127
Residence				
Urban	19.3	3.1	5.6	422
Rural	22.3	4.3	7.6	3308
Region				
Northern	25.1	4.9	8.5	442
Central	24.0	4.5	8.9	1552
Southern	19.2	3.6	5.8	1736
Mother's education				
No education	23.0	4.1	7.8	1912
Primary 1-4	21.7	5.6	6.9	880
Primary 5-8	20.1	3.0	7.4	819
Secondary+	19.1	1.7	4.2	120
All children	21.9	4.1	7.4	3730

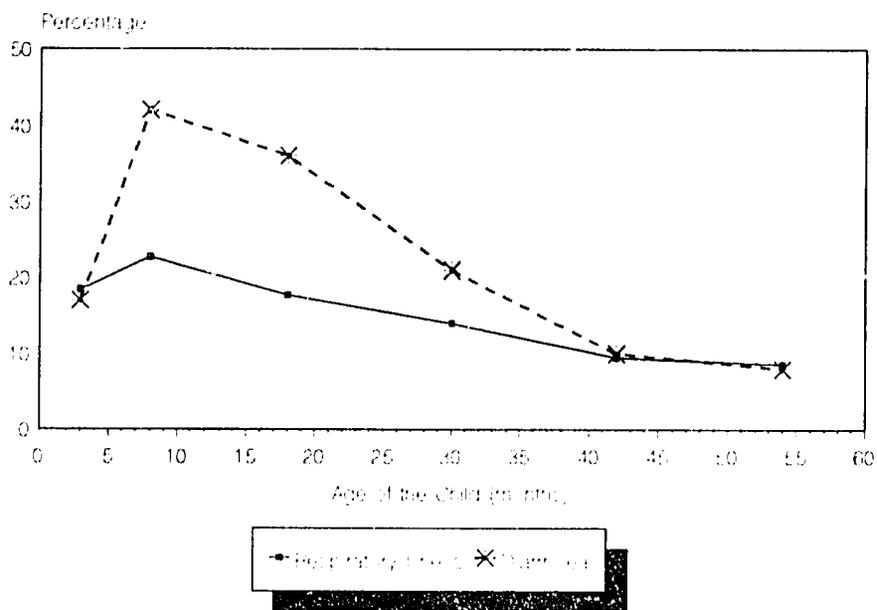
Note: Figures are for children born in the period 1-59 months preceding the survey.

¹Includes diarrhoea in the past 24 hours

²Includes diarrhoea with blood

There are pronounced differences in diarrhoeal prevalence by age of the child. Figure 8.4 shows the remarkable peak in reported diarrhoea during ages 6-23 months and the subsequent fall with increasing age of the child, in comparison with reported respiratory illness, which varies much less by age. Bloody diarrhoea also peaks at ages 6-23 months. Diarrhoea is more common among children in rural areas, among children in the Central and Northern Regions, and among children whose mothers are less educated.

Figure 8.4
Prevalence of Respiratory Illness and Diarrhoea
in the Last Two Weeks, by Age of the Child



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Knowledge of ORS is widespread in Malawi; 90 percent of women who had births in the five years preceding the survey had heard of ORS packets (see Table 8.13). However, only 62 percent of these mothers had ever used an ORS packet. There are no marked differences in the level of ORS knowledge by background characteristics of the mothers, except that uneducated mothers are slightly less likely to know about it. However, actual use of ORS packets differs more widely by background characteristics of the mother. Mothers most commonly using ORS are those living in urban areas, and those living in the Northern and Central Regions, as well as mothers with more education. The youngest cohort of women (i.e., age 15-19) are least likely to have used ORS packets.

Table 8.13 Knowledge and use of ORS packets

Percentage of mothers with births in the five years preceding the survey who know about and have ever used ORS packets, by selected background characteristics, Malawi 1992

Background characteristic	Know about ORS packets	Have ever used ORS packets	Number of mothers
Age			
15-19	82.5	45.6	294
20-24	89.4	58.2	713
25-29	94.0	66.4	616
30-34	90.9	66.4	506
35+	88.7	65.6	726
Residence			
Urban	93.2	68.7	335
Rural	89.3	61.1	2519
Region			
Northern	93.9	71.1	341
Central	88.4	63.4	1166
Southern	89.9	58.5	1348
Education			
No education	86.2	55.1	1463
Primary 1-4	91.5	64.6	656
Primary 5-8	95.4	72.2	641
Secondary+	95.3	82.3	94
All mothers	89.8	62.0	2854

Table 8.14 shows the percentage of children with recent bouts of diarrhoea who were given various treatments. Among children with diarrhoea, 45 percent were taken to a health facility. A child with diarrhoea is more commonly taken to a health facility if he lives in an urban area, if he lives in the Northern Region, or if his mother is better educated.

Table 8.14 Treatment of diarrhoea

Percentage of children under five years who had diarrhoea in the two weeks preceding the survey who were taken for treatment to a health facility or provider, the percentage who received oral rehydration therapy (ORT), the percentage who received increased fluids, the percentage who received neither ORT nor increased fluids, and the percentage receiving other treatments, according to selected background characteristics, Malawi 1992

Background characteristic	Percentage taken to a health facility or provider ¹	Oral rehydration therapy (ORT)				Percentage receiving neither ORT nor increased fluids		Percentage receiving other treatments:				Number of children with diarrhoea ²	
		ORS packets	ORS premixed bottle	Home solution (HIS)	Either ORS or HIS	increased fluids	increased fluids	Anti-biotics	Injection	Home remedy/ Other	No treatment		Missing
Child's age (months)													
<6	45.0	28.3	9.2	28.9	55.8	35.4	31.4	5.1	0.0	25.7	18.0	0.0	78
6-11	48.1	38.7	10.8	44.6	70.2	40.9	17.1	3.5	0.5	21.0	8.8	0.8	193
12-23	44.0	29.9	10.0	41.7	64.6	41.0	25.3	7.7	0.3	18.2	16.7	0.3	279
24-35	50.1	30.5	14.6	35.0	62.2	36.2	25.9	10.3	0.3	23.1	12.9	1.1	144
36-47	40.9	34.6	10.8	49.0	65.6	39.3	27.3	14.0	0.0	13.6	25.8	0.0	67
48-59	37.3	26.2	11.1	18.4	42.6	24.5	41.0	11.1	0.0	25.1	20.8	0.0	57
Sex													
Male	49.1	33.7	12.1	40.3	64.3	36.6	24.5	8.0	0.2	20.1	14.5	0.5	441
Female	41.1	30.1	9.8	37.3	62.0	40.4	26.2	7.2	0.4	21.0	16.3	0.4	377
Birth order													
1	42.9	31.8	11.9	41.0	64.5	39.8	26.1	3.7	0.3	19.0	18.9	0.3	141
2-3	43.5	33.0	12.1	44.1	66.2	37.8	22.5	6.3	0.0	22.8	14.1	0.6	232
4-5	50.0	31.9	9.4	39.6	62.2	37.6	25.2	11.3	0.8	23.0	13.9	0.0	176
6+	45.4	31.5	10.8	33.1	60.6	38.5	27.5	8.5	0.2	17.7	15.5	0.8	270
Residence													
Urban	49.3	37.9	8.0	54.0	74.8	55.1	12.6	8.4	0.0	19.1	8.1	0.0	82
Rural	45.0	31.4	11.4	37.3	61.9	36.4	26.7	7.6	0.3	20.7	16.1	0.5	737
Region													
Northern	54.3	42.8	11.3	43.0	72.8	40.3	18.3	7.9	2.2	30.5	8.2	0.9	111
Central	44.5	31.5	11.7	33.1	58.4	32.5	31.0	9.6	0.0	14.6	20.6	0.4	373
Southern	43.4	29.1	10.3	44.2	65.4	44.1	21.3	5.4	0.0	23.9	11.8	0.5	334
Education													
No education	40.8	27.6	9.9	34.4	57.4	33.9	31.0	7.8	0.0	20.7	19.2	0.4	440
Primary 1-4	46.4	34.0	12.2	39.6	64.9	42.1	22.3	7.1	0.3	18.6	13.5	1.0	191
Primary 5-8	53.7	37.0	14.0	47.9	74.2	43.7	16.8	6.2	1.2	22.7	9.1	0.3	165
Secondary+	65.0	66.1	2.8	56.6	81.6	52.1	3.6	21.1	0.0	16.6	0.8	0.0	23
Total	45.4	32.1	11.1	38.9	63.2	38.3	25.3	7.7	0.3	20.5	15.3	0.5	818

Note: Oral rehydration therapy (ORT) includes solution prepared from ORS packets and home solution (rice water or maize water).

¹Includes health post, health centre, hospital and private doctor

²Includes children born in the period 1-59 months preceding the survey who were reported to have diarrhoea in the last two weeks

Nearly two in three (63 percent) children with diarrhoea in the last two weeks were treated with some form of ORT. Thirty-two percent received ORS prepared in the home from packets, 11 percent received ORT from pre-mixed ORS packets, and 39 percent received home-based solutions prepared from rice and water or maize and water. Thirty-eight percent of sick children were reported to have received increased fluids during the bout of diarrhoea. Despite these encouraging statistics, still a quarter of children did not receive any rehydration therapy during the recent episode. Other therapies offered to the child included treatment with antibiotics (8 percent) and home remedies (21 percent). Fifteen percent of children were given no treatment at all.

Use of rehydration therapy is most common for children aged 6-11 months, and least common for younger children and children 48-59 months old. Gender differentials in treatment patterns are not evident, nor are differentials by birth order of the child. Use of ORT is, however, related to socioeconomic factors. ORT use is more common in urban than rural areas, in the Northern Region than in the Southern or Central Regions, and among children of more educated women than children of less educated women. Rural children, children from the Central Region, and children of less educated women are most likely to have received no treatment whatsoever.

Table 8.15 shows that 61 percent of children who had diarrhoea and who were still being breastfed continued to be breastfed as usual, without increasing the frequency of feeds. About one in six children who had diarrhoea were breastfed less than usual during the episode. Forty percent of all children with diarrhoea were given the same amount of fluid as usual, 34 percent were given more fluids, and 25 percent were given less fluids. That a quarter of sick children are being given less fluids is troubling because it indicates that many mothers' knowledge of the effects of diarrhoea on the child needs to be improved.

Table 8.15 Feeding practices during diarrhoea

Feeding practices among children under five years who had diarrhoea in the two weeks preceding the survey, Malawi 1992

Feeding practices	Percent
Breastfeeding frequency¹	
Same as usual	61.1
Increased	20.1
Reduced	17.0
Stopped	0.0
Don't know/Missing	1.8
Total	100.0
Number of breastfeeding children with diarrhoea	644
Amount of fluids given	
Same as usual	40.0
More	33.6
Less	25.4
Don't know/Missing	1.0
Total	100.0
Number of children with diarrhoea ²	818

¹Applies only to children who are still breastfed.

²Children born in the period 1-59 months preceding the survey.

CHAPTER 9

MATERNAL AND CHILD NUTRITION

This chapter presents the findings on two related topics: (1) infant feeding, including breastfeeding practices, introduction of supplementary weaning foods, and use of feeding bottles; and (2) nutritional status of young children and their mothers.

9.1 Breastfeeding and Supplementation

Patterns of infant feeding have important influences on both the child and the mother. Feeding practices are important determinants of the child's nutritional status, which in turn influences the risk of dying. The mother is affected by breastfeeding through its biological suppression of the return to fertile status, therefore impacting the length of the birth interval and health outcome. These effects are influenced by both the duration and intensity of breastfeeding, and by the age at which the child receives foods and liquids.

The data presented in Table 9.1 show that almost all children (97 percent) are breastfed for some period of time. Fifty-seven percent of children were put to the breast within an hour of birth and 90 percent within the first day. Little or no difference exists in breastfeeding patterns between male and female children or among children in different regions of the country. Urban children are less likely than rural children to be put to the breast soon after birth. Children of more educated mothers are similarly less likely to be breastfed within an hour of birth than children of less educated mothers. If the child was delivered at a health facility or by a medically-trained person, breastfeeding within an hour of birth is slightly less common than if the delivery was at home or not assisted by a medically trained person.

Breast milk is uncontaminated and contains all the nutrients needed by children in the first few months of life. In addition, it provides some immunity to disease through transference of the mother's antibodies. The percent distribution of children under age three years by breastfeeding status at the time of the survey is presented in Table 9.2, based on information about feeding practices in the 24 hours preceding the survey. By 12-13 months of age, 94 percent of children are still breastfed; and even by 18-19 months 86 percent are being breastfed. By 24-25 months of age, only 27 percent are still receiving some breastmilk, and by the end of the third year almost all children have been completely weaned.

Exclusive breastfeeding is uncommon; only 5 percent of children under 2 months of age are fed only breast milk. Most children are given water in addition to breast milk (56 percent of children under 2 months of age). By 2-3 months, three-quarters of children are given some form of food supplement; by 4-5 months, 96 percent of children have received supplements.

Solid or mushy food is introduced into the diet as early as one month after birth, when a quarter of breastfeeding children are given food (see Table 9.3). By age 4-5 months, nearly nine of ten breastfeeding children have food introduced into their diets. Bottle feeding is not common; only 5 percent of babies age 0-1 months are being given a bottle and teat (nipple) in addition to being breastfed. These findings are encouraging, since neonates are particularly vulnerable to infections and use of unsterilised bottles with nipples is a prime source of infection.

Table 9.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and the percentage of last-born children who started breastfeeding within one hour of birth and within one day of birth, by selected background characteristics, Malawi 1992.

Background characteristic	Among all children:		Among last-born children, percentage who started breastfeeding:		
	Percentage ever breastfed	Number of children	Within 1 hour of birth	Within 1 day of birth	Number of children
Sex					
Male	97.0	2307	55.4	88.6	1499
Female	96.7	2267	58.7	91.1	1411
Residence					
Urban	95.8	515	48.2	85.8	343
Rural	97.0	4058	58.2	90.3	2567
Region					
Northern	97.7	527	55.3	92.9	348
Central	97.1	1912	56.5	89.3	1191
Southern	96.4	2134	57.8	89.5	1371
Mother's education					
No education	97.6	2343	60.3	91.9	1493
Primary 1-4	96.0	1085	56.3	87.5	669
Primary 5-8	96.2	1008	52.3	88.5	653
Secondary+	96.1	137	43.4	81.4	96
Assistance at delivery					
Medically trained person	97.7	2513	54.0	89.3	1568
Traditional birth attendant	96.8	805	60.1	91.4	519
Other or none	96.3	1232	61.1	90.2	817
Place of delivery					
Health facility	97.8	2530	54.1	89.3	1584
At home	96.9	1915	61.2	90.6	1244
Other	97.7	65	42.7	95.9	50
All children	96.9	4574	57.0	89.8	2910

Note: Table is based on all children born in the five years preceding the survey, whether living or dead at the time of the interview. There were 7 cases with missing information on assistance at delivery and 33 cases with missing information on place of delivery.

Table 9.2 Breastfeeding status

Percent distribution of living children by breastfeeding status, according to child's age in months, Malawi 1992

Age in months	Percent age of living children who are:				Total	Number of living children
	Not breast-feeding	Exclusively breast-fed	Breastfeeding and:			
			Plain water only	Supplements		
0-1	0.9	4.8	56.1	38.2	100.0	162
2-3	0.0	1.7	23.9	74.4	100.0	168
4-5	1.1	0.0	2.8	96.1	100.0	178
6-7	1.7	2.1	3.0	93.2	100.0	144
8-9	0.8	0.0	5.3	93.9	100.0	183
10-11	1.3	0.0	2.2	96.5	100.0	135
12-13	6.2	0.6	6.1	87.1	100.0	154
14-15	8.7	0.0	1.2	90.0	100.0	117
16-17	13.0	0.0	3.1	83.9	100.0	97
18-19	13.5	0.3	2.5	83.7	100.0	142
20-21	31.6	0.0	2.1	66.3	100.0	141
22-23	58.6	0.0	2.9	38.5	100.0	121
24-25	72.9	0.0	0.0	27.1	100.0	126
26-27	87.8	0.0	1.5	10.6	100.0	103
28-29	86.1	0.0	1.3	12.6	100.0	116
30-31	84.3	0.0	1.4	14.3	100.0	115
32-33	98.0	0.0	0.0	2.0	100.0	105
34-35	96.0	0.0	0.0	4.0	100.0	114

Note: Breastfeeding status refers to preceding 24 hours. Children classified as *breastfeeding and plain water only* receive no supplements.

Table 9.3 Breastfeeding and supplementation by age

Percentage of breastfeeding children who are receiving specific types of food supplementation, and the percentage who are using a bottle with a nipple, by age in months, Malawi 1992

Age in months	Percentage of breastfeeding children who are:					Number of children
	Receiving supplement				Using a bottle with a nipple	
	Infant formula	Other milk	Other liquid	Solid/mushy		
0-1	1.3	1.9	18.4	25.1	4.5	161
2-3	6.5	6.0	22.5	59.7	3.4	168
4-5	9.8	13.6	29.0	88.7	9.5	176
6-7	5.1	3.3	31.6	87.1	6.6	142
8-9	3.8	7.7	35.3	89.4	3.7	182
10-11	4.0	7.7	31.1	94.2	3.5	133
12-13	3.3	7.3	41.9	90.2	1.7	145
14-15	4.7	13.8	44.3	95.3	4.3	107
16-17	4.2	14.1	47.3	96.4	5.4	85
18-19	2.7	11.7	50.4	93.5	0.5	123
20-21	1.7	12.9	31.6	94.4	1.5	96
22-23	1.9	9.3	43.1	93.0	1.3	50
24-25	1.9	4.8	65.5	90.0	1.4	34
26-27	0.0	0.0	24.0	75.1	0.0	13
28-29	0.0	15.1	18.8	81.8	0.0	16
30-31	0.0	1.0	26.4	83.2	0.0	18
32-33	0.0	0.0	8.3	100.0	0.0	2
34-35	0.0	0.0	34.1	100.0	0.0	5

Note: Breastfeeding status refers to preceding 24 hours. Percents by type of supplement among breastfeeding children may sum to more than 100 percent since children may have received more than one type of supplement.

The median duration of breastfeeding is 21 months (Table 9.4). The duration of breastfeeding is longest for the children in the Southern Region, in rural areas, and among mothers of lower educational level, although these differentials are not large. Breastfeeding duration does not vary significantly between male and female children, nor does it depend on type of person assisting at delivery of the child.

The median duration of *exclusive breastfeeding* (only breast milk) is less than 1 month. Children are classified as *fully breastfed* if they are receiving only breast milk or if water is the only addition to their diet of breast milk. The median duration of full breastfeeding is only 1.2 months.

The frequency of breastfeeding influences the nutritional status of the baby by affecting the overall amount of milk he or she receives. It also affects the mother by influencing the return of her menstrual period after the birth. Medical research has shown that mothers who nurse their babies more frequently have longer durations of postpartum amenorrhoea than mothers whose infants suckle less often. The data indicate that 93 percent of children under 6 months of age were breastfed six or more times in the 24 hours preceding the interview. The percentage is slightly higher in the rural areas (93 percent) than in the urban areas (90 percent), but varies little by other characteristics.

Table 9.4 Median duration and frequency of breastfeeding

Median duration of any breastfeeding and full breastfeeding, and the percentage of children under six months of age who were breastfed six or more times in the 24 hours preceding the survey, by selected background characteristics, Malawi 1992

Background characteristic	Median duration in months ¹			Number of children	Children under 6 months	
	Any breast-feeding	Exclusive breast-feeding	Full breast-feeding ²		Breastfed	Number of children
					6+ times in preceding 24 hours	
Residence						
Urban	19.6	0.4	0.7	322	90.4	53
Rural	21.4	0.4	1.3	2532	93.0	455
Region						
Northern	20.5	0.4	0.6	339	93.6	56
Central	20.1	0.4	0.8	1190	93.1	196
Southern	21.9	0.4	1.6	1325	92.3	255
Mother's education						
No education	22.2	0.4	1.4	1436	91.6	263
Primary 1-4	20.5	0.4	0.9	687	98.0	129
Primary 5-8	19.9	0.4	1.4	641	94.1	101
Secondary+	20.6	0.4	0.5	89	a	a
Assistance at delivery						
Medically trained person	20.9	0.4	1.4	1508	92.8	273
Traditional birth attendant	23.0	0.4	0.7	538	91.4	100
Other or none	21.0	0.4	1.3	808	93.8	134
Sex of child						
Male	21.0	0.4	1.2	1447	92.5	278
Female	21.3	0.4	1.3	1407	93.0	230
All children	21.2	0.4	1.2	2854	92.8	508
Mean	20.2	0.9	3.0	96.8	-	-
Prevalence/Incidence mean	20.6	0.2	2.4	-	-	-

¹Medians and means are based on current status of children born less than 36 months before the survey.

²Either exclusively breastfed or received plain water only in addition to breastfeeding.

^aLess than 25 cases

9.2 Nutritional Status of Children

A significant contribution of the MDHS to an understanding of child health in Malawi was the collection of anthropometric data (height and weight) on children under 5 years of age. Measures of poor nutritional status are important as they allow evaluation of the susceptibility of children in the population to disease, impaired mental development, and untimely death.

Evaluation of nutritional status is based on the rationale that in a well-nourished population, one observes 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 or comparisons among subgroups of a population. One of the most commonly used reference populations, and the one used in this report, is the NCHS (U.S. National Center for Health Statistics) standard, which is recommended by the World Health Organisation (WHO).

Three standard indices of physical growth that describe the nutritional status of children are presented in this report: height-for-age, weight-for-height, and weight-for-age. Height-for-age is a measure of linear growth. A child who is more than two standard deviations below the mean 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 would reflect the cumulative effect of chronic undernutrition. 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 current nutritional status. A child who is more than two standard deviations below the reference mean weight-for-height 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, provides little information beyond that embodied in the two indices described above. A child can be underweight for his age because he is stunted, because he is wasted, or because he is wasted and stunted.

In the survey, all surviving children born to interviewed women since January 1987 were eligible for height and weight measurement. Of the 3789 children (1-59 months old at the survey date) eligible for measurement, 3403 (or 90 percent) were weighed and measured. The most common reason for not being measured was that the child was not home at the time of the survey. Of the children who were both weighed and measured, 168 (5 percent) were considered to have implausibly low or high values for height-for-age or weight-for-height. The following analysis focuses on the 3235 children, age 1-59 months, for whom complete and plausible anthropometric data were collected.

Table 9.5 shows the percentage of children under five years of age classified as undernourished according to height-for-age, weight-for-height and weight-for-age indices, by the child's age and selected demographic characteristics. Nearly one half of children under five are classified as stunted, and about one quarter are severely stunted. The prevalence of stunting increases with increasing age, peaking at 36-47 months (66 percent) and then falling slightly among children 48-59 months of age (Figure 9.1). The prevalence of stunting varies very little by sex or birth order. However, stunting occurs more frequently among children born after a short birth interval (less than 24 months) than among those born after a long interval (4 years or more).

Table 9.5 Nutritional status by demographic characteristics

Percentage of children under five years who are classified as undernourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by selected demographic characteristics, Malawi 1992

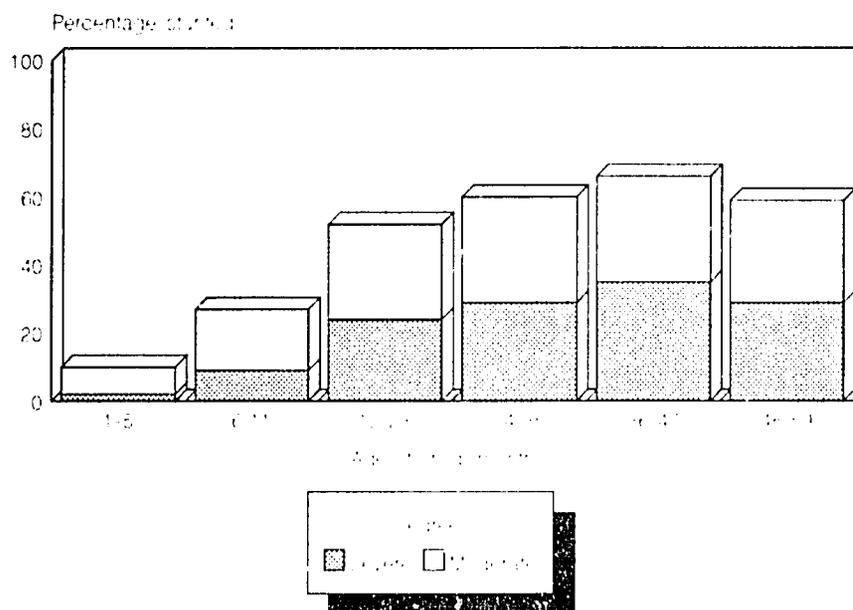
Demographic characteristic	Height-for-age		Weight-for-height		Weight-for-age		Number of children
	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage below -3 SD	Percentage below -2 SD ¹	
Child's age (months)							
<6	2.1	10.4	0.8	2.4	0.5	2.2	418
6-11	8.5	26.9	3.1	7.0	8.6	23.4	409
12-23	24.1	52.0	2.2	11.2	11.4	37.5	692
24-35	28.7	59.5	1.2	3.9	10.2	35.5	586
36-47	35.0	66.3	0.4	2.6	7.0	30.3	553
48-59	29.4	60.1	1.0	3.9	5.4	24.2	577
Sex							
Male	24.5	50.9	2.0	6.0	8.5	28.3	1615
Female	21.4	46.5	0.9	4.9	6.7	26.1	1620
Birth order							
1	23.9	49.8	2.7	6.2	9.8	24.7	511
2-3	21.9	46.7	1.8	6.1	6.8	27.8	959
4-5	23.9	52.3	1.4	3.9	7.8	27.8	762
6+	22.7	47.3	0.5	5.5	7.1	27.4	1003
Previous birth interval							
<2 years	24.3	53.1	1.2	6.6	8.9	26.6	538
2-3 years	23.9	48.2	1.2	5.3	7.0	28.8	1658
4 or more years	17.5	44.7	1.1	4.0	5.8	25.4	527
All children	22.9	48.7	1.4	5.4	7.6	27.2	3235

Note: Figures are for children born in the period 1-59 months preceding the survey. Each index is expressed in terms of the number of standard deviation (SD) units from the median of the NCHS/CDC/WHO international reference population. Children are classified as undernourished if their z-scores are below minus two or minus three standard deviations (-2 SD or -3 SD) from the median of the reference population.

¹Includes children who are below -3 SD.

The weight-for-height index gives information about children's recent nutritional status. Severe wasting represents failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of recent illness or of seasonal variations in food supply. Five percent of children in Malawi are wasted, i.e., below minus two standard deviations (-2 SD) from the median of the reference population; one percent are severely wasted (-3 SD). Wasting is most common during ages 6-23 months, suggesting that food supplementation during weaning is inadequate. Male children and children of lower birth order are at higher risk of severe wasting than girls and children of higher birth order.

Figure 9.1
Percentage of Children Stunted,
by Age of Child and Degree of Stunting



Over one-quarter of children in Malawi are underweight, which may reflect stunting, wasting or both. Children in their second and third year of life are particularly susceptible to undernutrition. One in ten children between 12 and 35 months of age are severely undernourished.

Table 9.6 shows the variation in undernutrition indices by urban-rural residence, region, and education of the mother. Rural children are more poorly nourished, both acutely and chronically, than their urban counterparts. Severely low height-for-age is more than twice as common in rural Malawi than in towns. Regarding regional variation, acute undernutrition is most prevalent in the Southern Region, but chronic undernutrition is most prevalent in the Central Region. The former may reflect drought conditions and food shortages occurring in the South during the period of data collection. During late 1992, 7 percent of children under five in the Southern Region were wasted; 2 percent severely so.

A mother's education is strongly associated with her child's risk of poor nutritional status. Children of women with no education are 4 times more likely to be severely stunted and more than twice as likely to be severely wasted than children of women with at least some secondary schooling.

Table 9.6 Nutritional status by socioeconomic characteristics

Percentage of children under five years who are classified as undernourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height and weight-for-age, by selected socioeconomic characteristics, Malawi 1992

Socioeconomic characteristic	Height-for-age		Weight-for-height		Weight-for-age		Number of children
	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage below -3 SD	Percentage below -2 SD ¹	
	Residence						
Urban	11.1	35.0	1.0	2.6	3.6	15.4	345
Rural	24.3	50.3	1.5	5.8	8.1	28.6	2890
Region							
Northern	17.5	44.7	0.4	3.5	5.0	20.3	390
Central	25.0	50.5	1.0	4.5	6.8	25.0	1314
Southern	22.5	48.1	2.1	6.7	8.9	30.8	1531
Mother's education							
No education	26.4	51.7	1.9	6.2	9.0	30.7	1669
Primary 1-4	23.1	51.7	1.2	4.9	7.9	27.1	775
Primary 5-8	16.5	42.1	0.7	4.5	4.9	21.1	696
Secondary+	6.1	19.3	0.7	3.4	1.2	10.7	95
All children	22.9	48.7	1.4	5.4	7.6	27.2	3235

Note: Figures are for children born in the period 1-59 months preceding the survey. Each index is expressed in terms of the number of standard deviation (SD) units from the median of the NCHS/CDC/WHO international reference population. Children are classified as undernourished if their z-scores are below minus two or minus three standard deviations (-2 SD or -3 SD) from the median of the reference population.

¹Includes children who are below -3 SD

9.3 Maternal Anthropometric Status

Several indicators can be used to assess the nutritional status of women (Krasovec and Anderson, 1991). In the MDHS, data were collected on the height and weight of women who had had at least one birth since January 1987. This sample of women will thus underrepresent lower fertility age groups; for example, women 15-19 years and women 40-49 years old.

Table 9.7 shows the percentage distribution of mothers for three anthropometric indicators: height; body mass index (BMI), an indicator combining height and weight data; and upper arm circumference, along with means and standard deviations. Height of a woman is associated with past socioeconomic status and with nutrition during her childhood and adolescence. In addition, maternal height is used to predict the risk of difficult delivery, since small stature is often associated with small pelvis size. The risk of low birth weight also seems to be higher for short women. The optimal cut-off point, below which a woman can be identified as at risk, is in the range of 140-150 centimetres. The mean height of mothers measured in the MDHS was 156 cm. About 3 percent of mothers were less than 145 cm. in height and 14 percent were less than 150 cm.

Body mass indices are used to assess thinness and obesity. The most commonly used index is the BMI, which is defined as the weight in kilograms divided by the squared height in metres. A cut-off point of 18.5 has been recommended for defining chronic energy deficiency among non-pregnant women. The mean BMI among the weighed and measured mothers was 21.7; 9 percent had a BMI below 18.5, reflecting a chronic nutritional deficit.

Arm circumference can be used as an indicator of nutritional status in both pregnant and non-pregnant women. Because arm circumference is relatively easy to measure, it has often been used as a tool during pregnancy to screen for risk of low birth weight and late foetal and infant mortality. The recommended cut-off point for assessing these risks is on the order of 21-23 cm. In Malawi, the mean arm circumference of women with a recent birth was 26.2 cm. Over 2 percent of mothers had an arm circumference below 22 cm. and 6 percent had an arm circumference below 23 cm.

Table 9.8 presents differentials in maternal nutritional status indicators by background characteristics. The MDHS data indicate that the height of a woman is associated with educational status. Women with some secondary school are almost 4 cm. taller, on average, than their uneducated counterparts. The percentage of women under 145 cm. in height decreases with increasing level of maternal education. There is little variation in the average height of women by urban-rural residence or regions of the country. A woman's age and number of children are not closely associated with maternal height.

The BMI of Malawian mothers varies considerably across background characteristics. Whereas 12 percent of uneducated (non-pregnant) mothers have a BMI indicating chronic nutritional deficit (< 18.5), only 7 percent of mothers with at least 5 years of school fall into the same risk category. Rural mothers are 42 percent more likely than urban mothers to have a BMI less than 18.5, and mothers in the Southern Region are 70 percent more likely to have a low BMI than women in the Centre or North. The latter observation is consistent with the relatively poor nutritional status of children under five years in the South, and with the severe drought in that part of Malawi before and during the MDHS fieldwork. Older mothers (35 years or more) and very young mothers (less than 20 years) are more likely than other women to have BMI values that indicate nutritional risk.

Table 9.7 Anthropometric indicators of maternal nutritional status

Percent distribution of women who delivered a child in the five years preceding the survey according to anthropometric indicators, and mean height, weight and body mass index (BMI), Malawi 1992

Variables	Percent
Height (cms.)	
<140	0.3
140-144	2.4
145-149	10.8
150-159	60.3
160-169	22.8
170-179	0.8
>= 180	0.1
Missing	2.3
Total	100.0
Mean	156.0
Standard deviation	6.4
Number of women	2854
Weight (kgs.)	
<40	2.6
40-49	35.4
50-59	46.9
60-69	10.7
>= 70	1.9
Missing	2.5
Total	100.0
Mean	52.4
Standard deviation	7.7
Number of women ¹	2259
BMI	
<16.0	0.5
16.0-18.4	8.5
18.5-19.9	20.3
20.0-22.9	43.4
23.0-25.9	19.6
26.0-28.9	3.5
>=29.0	1.4
Missing	2.6
Total	100.0
Mean	21.7
Standard deviation	6.3
Number of women ¹	2259
Arm circumference (cms.)	
< 21.0	1.3
21.0-21.9	1.0
22.0-22.9	4.0
23.0-23.9	10.4
24.0-24.9	13.6
25.0-25.9	14.9
26.0-26.9	18.4
27.0-27.9	10.8
28.0-28.9	10.4
29.0-29.9	6.7
>=30.0	6.5
Missing	1.9
Total	100.0
Mean	26.2
Standard deviation	2.7
Number of women	2854

¹Excludes pregnant women and those who gave birth in the two months preceding the survey.

Differentials in upper arm circumference generally are less pronounced than for height and BMI. Education, urban-rural, and regional differentials are small or negligible. However, nutritional risk as measured by arm circumference less than 23 cm. decreases significantly with age of the mother and with increasing number of children ever born.

Table 9.8 Differentials in maternal anthropometric indicators

Mean height and the percentage of women shorter than 145 centimetres, mean body mass index (BMI) and the percentage of women whose BMI is less than 18.5, according to selected background characteristics, Malawi 1992

Background characteristic	Height			Body mass index (BMI)			Arm circumference		
	Mean	Percent <145 (cms.)	Number of women	Mean	Percent <18.5	Number of women	Mean	Percent <23.0 (cms.)	Number of women
Age									
< 20	154.8	3.0	291	21.0	13.4	226	25.2	11.5	289
20-34	156.1	2.9	1784	21.8	8.6	1391	26.2	6.6	1795
>= 35	156.0	2.5	713	21.8	11.0	583	26.8	4.2	714
Residence									
Urban	157.0	1.1	323	22.5	7.1	260	27.1	5.9	322
Rural	155.8	3.0	2465	21.6	10.1	1941	26.1	6.6	2477
Region									
Northern	155.5	3.2	335	22.2	7.2	266	26.1	8.5	335
Central	156.4	2.2	1137	22.2	7.3	879	26.4	5.2	1144
Southern	155.7	3.2	1316	21.1	12.4	1055	26.1	7.1	1319
Education									
No education	155.5	3.5	1432	21.3	11.9	1132	26.1	6.1	1438
Primary 1-4	155.7	3.4	634	22.0	8.4	499	26.1	7.1	640
Primary 5-8	156.8	1.1	630	21.9	6.6	489	26.5	6.8	629
Secondary+	159.3	0.5	91	24.0	7.2	80	28.0	5.7	90
Children ever born									
1	155.7	2.5	503	21.3	10.4	395	25.4	11.5	502
2-3	155.9	2.9	771	21.5	10.0	595	26.2	6.7	774
4-5	155.9	3.2	618	21.9	9.8	484	26.1	6.3	623
6+	156.1	2.6	897	21.9	9.1	728	26.8	3.7	901
Total	156.0	2.8	2788	21.7	9.8	2200	26.2	6.5	2799

Note: Excluded from the BMI index are pregnant women and those who gave birth in the two months preceding the survey. Education values missing for two cases.

CHAPTER 10

KNOWLEDGE OF AIDS

A series of nine questions, asked of both women and men, was aimed at assessing the level of general and specific knowledge concerning the modes of HIV/AIDS transmission and prevention of AIDS in the country.

Tables 10.1.1 and 10.1.2 and Figure 10.1 present the distribution of women and men respondents by awareness of AIDS, knowledge of specific modes of AIDS transmission, and background characteristics. General knowledge of AIDS is almost universal in Malawi among males (98 percent) and females (95 percent). Among both women and men, sexual intercourse was the most frequently reported mode of HIV/AIDS transmission (86 and 93 percent, respectively), followed by needles and blades, and blood transfusions. Generally, men could cite more specific modes of transmission than could women.

Table 10.1.1 Knowledge of AIDS - females

Percentage of women age 15-49 who have ever heard of AIDS and percentage reporting various modes of AIDS transmission, by selected background characteristics, Malawi 1992

Background characteristic	Ever heard of AIDS	Mode of AIDS transmission					Don't know	Number of women
		Sexual inter-course	Needles, blades, skin punctures	Mother to child	Blood trans-fusion	Other		
Age								
15-19	94.5	85.7	44.8	1.4	6.9	6.4	8.8	1082
20-24	95.4	87.9	51.1	2.3	8.5	5.4	7.3	944
25-29	95.7	88.9	48.5	1.9	8.7	4.3	5.6	777
30-34	96.8	87.1	48.1	1.3	7.9	5.0	6.1	656
35-39	96.0	86.1	43.1	1.5	8.2	5.3	6.3	537
40-44	93.7	84.0	32.7	2.1	8.1	2.9	13.1	510
45-49	93.9	79.2	29.8	0.9	2.8	2.7	17.3	343
Residence								
Urban	98.8	90.8	54.3	2.3	15.6	6.0	4.6	594
Rural	94.7	85.6	43.2	1.6	6.5	4.8	8.9	4255
Region								
Northern	94.5	82.0	56.2	2.2	9.0	5.9	9.8	578
Central	93.6	83.6	41.1	1.7	6.5	4.9	10.3	1872
Southern	96.7	89.3	44.5	1.6	8.2	4.8	6.6	2398
Education								
No education	93.1	80.8	33.0	0.9	4.0	3.7	13.6	2287
Primary 1-4	94.8	89.0	43.1	1.2	6.0	5.5	5.5	1191
Primary 5-8	99.1	91.5	61.9	2.7	11.3	6.1	2.8	1157
Secondary+	99.9	97.9	75.3	7.6	33.3	8.2	1.4	212
Total	95.2	86.3	44.6	1.7	7.6	5.0	8.4	4849

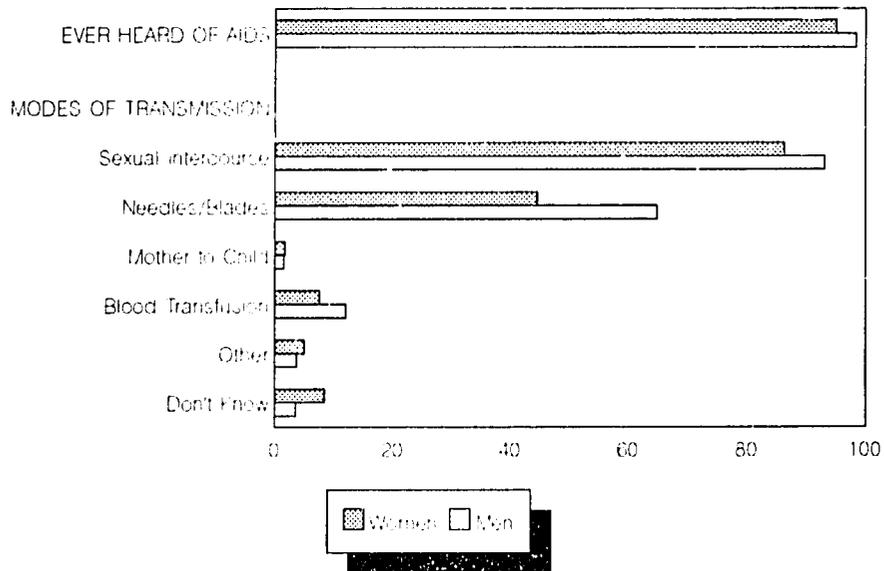
Table 10.1.2 Knowledge of AIDS - males

Percentage of men age 20-54 who have ever heard of AIDS and percentage reporting various modes of AIDS transmission, by selected background characteristics, Malawi 1992

Background characteristic	Ever heard of AIDS	Mode of AIDS transmission					Don't know	Number of women
		Sexual inter-course	Needles, blades, skin punctures	Mother to child	Blood trans-fusion	Other		
Age								
20-24	98.0	94.4	70.5	1.3	11.8	3.5	2.2	277
25-29	100.0	94.5	68.0	3.2	13.7	4.7	1.2	205
30-34	98.2	93.7	68.0	1.4	15.3	5.8	3.3	168
35-39	97.8	95.6	65.4	1.2	17.1	4.0	2.0	143
40-44	100.0	93.0	58.1	1.7	9.2	2.7	5.4	160
45-49	99.3	89.7	62.7	0.8	3.5	1.5	5.2	95
50-54	94.0	86.5	50.1	0.0	8.3	1.5	9.8	102
Residence								
Urban	99.9	97.3	71.4	2.9	20.7	7.1	1.6	181
Rural	98.1	92.4	63.7	1.3	10.3	3.0	3.9	970
Region								
Northern	98.8	89.1	68.9	1.0	19.0	14.4	5.2	139
Central	97.3	93.8	59.5	0.7	7.0	1.4	2.1	443
Southern	99.1	93.8	68.1	2.3	14.1	2.8	4.2	569
Education								
No education	95.9	89.5	46.8	0.3	4.2	2.7	6.4	236
Primary 1-4	98.5	90.0	57.6	0.5	3.9	1.5	4.2	335
Primary 5-8	99.1	95.4	74.1	1.7	13.4	4.4	2.5	423
Secondary+	100.0	99.4	82.0	5.4	36.3	7.7	0.3	157
Total	98.4	93.2	64.9	1.5	12.0	3.7	3.5	1151

The results show that AIDS awareness and knowledge of specific mode of transmission are very high among young men and women and decrease slightly at older ages. Only small differences exist between urban and rural areas in both general and specific AIDS knowledge. Rural women in particular are less knowledgeable about HIV/AIDS; 14 percent did not mention sexual encounter as a mode of transmission versus less than 3 percent among urban men. Only 2 percent of men and women mentioned (spontaneously) mother-to-child transmission of HIV/AIDS. Education of the respondent is strongly related to AIDS knowledge, especially when looking at specific knowledge of modes of HIV transmission, and especially when the respondent is female. For example, secondary education more than doubles the probability that a women knows the virus can be transmitted through contaminated needles/blades and through blood transfusion as compared with women without any education.

Figure 10.1
AIDS Awareness and Knowledge of
Modes of HIV Transmission



MDHS 1992

Table 10.2 and Figure 10.2 present the proportion of respondents who reported that they heard of AIDS during the month before the survey by source of information. The results indicate that most men and women have been exposed to some type of AIDS information. Less than 1 percent of male and about 4 percent of female respondents did not receive any AIDS messages. However, the sources of information about AIDS tend to differ between men and women and between urban and rural residents. Men are much more likely to be exposed to messages through the major media, i.e., radio and newspapers, whereas women are more likely to have received information from health workers, friends and relatives. This finding has important implications for the design of gender-specific programmes to spread the word on AIDS prevention. Similarly, rural residents have received messages through fewer different sources and, specifically, are not as exposed to messages through the media as frequently as urban residents.

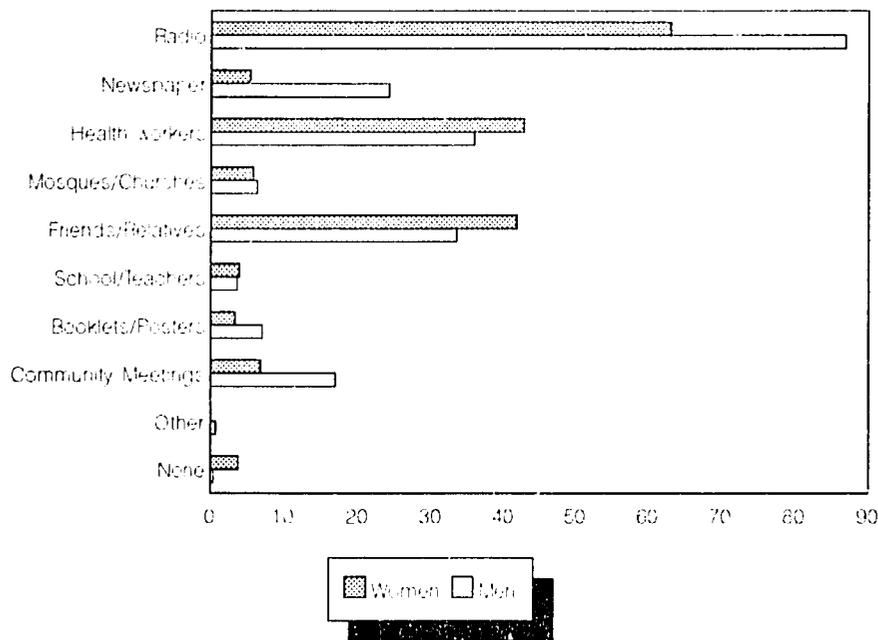
Table 10.2 Sources of AIDS information

Percentage of women age 15-49 and men 20-54 who report hearing of AIDS from various sources in the month before the survey, by urban-rural residence, Malawi 1992

Source of information	Urban	Rural	Total
FEMALES			
Radio	87.5	59.6	63.1
Newspaper	13.5	4.2	5.4
Health worker	45.7	42.3	42.8
Mosque/Church	6.3	5.8	5.8
Friend/Relative	28.1	43.8	41.8
School/Teacher	5.3	3.7	3.9
Booklet/Poster	5.5	3.0	3.3
Community meeting	6.1	6.9	6.8
Other	0.8	0.0	0.1
None	0.6	4.2	3.8
Number of women	587	4031	4618
MALES			
Radio	93.2	85.7	86.9
Newspaper	34.8	22.2	24.2
Health worker	41.6	34.8	35.9
Mosque/Church	8.0	6.0	6.3
Friend/Relative	23.8	35.3	33.5
School/Teacher	7.9	2.8	3.6
Booklet/Poster	12.4	6.0	7.0
Community meeting	13.5	17.7	17.0
Other	2.5	0.3	0.7
None	0.3	0.4	0.4
Number of men	181	951	1132

Note: Includes only men and women who reported to have heard of AIDS.

Figure 10.2
Sources of Information about AIDS



MDHS 1992

Information was also collected on the respondents' perception of possible means of transmission of the HIV/AIDS. More than 80 percent of men and women who had heard of AIDS knew that it is possible for a mother with AIDS to give birth to an infected child (Table 10.3). Further, 69 percent of women and 83 percent of men were aware that healthy-looking persons can be infected with HIV/AIDS. To assess potential misconceptions about methods of transmission of HIV/AIDS, respondents were asked whether they thought they could contract AIDS through handshaking, hugging, kissing, sharing clothes or eating utensils, stepping on urine or stool, and mosquito bites. More than half the men and women believed that kissing, stepping on urine/stool and mosquito bites are risk factors for HIV/AIDS transmission. Misconceptions about modes of transmission tended to be more common in rural areas and among women. Over one quarter of rural women believe that HIV/AIDS can be transmitted through handshaking.

Table 10.3 Perceived modes of AIDS transmission

Percentage of women age 15-49 and men age 20-54 who think it is possible to get AIDS by various means, according to urban-rural residence, Malawi 1992

	Urban	Rural	Total
FEMALES			
Possible to get AIDS by:			
Shaking hands with someone who has AIDS	12.0	26.9	25.0
Hugging someone who has AIDS	19.7	39.1	36.6
Kissing someone who has AIDS	39.7	53.9	52.1
Sharing the clothes of someone who has AIDS	24.6	43.6	41.2
Sharing eating utensils with someone who has AIDS	25.4	42.5	40.3
Stepping on the urine or stool of someone who has AIDS	42.5	58.1	56.1
Mosquito, flies or bedbug bites	45.3	63.9	61.6
Possible for a healthy-looking person to carry AIDS?			
Yes	84.6	66.1	68.5
No	11.1	24.0	22.3
Don't know	4.3	9.8	9.1
Missing	0.1	0.1	0.1
Possible for a woman with AIDS to give birth to a child with AIDS virus?			
Yes	90.3	80.3	81.6
No	5.6	11.8	11.0
Don't know	3.9	7.6	7.1
Missing	0.1	0.3	0.3
Number of women	587	4031	4618
MALES			
Possible to get AIDS by:			
Shaking hands with someone who has AIDS	9.5	22.2	20.2
Hugging someone who has AIDS	16.6	29.2	27.1
Kissing someone who has AIDS	44.2	56.8	54.7
Sharing the clothes of someone who has AIDS	27.1	45.2	42.3
Sharing eating utensils with someone who has AIDS	22.9	40.5	37.7
Stepping on the urine or stool of someone who has AIDS	34.4	55.7	52.3
Mosquito, flies or bedbug bites	43.0	59.3	56.7
Possible for a healthy-looking person to carry AIDS?			
Yes	93.2	80.5	82.6
No	4.9	13.8	12.4
Don't know	1.9	5.6	5.1
Missing	0.0	0.0	0.0
Possible for a woman with AIDS to give birth to a child with AIDS virus?			
Yes	94.7	86.2	87.6
No	2.4	6.5	5.6
Don't know	2.8	7.1	6.4
Missing	0.0	0.2	0.2
Number of men	181	951	1132

Table 10.4 shows the distribution of respondents by their awareness of means of AIDS prevention. Again, the results show that women and rural residents have less information available to them than men and urban residents. Nearly 30 percent of rural women do not think that AIDS can be prevented compared to 18 percent of urban women, 13 percent of rural men, and 8 percent of urban men. In general, men know of more different ways of preventing the disease, and cited condom use and needle sterilisation more commonly than women as ways to avoid the disease. In urban areas, men are more likely than women to report avoidance of prostitutes as a way of disease prevention, whereas in rural areas women are more likely than men to report the same.

Table 10.4 Perceptions about AIDS prevention			
Percent distribution of women age 15-49 and men age 20-54 by whether they believe AIDS can be prevented and, of those who believe it can be prevented, the percentage reporting various means of prevention, according to urban-rural residence, Malawi 1992			
	Urban	Rural	Total
FEMALES			
Can AIDS be prevented?			
Yes	82.4	70.9	72.4
No	17.5	28.9	27.5
Missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
Number of women	587	4031	4618
Among those who believe AIDS is preventable, percentage reporting means:			
Have no sex at all	41.5	35.4	36.2
Limit number of partners	42.4	40.7	40.9
Use condoms	16.0	11.1	11.8
Sterilise needles	39.6	29.9	31.3
Avoid prostitutes	25.7	30.5	29.8
Other	7.5	9.0	8.8
MALES			
Can AIDS be prevented?			
Yes	92.4	87.2	88.0
No	7.6	12.6	11.8
Missing	0.0	0.2	0.1
Total	100.6	100.0	100.0
Number of men	181	951	1132
Among those who believe AIDS is preventable, percentage reporting means:			
Have no sex at all	25.7	39.3	37.0
Limit number of partners	43.5	59.2	56.5
Use condoms	31.4	30.2	30.4
Sterilise needles	55.9	38.8	41.7
Avoid prostitutes	37.4	15.4	19.1
Other	6.5	4.7	5.0

Table 10.5 presents the opinions of the respondents on who should take care of AIDS patients. Most men and women think that friends and relatives should bear primary responsibility for care of the afflicted. However, men—especially those in rural areas—tended to suggest more often that the government be involved (35 percent) than did women (20 percent).

Table 10.5 Attitudes towards AIDS			
Percent distribution of women age 15-49 and men age 20-54 by preferred caretakers for a relative with AIDS, according to urban-rural residence, Malawi 1992			
	Urban	Rural	Total
FEMALES			
Preferred caretaker			
Relatives/Friends	76.8	72.7	73.3
Government facility	18.4	19.8	19.6
Religious organisation	0.2	0.2	0.2
Nobody/Abandon	3.5	6.6	6.2
Other	1.0	0.7	0.7
Number of women	587	4031	4618
MALES			
Preferred caretaker			
Relatives/Friends	76.2	61.2	63.6
Government facility	22.7	37.5	35.1
Religious organisation	0.1	0.4	0.3
Nobody/Abandon	0.9	0.7	0.8
Other	0.1	0.2	0.2
Number of men	181	951	1132

CHAPTER 11

MATERNAL MORTALITY

Data were collected in the MDHS which are suitable for estimating maternal mortality using either direct or indirect estimation procedures (Rutenberg et al., 1990; Graham et al., 1989). The information concerns the survivorship of all live births of the female respondent's natural mother. For each of the woman's siblings, questions were asked on current age or, if deceased, the age at death and years ago the death occurred. For sisters who died at age 10 years or older, questions were asked to determine if the death was maternity-related, i.e., did the death occur during pregnancy, during delivery, or within six weeks of delivery or pregnancy termination.

The direct approach for estimating maternal mortality maximises use of the available data, using information on age of surviving sisters, the age at death of sisters who died, and the number of years ago the sister died. This allows the data to be aggregated to determine the number of person-years of exposure to mortality and the number of maternal deaths occurring in defined calendar periods. Rates of maternal mortality are obtained by dividing maternal deaths by person-years of exposure.

The indirect approach to estimation of maternal mortality, i.e., the sisterhood method, has simpler data requirements than the direct method. None of the information on dates and ages related to sisters is used, and data on all sisters are used to estimate the life-time risk of maternal death. Since the estimates pertain to the life-time experience of respondents' sisters, a well-defined calendar reference period is not derived and the estimates represent mortality conditions over the past 50 years or so. Assuming changes in mortality over time are linear, the reference period can be said to be centered about 12-13 years before the survey date.

11.1 Data Collection

Each 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 whether or not each of these siblings was still alive at the survey date. For living siblings, current age was collected; for deceased siblings, age at death and years since death were collected. 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 age 10 years or older, three questions were asked to determine if 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 six weeks of the birth of a child or pregnancy termination?"

11.2 Data Quality

The estimation of maternal mortality by either direct or indirect means requires reasonably accurate reporting of the number of sisters the respondent ever had, the number that have died, and the number who have died of maternity-related causes. There is no definitive procedure for establishing the completeness or accuracy of retrospective data on sibling survivorship. Table 11.1 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 11.1 Data on siblings

Number of siblings reported by survey respondents and completeness of the reported data on age, age at death and years since death, weighted, Malawi 1992

	Sisters		Brothers		Unknown sex		Total number
	Number	Percent	Number	Percent	Number	Percent	
Total siblings	15107	100.0	14792	100.0	270	100.0	30169
Alive	10467	69.3	10279	69.5	58	21.7	20804
Dead	4624	30.6	4486	30.3	80	29.5	9190
Status unknown	17	0.1	27	0.2	132	48.8	176
Living siblings	10467	100.0	10279	100.0	58	100.0	20804
Age reported	10460	99.9	10272	99.1	58	100.0	20791
Missing age	7	0.1	7	0.1	0	0.0	13
Dead siblings	4624	100.0	4486	100.0	80	100.0	9190
Age at death and years since death reported	4590	99.3	4454	99.3	65	81.8	9109
Missing any age-at-death information	34	0.7	32	0.7	15	19.8	81

The respondents did not report the sex of 0.9 percent of their siblings. The sex ratio of siblings (the ratio of brothers to sisters) enumerated was 0.98, which is low¹ and may indicate underreporting of male births by the respondent. In very few cases (< 0.1 percent) was current age not reported by the respondent. In the case of deceased siblings, reporting of age at death and years since death was also nearly universal. Ninety-nine percent of deceased siblings have both age at death and years since death reported. Rather than exclude the siblings with age or age at death missing from further analysis, information on the birth order of siblings in conjunction with other information were used to impute the missing data.² The sibling survivorship data, including cases with imputed values, were used in the direct estimation of maternal mortality.

Another way to assess the quality of data used to estimate maternal mortality is to evaluate the plausibility and stability of estimates of adult female mortality. It is reasoned that if estimated rates of overall adult female mortality are implausible, rates based on a subset of these deaths—i.e., maternal deaths in particular—are unlikely to be free of serious problems. Table 11.2 presents the age-specific rates of female mortality (15-49 years) for 0-6 and 7-13 years before the survey, calculated by direct procedures. Overall female mortality (15-49 years) during the period 0-6 years before the survey, taken at face value, is more that

¹However, previous censuses and surveys in Malawi have found a similarly low sex ratio at birth.

²The imputation procedure is based on the assumption that the reported birth ordering 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 was unreported but age at death was reported, was used as a basis for imputing the age at death.

Table 11.2 Estimates of age-specific female mortality

Direct estimates of age-specific female mortality based on the survivorship of sisters of survey respondents, Malawi 1979-85 and 1986-92

Age	1979-1985			1986-1992		
	Deaths	Exposure years	Rate (000)	Deaths	Exposure years	Rate (000)
15-19	24	11144	2.18	54	10241	5.27
20-24	22	9618	2.34	40	10890	3.64
25-29	21	7443	2.78	70	10217	6.83
30-34	18	5647	3.24	57	7932	7.24
35-39	8	3532	2.31	55	6148	8.96
40-44	10	1754	5.86	38	4232	8.91
45-49	0	665	0.00	22	2291	9.58
15-49	104	39804	2.62	335	51951	6.46

twice as high as mortality during the 7-13 year period before the survey. The difference is apparent at all age groups, which would be difficult to explain on epidemiological grounds alone. Further, the data indicate a shift in the proportion of all female deaths attributable to non-maternal causes, from 64 percent in the less recent period to 79 percent in the more recent period (not shown). Either female mortality (and especially non-maternal mortality) is genuinely on the rise or there exists gross underreporting of deaths for the 7-13 year period before the survey.

One way to examine the quality of adult mortality estimates is through comparison against model or reference mortality schedules. Embodied in a model life table is a relationship between mortality during childhood and mortality during later years. Some models posit high child relative to adult mortality levels; others describe low child relative to adult mortality. In this exercise we ask the question, "Given an under-five (female) mortality rate of 230 per thousand (taken from Table 7.3), are the estimated rates of adult female mortality plausible?"

Table 11.3 shows the adult female mortality rates described in three model mortality schedules when under-five mortality (female) is 230 per thousand live births. The table presents adult female mortality rates implied by the Coale-Demeny South and North model families and the United Nations West African model alongside rates calculated from the MDHS data (0-6 and 7-13 years before the survey). For the 0-6 year period before the survey, MDHS rates increase smoothly between ages 20-24 and 40-44, and fit fairly well the level and pattern described in the South Model, while being somewhat lower than the patterns described in the North and significantly higher than those described in the West African model. On the other hand, for the 7-13 year period before the survey, MDHS adult female rates are lower than those embodied in all three models, although only slightly lower than the West African pattern.

The most plausible conclusion to be drawn from this analysis is that the data for the 0-6 year period before the survey are reasonably complete and that the data for previous calendar periods are incomplete. If correct, this means that rates calculated using less recent data or rates derived from data drawn from all calendar periods combined (i.e., sisterhood method) will be underestimated. However, this conclusion does not rule out the possibility that adult mortality has indeed risen recently.

Table 11.3 Estimates of age-specific female adult mortality

Direct estimates of age-specific female mortality based on the survivorship of sisters of survey respondents, Malawi 1986-92 and 1979-85, and model life table rates, by age

Age	Estimated rates		Model life table rates ¹		
	1979-85	1986-92	South (47.5)	North (45.0)	W. African (55.0)
15-19	2.18	5.27	4.34	5.55	2.18
20-24	2.34	3.63	5.52	6.46	2.96
25-29	2.78	6.83	6.09	7.50	3.39
30-34	3.24	7.24	6.41	8.72	4.22
35-39	2.31	8.96	6.99	10.00	5.04
40-44	5.86	8.91	7.65	11.09	5.39
45-49	0.00	9.58	8.68	12.15	6.35
Total (15-49)	2.62	6.46	6.42	8.59	4.16

¹Model life tables were selected at a level of mortality approximately corresponding to a probability of dying between birth and exact age 5 estimated for the period 1983-92 (i.e., $5q_0$ of 230 per 1,000 female births). Life expectancies at birth are given in parentheses.

It is speculative to use this one data source to infer *trends* in either adult female mortality or maternal mortality. The main objective of the MDHS in this area is to produce a "best estimate" of recent maternal mortality *level*. In this vein, the direct estimation of maternal mortality that follows will focus on producing one point estimate of maternal mortality for the 0-6 year period before survey.

11.3 Direct Estimates of Maternal Mortality

Direct, age-specific estimates of maternal mortality from the reported survivorship of sisters are shown in Table 11.4 for the 0-6 year period before the survey. The number of deaths (71) is rather small, and the age-pattern of rates is somewhat erratic, but there is the expected trend of higher rates at older ages. Given the small number of deaths, age-specific rates should not be overinterpreted—the preferred approach is to calculate one estimate for all childbearing ages (15-49 years). For the period 0-6 years before the survey (1986-1992), the rate of maternal mortality during the childbearing years is 1.36 maternal deaths per 1000 women-years of exposure.

The maternal mortality rate can be converted to a maternal mortality ratio and expressed per 100,000 live births by dividing the rate by the period-specific general fertility rate of 0.220 operating during this time period. In this way, the obstetrical risk of pregnancy and childbearing is underlined. By direct estimation procedures, the maternal mortality ratio is estimated at 620 maternal deaths per 100,000 live births during 1986-1992.³

³The maternal mortality ratio for the period 7-13 years before the survey was calculated to be 347 per 100,000 births. Even after standardizing the rates for the differences in exposure by age, the ratio rose only 0.8 percent to 350 per 100,000. As indicated earlier, this estimate should not be taken to represent the true maternal mortality conditions prevailing at that time. Rather, the estimate is unreasonably low and is interpreted to be due to underreporting of female and maternal deaths prior to the 0-6 year period before the survey.

Table 11.4 Direct estimates of maternal mortality
 Direct estimates of maternal mortality based on the survivorship of sisters of survey respondents, Malawi 1986-92

Age	Deaths	Exposure years	Rate (000)
15-19	13	10241	1.271
20-24	5	10890	0.472
25-29	15	10217	1.485
30-34	14	7932	1.822
35-39	12	6148	1.947
40-44	3	4233	0.827
45-49	8	2299	3.365
Total (15-49)	71	51960	1.362
GFR			.220
MMR¹			620

GFR = General fertility rate
 MMR = Maternal mortality ratio
¹Per 100,000 live births; calculated as maternal mortality rate divided by general fertility rate

Twenty-one percent of female deaths at ages 15-49 were associated with pregnancy and childbearing. Of the 71 maternal deaths during the 0-6 years period before the survey, 29 (41 percent) occurred during pregnancy, 22 (31 percent) during childbirth, and 20 (28 percent) in the six-week period following pregnancy termination or childbirth.

11.4 Indirect Estimates of Maternal Mortality

The data on the survivorship of sisters can also be used to estimate maternal mortality by the indirect method, i.e., the sisterhood method. In this method, the data are aggregated by five-year age groups of respondents. For each age group, information on the number of maternal deaths among all sisters of respondents and on the number of "sister units" of risk is used to estimate the lifetime risk of dying from maternal causes. The method also provides an overall estimate of maternal mortality for sisters of all respondents combined, which refers to a period in time centered 12-13 years prior to the survey.

The indirect estimates of maternal mortality are given in Table 11.5. When aggregating the data over all respondents, the lifetime risk of maternal death is 0.035, a risk of dying of maternal causes of about 1 in 29. As shown earlier, there is evidence here of more complete reporting in the recent period (i.e., by younger women). The highest estimates of risk come from reports of young women. The lifetime risk of maternal mortality can be converted to an estimate of the maternal mortality ratio (see formula in Table 11.5): 434 maternal deaths per 100,000 live births, applicable to a period around 1980.

In conclusion, the maternal mortality ratio was estimated to be 620 per 100,000 by direct means, applicable to a 1986-1992 time period, and 434 per 100,000 by the sisterhood (indirect) method referring to a time period centered around the year 1980. Why the large discrepancy between direct and indirect estimates of maternal mortality? As was shown earlier, it seems likely that maternal deaths (indeed all adult female deaths) were underreported in the periods before 6 years prior to the survey, and that to interpret these data as indicating a rise in female adult mortality and maternal mortality could be misleading. (This may be true,

Table 11.5 Indirect estimates of maternal mortality

Estimates of maternal mortality using the indirect method, Malawi 1992

Age	Number of respondents (a)	Number ^a of sisters 15+ (b)	Maternal deaths (c)	Adjustment factor (d)	Sister units of risk exposure (e)=(b)*(d)	Lifetime risk of maternal death (f)=(c)/(e)
15-19	1082	2304	16	.107	246	.066
20-24	944	2010	20	.206	414	.048
25-29	777	1654	26	.343	567	.045
30-34	656	1380	20	.503	694	.029
35-39	537	1245	20	.664	826	.024
40-44	510	1015	21	.802	814	.026
45-49	342	714	23	.900	643	.035
Total (15-49)	4849	8975	145		4205	.035
TFR 1978-82	8.0					
MMR	435					

TFR = Total fertility rate

MMR = Maternal mortality ratio $(1 - [1 - \text{Lifetime risk}]^{1/\text{TFR}}) * 100,000$, where TFR represents the total fertility rate 10-14 years preceding the survey

^aAdjusted for the age distribution of respondents' sisters (see Graham et al., 1989).

but the data are inadequate to support this.) Since the indirect estimate is essentially a weighted average of *reported* maternal mortality conditions occurring over the last 50 years or so, the lower indirect estimate may be attributed to the effect of the underreporting indicated in less recent periods. Therefore, the direct estimate (620 maternal deaths per 100,000 live births) should be taken as the best national-level estimate of the maternal mortality ratio.

CHAPTER 12

AVAILABILITY OF HEALTH SERVICES

The use of health services is determined by supply as well as demand. Before the household interviews, community leaders were asked to provide information regarding the availability to local residents of basic health services (see Health Services Availability Questionnaire in Appendix D). In each of the 225 sample points, questions were posed to leaders in the communities about the nearest health facilities, the nearest hospital, the nearest place where methods of family planning could be obtained, and where residents could obtain condoms. The distance and time to these service points were asked and whether specific health services—antenatal care, delivery care, immunisation, provision of methods of family planning, and specifically provision of condoms—were available in each health facility. Where possible, data collection personnel were instructed to ascertain or verify distances and times to facilities themselves. Distances and times were ascertained as an average for persons residing in the sample segment (i.e., selected enumeration area).

Before proceeding to the results, it is important to emphasise three points regarding the interpretation of these data. First, although the results in this chapter are presented in terms of the percentage distribution of women age 15-49, the data were collected at the level of the cluster, or sample point. Therefore, from a statistical standpoint, there are only 223 independent observations¹—one for each cluster-level questionnaire completed. Second, the responses to questions regarding time and distances should be regarded only as that perceived by knowledgeable community residents. There is bound to be an important level of imprecision in data collected like this, and no systematic effort was made at external validation of these estimates. Third, the time and distance data are severely heaped, i.e., travel time has been reported in "convenient" increments of 30 minutes, and distance has been reported most commonly in increments of 5 km. This causes the estimated median values to most frequently fall on a heaped value.

12.1 Distance and Time to Nearest Health Facility

Table 12.1 shows that for 38 percent of women age 15-49, the nearest health facility is a primary health centre, most commonly government-run. For 24 percent of women, the nearest facility was a dispensary; for 19 percent of women, a hospital was the nearest facility; for 11 percent of women, a manned health post or mobile clinic was the nearest facility; for 4 percent of women, a dispensary/maternity clinic was nearest; and for another 4 percent of women, a maternity clinic was the nearest facility.

The data concerning distance and travel time to the nearest health facility are shown in Table 12.2. For the country as a whole, 51 percent of women are within 5 km. of a health facility and 18 percent are 10 or more km. away from a facility. The median distance to the nearest health facility is 5 km. As expected, urban dwellers are nearer to facilities (median = 2.7 km.) than rural residents (median = 6.2 km.). Women living in the North are, on average, 7.2 km. from the nearest facility compared to 5.9 km. in the Central Region and 4.4 km. in the South. This is consistent with the greater dispersion of the population in the North.

¹ The MDHS included 225 sample points. However, the data on service availability for two sample points (0.9 percent) are missing.

Table 12.1 Type of nearest health facility

Percent distribution of all women 15-49 by type of nearest health facility, according to urban-rural residence and region, Malawi 1992

Residence/ Region	Hospital		Primary health centre		Dispensary/ Maternity clinic		Maternity clinic		Dispensary		Manned health post/ Mobile clinic		Total	Number of women
	Govern- ment	Private	Govern- ment	Private	Govern- ment	Private	Govern- ment	Private	Govern- ment	Private	Govern- ment	Private		
Residence														
Urban	33.7	4.4	30.1	0.0	1.8	0.0	0.0	0.0	20.5	6.8	2.7	0.0	100.0	573
Rural	12.1	4.7	31.0	8.1	3.4	0.5	1.7	2.4	15.4	8.3	6.0	6.4	100.0	4255
Region														
Northern	7.2	4.4	12.8	4.7	25.3	3.6	6.7	0.0	14.2	9.9	7.5	3.7	100.0	578
Central	14.9	5.0	32.8	10.6	0.6	0.0	0.0	0.0	13.0	10.7	5.6	6.9	100.0	1851
Southern	16.3	4.6	33.8	5.1	0.0	0.0	1.4	4.2	18.7	5.6	5.1	5.2	100.0	2398
Total	14.7	4.7	30.9	7.2	3.2	0.4	1.5	2.1	16.0	8.1	5.6	5.7	100.0	4828

Table 12.2 Distance and time to nearest health facility

Percent distribution of all women 15-49 by distance and time to nearest health facility, according to urban-rural residence and region, Malawi 1992

DISTANCE TO NEAREST FACILITY									
	Under 1 km	1-4 km	5-9 km	10-14 km	15-29 km	30+ km	Total	Median	Total
Residence									
Urban	21.3	64.9	13.8	0.0	0.0	0.0	100.0	2.7	573
Rural	6.3	39.7	33.5	13.3	6.5	0.8	100.0	6.2	4255
Region									
Northern	6.5	35.8	29.2	17.9	10.6	0.0	100.0	7.2	578
Central	4.6	42.4	36.7	10.6	5.7	0.0	100.0	5.9	1851
Southern	11.1	44.5	27.4	11.1	4.5	1.4	100.0	4.4	2398
Total	8.1	42.7	31.1	11.7	5.7	0.7	100.0	4.9	4828
TIME TO NEAREST FACILITY (MINUTES)									
	Under 15	15-29	30-59	60-119	120+	Total	Median time	Total	
Residence									
Urban	17.2	24.7	39.2	11.7	7.1	100.0	30.3	573	
Rural	10.6	2.4	15.9	25.2	45.9	100.0	90.4	4255	
Region									
Northern	6.4	7.0	22.6	26.9	37.2	100.0	60.8	578	
Central	4.8	7.5	13.9	19.5	54.3	100.0	120.2	1851	
Southern	17.6	2.7	21.4	26.1	32.2	100.0	60.8	2398	
Total	11.4	5.1	18.7	23.6	41.3	100.0	75.7	4828	

The median estimated time to the nearest health facility for a women is one and a quarter hours. One-fifth of women are within half an hour from a facility, but nearly two-thirds are more than an hour away, and two of five women are at least two hours away. It takes women living in rural areas, on average, an hour longer to reach the nearest health facility than those living in urban areas. Unlike the distance information, the estimated time to the nearest facility is greatest for Central Region (2 hours) compared with only one hour in the Northern and Southern Regions. In all three regions, the predominant means to reach the nearest health facility is by walking.

12.2 Services Provided at Nearest Health Facility

Community respondents were asked whether specific services were provided at the health facilities nearest to them. The services included antenatal care, maternity care, vaccinations, family planning services, and condom provision. The usefulness of the recalled data to assess availability of services depends on the respondents' knowledge of the services available. In the optimum case, the respondents know whether the service is available or not, and the data can be considered as an indicator of service availability. In a more realistic scenario, the community respondents will provide inaccurate information in a certain, but unknown, fraction of cases. For instance, the respondent may report that there were no family planning services but, actually, such services were available at the nearest clinic. In this case, availability of family planning services will be underestimated.

Table 12.3 presents data on the community respondents' knowledge of the services available at the nearest health facility. The results are reported in terms of the percentage of women age 15-49 whose nearest health facility had the relevant service available.

Service available	Region			Total
	Northern	Central	Southern	
Antenatal care				
Yes	90.1	89.9	89.1	89.5
No	9.9	10.1	10.9	10.5
Total	100.0	100.0	100.0	100.0
Delivery care				
Yes	87.9	84.0	76.2	80.6
No	12.1	16.0	23.8	19.4
Total	100.0	100.0	100.0	100.0
Vaccinations				
Yes	97.8	99.2	92.4	95.7
No	2.2	0.8	6.7	3.9
Don't know	0.0	0.0	0.9	0.5
Total	100.0	100.0	100.0	100.0
Family planning				
Yes	68.6	98.5	79.0	85.2
No	29.5	1.5	14.1	11.1
Don't know	1.8	0.0	6.9	3.7
Total	100.0	100.0	100.0	100.0
Condom provision				
Yes	73.8	70.1	68.2	69.6
No	16.9	16.5	15.9	16.3
Don't know	9.3	13.4	15.9	14.1
Total	100.0	100.0	100.0	100.0
Number of women	578	1851	2398	4828

Regarding antenatal care, most women reside in communities where the nearest facility provides antenatal care (90 percent of women), maternity services (81 percent), vaccination services (96 percent), and some sort of family planning services (85 percent). The availability of condoms at the nearest facility was unknown by the community respondents in 14 percent of cases. Of those cases where the availability was reported, 11 percent of women are reported to have condoms available at the nearest facility. Regional differences in the services available at the nearest facility depends on the particular service being considered. Availability of antenatal services is nearly the same in all regions, but maternity services and vaccination services are less available at the nearest facility in the Southern Region than in the Central and Northern

Regions. The nearest facility for women in the Northern Region is less likely to have family planning services available than in the Southern and Central Regions. Availability of condoms at the nearest facility is similar in the three regions.

12.3 Distance and Time to Nearest Hospital

Table 12.4 shows that the median distance to the nearest hospital is about 20 km.; 5 km. for urban residents and 21 km. for rural residents. Two-thirds of rural women live more than 15 km. from the nearest hospital. On average, Northern Region residents live farther away from a hospital (30 km.) than those in the Centre (24 km.) and South (18 km.).

The median time to the nearest hospital is 2 hours, though only 45 minutes for urban residents, and an hour and a half for residents of the Northern Region. Northern residents have a greater distance to hospital being covered within a shorter travel time than in the Centre and South. Fifty-seven percent of women—63 percent in rural areas—live two or more hours from the nearest hospital.

Table 12.4 Distance and time to nearest hospital										
Percent distribution of all women age 15-49 by distance and time to nearest hospital, according to urban-rural residence and region, Malawi 1992										
DISTANCE TO NEAREST HOSPITAL										
	Under 1 km	1-4 km	5-9 km	10-14 km	15-29 km	30+ km	Distance unknown	Total	Median	Number of women
Residence										
Urban	7.1	47.0	21.0	11.8	9.6	3.5	0.0	100.0	4.7	573
Rural	0.0	5.4	12.1	13.4	32.7	33.5	2.8	100.0	20.9	4255
Region										
Northern	1.2	8.1	11.1	4.8	17.6	53.7	3.5	100.0	30.1	578
Central	0.5	7.9	11.2	14.7	32.8	32.8	0.0	100.0	24.0	1851
Southern	1.0	12.8	15.2	14.0	30.8	22.0	4.1	100.0	17.7	2398
Total	0.8	10.4	13.2	13.2	30.0	30.0	2.5	100.0	20.2	4828
TIME TO NEAREST HOSPITAL (MINUTES)										
	Under 15	15-29	30-59	60-119	120+	Time unknown	Total	Median time	Number of women	
Residence										
Urban	10.6	14.7	31.0	28.0	15.7	0.0	100.0	45.9	573	
Rural	0.0	2.4	10.4	23.1	63.0	1.2	100.0	120.7	4255	
Region										
Northern	1.1	1.9	20.1	26.0	47.4	3.5	100.0	90.9	578	
Central	0.0	4.3	7.6	17.9	68.6	1.6	100.0	120.9	1851	
Southern	2.3	3.9	15.1	27.6	51.1	0.0	100.0	120.1	2398	
Total	1.3	3.8	12.8	23.7	57.4	1.0	100.0	120.4	4828	

12.4 Distance and Time to Nearest Source of Family Planning and Source of Condoms

A source of family planning is on average less physically accessible than a health facility (of any type), but is more accessible than a hospital specifically (Table 12.5). The median distance to the nearest source of family planning for a Malawian woman is 6 km. and takes an hour and a quarter to reach. In rural areas, women are about 7 km. from the nearest source, which represents about 2 hours travel time; in urban areas, women are much closer, on average about 3 km. and an half hour of travel time.

As with general health services, the Northern population tends to be farther from a source of family planning, but it takes less travel time to reach the source than that for the populations in the Centre and South. About one-third of women in the North and South, but over half of women in the Central Region are 2 hours or more from a family planning source. Yet, on average, women in the Centre are only 5 km. from a source compared with 7 km. in the other regions. Travel to facilities is perceived to be more difficult in the Central region.

Table 12.5 Distance and time to nearest source for any family planning method

Percent distribution of all women age 15-49 by distance and time to nearest source for any family planning method, according to urban-rural residence and region, Malawi 1992

DISTANCE TO NEAREST SOURCE										
	Under 1 km	1-4 km	5-9 km	10-14 km	15-29 km	30+ km	Mobile facility	Total	Median	Number of women
Residence										
Urban	17.7	67.2	11.6	0.5	0.0	0.0	3.0	100.0	2.8	573
Rural	4.2	34.0	33.4	10.4	10.8	2.8	4.4	100.0	6.8	4255
Region										
Northern	5.0	35.4	19.0	19.4	10.2	4.8	6.2	100.0	7.0	578
Central	4.1	42.8	34.4	5.8	8.2	0.0	4.7	100.0	5.1	1851
Southern	7.3	34.8	31.0	9.5	10.4	3.7	3.3	100.0	6.7	2398
Total	5.8	37.9	30.9	9.2	9.6	2.4	4.2	100.0	6.3	4828
TIME TO NEAREST SOURCE (MINUTES)										
	Under 15	15-29	30-59	60-119	120+	Mobile facility	Total	Median time	Number of women	
Residence										
Urban	15.7	29.4	38.1	10.5	3.4	3.0	100.0	30.1	573	
Rural	8.5	4.3	13.5	22.2	47.1	4.4	100.0	120.0	4255	
Region										
Northern	4.7	8.7	22.2	25.2	33.0	6.2	100.0	60.9	578	
Central	3.7	9.2	18.1	12.7	51.6	4.7	100.0	120.2	1851	
Southern	14.8	5.5	13.7	26.1	36.5	3.3	100.0	75.7	2398	
Total	9.3	7.3	16.4	20.8	41.9	4.2	100.0	90.1	4828	

Access to a supply of condoms is only slightly more difficult for the average Malawian than is access to any method of family planning (Table 12.6). A supply of condoms is, on average, 7 km. away and takes an hour and a half to reach.

Table 12.6 Distance and time to nearest source of condoms

Percent distribution of all women age 15-49 by distance and time to nearest source of condoms, according to urban-rural residence and region, Malawi 1992

DISTANCE TO NEAREST SOURCE											
	Under 1 km	1-4 km	5-9 km	10-14 km	15-29 km	30+ km	Distance unknown	Mobile facility	Total	Median	Number of women
Residence											
Urban	17.7	60.9	9.6	0.0	4.3	0.0	0.5	7.0	100.0	3.1	573
Rural	1.5	24.8	28.2	13.1	10.5	9.4	4.0	8.4	100.0	7.9	4255
Region											
Northern	2.3	28.3	23.9	18.7	10.2	8.0	4.2	4.3	100.0	8.4	578
Central	2.5	28.0	31.3	7.4	7.6	11.4	3.0	8.8	100.0	6.8	1851
Southern	4.4	30.1	22.5	13.0	11.3	5.9	4.0	8.8	100.0	7.1	2398
Total	3.4	29.1	26.0	11.6	9.7	8.3	3.6	8.2	100.0	7.0	4828
TIME TO NEAREST SOURCE (MINUTES)											
	Under 15	15-29	30-59	60-119	120+	Time unknown	Mobile facility	Total	Median time	Number of women	
Residence											
Urban	15.7	29.4	28.4	10.5	6.6	2.5	7.0	100.0	30.0	573	
Rural	4.3	4.0	11.7	20.5	49.8	1.3	8.4	100.0	120.2	4255	
Region											
Northern	1.2	8.7	20.2	23.3	38.1	4.2	4.3	100.0	80.8	578	
Central	2.1	8.0	13.9	10.0	55.5	1.7	8.8	100.0	120.5	1851	
Southern	9.5	5.9	11.9	25.6	37.8	0.5	8.8	100.0	75.9	2398	
Total	5.7	7.0	13.7	19.4	44.6	1.4	8.2	100.0	90.9	4828	

12.5 AIDS Education Campaigns

Efforts to reduce the spread of the AIDS virus in Malawi rely in large part on educating the public about the virus, how it is transmitted, and how one can prevent its spread. Community leaders were asked whether, over the last 12 months, a special program to educate people in the community had been implemented. Table 12.7 shows that only about one-third of women lived in communities where such community education had been implemented. Urban communities and communities in the Southern Region were much less likely to have had a community-based AIDS education program in the last 12 months. It should be remembered that this indicator does not necessarily represent knowledge imparted to community residents. Indeed, we know nothing about the specific content of the messages put forward in these community-based efforts. Also, it may be true that persons living in those areas with lower estimates of AIDS education coverage (i.e., towns and the Southern Region) have greater exposure to alternative information sources and thus may be in less need of this type of community-based action.

Table 12.7 AIDS awareness campaign

Percent of all women age 15-49 in communities with special educational campaign over past 12 months intended to increase awareness of AIDS, by urban-rural residence and region, Malawi 1992

	Percent	Number of women
Residence		
Urban	13.2	573
Rural	38.3	4255
Region		
Northern	48.9	578
Central	47.4	1851
Southern	22.8	2398
Total	35.4	4828

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APPENDIX A

INTERVIEW RESULTS

Table A.1 Sample implementation

Percent distribution of households and eligible women and men by result of the interview and household response rates, eligible woman and man response rates, and overall response rates, according to sample domain and urban-rural residence, Malawi 1992

Result	Total	Urban	Rural	Region		
				Northern	Central	Southern
Selected households						
Completed	91.6	94.8	90.6	91.7	91.9	91.3
Household present but no competent respondent at home	1.2	1.4	1.2	1.3	1.3	1.2
Refused	0.0	0.1	0.0	0.0	0.1	0.0
Dwelling not found	0.2	0.3	0.2	0.2	0.2	0.2
Household absent	1.7	1.1	2.0	2.2	1.0	2.1
Dwelling vacant/address not a dwelling	4.1	2.1	4.8	4.1	4.2	4.1
Dwelling destroyed	0.4	0.3	0.5	0.2	0.7	0.4
Other	0.6	0.0	0.8	0.3	0.7	0.8
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number	5811	1413	4398	1626	1919	2266
Household response rate	98.6	98.5	98.7	98.6	98.6	98.7
Eligible women						
Completed	96.6	96.8	96.5	96.5	96.7	96.6
Not at home	2.4	2.6	2.3	2.4	2.4	2.4
Postponed	0.0	0.0	0.1	0.0	0.1	0.0
Refused	0.1	0.1	0.1	0.2	0.1	0.0
Partly completed	0.1	0.0	0.1	0.1	0.0	0.2
Incapacitated	0.6	0.4	0.7	0.7	0.5	0.5
Other	0.2	0.1	0.2	0.1	0.1	0.3
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number eligible	5020	1759	3661	1495	1661	1864
Eligible woman response rate	96.6	96.8	96.5	96.5	96.7	96.6
Overall response rate (women)	95.3	95.3	95.3	95.1	95.3	95.4
Eligible men						
Completed	89.4	87.5	90.3	90.8	89.9	87.8
Not at home	9.2	11.3	8.1	7.6	8.7	10.7
Postponed	0.2	0.0	0.2	0.0	0.2	0.2
Refused	0.2	0.7	0.0	0.3	0.0	0.4
Partly completed	0.2	0.2	0.1	0.3	0.2	0.0
Incapacitated	0.5	0.0	0.7	0.5	0.5	0.4
Other	0.5	0.2	0.6	0.5	0.5	0.4
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number eligible	1288	416	872	380	424	484
Eligible man response rate	89.4	87.5	90.3	90.8	89.9	87.8
Overall response rate (men)	86.5	85.2	87.2	87.5	87.7	84.8

Note: The household response rate is calculated for completed households as a proportion of the sum of those completed, those with no competent respondent, and those refused. The eligible woman response rate is calculated for completed interviews as a proportion of all eligible women. The overall response rate (women) is the product of the household and woman response rates. Response rates for men are calculated in the same way as for women.

APPENDIX B
SAMPLING ERRORS

APPENDIX B

ESTIMATES OF SAMPLING ERRORS

The estimates from sample surveys are affected by two types of errors, nonsampling error and sampling error. Nonsampling error is the result of mistakes made in implementing data collection and data processing procedures, such as failure to locate and interview the correct household, errors in the way the questions are asked, misunderstanding on the part of either the interviewer or the respondent, data entry errors, etc. Although numerous efforts were made during the design and implementation of the MDHS to minimise this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be measured statistically. The sample of women selected in the MDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each one would have yielded results that differed somewhat from the actual sample selected. The sampling error is a measure of the variability between all possible samples; although it is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of *standard error* of a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which one can be reasonably assured that, apart from nonsampling errors, the true value of the variable for the whole population falls. For example, for any given statistic calculated from a sample survey, the value of that same statistic as measured in 95 percent of all possible samples with the same design (and expected size) will fall within a range of plus or minus two times the standard error of that statistic.

If the sample of women had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the MDHS sample design depended on stratification, stages and clusters. Consequently, it was necessary to utilise more complex formulas. The computer package CLUSTERS, developed by the International Statistical Institute for the World Fertility Survey, was used to assist in computing the sampling errors with the proper statistical methodology.

The CLUSTERS program 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:

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

in which

$$z_{hi} = y_{hi} - r \cdot x_{hi} \quad \text{and} \quad z_h = y_h - r \cdot x_h$$

where

h	represents the stratum which varies from 1 to H,
m_h	is the total number of EAs selected in the h^{th} stratum,
y_{hi}	is the sum of the values of variable y in EA i in the h^{th} stratum,
x_{hi}	is the sum of the number of cases (women) in EA i in the h^{th} stratum, and
f	is the overall sampling fraction, which is so small that CLUSTERS ignores it.

In addition to the standard errors, CLUSTERS computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, 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. CLUSTERS also computes the relative error and confidence limits for the estimates.

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

Sampling errors are presented in Tables B.2-B.7 for variables considered to be of major interest. Results are presented for the whole country, for urban and rural areas, and for regions. For each variable, the type of statistic (mean or proportion) and the base population are given in Table B.1. For each variable, Tables B.2-B.7 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted cases (WN), the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits ($R \pm 2SE$).

The confidence limits have the following interpretation. For the mean number of children ever born (EVBORN), the overall average from the sample is 3.482 and its standard error is 0.049. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., $3.482 \pm (2 \times 0.049)$, which means that there is a high probability (95 percent) that the *true* average number of children ever born is between 3.383 and 3.580.

The relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. The magnitude of the error increases as estimates for subpopulations such as geographical areas are considered. For the variable *children ever born (EVBORN)*, for instance, the relative standard error (as a percentage of the estimated mean) for the entire country and its regional divisions are 1.4 percent, 2.5 percent, 1.9 percent and 2.4 percent, respectively.

Table B.1 List of selected variables for sampling errors, Malawi 1992

Variable	Description	Estimate	Base population
URBAN	Urban	Proportion	All women 15-49
SECOND	With secondary education or more	Proportion	All women 15-49
CURMAR	Currently married	Proportion	All women 15-49
AGEM20	Married before age 20	Proportion	Ever married 20-49
PREGNT	Currently pregnant	Proportion	Currently married women
EVBORO	Children ever born	Mean	All women 15-49
EVBA0	Children ever born to women over 40	Mean	All women 40-49
SURVIV	Children surviving	Mean	All women 15-49
KMETHO	Knowing any contraceptive method	Proportion	Currently married women
KMDMET	Knowing modern method	Proportion	Currently married women
KSOURC	Knowing source for method	Proportion	Currently married women
EVUSE	Ever use any method	Proportion	Currently married women
CUSE	Currently using any method	Proportion	Currently married women
CUMODE	Currently using a modern method	Proportion	Currently married women
CUPILL	Currently using pill	Proportion	Currently married women
CUIUD	Currently using IUD	Proportion	Currently married women
CUSTER	Currently using female sterilisation	Proportion	Currently married women
CUCOND	Currently using condom	Proportion	Currently married women
CUPABS	Currently using periodic abstinence	Proportion	Currently married women
PSOURC	Using public sector source	Proportion	Current users of modern methods
NOMORE	Want no more children	Proportion	Currently married women
DELAY	Want to delay at least 2 years	Proportion	Currently married women
IDEAL	Ideal number of children	Mean	All women 15-49
TETANU	Mothers received tetanus injection	Proportion	Births in last 5 years
MEDELI	Received medical care at birth	Proportion	Births in last 5 years
DIARR1	Had diarrhoea in last 2 weeks	Proportion	Children under five
DIARR2	Had diarrhoea in last 24 hours	Proportion	Children under five
ORSTRE	Treated with ORS packets	Proportion	Children under five with diarrhoea in last 2 weeks
HCARD	Having health card	Proportion	Children 12-23 months
BCG	Received BCG vaccination	Proportion	Children 12-23 months
DPT3	Received DPT vaccination (3 doses)	Proportion	Children 12-23 months
POL3	Received polio vaccination (3 doses)	Proportion	Children 12-23 months
MEASLE	Received measles vaccination	Proportion	Children 12-23 months
FULLIM	Fully immunised	Proportion	Children 12-23 months
WGTAGE	Weight-for-age below -2*SD	Proportion	Children under five with anthropometric measure

Table B.2 Sampling errors - Entire sample, Malawi 1992

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.123	.006	4849	4849	1.212	.047	.111	.134
SECOND	.044	.004	4849	4849	1.438	.097	.035	.052
CURMAR	.720	.009	4849	4849	1.359	.012	.703	.738
AGEM20	.748	.009	3744	3767	1.207	.011	.731	.765
PREGNT	.156	.007	3489	3492	1.121	.044	.143	.170
EVBORN	3.482	.049	4849	4849	1.097	.014	3.383	3.580
EVB40	7.082	.126	769	853	1.164	.018	6.830	7.334
SURVIV	2.552	.038	4849	4849	1.123	.015	2.476	2.627
KMETHO	.946	.005	3489	3492	1.300	.005	.936	.955
KMDMET	.918	.007	3489	3492	1.602	.008	.903	.933
KSOURC	.833	.010	3489	3492	1.523	.012	.814	.852
EVUSE	.406	.011	3489	3492	1.341	.027	.384	.428
CUSE	.130	.007	3489	3492	1.246	.055	.116	.144
CUMODE	.074	.005	3489	3492	1.166	.070	.063	.084
CUPILL	.022	.003	3489	3492	1.280	.146	.015	.028
CUIUD	.003	.000	3489	3492	NP	.000	.003	.003
CUSTER	.017	.003	3489	3492	1.257	.163	.011	.022
CUCOND	.016	.002	3489	3492	1.101	.145	.011	.021
CUPABS	.037	.004	3489	3492	1.236	.107	.029	.045
PSOURC	.699	.031	355	304	1.253	.044	.637	.760
NOMORE	.233	.007	3489	3492	1.022	.031	.219	.248
DELAY	.372	.009	3489	3492	1.114	.025	.353	.390
IDEAL	5.061	.044	4167	4197	1.310	.009	4.974	5.149
TETANU	.856	.010	4439	4512	1.564	.011	.837	.875
MEDELI	.550	.018	4439	4512	2.033	.033	.514	.586
DIARR1	.074	.005	3690	3730	1.068	.062	.065	.083
DIARR2	.219	.008	3690	3730	1.148	.036	.204	.235
ORSTRE	.321	.020	812	818	1.149	.061	.281	.360
HCARD	.863	.015	779	772	1.206	.017	.833	.893
BCG	.970	.006	779	772	.978	.006	.958	.982
DPT3	.886	.013	779	772	1.103	.014	.860	.911
POL3	.881	.013	779	772	1.138	.015	.855	.908
MEASLE	.858	.016	779	772	1.304	.019	.826	.891
FULLIM	.818	.018	779	772	1.273	.022	.783	.854
WGTAGE	.272	.010	3196	3235	1.240	.037	.252	.292

NP = Not possible to calculate

Table B.3 Sampling errors - Urban, Malawi 1992

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	1.000	.000	1316	594	NP	.000	1.000	1.000
SECOND	.209	.023	1316	594	2.066	.111	.163	.255
CURMAR	.692	.016	1316	594	1.219	.022	.661	.723
AGEM20	.662	.019	1029	468	1.271	.028	.624	.699
PREGNT	.153	.010	908	411	.866	.068	.132	.173
EVBORN	3.018	.100	1316	594	1.242	.033	2.818	3.219
EVB40	7.230	.227	145	66	.833	.031	6.776	7.684
SURVIV	2.384	.078	1316	594	1.184	.033	2.229	2.539
KMETHO	.972	.005	908	411	1.068	.006	.960	.983
KMDMET	.963	.007	908	411	1.139	.007	.949	.978
KSOURC	.914	.010	908	411	1.077	.011	.894	.934
EVUSE	.562	.020	908	411	1.195	.035	.523	.602
CUSE	.229	.016	908	411	1.131	.069	.197	.260
CUMODE	.172	.016	908	411	1.266	.092	.141	.204
CUPILL	.057	.009	908	411	1.118	.151	.039	.074
CUIUD	.013	.005	908	411	1.326	.377	.003	.024
CUSTER	.049	.009	908	411	1.249	.183	.031	.067
CUCOND	.029	.006	908	411	1.049	.203	.017	.040
CUPABS	.029	.006	908	411	1.132	.217	.016	.042
PSOURC	.772	.026	173	83	.803	.033	.720	.823
NOMORE	.266	.014	908	411	.942	.052	.238	.293
DELAY	.348	.016	908	411	.988	.045	.317	.380
IDEAL	4.557	.103	1185	538	1.704	.023	4.352	4.763
TETANU	.912	.013	1137	512	1.398	.014	.886	.939
MEDELI	.862	.020	1137	512	1.644	.023	.821	.902
DIARR1	.056	.007	946	423	.941	.124	.043	.070
DIARR2	.193	.011	946	423	.867	.058	.171	.216
ORSTRE	.379	.039	178	82	1.041	.103	.301	.457
HCARD	.819	.029	192	84	1.023	.035	.762	.877
BCG	.979	.012	192	84	1.178	.013	.954	1.004
DPT3	.933	.019	192	84	1.057	.021	.894	.972
POL3	.939	.021	192	84	1.177	.022	.897	.980
MEASLE	.907	.027	192	84	1.292	.030	.852	.962
FULLIM	.872	.031	192	84	1.271	.036	.810	.935
WGTAGE	.154	.014	797	345	.996	.091	.126	.182

NP = Not possible to calculate

Table B.4 Sampling errors - Rural, Malawi 1992

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.000	.000	3533	4255	NP	.000	.000	.000
SECOND	.021	.004	3533	4255	1.491	.173	.013	.028
CURMAR	.724	.010	3533	4255	1.299	.013	.704	.744
AGEM20	.761	.009	2715	3299	1.152	.012	.742	.779
PREGNT	.157	.008	2581	3081	1.074	.049	.142	.172
EVBORN	3.546	.055	3533	4255	1.035	.015	3.437	3.656
EVB40	7.070	.135	624	787	1.133	.019	6.800	7.340
SURVIV	2.575	.042	3533	4255	1.063	.016	2.492	2.659
KMETHO	.942	.006	2581	3081	1.216	.006	.931	.953
KMDMET	.912	.008	2581	3081	1.497	.009	.896	.929
KSOURC	.822	.011	2581	3081	1.434	.013	.801	.844
EVUSE	.385	.012	2581	3081	1.276	.032	.361	.409
CUSE	.117	.008	2581	3081	1.215	.066	.102	.132
CUMODE	.060	.005	2581	3081	1.155	.090	.050	.071
CUPIII	.017	.003	2581	3081	1.327	.200	.010	.024
CUIUD	.001	.000	2581	3081	NP	.000	.001	.001
CUSTER	.012	.003	2581	3081	1.298	.227	.007	.018
CUCOND	.015	.003	2581	3081	1.083	.176	.009	.020
CUPABS	.038	.004	2581	3081	1.167	.116	.029	.047
PSOURC	.671	.041	182	221	1.171	.061	.589	.753
NOMORE	.229	.008	2581	3081	.973	.035	.213	.245
DELAY	.375	.010	2581	3081	1.059	.027	.354	.395
IDEAL	5.135	.048	2982	3660	1.216	.009	5.040	5.231
TETANU	.849	.011	3302	4000	1.458	.013	.828	.870
MEDELI	.510	.020	3302	4000	1.897	.039	.471	.550
DIARR1	.076	.005	2744	3308	1.003	.067	.066	.087
DIARR2	.223	.009	2744	3308	1.093	.039	.205	.240
ORSTRE	.314	.021	634	737	1.084	.067	.272	.356
HCARD	.869	.016	587	688	1.153	.019	.836	.901
BCG	.969	.007	587	688	.906	.007	.956	.982
DPT3	.880	.014	587	688	1.032	.016	.852	.908
POL3	.874	.015	587	688	1.060	.017	.845	.904
MEASLE	.853	.018	587	688	1.220	.021	.816	.889
FULLIM	.811	.020	587	688	1.192	.024	.772	.851
WGTAGE	.286	.011	2399	2890	1.156	.039	.264	.308

NP = Not possible to calculate

Table B.5 Sampling errors - Northern Region, Malawi 1992

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.114	.007	1442	579	.804	.059	.100	.127
SECOND	.079	.011	1442	579	1.537	.138	.057	.101
CURMAR	.743	.015	1442	579	1.315	.020	.713	.774
AGEM20	.768	.014	1081	431	1.107	.019	.739	.796
PREGNT	.177	.015	1056	430	1.245	.083	.147	.206
EVBORN	3.249	.080	1442	579	1.000	.025	3.089	3.409
EVB40	7.300	.187	194	81	1.027	.026	6.926	7.675
SURVIV	2.528	.062	1442	579	.968	.025	2.404	2.552
KMETHO	.937	.008	1056	430	1.078	.009	.921	.953
KMDMET	.896	.010	1056	430	1.082	.011	.876	.916
KSOURC	.808	.014	1056	430	1.123	.017	.781	.835
EVUSE	.534	.024	1056	430	1.551	.045	.486	.581
CUSE	.179	.016	1056	430	1.376	.091	.146	.211
CUMODE	.069	.011	1056	430	1.382	.156	.047	.091
CUPILL	.011	.004	1056	430	1.304	.374	.003	.020
CUIUD	.000	.000	1056	430	NP	.000	.000	.000
CUSTER	.011	.003	1056	430	1.061	.303	.005	.018
CUCOND	.039	.007	1056	430	1.105	.169	.026	.052
CUPABS	.097	.011	1056	430	1.179	.111	.076	.119
PSOURC	.709	.062	92	32	1.297	.087	.586	.832
NOMORE	.244	.013	1056	430	1.018	.055	.217	.271
DELAY	.393	.011	1056	430	.752	.029	.370	.415
IDEAL	5.102	.088	1157	461	1.467	.017	4.926	5.279
TETANU	.865	.013	1289	521	1.188	.015	.839	.891
MEDELI	.677	.034	1289	521	2.259	.051	.608	.745
DIARR1	.085	.009	1096	442	1.104	.110	.066	.104
DIARR2	.251	.019	1096	442	1.431	.076	.213	.289
ORSTRE	.428	.034	261	111	1.086	.080	.360	.497
HCARD	.828	.021	258	104	.893	.025	.786	.870
BCG	.982	.009	258	104	1.077	.009	.964	.000
DPT3	.881	.029	258	104	1.390	.033	.823	.939
POL3	.872	.031	258	104	1.439	.035	.810	.934
MEASLE	.838	.037	258	104	1.595	.044	.764	.911
FULLIM	.801	.038	258	104	1.516	.048	.724	.877
WGTAGE	.203	.012	970	390	.900	.059	.179	.227

NP = Not possible to calculate

Table B.6 Sampling errors - Central Region, Malawi 1992

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.122	.010	1606	1872	1.207	.081	.102	.142
SECOND	.040	.007	1606	1872	1.398	.170	.027	.054
CURMAR	.749	.011	1606	1872	1.058	.015	.726	.772
AGEM20	.759	.014	1254	1471	1.150	.018	.731	.787
PREGNT	.180	.013	1188	1402	1.176	.073	.154	.207
EVBOR4	3.716	.072	1606	1872	.865	.019	3.572	3.860
EV40	7.812	.189	268	339	1.043	.024	7.435	8.189
SURVIV	2.631	.053	1606	1872	.895	.020	2.524	2.737
KMETHO	.943	.009	1188	1402	1.280	.009	.926	.960
KMDMET	.923	.011	1188	1402	1.391	.012	.902	.945
KSOURC	.848	.016	1188	1402	1.497	.018	.817	.880
EVUSE	.372	.018	1188	1402	1.277	.048	.336	.408
CUSE	.131	.014	1188	1402	1.398	.105	.103	.158
CUMODE	.082	.010	1188	1402	1.250	.121	.062	.102
CUPILL	.024	.006	1188	1402	1.435	.268	.011	.036
CUIUD	.002	.001	1188	1402	.909	.581	-.000	.004
CUSTER	.016	.004	1188	1402	1.181	.265	.008	.025
CUCOND	.013	.004	1188	1402	1.239	.308	.005	.022
CUPABS	.031	.007	1188	1402	1.307	.213	.018	.044
PSOURC	.772	.048	129	127	1.293	.062	.676	.868
NOMORE	.278	.012	1188	1402	.945	.044	.254	.303
DELAY	.391	.016	1188	1402	1.105	.040	.360	.422
IDEAL	4.953	.060	1364	1550	1.017	.012	4.833	5.073
TETANU	.837	.018	1581	1890	1.636	.022	.801	.873
MEDELI	.507	.027	1581	1890	1.811	.054	.452	.562
DIARR1	.089	.008	1299	1552	1.094	.095	.072	.105
DIARR2	.240	.012	1299	1552	1.071	.052	.216	.265
ORSTRE	.315	.033	300	373	1.228	.105	.249	.381
HCARD	.892	.022	258	320	1.184	.025	.848	.937
BCG	.957	.010	258	320	.847	.011	.937	.978
DPT3	.857	.021	258	320	1.000	.025	.815	.899
POL3	.854	.022	258	320	1.047	.026	.809	.899
MEASLE	.836	.027	258	320	1.190	.032	.782	.889
FULLIM	.805	.029	258	320	1.195	.036	.748	.863
WGTAGE	.250	.014	1112	1315	1.062	.056	.222	.278

Table B.7 Sampling errors - Southern Region, Malawi 1992

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.125	.008	1801	2398	1.087	.068	.103	.142
SECOND	.038	.006	1801	2398	1.355	.162	.025	.050
CURMAR	.692	.015	1801	2398	1.362	.021	.663	.722
AGEM20	.735	.013	1409	1865	1.107	.018	.709	.761
PREGNT	.131	.009	1245	1660	.906	.066	.114	.148
EVBORN	3.355	.079	1801	2398	1.128	.024	3.197	3.513
EVB40	6.469	.186	307	433	1.093	.029	6.097	6.842
SURVIV	2.496	.062	1801	2398	1.152	.025	2.372	2.620
KMETHO	.950	.007	1245	1660	1.178	.008	.935	.964
KMDMET	.920	.012	1245	1660	1.620	.014	.895	.945
KSOURC	.827	.015	1245	1660	1.391	.018	.797	.857
EVUSE	.401	.017	1245	1660	1.198	.042	.368	.434
CUSE	.117	.008	1245	1660	.927	.072	.100	.134
CUMODE	.068	.006	1245	1660	.872	.092	.055	.080
CUPILL	.022	.004	1245	1660	.900	.168	.015	.030
CUIUD	.004	.002	1245	1660	.941	.408	.001	.008
CUSTER	.018	.004	1245	1660	1.134	.235	.010	.027
CUCOND	.013	.003	1245	1660	.960	.241	.007	.019
CUPABS	.026	.006	1245	1660	1.223	.212	.015	.037
PSOURC	.632	.045	134	145	1.076	.071	.542	.722
NOMORE	.192	.011	1245	1660	.969	.056	.171	.214
DELAY	.350	.013	1245	1660	.994	.038	.323	.377
IDEAL	5.130	.069	1636	2187	1.296	.013	4.992	5.268
TETANU	.872	.012	1569	2101	1.219	.014	.848	.896
MEDELI	.558	.028	1569	2101	1.893	.051	.501	.614
DIARR1	.058	.006	1295	1736	.824	.095	.047	.069
DIARR2	.192	.012	1295	1736	1.043	.060	.169	.216
ORSTRE	.291	.028	251	334	.936	.095	.236	.346
HCARD	.847	.025	263	348	1.125	.030	.797	.897
BCG	.978	.009	263	348	.969	.009	.961	.996
DPT3	.914	.018	263	348	1.063	.020	.877	.951
POL3	.909	.019	263	348	1.072	.021	.871	.947
MEASLE	.886	.024	263	348	1.232	.027	.837	.934
FULLIM	.835	.027	263	348	1.168	.032	.781	.889
WGTAGE	.308	.017	1114	1531	1.158	.054	.275	.342

APPENDIX C
DATA QUALITY TABLES

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Malawi 1992

Age	Males		Females		Age	Males		Females	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
<1	501	4.5	473	4.0	36	89	0.8	103	0.9
1	394	3.5	327	2.8	37	59	0.5	84	0.7
2	330	2.9	343	2.9	38	105	0.9	111	0.9
3	339	3.0	351	3.0	39	89	0.8	116	1.0
4	346	3.1	365	3.1	40	122	1.1	129	1.1
5	319	2.8	319	2.7	41	78	0.7	67	0.6
6	407	3.6	381	3.2	42	116	1.0	103	0.9
7	363	3.2	407	3.4	43	104	0.9	114	1.0
8	381	3.4	368	3.1	44	70	0.6	85	0.7
9	349	3.1	366	3.1	45	89	0.8	73	0.6
10	374	3.3	406	3.4	46	47	0.4	83	0.7
11	226	2.0	305	2.6	47	52	0.5	56	0.5
12	441	3.9	420	3.5	48	56	0.5	71	0.6
13	296	2.6	363	3.1	49	63	0.6	64	0.5
14	311	2.8	339	2.9	50	78	0.7	83	0.7
15	310	2.8	210	1.8	51	36	0.3	83	0.7
16	258	2.3	248	2.1	52	91	0.8	107	0.9
17	254	2.3	211	1.8	53	54	0.5	80	0.7
18	208	1.9	249	2.1	54	44	0.4	64	0.5
19	195	1.7	202	1.7	55	35	0.3	54	0.5
20	173	1.5	222	1.9	56	60	0.5	58	0.5
21	188	1.7	188	1.6	57	34	0.3	66	0.6
22	198	1.8	182	1.5	58	43	0.4	52	0.4
23	165	1.5	162	1.4	59	53	0.5	57	0.5
24	154	1.4	200	1.7	60	68	0.6	79	0.7
25	127	1.1	158	1.3	61	34	0.3	39	0.3
26	133	1.2	163	1.4	62	75	0.7	53	0.4
27	117	1.0	141	1.2	63	37	0.3	41	0.3
28	203	1.8	198	1.7	64	35	0.3	41	0.3
29	123	1.1	118	1.0	65	35	0.3	32	0.3
30	187	1.7	202	1.7	66	22	0.2	25	0.2
31	73	0.6	77	0.7	67	15	0.1	28	0.2
32	141	1.3	141	1.2	68	37	0.3	32	0.3
33	64	0.6	100	0.8	69	34	0.3	34	0.3
34	105	0.9	125	1.1	70+	298	2.7	329	2.8
35	107	0.9	115	1.0					
					Don't know/ Missing	18	0.2	9	0.1
					Total	11234	100.0	11853	100.0

Note: The de facto population includes all residents and nonresidents who slept in the household the night before the interview.

Table C.2 Age distribution of eligible and interviewed women and men

Five-year age distribution of the de facto household population of women age 10-54 and men age 15-59, five-year age distribution of interviewed women age 15-49 and men age 20-54, and percentage of eligible women and men who were interviewed (weighted), Malawi 1992

Age	Household population of women		Interviewed women age 15-49		Percentage interviewed (weighted)
	Number	Percent	Number	Percent	
FEMALES					
10-14	1832	NA	NA	NA	NA
15-19	1120	23.0	1050	22.3	93.7
20-24	953	19.6	916	19.5	96.1
25-29	778	16.0	753	16.0	96.8
30-34	645	13.2	636	13.5	98.6
35-39	529	10.9	521	11.1	98.5
40-44	498	10.2	495	10.5	99.2
45-49	347	7.1	332	7.1	95.7
50-54	417	NA	NA	NA	NA
15-49	4871	NA	4702	NA	96.5
MALES					
15-19	421	NA	NA	NA	NA
20-24	276	23.0	258	24.1	93.8
25-29	220	18.4	191	17.8	86.5
30-34	182	15.2	157	14.6	86.0
35-39	141	11.8	133	12.4	94.1
40-44	182	15.2	150	14.0	82.3
45-49	97	8.1	88	8.2	90.7
50-54	100	8.3	95	8.9	95.2
54-59	71	NA	NA	NA	NA
20-54	1198	100.0	1071	100.0	89.4

Note: The de facto population includes all residents and nonresidents who slept in the household the night before interview. Weights for both households and interviewed women and 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 1992

Subject	Reference group	Percentage missing information	Number of cases
Birth date	Births in last 15 years		
Month only		3.4	12310
Month and year		0.0	12310
Age at death	Deaths to births in last 15 years	0.2	2785
Age/date at first union ¹	Ever-married women	1.8	4088
Respondent's education	All women	0.1	4849
Child's size at birth	Births in last 59 months	0.7	4574
Anthropometry²	Living children age 0-59 months		
Height		9.9	3789
Weight		8.6	3789
Height or weight missing		10.2	3789
Diarrhoea in last 2 weeks	Living children age 0-59 months	2.0	3789

¹Both year and age missing

²Child not measured

Table C.4 Births by calendar year since birth

Distribution of births by calendar years since birth for living (L), dead (D), and all (T) children, according to reporting completeness, sex ratio at birth, and ratio of births by calendar year, Malawi 1992

Year	Number of births			Percentage with complete birth date ¹			Sex ratio at birth ²			Calendar ratio ³			Male			Female		
	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T
92	792	66	859	99.4	100.0	99.5	110.0	166.4	113.5	NA	NA	NA	415	41	456	377	25	402
91	798	142	940	99.7	96.5	99.2	104.7	75.8	99.7	106.7	113.5	107.7	408	61	469	390	81	471
90	703	184	887	99.5	93.8	98.3	96.3	87.3	94.4	95.5	112.4	98.6	345	86	431	358	98	457
89	674	185	859	98.8	92.3	97.4	104.0	122.5	107.7	97.1	104.4	98.6	344	102	446	330	83	414
88	685	171	856	98.5	92.5	97.3	86.9	119.7	92.7	104.2	99.3	103.2	319	93	412	367	78	444
87	641	159	800	99.3	95.7	98.5	111.2	152.2	118.2	93.1	70.9	87.7	338	96	433	304	63	367
86	691	277	968	97.1	91.2	95.4	98.3	122.5	104.7	106.4	152.0	116.4	343	152	495	349	124	473
85	658	206	864	98.4	91.1	96.6	94.5	104.8	96.8	98.4	78.7	92.9	320	105	425	339	100	439
84	647	246	892	96.6	88.4	94.4	100.0	93.7	98.2	104.0	124.9	109.0	323	119	442	323	127	450
83	586	188	774	97.2	88.5	95.1	99.7	109.5	102.0	NA	NA	NA	292	98	391	293	90	383
88-92	3652	749	4402	99.2	94.2	98.4	100.4	105.1	101.2	NA	NA	NA	1830	384	2214	1822	365	2188
83-87	3223	1075	4298	97.7	90.7	96.0	100.5	113.1	103.5	NA	NA	NA	1616	571	2186	1608	504	2112
78-82	2596	932	3528	96.2	87.5	93.9	88.3	97.4	90.6	NA	NA	NA	1217	460	1677	1378	472	1851
73-77	1572	787	2359	94.5	88.1	92.4	104.9	98.2	102.6	NA	NA	NA	805	390	1195	767	397	1164
< 73	1330	965	2295	91.1	81.7	87.2	104.2	109.2	106.3	NA	NA	NA	679	504	1182	651	461	1112
All	12374	4508	16882	96.7	88.2	94.5	98.7	104.9	100.3	NA	NA	NA	6147	2308	8455	6227	2200	8427

NA = Not applicable

¹Both year and month of birth given

² $(B_m/B_f) \times 100$, where B_m and B_f are the numbers of male and female births, respectively

³ $[2B_x / (B_{x-1} + B_{x+1})] \times 100$, where B_x is the number of 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 neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey, Malawi 1992

Age at death (in days)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	47	37	45	37	166
1	22	57	25	20	124
2	24	15	30	9	79
3	15	27	15	13	69
4	11	8	16	7	43
5	5	5	7	0	18
6	8	8	6	2	23
7	22	31	23	21	97
8	3	3	4	4	14
9	0	6	6	2	14
10	2	4	4	0	10
11	0	0	0	2	2
12	0	0	0	2	3
13	1	0	2	0	3
14	8	17	12	20	56
15	2	2	3	0	6
16	0	1	3	0	4
17	1	0	0	0	1
18	0	2	0	0	2
19	0	0	0	1	1
20	2	1	2	1	7
21	6	6	9	2	22
22	3	6	0	2	11
23	1	0	0	0	2
24	0	0	0	1	1
25	1	0	0	2	3
26	0	0	0	2	2
28	0	4	2	0	6
29	0	0	0	1	2
30	4	0	2	1	7
31+	3	0	0	0	3
Total 0-30	188	242	217	154	801
Percent early neonatal ¹	70.4	65.4	66.0	57.5	65.2

¹(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 infant deaths reported to occur at ages under one month, for five-year periods of birth preceding the survey, Malawi 1992

Reported age at death (in months)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1 ^a	188	242	217	154	801
1	36	25	20	21	102
2	36	34	24	24	119
3	42	40	27	20	129
4	35	32	35	21	124
5	49	27	24	23	123
6	54	42	31	22	148
7	36	33	25	8	101
8	27	33	18	18	97
9	32	38	24	13	107
10	21	17	10	16	64
11	13	15	15	13	56
12	32	62	39	41	174
13	13	35	17	16	81
14	17	21	11	14	62
15	11	8	13	9	41
16	8	11	13	8	40
17	7	3	4	4	17
18	19	15	22	12	67
19	5	1	6	7	18
20	1	11	0	0	12
21	5	2	0	2	9
22	0	4	7	3	14
23	2	4	1	3	9
24+	3	2	1	8	15
1 year	8	16	15	12	51
Total 0-11	569	579	472	351	1971
Percent neonatal ^b	33.1	41.9	46.0	43.7	40.7

^aIncludes deaths under 1 month reported in days

^b(Under 1 month/under 1 year) * 100

APPENDIX D
SURVEY INSTRUMENTS

Household Questionnaire

Individual Female Questionnaire

Individual Male Questionnaire

Health Services Availability Questionnaire

**MALAWI DEMOGRAPHIC AND HEALTH SURVEY
MALAWI GOVERNMENT - NATIONAL STATISTICAL OFFICE**

HOUSEHOLD SCHEDULE

FORM MDHS-H/92

IDENTIFICATION																						
REGION/DISTRICT _____	<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td></tr> </table>																					
TA/STA/TOWN _____																						
ENUMERATION AREA																						
VILLAGE OR PLACE _____																						
MDHS CLUSTER NUMBER.....																						
HOUSEHOLD NUMBER																						
URBAN/RURAL (urban=1, rural=2).....																						
NUMBER OF DWELLING UNITS USED BY HOUSEHOLD.....																						

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY <table border="1" style="width: 20px; height: 20px; display: inline-table;"></table>
				MONTH <table border="1" style="width: 20px; height: 20px; display: inline-table;"></table>
INTERVIEWER'S NAME	_____	_____	_____	YEAR <table border="1" style="width: 20px; height: 20px; display: inline-table;"></table>
RESULT***	_____	_____	_____	NAME <table border="1" style="width: 20px; height: 20px; display: inline-table;"></table>
				RESULT <table border="1" style="width: 20px; height: 20px; display: inline-table;"></table>
NEXT VISIT: DATE TIME	_____ _____	_____ _____		TOTAL NUMBER OF VISITS <table border="1" style="width: 20px; height: 20px; display: inline-table;"></table>
***RESULT CODES: 1 COMPLETED 2 NO HOUSEHOLD MEMBER AT HOME AT TIME OF VISIT OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT 3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD 4 POSTPONED 5 REFUSED 6 DWELLING VACANT OR ADDRESS NOT A DWELLING 7 DWELLING DESTROYED 8 DWELLING NOT FOUND 9 OTHER _____ <div style="text-align: center;">(SPECIFY)</div>				TOTAL IN HOUSEHOLD <table border="1" style="width: 20px; height: 20px; display: inline-table;"></table> TOTAL NO. -ELIGIBLE WOMEN <table border="1" style="width: 20px; height: 20px; display: inline-table;"></table> -ELIGIBLE MEN <table border="1" style="width: 20px; height: 20px; display: inline-table;"></table> LINE NO. OF HH RESP. <table border="1" style="width: 20px; height: 20px; display: inline-table;"></table>

NAME DATE	FIELD EDITED BY _____ _____	OFFICE EDITED BY _____ _____	KEYED BY _____	KEYED BY <table border="1" style="width: 20px; height: 20px; display: inline-table;"></table>
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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*	RESIDENCE		SEX	AGE	EDUCATION AND LITERACY				PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD***				ELIGIBILITY			
			Does (NAME) usually live here?	Did (NAME) sleep here last night?			Is (NAME) male or female?	How old is (NAME)?	Has (NAME) ever been to school?	IF ATTENDED SCHOOL		ASK ONLY IF LESS THAN SECOND. SCHOOL	Is (NAME)'s natural mother alive?	IF ALIVE		Is (NAME)'s natural father alive?	IF ALIVE	
										What is the highest level of school (NAME) attended?	IF AGED LESS THAN 25 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
(1)	(2)	(3)	YES NO	YES NO	M F	IN YEARS	YES NO	LEVEL YEARS	YES NO	YES NO	YES NO DK		YES NO DK		(16)			
01			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		01			
02			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		02			
03			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		03			
04			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		04			
05			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		05			
06			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		06			
07			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		07			
08			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		08			
09			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		09			
10			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		10			

[09]

HOUSEHOLD SCHEDULE CONTINUED

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
			YES NO	YES NO	M F	IN YEARS	YES NO	LEVEL YEARS	YES NO	YES NO	YES NO DK		YES NO DK		
11			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		11
12			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		12
13			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		13
14			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		14
15			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		15
16			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		16
17			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		17
18			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		18
19			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		19
20			1 2	1 2	1 2		1 2		1 2	1 2	1 2 8		1 2 8		20

TICK HERE IF CONTINUATION SHEET USED

TOTAL NUMBER OF ELIGIBLE WOMEN (15-49 years)

TOTAL NUMBER OF ELIGIBLE MEN (20-54 years)

Just to make sure that I have a complete listing:

- Are there any other persons such as small children or infants that we have not listed? YES ENTER EACH IN TABLE NO
- 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, but that were not already listed? YES ENTER EACH IN TABLE NO
- Do you have any guests or temporary visitors staying here, or anyone else who slept here last night that we have not already listed? YES ENTER EACH IN TABLE NO

* CODES FOR Q.3

RELATIONSHIP TO HEAD OF HOUSEHOLD:

- 01= HEAD
- 02= WIFE OR HUSBAND
- 03= SON OR DAUGHTER
- 04= SON OR DAUGHTER-IN-LAW
- 05= GRANDCHILD
- 06= PARENT
- 07= PARENT-IN-LAW
- 08= BROTHER OR SISTER

- 09= OTHER RELATIVE
- 10= ADOPTED/FOSTER CHILD
- 11= NOT RELATED
- 98= DO NOT KNOW

** CODES FOR Q.9

LEVEL OF EDUCATION:

- 1= PRIMARY
- 2= SECONDARY
- 3= HIGHER
- 8= DO NOT KNOW

YEARS:

- 00=LESS THAN 1 YEAR COMPLETED
- 98=DK

*** These questions refer to the biological parents of the child. Record 00 if parent not member of household.

BIRTHS AND DEATHS IN LAST 12 MONTHS

Now we would like some information about all of the births and deaths that occurred in this household to usual residents during the last 12 months. First, let's talk about all of the births.

	NAME OF CHILD	SEX	DATE OF BIRTH		SURVIVAL	
			MONTH	YEAR	CHILD	MOTHER
	Please give me the names of all the children born in this household over the past 12 months, that is, since (MONTH OF INTERVIEW) 1991. PROBE: Have you included all births, even if the child lived only a few moments, days, or weeks?	Was (NAME) born a boy or a girl?	In what month was (NAME) born? PROBE: In what season?	In what year was (NAME) born? PROBE: this year? or last year?	Is (NAME) still alive?	Is the mother of (NAME) still alive?
	(17)	(18)	(19)	(20)	(21)	(22)
		M F	MONTH	YEAR	YES NO	YES NO
1		1 2	<input type="text"/>	9 <input type="text"/>	1 2	1 2
2		1 2	<input type="text"/>	9 <input type="text"/>	1 2	1 2
3		1 2	<input type="text"/>	9 <input type="text"/>	1 2	1 2
4		1 2	<input type="text"/>	9 <input type="text"/>	1 2	1 2
5		1 2	<input type="text"/>	9 <input type="text"/>	1 2	1 2
TOTAL BIRTHS IN HOUSEHOLD						

Now we would like some information about all of the deaths that occurred in this household to usual residents during the last 12 months.

	NAME OF PERSON	SEX	AGE AT DEATH	DATE OF DEATH		PLACE OF DEATH
				MONTH	YEAR	
	Please give me the names of all the persons who were usual residents of this household and died during the last 12 months, that is, since (MONTH OF INTERVIEW) 1991. CHECK CONSISTENCY WITH Q. 21	Was (NAME) born a male or female?	How old was (NAME) when he/she died? RECORD IN COMPLETED YEARS	In what month did (NAME) die? PROBE: During what season?	In what year did (NAME) die? PROBE: this year? or last year?	Where did (NAME) die? HOUSEHOLD = 1 HOSPITAL/CLINIC = 2 ON WAY TO HOSPITAL/CLINIC = 3 OUTSIDE HOUSEHOLD = 4 (28)
	(23)	(24)	(25)	(26)	(27)	(28)
		M F	YEARS	MONTH	YEAR	
1		1 2	<input type="text"/>	<input type="text"/>	9 <input type="text"/>	<input type="text"/>
2		1 2	<input type="text"/>	<input type="text"/>	9 <input type="text"/>	<input type="text"/>
3		1 2	<input type="text"/>	<input type="text"/>	9 <input type="text"/>	<input type="text"/>
4		1 2	<input type="text"/>	<input type="text"/>	9 <input type="text"/>	<input type="text"/>
TOTAL DEATHS IN HOUSEHOLD						

HOUSEHOLD AMENITIES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO															
29	What is the main source of water your household uses for handwashing and dishwashing?	PIPED WATER PIPED INSIDE DWELLING UNIT ...11 →31 PIPED INTO YARD/PLOT12 →31 PUBLIC TAP.....13 WELL WATER PROTECTED WELL/BOREHOLE.....21 UNPROTECTED WELL.....22 SURFACE WATER SPRING.....31 RIVER/STREAM.....32 POND/DAM33 LAKE.....34 RAINWATER.....41 →31 OTHER71 (SPECIFY)																
30	How long does it take to go there, get water, and come back?	MINUTES..... <input type="text"/> <input type="text"/> <input type="text"/> ON PREMISES.....996 DK.....998																
31	Does your household get drinking water from this same source?	YES.....1 →33 NO.....2																
32	What is the main source of drinking water for members of your household?	PIPED WATER PIPED INSIDE DWELLING UNIT ...11 PIPED INTO YARD/PLOT12 PUBLIC TAP.....13 WELL WATER PROTECTED WELL/BOREHOLE.....21 UNPROTECTED WELL.....22 SURFACE WATER SPRING.....31 RIVER/STREAM.....32 POND/DAM33 LAKE.....34 RAINWATER.....41 OTHER71 (SPECIFY)																
33	What kind of toilet facility does your household have?	FLUSH TOILET OWN FLUSH TOILET.....11 SHARED FLUSH TOILET.....12 PIT LATRINE TRADITIONAL PIT LATRINE.....21 VENTILATED IMPROVED PIT (VIP) LATRINE.....22 NO FACILITY31 OTHER41 (SPECIFY)																
34	Does your household have: Electricity? A radio? A paraffin lamp?	<table border="0"> <tr> <td></td> <td align="right">YES</td> <td align="right">NO</td> </tr> <tr> <td>ELECTRICITY.....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>RADIO.....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>PARRAFIN LAMP.....</td> <td align="right">1</td> <td align="right">2</td> </tr> </table>		YES	NO	ELECTRICITY.....	1	2	RADIO.....	1	2	PARRAFIN LAMP.....	1	2				
	YES	NO																
ELECTRICITY.....	1	2																
RADIO.....	1	2																
PARRAFIN LAMP.....	1	2																
35	How many rooms in all of the dwelling units of this household are used for sleeping?	ROOMS..... <input type="text"/> <input type="text"/>																
36	Does any member of your household own: A bicycle? A motorcycle? A car? An oxcart?	<table border="0"> <tr> <td></td> <td align="right">YES</td> <td align="right">NO</td> </tr> <tr> <td>BICYCLE.....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>MOTORCYCLE.....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>CAR.....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>OX CART.....</td> <td align="right">1</td> <td align="right">2</td> </tr> </table>		YES	NO	BICYCLE.....	1	2	MOTORCYCLE.....	1	2	CAR.....	1	2	OX CART.....	1	2	
	YES	NO																
BICYCLE.....	1	2																
MOTORCYCLE.....	1	2																
CAR.....	1	2																
OX CART.....	1	2																

37A	<p>MAIN MATERIAL OF THE FLOOR.</p> <p>RECORD OBSERVATION.</p> <p>NOTE: IF THE HOUSEHOLD LIVES IN MORE THAN ONE DWELLING UNIT AND THE DWELLING UNITS DIFFER IN FLOOR MATERIALS, RECORD YOUR OBSERVATION ON THE FLOOR OF THE DWELLING OF THE HEAD OF HOUSEHOLD.</p>	<p>MUD/EARTH FLOOR11</p> <p>FINISHED FLOOR</p> <p>CEMENT31</p> <p>BRICKS32</p> <p>WOOD.....33</p> <p>TILES34</p> <p>OTHER _____ 41</p> <p>(SPECIFY)</p>
37B	<p>MAIN MATERIAL OF THE ROOF.</p> <p>RECORD OBSERVATION.</p> <p>NOTE: IF THE HOUSEHOLD LIVES IN MORE THAN ONE DWELLING UNIT AND THE DWELLING UNITS DIFFER IN ROOF MATERIALS, RECORD YOUR OBSERVATION ON THE ROOF OF THE DWELLING OF THE HEAD OF HOUSEHOLD.</p>	<p>GRASS THATCH.....1</p> <p>IRON SHEETS.....2</p> <p>IRON AND TILES.....3</p> <p>ASBESTOS4</p> <p>CEMENT.....5</p> <p>WOOD.....6</p> <p>OTHER _____ 7</p> <p>(SPECIFY)</p>

H 6

**MALAWI DEMOGRAPHIC AND HEALTH SURVEY
MALAWI GOVERNMENT - NATIONAL STATISTICAL OFFICE**

**INDIVIDUAL QUESTIONNAIRE
FEMALE**

FORM MDHS-F/92

IDENTIFICATION																	
REGION/DISTRICT _____	<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td></tr> </table>																
TA/STA/TOWN _____																	
ENUMERATION AREA																	
VILLAGE OR PLACE _____																	
MDHS CLUSTER NUMBER.....																	
HOUSEHOLD NUMBER																	
URBAN/RURAL (urban=1, rural=2).....																	
NAME AND LINE NUMBER OF WOMAN _____																	
NAME AND LINE NUMBER OF HUSBAND _____ (CODE 98 IF NO HUSBAND OR HUSBAND NOT IN HOUSEHOLD)																	

INTERVIEWER VISITS								
	1	2	3	FINAL VISIT				
DATE	_____	_____	_____	DAY <table border="1" style="display: inline-table; width: 20px; height: 20px; vertical-align: middle;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>				
INTERVIEWER'S NAME	_____	_____	_____	MONTH <table border="1" style="display: inline-table; width: 20px; height: 20px; vertical-align: middle;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>				
RESULT *	_____	_____	_____	YEAR <table border="1" style="display: inline-table; width: 20px; height: 20px; vertical-align: middle;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>				
NEXT VISIT: DATE TIME	_____ _____	_____ _____	_____	NAME <table border="1" style="display: inline-table; width: 20px; height: 20px; vertical-align: middle;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>				
				RESULT <table border="1" style="display: inline-table; width: 20px; height: 20px; vertical-align: middle;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>				
				TOTAL NUMBER OF VISITS <table border="1" style="display: inline-table; width: 20px; height: 20px; vertical-align: middle;"> <tr><td> </td><td> </td></tr> </table>				
* RESULT CODES: 1 COMPLETED 4 REFUSED 7 OTHER _____ 2 NOT AT HOME 5 PARTLY COMPLETED (SPECIFY) 3 POSTPONED 6 INCAPACITATED								

NAME DATE	FIELD EDITED BY _____ _____	OFFICE EDITED BY _____ _____	KEYED BY _____ _____	KEYED BY <table border="1" style="display: inline-table; width: 20px; height: 20px;"> <tr><td> </td><td> </td></tr> </table>		

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
101	RECORD THE TIME.	HOUR..... <input type="text"/> <input type="text"/> MINUTES..... <input type="text"/> <input type="text"/>	
102	First I would like to ask some questions about you and your household. For most of the time until you were about 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)?	YEARS..... <input type="text"/> <input type="text"/> 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..... <input type="text"/> <input type="text"/> DK MONTH.....98 YEAR..... <input type="text"/> <input type="text"/> DK YEAR.....98	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS..... <input type="text"/> <input type="text"/>	
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..... <input type="text"/> <input type="text"/>	
110	CHECK 108: PRIMARY <input type="checkbox"/> SECONDARY OR HIGHER <input type="checkbox"/>		→112
111	Are you able to read and understand English or Chichewa easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	→113
112	Do you usually read a newspaper or magazine at least once a week?	YES.....1 NO.....2	
113	Do you usually listen to a radio at least once a week?	YES.....1 NO.....2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
114	CHECK Q.4 IN THE HOUSEHOLD QUESTIONNAIRE	THE WOMAN INTERVIEWED IS A USUAL RESIDENT	201
	THE WOMAN INTERVIEWED IS NOT A USUAL RESIDENT <input type="checkbox"/>	<input type="checkbox"/>	
115	How I would like to ask about the place in which you usually live. Do you usually live in a city, in a town, or in a village?	CITY.....1 TOWN.....2 VILLAGE.....3	
116	In which region is that located?	NORTH.....1 CENTRAL.....2 SOUTH.....3 OUTSIDE MALAWI.....4	
117	What is the source of water your household uses for handwashing and dishwashing?	PIPED WATER PIPED INSIDE DWELLING UNIT ...11 → 119 PIPED INTO YARD/PLOT12 → 119 PUBLIC TAP.....13 WELL WATER PROTECTED WELL/BOREHOLE.....21 UNPROTECTED WELL.....22 SURFACE WATER SPRING.....31 RIVER/STREAM.....32 POND/DAM33 LAKE.....34 RAINWATER.....41 → 119 OTHER71 (SPECIFY)	
118	How long does it take to go there, get water, and come back?	MINUTES..... <input type="text"/> <input type="text"/> <input type="text"/> ON PREMISES.....996 DK.....998	
119	Does your household get drinking water from this same source?	YES.....1 → 121 NO.....2	
120	What is the source of drinking water for members of your household?	PIPED WATER PIPED INSIDE DWELLING UNIT ...11 PIPED INTO YARD/PLOT12 PUBLIC TAP.....13 WELL WATER PROTECTED WELL/BOREHOLE.....21 UNPROTECTED WELL.....22 SURFACE WATER SPRING.....31 RIVER/STREAM.....32 POND/DAM33 LAKE.....34 RAINWATER.....41 OTHER71 (SPECIFY)	
121	What kind of toilet facility does your household have?	FLUSH TOILET OWN FLUSH TOILET.....11 SHARED FLUSH TOILET.....12 PIT LATRINE TRADITIONAL PIT LATRINE.....21 VENTILATED IMPROVED PIT (VIP) LATRINE.....22 NO FACILITY31 OTHER41 (SPECIFY)	
122	Does your household have: Electricity? A radio? A paraffin lamp?	YES NO ELECTRICITY.....1 2 RADIO.....1 2 PARRAFIN LAMP.....1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO															
123	How many rooms in all of the dwelling units of your household are used for sleeping?	ROOMS..... <input type="checkbox"/> <input type="checkbox"/>																
124	Does any member of your household own: A bicycle? A motorcycle? A car? An oxcart?	<table border="0"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>BICYCLE.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>MOTORCYCLE.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>CAR.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>OX CART.....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	BICYCLE.....	1	2	MOTORCYCLE.....	1	2	CAR.....	1	2	OX CART.....	1	2	
	YES	NO																
BICYCLE.....	1	2																
MOTORCYCLE.....	1	2																
CAR.....	1	2																
OX CART.....	1	2																
125A	At your own house, what is the main material that the floor is made from? NOTE: IF HER HOUSEHOLD LIVES IN MORE THAN ONE DWELLING UNIT AND THE DWELLING UNITS DIFFER IN FLOOR MATERIALS, ASK FOR THE FLOOR MATERIAL OF THE DWELLING OF THE HEAD OF HOUSEHOLD.	MUD/EARTH FLOOR11 FINISHED FLOOR CEMENT31 BRICKS32 WOOD.....33 TILES34 OTHER _____ 41 (SPECIFY)																
125B	At your own house, what is the main material that the roof is made from? NOTE: IF HER HOUSEHOLD LIVES IN MORE THAN ONE DWELLING UNIT AND THE DWELLING UNITS DIFFER IN ROOF MATERIALS, ASK FOR THE ROOF MATERIAL OF THE DWELLING OF THE HEAD OF HOUSEHOLD.	GRASS THATCH.....1 IRON SHEETS.....2 IRON AND TILES.....3 ASBESTOS4 CEMENT.....5 WOOD...6 OTHER _____ 7 (SPECIFY)																

F 4

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO				
201	How 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.....	<table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
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.....	<table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
206	Have you ever given birth to a boy or a girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed any sign of life but only survived a few hours or days?	YES.....1 NO.....2	→208				
207	In all, how many boys have died? And how many girls have died? IF NONE RECORD '00'.	BOYS DEAD..... GIRLS DEAD.....	<table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE RECORD '00'.	TOTAL.....	<table border="1"><tr><td></td><td></td></tr></table>				
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 <input type="checkbox"/> NO <input type="checkbox"/> PROBE AND CORRECT 201-208 AS NECESSARY						
210	CHECK 208: ONE OR MORE BIRTHS <input type="checkbox"/> NO BIRTHS <input type="checkbox"/>		→223				

211 Now I would like to talk to you about all of your births, whether still alive or not, starting with the first one you had.

RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.

212	213	214	215	216	217	218	219	220
What name was given to your (first,next) baby?	RECORD SINGLE OR MULTIPLE BIRTH STATUS.	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season was he/she born?	Is (NAME) still alive?	How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	Is (NAME) living with you?	IF LESS THAN 15 YRS. OF AGE: With whom does he/she live? IF 15+: GO TO NEXT BIRTH.	IF DEAD: How old was he/she 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.
01 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE..2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
02 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE..2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
03 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE..2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
04 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE..2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
05 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE..2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
06 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE..2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
07 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE..2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
08 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE..2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>

212	213	214	215	216	217	218	219	220
What name was given to your next baby?	RECORD SINGLE OR MULTIPLE BIRTH STATUS.	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season?	Is (NAME) still alive?	How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	Is (NAME) living with you?	IF LESS THAN 15 YRS. OF AGE: With whom does he/she live? IF 15+: GO TO NEXT BIRTH.	IF DEAD: How old was he/she 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.

09 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES...1 (GO TO NEXT BIRTH) ← NO...2	FATHER...1 OTHER RELATIVE...2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
10 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES...1 (GO TO NEXT BIRTH) ← NO...2	FATHER...1 OTHER RELATIVE...2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
11 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES...1 (GO TO NEXT BIRTH) ← NO...2	FATHER...1 OTHER RELATIVE...2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
12 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES...1 (GO TO NEXT BIRTH) ← NO...2	FATHER...1 OTHER RELATIVE...2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
13 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES...1 (GO TO NEXT BIRTH) ← NO...2	FATHER...1 OTHER RELATIVE...2 SOMEONE ELSE...3 (GO NEXT BIRTH)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>
14 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES...1 (GO TO NEXT BIRTH) ← NO...2	FATHER...1 OTHER RELATIVE...2 SOMEONE ELSE...3 (GO TO 221)	DAYS...1 MONTHS...2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/>

221 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: PROBE TO DETERMINE EXACT NUMBER OF MONTHS.

222 CHECK 215 AND ENTER THE NUMBER OF BIRTHS SINCE JANUARY 1987. IF NONE, RECORD 0.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
223	Are you pregnant now?	YES.....1 NO.....2 UNSURE.....8	→227
224	How many months pregnant are you?	MONTHS..... <input type="text"/>	
225	During this pregnancy, are you taking bitter-tasting pills regularly to prevent you from getting malaria?	YES.....1 NO.....2 DK.....8	
226	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</u> want to become pregnant at all?	THEN.....1 LATER.....2 NOT AT ALL.....3	
227	When did your last menstrual period start?	DAYS AGO.....1 <input type="text"/> WEEKS AGO.....2 <input type="text"/> MONTHS AGO.....3 <input type="text"/> YEARS AGO.....4 <input type="text"/> IN MENOPAUSE.....994 BEFORE LAST BIRTH.....995 NEVER MENSTRUATED.....996	
228	Between the first day of a woman's period and the first day of her <u>next</u> period, are there certain times when she has a greater chance of becoming pregnant than other times?	YES.....1 NO.....2 DK.....8	→301
229	During which times of the monthly cycle does a woman have the greatest chance of becoming pregnant?	DURING HER PERIOD.....1 RIGHT AFTER HER PERIOD HAS ENDED.....2 IN THE MIDDLE OF THE CYCLE.....3 JUST BEFORE HER PERIOD BEGINS...4 OTHER.....5 (SPECIFY) DK.....8	

SECTION 3. METHODS OF CHILDSPACING

301 How I would like to talk about childspacing - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about?

CIRCLE CODE 1 IN 302 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN THE COLUMN, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 2 IF METHOD IS RECOGNIZED, AND CODE 3 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN 302, ASK 303-304 BEFORE PROCEEDING TO THE NEXT METHOD.

	302 Have you ever heard of (METHOD)? READ DESCRIPTION OF EACH METHOD.	303 Have you ever used (METHOD)?	304 Do you know where a person could go to get (METHOD)?
01] PILL Women can take a pill every day.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
02] IUCD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
03] INJECTIONS Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
04] DIAPHRAGM, FOAM, JELLY Women can place a sponge, suppository, diaphragm, jelly or cream inside them before intercourse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
05] CONDOM Men can use a rubber sheath during sexual intercourse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
06] FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	Have you ever had an operation to avoid having any more children? YES.....1 NO.....2	YES.....1 NO.....2
07] MALE STERILIZATION Men can have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
08] NATURAL METHOD Couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	Do you know where a person can obtain advice on how to use the natural method? YES.....1 NO.....2
09] WITHDRAWAL Men can be careful and pull out before climax.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	
10] Have you heard of any other ways or methods that women or men can use to delay or avoid pregnancy? 1 _____ (SPECIFY) 2 _____ (SPECIFY) 3 _____ (SPECIFY)	YES/SPONT.....1 NO.....3	YES.....1 NO.....2 YES.....1 NO.....2 YES.....1 NO.....2	

305 CHECK 303: NOT A SINGLE "YES" (NEVER USED) AT LEAST ONE "YES" (EVER USED) → SKIP TO 308

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
306	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES..... <input type="checkbox"/> NO..... <input type="checkbox"/>	324
307	What have you used or done? CORRECT 303-305 (AND 302 IF NECESSARY).		
308	Now I would like to ask you about the time when you first 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..... <input type="text"/>	
309	CHECK 223: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/>		324
310	CHECK 303: WOMAN NOT STERILIZED <input type="checkbox"/> WOMAN STERILIZED <input type="checkbox"/>		312A
311	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES.....1 NO.....2	324
312	Which method are you using?	PILL.....01 IUCD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 NATURAL METHOD.....08 WITHDRAWAL.....09 OTHER _____ 10 (SPECIFY)	318 323
312A	DO NOT ASK Q.312A IF THE WOMAN IS NOT STERILIZED You have said that you had an operation that keeps you from getting pregnant. Is that correct? IF RESPONDENT SAYS "NO", CORRECT 303-305 (AND 302 IF NECESSARY). IF RESPONDENT CONFIRMS WITH A "YES", CIRCLE '06' FOR FEMALE STERILIZATION.		
313	At the time you first started using the pill, did you consult a doctor, nurse or other medical person?	YES.....1 NO.....2 DK.....8	
314	At the time you last got pills, did you consult a doctor, nurse, or other medical person?	YES.....1 NO.....2	
315	May I see the package of pills you are using now? RECORD NAME OF BRAND.	PACKAGE SEEN.....1 BRAND NAME _____ <input type="text"/> PACKAGE NOT SEEN.....2	317
316	Do you know the brand name of the pills you are now using? RECORD NAME OF BRAND.	BRAND NAME _____ <input type="text"/> DK.....98	
317	How much does one packet/cycle of pills cost you?	COST (kwacha)..... <input type="text"/> FREE.....996 DK.....998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO						
318	<p>CHECK 312:</p> <p>SHE/HE STERILIZED <input type="checkbox"/> USING ANOTHER METHOD <input type="checkbox"/></p> <p>Where did the sterilization take place? Where did you obtain (METHOD) the last time?</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">(NAME OF PLACE)</p> <p>NOTE: PRIVATE SECTOR INCLUDES MISSION FACILITIES</p>	<p>PUBLIC SECTOR</p> <p>GOVERNMENT HOSPITAL.....11</p> <p>PRIMARY HEALTH CENTRE.....12</p> <p>DISPENSARY/MATERNITY CLINIC...13</p> <p>MOBILE CLINIC.....14 →321</p> <p>MEDICAL PRIVATE SECTOR</p> <p>PRIVATE HOSPITAL.....21</p> <p>PRIVATE HEALTH CENTRE.....22</p> <p>DISPENSARY/MATERNITY CLINIC...23</p> <p>MOBILE CLINIC.....24 →321</p> <p>PRIVATE DOCTOR.....25</p> <p>OTHER PRIVATE SECTOR</p> <p>SHOP/PHARMACY.....31</p> <p>CHURCH.....32</p> <p>FRIENDS/RELATIVES.....33</p> <p>OTHER _____ 41 →321</p> <p style="text-align: center;">(SPECIFY)</p> <p>DK.....98</p>							
319	<p>How long does it take to travel from your home to this place?</p> <p>IF LESS THAN 2 HOURS, RECORD MINUTES. OTHERWISE, RECORD HOURS.</p>	<p>MINUTES.....1</p> <p>HOURS.....2</p> <p>DK.....9998</p> <div style="border: 1px solid black; display: inline-block; padding: 2px;"> <table style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">0</td><td></td><td></td></tr> </table> </div>				0			
0									
320	<p>Is it easy or difficult to get there?</p>	<p>EASY.....1</p> <p>DIFFICULT.....2</p>							
321	<p>CHECK 312:</p> <p>SHE/HE STERILIZED <input type="checkbox"/> USING ANOTHER METHOD <input type="checkbox"/></p>		→323						
322	<p>In what month and year was the sterilization operation performed?</p>	<p>MONTH.....</p> <p>YEAR.....</p> <div style="border: 1px solid black; display: inline-block; padding: 2px;"> <table style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table> </div>							→334
323	<p>For how many months have you been using (CURRENT METHOD) continuously?</p> <p>IF LESS THAN 1 MONTH, RECORD '00'.</p>	<p>MONTHS.....</p> <p>8 YEARS OR LONGER.....96</p> <div style="border: 1px solid black; display: inline-block; padding: 2px;"> <table style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table> </div>			→329				
324	<p>Do you intend to use a method to delay or avoid pregnancy at any time in the future?</p>	<p>YES.....1</p> <p>NO.....2</p> <p>DK.....8</p>	→326						
325	<p>What is the main reason you do not intend to use a method?</p>	<p>WANTS CHILDREN.....01</p> <p>LACK OF KNOWLEDGE.....02</p> <p>PARTNER OPPOSED.....03</p> <p>OTHER RELATIVES OPPOSED.....04</p> <p>SIDE EFFECTS.....05</p> <p>HEALTH CONCERNS.....06</p> <p>SOURCE TOO FAR AWAY.....07</p> <p>METHODS ARE UNAVAILABLE.....8</p> <p>OPPOSED TO FAMILY PLANNING.....09</p> <p>FATALISTIC/GOD'S WILL.....10</p> <p>COSTS TOO MUCH.....11</p> <p>INFREQUENT SEX.....12</p> <p>CAN NOT GET PREGNANT.....13</p> <p>MENOPAUSAL/HAD HYSTERECTOMY...14</p> <p>INCONVENIENT.....15</p> <p>NOT MARRIED.....16</p> <p>OTHER _____ 17</p> <p style="text-align: center;">(SPECIFY)</p> <p>DK.....98</p>	→330						
326	<p>Do you intend to use a method within the next 12 months?</p>	<p>YES.....1</p> <p>NO.....2</p> <p>DK.....8</p>							

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO						
327	When you start using a method, which method would you prefer to use?	PILL.....01 IUCD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 NATURAL METHOD.....08 WITHDRAWAL.....09 OTHER.....10 (SPECIFY) UNSURE.....98	→330						
328	Where can you get (METHOD MENTIONED IN 327)?	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 PRIMARY HEALTH CENTRE.....12 DISPENSARY/MATERNITY CLINIC...13 MOBILE CLINIC.....14 MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL.....21 PRIVATE HEALTH CENTRE.....22 DISPENSARY/MATERNITY CLINIC...23 MOBILE CLINIC.....24 PRIVATE DOCTOR.....25 OTHER PRIVATE SECTOR SHOP/PHARMACY.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER.....41 (SPECIFY) DK.....98	→332 →334 →332 →334 →334 →334 →334 →334 →330						
_____ (NAME OF PLACE)		NOTE: PRIVATE SECTOR INCLUDES MISSION FACILITIES							
329	CHECK 312: USING NATURAL METHOD, WITHDRAWAL, OR OTHER TRADITIONAL METHOD	USING A MODERN METHOD	→334						
<input type="checkbox"/>		<input type="checkbox"/>							
330	Do you know of a place where you can obtain a method of childspacing?	YES.....1 NO.....2	→334						
331	Where is that?	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 PRIMARY HEALTH CENTRE.....12 DISPENSARY/MATERNITY CLINIC...13 MOBILE CLINIC.....14 MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL.....21 PRIVATE HEALTH CENTRE.....22 DISPENSARY/MATERNITY CLINIC...23 MOBILE CLINIC.....24 PRIVATE DOCTOR.....25 OTHER PRIVATE SECTOR SHOP/PHARMACY.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER.....41 (SPECIFY)	→334 →334 →334 →334						
_____ (NAME OF PLACE)		NOTE: PRIVATE SECTOR INCLUDES MISSION FACILITIES							
332	How long does it take to travel from your home to this place? IF LESS THAN 2 HOURS, RECORD MINUTES. OTHERWISE, RECORD HOURS.	MINUTES.....1 HOURS.....2 DK.....9998	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td style="text-align: center;">0</td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>				0		
0									

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
333	Is it easy or difficult to get there?	EASY.....1 DIFFICULT.....2	
334	In the last month, have you heard a message about childspacing on the radio?	YES.....1 NO.....2	
335	Is it acceptable or not acceptable to you for child-spacing information to be provided on the radio?	ACCEPTABLE.....1 NOT ACCEPTABLE.....2 DK.....8	
336	CHECK 302 (CONDOM): EVER HEARD OF THE CONDOM <input type="checkbox"/>	NEVER HEARD OF THE CONDOM <input type="checkbox"/>	401
337	Have you seen or heard any advertisement in the last month about the condom?	YES.....1 NO.....2	339
338	Where did you see or hear the advertisement? CIRCLE ALL MENTIONED	RADIO.....A NEWSPAPER.....B MAGAZINE.....C POSTERS.....D CAN NOT REMEMBER.....E OTHER.....F (SPECIFY)	
339	CHECK 312: NOT CURRENTLY USING CONDOM <input type="checkbox"/>	CURRENTLY USING CONDOM <input type="checkbox"/>	401
340	Where can someone go to get condoms? _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 PRIMARY HEALTH CENTRE.....12 DISPENSARY/MATERNITY CLINIC...13 MOBILE CLINIC.....14 MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL.....21 PRIVATE HEALTH CENTRE.....22 DISPENSARY/MATERNITY CLINIC...23 MOBILE CLINIC.....24 PRIVATE DOCTOR.....25 OTHER PRIVATE SECTOR SHOP/PHARMACY.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER.....41 (SPECIFY) DK.....98	
	NOTE: PRIVATE SECTOR INCLUDES MISSION FACILITIES		

SECTION 4A. PREGNANCY AND BREASTFEEDING

401	CHECK 222: ONE OR MORE BIRTHS SINCE JAN. 1987 <input type="checkbox"/>	NO BIRTHS SINCE JAN. 1987 <input type="checkbox"/>	(SKIP TO 501)
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402 ENTER THE LINE NUMBER AND NAME OF EACH BIRTH SINCE JANUARY 1987 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE ADDITIONAL FORMS).

Now I would like to ask you some more questions about the health of all your children born in the past five years. (We will talk about one child at a time.)

LINE NUMBER FROM Q. 212	<input type="text"/>	<input type="text"/>	<input type="text"/>
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FROM Q. 212	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
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403 At the time you became pregnant with (NAME), did you want to become pregnant <u>then</u> , did you want to wait until <u>later</u> or did you want <u>no (more)</u> children at all?	THEN.....1 (SKIP TO 405) ← <input type="text"/>	THEN.....1 (SKIP TO 405) ← <input type="text"/>	THEN.....1 (SKIP TO 405) ← <input type="text"/>
	LATER.....2	LATER.....2	LATER.....2
	NO MORE.....3 (SKIP TO 405) ← <input type="text"/>	NO MORE.....3 (SKIP TO 405) ← <input type="text"/>	NO MORE.....3 (SKIP TO 405) ← <input type="text"/>

404 How much longer would you like to have waited?	MONTHS.....1 <input type="text"/>	MONTHS.....1 <input type="text"/>	MONTHS.....1 <input type="text"/>
	YEARS.....2 <input type="text"/>	YEARS.....2 <input type="text"/>	YEARS.....2 <input type="text"/>
	DK.....998	DK.....998	DK.....998

405 When you were pregnant with (NAME), did you see anyone for antenatal care for this pregnancy? IF YES, Whom did you see? Anyone else? RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B CLINICAL OFFICER/ MEDICAL ASSISTANT.....C TRADITIONAL BIRTH ATTENDANT TRAINED.....D UNTRAINED.....E TRAINING UNCERTAIN.....F OTHER.....G (SPECIFY) NO ONE.....H (SKIP TO 409) ← <input type="text"/>	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B CLINICAL OFFICER/ MEDICAL ASSISTANT.....C TRADITIONAL BIRTH ATTENDANT TRAINED.....D UNTRAINED.....E TRAINING UNCERTAIN.....F OTHER.....G (SPECIFY) NO ONE.....H (SKIP TO 409) ← <input type="text"/>	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B CLINICAL OFFICER/ MEDICAL ASSISTANT.....C TRADITIONAL BIRTH ATTENDANT TRAINED.....D UNTRAINED.....E TRAINING UNCERTAIN.....F OTHER.....G (SPECIFY) NO ONE.....H (SKIP TO 409) ← <input type="text"/>
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406 Were you given an antenatal card for this pregnancy?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
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407 How many months pregnant were you when you first saw someone for an antenatal check on this pregnancy?	MONTHS..... <input type="text"/>	MONTHS..... <input type="text"/>	MONTHS..... <input type="text"/>
	DK.....98	DK.....98	DK.....98

408 How many antenatal visits did you have during this pregnancy?	NO. OF VISITS..... <input type="text"/>	NO. OF VISITS..... <input type="text"/>	NO. OF VISITS..... <input type="text"/>
	DK.....98	DK.....98	DK.....98

409 When you were pregnant with (NAME) were you given an injection in the buttock to prevent the baby from getting tetanus, that is, convulsions after birth?	YES.....1 NO.....2 (SKIP TO 411) ← <input type="text"/>	YES.....1 NO.....2 (SKIP TO 411) ← <input type="text"/>	YES.....1 NO.....2 (SKIP TO 411) ← <input type="text"/>
	DK.....8	DK.....8	DK.....8

410 During this pregnancy how many times did you get this injection?	TIMES..... <input type="text"/>	TIMES..... <input type="text"/>	TIMES..... <input type="text"/>
	DK.....8	DK.....8	DK.....8

	NAME	LAST BIRTH	NAME	NEXT-TO-LAST BIRTH	NAME	SECOND-FROM-LAST BIRTH
411	Where did you give birth to (NAME)? NOTE: PRIVATE SECTOR INCLUDES MISSION FACILITIES	HOME YOUR HOME.....11 HOME OF TBA.....12 OTHER HOME.....13 PUBLIC SECTOR GVT. HOSPITAL.....21 PRIMARY HEALTH CENTRE..22 MATERNITY FACILITY.....23 PRIVATE SECTOR PVT. HOSPITAL.....31 PVT. HEALTH CENTRE.....32 MATERNITY FACILITY.....33 OTHER.....41 (SPECIFY)	HOME YOUR HOME.....11 HOME OF TBA.....12 OTHER HOME.....13 PUBLIC SECTOR GVT. HOSPITAL.....21 PRIMARY HEALTH CENTRE..22 MATERNITY FACILITY.....23 PRIVATE SECTOR PVT. HOSPITAL.....31 PVT. HEALTH CENTRE.....32 MATERNITY FACILITY.....33 OTHER.....41 (SPECIFY)	HOME YOUR HOME.....11 HOME OF TBA.....12 OTHER HOME.....13 PUBLIC SECTOR GVT. HOSPITAL.....21 PRIMARY HEALTH CENTRE..22 MATERNITY FACILITY.....23 PRIVATE SECTOR PVT. HOSPITAL.....31 PVT. HEALTH CENTRE.....32 MATERNITY FACILITY.....33 OTHER.....41 (SPECIFY)	HOME YOUR HOME.....11 HOME OF TBA.....12 OTHER HOME.....13 PUBLIC SECTOR GVT. HOSPITAL.....21 PRIMARY HEALTH CENTRE..22 MATERNITY FACILITY.....23 PRIVATE SECTOR PVT. HOSPITAL.....31 PVT. HEALTH CENTRE.....32 MATERNITY FACILITY.....33 OTHER.....41 (SPECIFY)	HOME YOUR HOME.....11 HOME OF TBA.....12 OTHER HOME.....13 PUBLIC SECTOR GVT. HOSPITAL.....21 PRIMARY HEALTH CENTRE..22 MATERNITY FACILITY.....23 PRIVATE SECTOR PVT. HOSPITAL.....31 PVT. HEALTH CENTRE.....32 MATERNITY FACILITY.....33 OTHER.....41 (SPECIFY)
412	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B CLINICAL OFFICER/ MEDICAL ASSISTANT.....C TRADITIONAL BIRTH ATTENDANT TRAINED.....D UNTRAINED.....E TRAINING UNCERTAIN.....F RELATIVE.....G OTHER.....H (SPECIFY) NO ONE.....I	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B CLINICAL OFFICER/ MEDICAL ASSISTANT.....C TRADITIONAL BIRTH ATTENDANT TRAINED.....D UNTRAINED.....E TRAINING UNCERTAIN.....F RELATIVE.....G OTHER.....H (SPECIFY) NO ONE.....I	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B CLINICAL OFFICER/ MEDICAL ASSISTANT.....C TRADITIONAL BIRTH ATTENDANT TRAINED.....D UNTRAINED.....E TRAINING UNCERTAIN.....F RELATIVE.....G OTHER.....H (SPECIFY) NO ONE.....I	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B CLINICAL OFFICER/ MEDICAL ASSISTANT.....C TRADITIONAL BIRTH ATTENDANT TRAINED.....D UNTRAINED.....E TRAINING UNCERTAIN.....F RELATIVE.....G OTHER.....H (SPECIFY) NO ONE.....I	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B CLINICAL OFFICER/ MEDICAL ASSISTANT.....C TRADITIONAL BIRTH ATTENDANT TRAINED.....D UNTRAINED.....E TRAINING UNCERTAIN.....F RELATIVE.....G OTHER.....H (SPECIFY) NO ONE.....I
413	Was (NAME) born on time or prematurely?	ON TIME.....1 PREMATURELY.....2 DK.....8				
414	Was (NAME) delivered by caesarian section?	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
415	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 DK.....8				
416	Was (NAME) weighed at birth?	YES.....1 NO.....2 (SKIP TO 418)←	YES.....1 NO.....2 (SKIP TO 419)←	YES.....1 NO.....2 (SKIP TO 419)←	YES.....1 NO.....2 (SKIP TO 419)←	YES.....1 NO.....2 (SKIP TO 419)←
417	How much did (NAME) weigh?	KILOGRAMS..... <input type="text"/> <input type="text"/> DK.....98				
418	Has your period returned since the birth of (NAME)?	YES.....1 (SKIP TO 420)← NO.....2 (SKIP TO 421)←				
419	Did your period return between the birth of (NAME) and your next pregnancy?	YES.....1 NO.....2 (SKIP TO 421)←				
420	For how many months after the birth of (NAME) did you <u>not</u> have a period?	MONTHS..... <input type="text"/> <input type="text"/> DK.....98				
421	Did you ever breastfeed (NAME).	YES.....1 (SKIP TO 423)← NO.....2	YES.....1 (SKIP TO 430)← NO.....2	YES.....1 (SKIP TO 430)← NO.....2	YES.....1 (SKIP TO 430)← NO.....2	YES.....1 (SKIP TO 430)← NO.....2

	NAME _____	LAST BIRTH	NAME _____	NEXT-TO-LAST BIRTH	NAME _____	SECOND-FROM-LAST BIRTH
430	For how many months did you breastfeed (NAME)?	MONTHS..... <input type="text"/> <input type="text"/> UNTIL DIED.....96 (SKIP TO 433)←	MONTHS..... <input type="text"/> <input type="text"/> UNTIL DIED.....96 (SKIP TO 433)←	MONTHS..... <input type="text"/> <input type="text"/> UNTIL DIED.....96 (SKIP TO 433)←	MONTHS..... <input type="text"/> <input type="text"/> UNTIL DIED.....96 (SKIP TO 433)←	MONTHS..... <input type="text"/> <input type="text"/> UNTIL DIED.....96 (SKIP TO 433)←
431	Why did you stop breastfeeding (NAME)?	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 WEANING AGE.....08 BECAME PREGNANT.....09 STARTED USING CONTRACEPTION.....10 OTHER.....11 (SPECIFY)	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 WEANING AGE.....08 BECAME PREGNANT.....09 STARTED USING CONTRACEPTION.....10 OTHER.....11 (SPECIFY)	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 WEANING AGE.....08 BECAME PREGNANT.....09 STARTED USING CONTRACEPTION.....10 OTHER.....11 (SPECIFY)	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 WEANING AGE.....08 BECAME PREGNANT.....09 STARTED USING CONTRACEPTION.....10 OTHER.....11 (SPECIFY)	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 WEANING AGE.....08 BECAME PREGNANT.....09 STARTED USING CONTRACEPTION.....10 OTHER.....11 (SPECIFY)
432	CHECK 216: CHILD ALIVE?	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> v (SKIP TO 434)	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> v (SKIP TO 434)	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> v (SKIP TO 434)	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> v (SKIP TO 434)	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> v (SKIP TO 434)
433	Was (NAME) ever given water or anything else to drink or eat (other than breastmilk)?	YES.....1 NO.....2 (SKIP TO 437)←	YES.....1 NO.....2 (SKIP TO 437)←	YES.....1 NO.....2 (SKIP TO 437)←	YES.....1 NO.....2 (SKIP TO 437)←	YES.....1 NO.....2 (SKIP TO 437)←
434	How many months old was (NAME) when you started giving the following on a regular basis? Formula or milk other than breastmilk? Plain water? Other liquids? Any solid or mushy food? IF LESS THAN 1 MONTH, RECORD '00'.	AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96	AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 (SKIP TO 437)	AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 (SKIP TO 437)	AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 (SKIP TO 437)	AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96 (SKIP TO 437)
435	CHECK 216: CHILD ALIVE?	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> v (SKIP TO 437)				
436	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES.....1 NO.....2 DK.....8				
437	GO BACK TO 403 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, GO TO FIRST COLUMN OF 438					

SECTION 4B. IMMUNIZATION AND HEALTH

438 ENTER THE LINE NUMBER AND NAME OF EACH BIRTH SINCE JANUARY 1987 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE ADDITIONAL FORMS).

LINE NUMBER FROM Q. 212	<input type="text"/>	<input type="text"/>
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	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
	NAME _____	NAME _____	NAME _____

439 Do you have a card where (NAME'S) vaccinations are written down? If YES: May I see it, please?	YES, SEEN.....1 (SKIP TO 441)←	YES, SEEN.....1 (SKIP TO 441)←	YES, SEEN.....1 (SKIP TO 441)←
	YES, NOT SEEN.....2 (SKIP TO 443)←	YES, NOT SEEN.....2 (SKIP TO 443)←	YES, NOT SEEN.....2 (SKIP TO 443)←
	NO CARD.....3	NO CARD.....3	NO CARD.....3

440 Did you ever have a vaccination card for (NAME)?	YES.....1 (SKIP TO 443)←	YES.....1 (SKIP TO 443)←	YES.....1 (SKIP TO 443)←
	NO.....2	NO.....2	NO.....2

441 (1) COPY VACCINATION DATES FOR EACH VACCINE FROM THE CARD. (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE RECORDED.	DAY MO YR	DAY MO YR	DAY MO YR
	BCG POLIO 1 POLIO 2 POLIO 3 DPT 1 DPT 2 DPT 3 MEASLES	BCG P1 P2 P3 D1 D2 D3 MEA	BCG P1 P2 P3 D1 D2 D3 MEA

442 Has (NAME) received any vaccinations that are not recorded on this card? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, DPT 1-3, POLIO 1-3 AND/OR MEASLES VACCINE(S).	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 441) ←	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 441) ←	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 441) ←
	NO.....2	NO.....2	NO.....2
	DK.....8 (SKIP TO 445) ←	DK.....8 (SKIP TO 445) ←	DK.....8 (SKIP TO 445) ←

443 Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases?	YES.....1	YES.....1	YES.....1
	NO.....2 (SKIP TO 445) ←	NO.....2 (SKIP TO 445) ←	NO.....2 (SKIP TO 445) ←
	DK.....8	DK.....8	DK.....8

444 Please tell me if (NAME) (has) received any of the following vaccinations:				
	A BCG vaccination against tuberculosis, that is, an injection in the right upper arm that caused a scar?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
	Polio vaccine, that is, drops in the mouth?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
	If YES: How many times?	NUMBER OF TIMES..... <input type="text"/>	NUMBER OF TIMES..... <input type="text"/>	NUMBER OF TIMES..... <input type="text"/>
	An injection against measles?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8

445 CHECK 216: CHILD ALIVE?	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> (SKIP TO 447)	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> (SKIP TO 447)	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> (SKIP TO 447)
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446 GO BACK TO 439 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, SKIP TO 478.

	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____	
447	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
448	Has (NAME) been ill with a cough at any time in the last 2 weeks?	YES.....1 NO.....2 (SKIP TO 452) ← DK.....8	YES.....1 NO.....2 (SKIP TO 452) ← DK.....8	YES.....1 NO.....2 (SKIP TO 452) ← DK.....8
449	Has (NAME) been ill with a cough in the last 24 hours?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
450	For how many days (has the cough lasted/did the cough last)? IF LESS THAN 1 DAY, RECORD '00'.	DAYS..... <input type="text"/> <input type="text"/>	DAYS..... <input type="text"/> <input type="text"/>	DAYS..... <input type="text"/> <input type="text"/>
451	When (NAME) had the illness with a cough, did he/she breathe faster than usual with short, rapid breaths?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
452	CHECK 447 AND 448: FEVER OR COUGH?	"YES" IN EITHER 447 OR 448 <input type="checkbox"/> OTHER (SKIP TO 457)	"YES" IN EITHER 447 OR 448 <input type="checkbox"/> OTHER (SKIP TO 457)	"YES" IN EITHER 447 OR 448 <input type="checkbox"/> OTHER (SKIP TO 457)
453	Was anything given to treat the fever/cough?	YES.....1 NO.....2 (SKIP TO 455) ← DK.....8	YES.....1 NO.....2 (SKIP TO 455) ← DK.....8	YES.....1 NO.....2 (SKIP TO 455) ← DK.....8
454	What was given to treat the fever/cough? Anything else? RECORD ALL MENTIONED.	INJECTION.....A ANTIBIOTIC (PILL OR SYRUP).....B ANTIMALARIAL (PILL OR SYRUP).....C COUGH SYRUP.....D OTHER PILL OR SYRUP.....E UNKNOWN PILL OR SYRUP.....F HOME REMEDY/ HERBAL MEDICINE.....G OTHER.....H (SPECIFY)	INJECTION.....A ANTIBIOTIC (PILL OR SYRUP).....B ANTIMALARIAL (PILL OR SYRUP).....C COUGH SYRUP.....D OTHER PILL OR SYRUP.....E UNKNOWN PILL OR SYRUP.....F HOME REMEDY/ HERBAL MEDICINE.....G OTHER.....H (SPECIFY)	INJECTION.....A ANTIBIOTIC (PILL OR SYRUP).....B ANTIMALARIAL (PILL OR SYRUP).....C COUGH SYRUP.....D OTHER PILL OR SYRUP.....E UNKNOWN PILL OR SYRUP.....F HOME REMEDY/ HERBAL MEDICINE.....G OTHER.....H (SPECIFY)
455	Did you seek advice or treatment for the fever/cough?	YES.....1 NO.....2 (SKIP TO 457) ←	YES.....1 NO.....2 (SKIP TO 457) ←	YES.....1 NO.....2 (SKIP TO 457) ←
456	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	PUBLIC SECTOR GVT. HOSPITAL.....A PRIMARY HEALTH CENTRE...B DISPENSARY.....C OTHER FIXED FACILITY...D MOBILE CLINIC.....E MEDICAL PRIVATE SECTOR PVT. HOSPITAL.....F PVT. HEALTH CENTRE.....G DISPENSARY.....H PRIVATE DOCTOR.....I PHARMACY.....J MOBILE CLINIC.....K OTHER PRIVATE SECTOR SHOP.....L TRADITIONAL PRACTITIONER.....M OTHER.....N (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL.....A PRIMARY HEALTH CENTRE...B DISPENSARY.....C OTHER FIXED FACILITY...D MOBILE CLINIC.....E MEDICAL PRIVATE SECTOR PVT. HOSPITAL.....F PVT. HEALTH CENTRE.....G DISPENSARY.....H PRIVATE DOCTOR.....I PHARMACY.....J MOBILE CLINIC.....K OTHER PRIVATE SECTOR SHOP.....L TRADITIONAL PRACTITIONER.....M OTHER.....N (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL.....A PRIMARY HEALTH CENTRE...B DISPENSARY.....C OTHER FIXED FACILITY...D MOBILE CLINIC.....E MEDICAL PRIVATE SECTOR PVT. HOSPITAL.....F PVT. HEALTH CENTRE.....G DISPENSARY.....H PRIVATE DOCTOR.....I PHARMACY.....J MOBILE CLINIC.....K OTHER PRIVATE SECTOR SHOP.....L TRADITIONAL PRACTITIONER.....M OTHER.....N (SPECIFY)

	NAME	LAST BIRTH	NAME	NEXT-TO-LAST BIRTH	NAME	SECOND-FROM-LAST BIRTH	
457	Has (NAME) had diarrhea in the last two weeks?	YES.....1 (SKIP TO 459)← NO.....2 DK.....8					
458	GO BACK TO 439 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, SKIP TO 478						
459	Has (NAME) had diarrhea in the last 24 hours?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	
460	For how many days (has the diarrhea lasted/did the diarrhea last)? IF LESS THAN 1 DAY, RECORD '00'.	DAYS..... <input type="text"/> <input type="text"/>					
461	Was there any blood in the stools?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8 (SKIP TO 465)	YES.....1 NO.....2 DK.....8 (SKIP TO 465)	YES.....1 NO.....2 DK.....8 (SKIP TO 465)	YES.....1 NO.....2 DK.....8 (SKIP TO 465)	
462	CHECK 421/425: LAST CHILD STILL BRFASTFED?	YES <input type="checkbox"/> NO <input type="checkbox"/> ↓ (SKIP TO 465)					
463	During (NAME)'s diarrhea, did you change the frequency of breastfeeding?	YES.....1 NO.....2 (SKIP TO 465)←					
464	Did you increase the number of breastfeeds or reduce them, or did you stop completely?	INCREASED.....1 REDUCED.....2 STOPPED COMPLETELY.....3					
465	(Aside from breastmilk) Was he/she given the same amount to drink as before the diarrhea, or more, or less?	SAME.....1 MORE.....2 LESS.....3 DK.....8	SAME.....1 MORE.....2 LESS.....3 DK.....8	SAME.....1 MORE.....2 LESS.....3 DK.....8	SAME.....1 MORE.....2 LESS.....3 DK.....8	SAME.....1 MORE.....2 LESS.....3 DK.....8	
466	Was anything given to treat the diarrhea?	YES.....1 NO.....2 (SKIP TO 468)← DK.....8					
467	What was given to treat the diarrhea? Anything else? RECORD ALL MENTIONED.	FLUID PREPARED AT HOME FROM ORS PACKET.....A ORS PREMIXED IN BOTTLE...B RECOMMENDED HOME FLUID...C ANTIBIOTIC (PILL OR SYRUP).....D OTHER PILL OR SYRUP.....E INJECTION.....F (I.V.) INTRAVENOUS.....G HOME REMEDIES/HERBAL MEDICINES.....H OTHER.....I (SPECIFY)	FLUID PREPARED AT HOME FROM ORS PACKET.....A ORS PREMIXED IN BOTTLE...B RECOMMENDED HOME FLUID...C ANTIBIOTIC (PILL OR SYRUP).....D OTHER PILL OR SYRUP.....E INJECTION.....F (I.V.) INTRAVENOUS.....G HOME REMEDIES/HERBAL MEDICINES.....H OTHER.....I (SPECIFY)	FLUID PREPARED AT HOME FROM ORS PACKET.....A ORS PREMIXED IN BOTTLE...B RECOMMENDED HOME FLUID...C ANTIBIOTIC (PILL OR SYRUP).....D OTHER PILL OR SYRUP.....E INJECTION.....F (I.V.) INTRAVENOUS.....G HOME REMEDIES/HERBAL MEDICINES.....H OTHER.....I (SPECIFY)	FLUID PREPARED AT HOME FROM ORS PACKET.....A ORS PREMIXED IN BOTTLE...B RECOMMENDED HOME FLUID...C ANTIBIOTIC (PILL OR SYRUP).....D OTHER PILL OR SYRUP.....E INJECTION.....F (I.V.) INTRAVENOUS.....G HOME REMEDIES/HERBAL MEDICINES.....H OTHER.....I (SPECIFY)	FLUID PREPARED AT HOME FROM ORS PACKET.....A ORS PREMIXED IN BOTTLE...B RECOMMENDED HOME FLUID...C ANTIBIOTIC (PILL OR SYRUP).....D OTHER PILL OR SYRUP.....E INJECTION.....F (I.V.) INTRAVENOUS.....G HOME REMEDIES/HERBAL MEDICINES.....H OTHER.....I (SPECIFY)	FLUID PREPARED AT HOME FROM ORS PACKET.....A ORS PREMIXED IN BOTTLE...B RECOMMENDED HOME FLUID...C ANTIBIOTIC (PILL OR SYRUP).....D OTHER PILL OR SYRUP.....E INJECTION.....F (I.V.) INTRAVENOUS.....G HOME REMEDIES/HERBAL MEDICINES.....H OTHER.....I (SPECIFY)
468	Did you seek advice or treatment for the diarrhea?	YES.....1 NO.....2 (SKIP TO 470)←					

	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____	
469	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	PUBLIC SECTOR GVT. HOSPITAL.....A PRIMARY HEALTH CENTRE...B DISPENSARY.....C OTHER FIXED FACILITY...D MOBILE CLINIC.....E MEDICAL PRIVATE SECTOR PVT. HOSPITAL.....F PVT. HEALTH CENTRE.....G DISPENSARY.....H PRIVATE DOCTOR.....I CHEMIST.....J MOBILE CLINIC.....K OTHER PRIVATE SECTOR SHOP.....L TRADITIONAL PRACTITIONER.....M OTHER.....N (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL.....A PRIMARY HEALTH CENTRE...B DISPENSARY.....C OTHER FIXED FACILITY...D MOBILE CLINIC.....E MEDICAL PRIVATE SECTOR PVT. HOSPITAL.....F PVT. HEALTH CENTRE.....G DISPENSARY.....H PRIVATE DOCTOR.....I CHEMIST.....J MOBILE CLINIC.....K OTHER PRIVATE SECTOR SHOP.....L TRADITIONAL PRACTITIONER.....M OTHER.....N (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL.....A PRIMARY HEALTH CENTRE...B DISPENSARY.....C OTHER FIXED FACILITY...D MOBILE CLINIC.....E MEDICAL PRIVATE SECTOR PVT. HOSPITAL.....F PVT. HEALTH CENTRE.....G DISPENSARY.....H PRIVATE DOCTOR.....I CHEMIST.....J MOBILE CLINIC.....K OTHER PRIVATE SECTOR SHOP.....L TRADITIONAL PRACTITIONER.....M OTHER.....N (SPECIFY)
470	CHECK 467: ORS FLUID FROM PACKET (PREPARED AT HOME OR PREMIXED IN BOTTLE) MENTIONED?	NO, ORS FLUID NOT MENTIONED <input type="checkbox"/> YES, ORS FLUID MENTIONED <input type="checkbox"/> (SKIP TO 472)	NO, ORS FLUID NOT MENTIONED <input type="checkbox"/> YES, ORS FLUID MENTIONED <input type="checkbox"/> (SKIP TO 472)	NO, ORS FLUID NOT MENTIONED <input type="checkbox"/> YES, ORS FLUID MENTIONED <input type="checkbox"/> (SKIP TO 472)
471	Was (NAME) given ORS fluid made at home from a packet or premixed in a bottle when he/she had diarrhea?	YES.....1 NO.....2 (SKIP TO 473) DK.....8	YES.....1 NO.....2 (SKIP TO 473) DK.....8	YES.....1 NO.....2 (SKIP TO 473) DK.....8
472	For how many days was (NAME) given ORS fluid? IF LESS THAN 1 DAY, RECORD '00'.	DAYS..... <input type="text"/> <input type="text"/> DK.....98	DAYS..... <input type="text"/> <input type="text"/> DK.....98	DAYS..... <input type="text"/> <input type="text"/> DK.....98
473	CHECK 467: RECOMMENDED HOME FLUID MENTIONED?	NO, HOME FLUID NOT MENTIONED <input type="checkbox"/> YES, HOME FLUID MENTIONED <input type="checkbox"/> (SKIP TO 475)	NO, HOME FLUID NOT MENTIONED <input type="checkbox"/> YES, HOME FLUID MENTIONED <input type="checkbox"/> (SKIP TO 475)	NO, HOME FLUID NOT MENTIONED <input type="checkbox"/> YES, HOME FLUID MENTIONED <input type="checkbox"/> (SKIP TO 475)
474	Was (NAME) given any recommended home fluid made from water and rice or from water and maize meal when he/she had diarrhea?	YES.....1 NO.....2 (SKIP TO 477) DK.....8	YES.....1 NO.....2 (SKIP TO 477) DK.....8	YES.....1 NO.....2 (SKIP TO 477) DK.....8
475	What was the main recommended home fluid that you gave (NAME) when he/she had diarrhea?	RICE WATER.....1 DILUTE MAIZE PORRIDGE...2 FERMENTED MAIZE PORRIDGE.....3 OTHER.....4 (SPECIFY)	RICE WATER.....1 DILUTE MAIZE PORRIDGE...2 FERMENTED MAIZE PORRIDGE.....3 OTHER.....4 (SPECIFY)	RICE WATER.....1 DILUTE MAIZE PORRIDGE...2 FERMENTED MAIZE PORRIDGE.....3 OTHER.....4 (SPECIFY)
476	For how many days was (NAME) given (THE FLUID MENTIONED IN 475)? IF LESS THAN 1 DAY, RECORD '00'.	DAYS..... <input type="text"/> <input type="text"/> DK.....98	DAYS..... <input type="text"/> <input type="text"/> DK.....98	DAYS..... <input type="text"/> <input type="text"/> DK.....98
477	GO BACK TO 469 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, GO TO 473			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	TO
478	<p>CHECK 467 AND 471 (ALL COLUMNS):</p> <p>ORS FLUID FROM A PACKET GIVEN TO ANY CHILD (EITHER PREPARED AT HOME OR PREMIXED IN BOTTLE) <input type="checkbox"/></p>	<p>ORS FLUID FROM A PACKET NOT GIVEN TO ANY CHILD (EITHER PREPARED OR PREMIXED) OR 467 AND 471 NOT ASKED <input type="checkbox"/></p>	481
479	<p>Have you ever heard of a special product called ORS fluid you can get for the treatment of diarrhea?</p>	<p>YES.....1 NO.....2</p>	481
480	<p>Have you ever seen a packet like this before? SHOW PACKET.</p>	<p>YES.....1 NO.....2</p>	485
481	<p>Have you ever prepared a solution with one of these packets to treat diarrhea in yourself or someone else? SHOW PACKET.</p>	<p>YES.....1 NO.....2</p>	484
482	<p>The last time you prepared the ORS fluid did you prepare the whole packet at once or only part of the packet?</p>	<p>WHOLE PACKET AT ONCE.....1 PART OF PACKET.....2</p>	484
483	<p>How much water did you use to prepare ORS fluid the last time you made it?</p>	<p>1 1/2 LITER.....01 1 LITER.....02 1 1/2 LITERS.....03 1 COKE BOTTLE.....04 2 COKE BOTTLES.....05 3 COKE BOTTLES.....06 1 ORS CUP.....07 2 ORS CUPS.....08 3 ORS CUPS.....09 FOLLOWED PACKAGE INSTRUCTIONS..10 OTHER.....11 (SPECIFY) DK.....98</p>	
484	<p>Where can you get the ORS packet? PROBE: Anywhere else? RECORD ALL PLACES MENTIONED.</p>	<p>PUBLIC SECTOR GVT. HOSPITAL.....A PRIMARY HEALTH CENTRE.....B DISPENSARY.....C OTHER FIXED FACILITY.....D MOBILE CLINIC.....E MEDICAL PRIVATE SECTOR PVT. HOSPITAL.....F PRIMARY HEALTH CENTRE.....G DISPENSARY.....H PRIVATE DOCTOR.....I CHLMIST.....J MOBILE CLINIC.....K OTHER PRIVATE SECTOR SHOP.....L TRADITIONAL PRACTITIONER.....M OTHER.....N (SPECIFY) DK.....O</p>	

485	CHECK 467 AND 474 (ALL COLUMNS): RECOMMENDED HOME FLUID GIVEN TO ANY CHILD <input type="checkbox"/>	RECOMMENDED HOME FLUID NOT GIVEN TO ANY CHILD OR 467 AND 474 NOT ASKED
	↓	→ 501

486 Where did you learn to prepare (FLUID MENTIONED IN 475) given to (NAME) when he/she had diarrhea?

RECORD ALL PLACES MENTIONED

- PUBLIC SECTOR
- GVT. HOSPITAL.....A
- PRIMARY HEALTH CENTRE.....B
- DISPENSARY.....C
- OTHER FIXED FACILITY.....D
- MOBILE CLINIC.....E
- MEDICAL PRIVATE SECTOR
- PVT. HOSPITAL.....F
- PRIMARY HEALTH CENTRE.....G
- DISPENSARY.....H
- PRIVATE DOCTOR.....I
- CHEMIST.....J
- MOBILE CLINIC.....K
- OTHER PRIVATE SECTOR
- SHOP.....L
- TRADITIONAL PRACTITIONER.....M
- OTHER.....N

SECTION 5. MARRIAGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
501	Have you ever been married or lived with a man?	YES.....1 NO.....2	→601
502	Are you now married or living with a man, or are you now widowed, divorced, or no longer living together?	MARRIED.....1 LIVING TOGETHER.....2 WIDOWED.....3 DIVORCED.....4 SEPARATED.....5	→507
503	Is your husband/partner living with you now or is he staying elsewhere?	LIVING WITH HER.....1 STAYING ELSEWHERE.....2	
504	Does your husband/partner have any other wives besides yourself?	YES.....1 NO.....2	→507
505	How many other wives does he have?	NUMBER..... <input type="text"/> <input type="text"/> DK.....98	→507
506	Are you the first, second,...wife?	RANK..... <input type="text"/> <input type="text"/>	
507	Have you been married or lived with a man only once, or more than once?	ONCE.....1 MORE THAN ONCE.....2	
508	In what month and year did you start living with your (first) husband/partner?	MONTH..... <input type="text"/> <input type="text"/> DK MONTH.....98 YEAR..... <input type="text"/> <input type="text"/> DK YEAR.....98	
509	How old were you when you started living with him?	AGE..... <input type="text"/> <input type="text"/> DK AGE.....98	
510	CHECK 508 AND 509: YEAR AND AGE GIVEN?	YES <input type="checkbox"/> NO <input type="checkbox"/>	→601
511	CHECK CONSISTENCY OF 508 AND 509:	<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>IF NECESSARY, CALCULATE YEAR OF BIRTH</p> <p>CURRENT YEAR <input type="text" value="9"/><input type="text" value="2"/></p> <p>MINUS -</p> <p>CURRENT AGE (106) <input type="text"/><input type="text"/></p> <p>=</p> <p>CALCULATED YEAR OF BIRTH <input type="text"/><input type="text"/></p> </div> <p>YEAR OF BIRTH (105) <input type="text"/><input type="text"/></p> <p>PLUS +</p> <p>AGE AT MARRIAGE (509) <input type="text"/><input type="text"/></p> <p>=</p> <p>CALCULATED YEAR OF MARRIAGE <input type="text"/><input type="text"/></p> <p>IS THE CALCULATED YEAR OF MARRIAGE WITHIN ONE YEAR OF THE REPORTED YEAR OF MARRIAGE (508) ?</p> <p>YES <input type="checkbox"/> CONTINUE TO 601</p> <p>NO <input type="checkbox"/> PROBE AND CORRECT 508 AND 509.</p>	

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
601	CHECK 312: NEITHER STERILIZED <input type="checkbox"/> HE OR SHE STERILIZED <input type="checkbox"/>		606
602	CHECK 223: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> How 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? How I have some questions about the future. After the child you are expecting, 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 OR DK.....8	609
603	CHECK 223: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> How long would you like to wait from now before the birth of (a/another) child? How long would you like to wait after the birth of the child you are expecting before the birth of another child?	MONTHS.....1 YEARS.....2 SOON/NOW.....994 SAYS SHE CAN'T GET PREGNANT...995 OTHER _____ 996 (SPECIFY) DK.....998	609
604	CHECK 216 AND 223: HAS LIVING CHILD(REN) OR PREGNANT? YES <input type="checkbox"/> NO <input type="checkbox"/>		609
605	CHECK 223: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> How old would you like your youngest child to be when your next child is born? How old would you like the child you are expecting to be when your next child is born?	AGE OF CHILD YEARS..... DK.....98-	609
606	Given your present circumstances, if you had to do it over again, do you think (you/your husband) would make the same decision to have an operation not to have any more children?	YES.....1 NO.....2	
607	Do you regret that (you/your husband) had the operation not to have any (more) children?	YES.....1 NO.....2	614
608	Why do you regret it?	RESPONDENT WANTS ANOTHER CHILD...1 PARTNER WANTS ANOTHER CHILD....2 SIDE EFFECTS.....3 OTHER REASON _____ 4 (SPECIFY)	614

SECTION 7. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
701	<p>CHECK 501:</p> <p>EVER MARRIED OR LIVED TOGETHER <input type="checkbox"/></p> <p>NEVER MARRIED/ NEVER LIVED TOGETHER <input type="checkbox"/></p> <p>ASK QUESTIONS ABOUT CURRENT OR MOST RECENT HUSBAND/PARTNER.</p>	→710	
702	Did your (last) husband/partner ever attend school?	YES.....1 NO.....2	→707
703	What was the highest level of school he attended: primary, secondary, or higher?	PRIMARY1 SECONDARY.....2 HIGHER.....3 DK.....8	→707
704	How many years of school did he complete at that level?	YEARS..... <input type="text"/> <input type="text"/> DK.....98	
705	<p>CHECK 703:</p> <p>PRIMARY <input type="checkbox"/></p> <p>SECONDARY OR HIGHER <input type="checkbox"/></p>	→707	
706	Is your husband/partner able to read and understand English or Chichewa easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	
707	What kind of work does (did) your (last) husband/partner mainly do?	<input type="text"/> <input type="text"/> <input type="text"/>	
708	<p>CHECK 707:</p> <p>WORKS (WORKED) IN AGRICULTURE <input type="checkbox"/></p> <p>DOES (DID) NOT WORK IN AGRICULTURE <input type="checkbox"/></p>	→710	
709	(Does/did) your husband/partner work mainly on his own land or family land, or (does/did) he rent land, or (does/did) he work on someone else's land?	HIS/FAMILY LAND.....1 RENTED LAND.....2 SOMEONE ELSE'S LAND.....3	
710	Aside from your own housework, are you currently working?	YES.....1 NO.....2	→712
711	<p>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.</p> <p>Are you currently doing any of these things or any other work?</p>	YES.....1 NO.....2	→801

SECTION 8. AIDS KNOWLEDGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																																
801	Now I have a few questions about a very important topic. Have you heard of an illness called AIDS?	YES.....1 NO.....2	SCT. 9																																
802	From which sources of information or persons have you heard about AIDS in the last month? CIRCLE ALL MENTIONED.	RADIO.....A NEWSPAPERS.....B HEALTH WORKERS.....C MOSQUES/CHURCHES.....D FRIENDS/RELATIVES.....E SCHOOLS/QURAN TEACHERS.....F BOOKLETS/PAMPHLETS/POSTERS.....G COMMUNITY MEETINGS.....H OTHER _____ I (SPECIFY) NONE.....J																																	
803	How is AIDS transmitted? CIRCLE ALL MENTIONED.	SEXUAL INTERCOURSE.....A NEEDLES/BLADES/SKIN PUNCTURES...B MOTHER TO CHILD.....C TRANSFUSION OF INFECTED BLOOD...D OTHER _____ E (SPECIFY) DON'T KNOW.....F																																	
804	Do you think that you can get AIDS from shaking hands with someone who has AIDS? hugging someone who has AIDS? kissing someone who has AIDS? wearing the clothes of someone who has AIDS? sharing eating utensils with someone who has AIDS? stepping on the urine or stool of someone with AIDS? mosquito, flea or bedbug bites?	<table border="0"> <tr> <td></td> <td style="text-align: center;">YES</td> <td style="text-align: center;">NO</td> <td style="text-align: center;">DK</td> </tr> <tr> <td>HANDSHAKING.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>HUGGING.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>KISSING.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>SHARING CLOTHES.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>SHARING EATING UTENSILS....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>STEPPING ON URINE/STOOL....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>MOSQUITO/FLEA/BEDBUG BITES.</td> <td>1</td> <td>2</td> <td>8</td> </tr> </table>		YES	NO	DK	HANDSHAKING.....	1	2	8	HUGGING.....	1	2	8	KISSING.....	1	2	8	SHARING CLOTHES.....	1	2	8	SHARING EATING UTENSILS....	1	2	8	STEPPING ON URINE/STOOL....	1	2	8	MOSQUITO/FLEA/BEDBUG BITES.	1	2	8	
	YES	NO	DK																																
HANDSHAKING.....	1	2	8																																
HUGGING.....	1	2	8																																
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SHARING EATING UTENSILS....	1	2	8																																
STEPPING ON URINE/STOOL....	1	2	8																																
MOSQUITO/FLEA/BEDBUG BITES.	1	2	8																																
805	Is it possible for a healthy looking person to be infected with the AIDS virus?	YES.....1 NO.....2 DK.....8																																	
806	Is it possible for a woman who has the AIDS virus to give birth to a child with the AIDS virus?	YES.....1 NO.....2 DK.....8																																	
807	Can a person protect herself or himself from getting AIDS?	YES1 NO2	809																																
808	How can a person protect herself or himself from getting AIDS? CIRCLE ALL MENTIONED	DO NOT HAVE SEX AT ALLA LIMIT NO. SEXUAL PARTNERSB USE CONDOMS DURING SEXC STERILIZE SYRINGES/NEEDLES.....D AVOID PROSTITUTES.....E OTHER _____ F (SPECIFY)																																	
809	If your relative is suffering with AIDS, who would you prefer to care for him or her?	RELATIVES/FRIENDS.....1 GOVERNMENT FACILITY.....2 RELIGIOUS ORG./MISSION.....3 NOBODY/ABANDON.....4 OTHER _____ 5 (SPECIFY)																																	

SECTION 9. MATERNAL MORTALITY

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 yourself? | NUMBER OF BIRTHS TO NATURAL MOTHER.....

902 | CHECK 901: TWO OR MORE BIRTHS ONLY ONE BIRTH (RESPONDENT ONLY) → SKIP TO SECTION 10

903 | How many of these births did your mother have before you were born? | NUMBER OF PRECEDING BIRTHS.....

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
904 What was the name given to your oldest (next oldest) brother or sister?	-----	-----	-----	-----	-----	-----	-----
905 Is (NAME) male or female?	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]< }	YES.....1 NO.....2 GO TO 908< } DK.....8 GO TO [8]< }
907 How old is (NAME)?	<input type="text"/> GO TO [2]	<input type="text"/> GO TO [3]	<input type="text"/> GO TO [4]	<input type="text"/> GO TO [5]	<input type="text"/> GO TO [6]	<input type="text"/> GO TO [7]	<input type="text"/> GO TO [8]
908 How many years ago did (NAME) die?	<input type="text"/>						
909 How old was (NAME) when she/he died?	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [2]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [3]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [4]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [5]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [6]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [7]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [8]
910 Was (NAME) pregnant when she died?	YES.....1 GO TO 913< } NO.....2						
911 Did (NAME) die during childbirth?	YES.....1 GO TO 913< } NO.....2						
912 Did (NAME) die within six weeks after the end of a pregnancy or childbirth?	YES.....1 NO.....2 GO TO [2]< }	YES.....1 NO.....2 GO TO [3]< }	YES.....1 NO.....2 GO TO [4]< }	YES.....1 NO.....2 GO TO [5]< }	YES.....1 NO.....2 GO TO [6]< }	YES.....1 NO.....2 GO TO [7]< }	YES.....1 NO.....2 GO TO [8]< }
913 How many children had (NAME) given birth to before that pregnancy?	<input type="text"/>						

	[8]	[9]	[10]	[11]	[12]	[13]	[14]
904 What was the name given to your oldest (next oldest) brother or sister?	-----	-----	-----	-----	-----	-----	-----
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	MALE.....1 FEMALE.....2
906 Is (NAME) still alive?	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]< }	YES.....1 NO.....2 GO TO 908< } DK.....8 GO TO [14]< }	YES.....1 NO.....2 GO TO 908< } DK.....8 GO TO [15]< }
907 How old is (NAME)?	<input type="text"/> <input type="text"/> GO TO [9]	<input type="text"/> <input type="text"/> GO TO [10]	<input type="text"/> <input type="text"/> GO TO [11]	<input type="text"/> <input type="text"/> GO TO [12]	<input type="text"/> <input type="text"/> GO TO [13]	<input type="text"/> <input type="text"/> GO TO [14]	<input type="text"/> <input type="text"/> GO TO [15]
908 How many years ago did (NAME) die?	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
909 How old was (NAME) when she/he died?	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [9]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [10]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [11]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [12]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [13]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [14]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [15]
910 Was (NAME) pregnant when she died?	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2
911 Did (NAME) die during childbirth?	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2	YES.....1 GO TO 913< } NO.....2
912 Did (NAME) die within six weeks after the end of a pregnancy or childbirth?	YES.....1 NO.....2 GO TO [9]< }	YES.....1 NO.....2 GO TO [10]< }	YES.....1 NO.....2 GO TO [11]< }	YES.....1 NO.....2 GO TO [12]< }	YES.....1 NO.....2 GO TO [13]< }	YES.....1 NO.....2 GO TO [14]< }	YES.....1 NO.....2 GO TO [15]< }
913 How many children had (NAME) given birth to before that pregnancy?	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>

914	RECORD THE TIME.	HOUR.....	<input type="text"/> <input type="text"/>
		MINUTES.....	<input type="text"/> <input type="text"/>

SECTION 10. HEIGHT AND WEIGHT

1001	CHECK 222: ONE OR MORE BIRTHS SINCE JAN. 1987	<input type="checkbox"/>	NO BIRTHS SINCE JAN. 1987	<input type="checkbox"/>	END
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INTERVIEWER: IN 1002 (COLUMNS 2-4) RECORD THE LINE NUMBER FOR EACH CHILD BORN SINCE JANUARY 1987 AND STILL ALIVE. IN 1003 AND 1004 RECORD THE NAME AND BIRTH DATE FOR THE RESPONDENT AND FOR ALL LIVING CHILDREN BORN SINCE JANUARY 1987. IN 1006 AND 1008 RECORD HEIGHT AND WEIGHT OF THE RESPONDENT AND THE LIVING CHILDREN. IN 1009 RECORD THE ARM CIRCUMFERENCE OF THE RESPONDENT AND LIVING CHILDREN. (NOTE: ALL RESPONDENTS WITH ONE OR MORE BIRTHS SINCE JANUARY 1987 SHOULD BE WEIGHED AND MEASURED EVEN IF ALL OF THE CHILDREN HAVE DIED. IF THERE ARE MORE THAN 3 LIVING CHILDREN BORN SINCE JANUARY 1987, USE ADDITIONAL FORMS).

	[1] RESPONDENT	[2] YOUNGEST LIVING CHILD	[3] NEXT-TO-YOUNGEST LIVING CHILD	[4] SECOND-TO-YOUNGEST LIVING CHILD
1002 LINE NO. FROM Q.212		□□	□□	□□
1003 NAME FROM Q.212 FOR CHILDREN	(NAME) _____	(NAME) _____	(NAME) _____	(NAME) _____
1004 DATE OF BIRTH FROM Q.105 FOR RESPONDENT FROM Q.215 FOR CHILDREN, AND ASK FOR DAY OF BIRTH	MONTH.... □□ YEAR.... □□	DAY..... □□ MONTH.... □□ YEAR.... □□	DAY..... □□ MONTH.... □□ YEAR.... □□	DAY..... □□ MONTH.... □□ YEAR.... □□
1005 BCG SCAR ON THE RIGHT UPPER ARM		SCAR SEEN.....1 NO SCAR.....2	SCAR SEEN.....1 NO SCAR.....2	SCAR SEEN.....1 NO SCAR.....2
1006 HEIGHT (in centimeters)	□□□□.□	□□□□.□	□□□□.□	□□□□.□
1007 WAS HEIGHT/LENGTH OF CHILD MEASURED LYING DOWN OR STANDING UP?		LYING.....1 STANDING.....2	LYING.....1 STANDING.....2	LYING.....1 STANDING.....2
1008 WEIGHT (in kilograms)	□□□□.□	0□□□.□	0□□□.□	0□□□.□
1009 ARM CIRCUMFERENCE (in centimeters)	□□□.□	□□□.□	□□□.□	□□□.□
1010 DATE WEIGHED AND MEASURED	DAY..... □□ MONTH.... □□ YEAR.... □□	DAY..... □□ MONTH.... □□ YEAR.... □□	DAY..... □□ MONTH.... □□ YEAR.... □□	DAY..... □□ MONTH.... □□ YEAR.... □□
1011 RESULT	MEASURED.....1 NOT PRESENT....3 REFUSED.....4 OTHER.....6 (SPECIFY) _____	CHILD MEASURED.1 CHILD SICK.....2 CHILD NOT PRESENT.....3 CHILD REFUSED..4 MOTHER REFUSED.5 OTHER.....6 (SPECIFY) _____	CHILD MEASURED.1 CHILD SICK.....2 CHILD NOT PRESENT.....3 CHILD REFUSED..4 MOTHER REFUSED.5 OTHER.....6 (SPECIFY) _____	CHILD MEASURED.1 CHILD SICK.....2 CHILD NOT PRESENT.....3 CHILD REFUSED..4 MOTHER REFUSED.5 OTHER.....6 (SPECIFY) _____

1012 NAME OF MEASURER: _____	□□	NAME OF ASSISTANT: _____	□□
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INTERVIEWER'S OBSERVATIONS
(To be filled in after completing interview)

Comments About Respondent:

Comments on Specific Questions:

Any Other Comments:

SUPERVISOR'S OBSERVATIONS

Name of Supervisor: _____

Date: _____

EDITOR'S OBSERVATIONS

**MALAWI DEMOGRAPHIC AND HEALTH SURVEY
MALAWI GOVERNMENT - NATIONAL STATISTICAL OFFICE**

**INDIVIDUAL QUESTIONNAIRE
MALE**

FORM MDHS-M/92

IDENTIFICATION																					
REGION/DISTRICT _____	<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table>																				
TA/STA/TOWN _____																					
ENUMERATION AREA																					
VILLAGE OR PLACE _____																					
MDHS CLUSTER NUMBER.....																					
HOUSEHOLD NUMBER																					
URBAN/RURAL (urban=1, rural=2).....																					
NAME AND LINE NUMBER OF MAN _____																					
NAME AND LINE NUMBER OF WIFE # 1 _____																					
NAME AND LINE NUMBER OF WIFE # 2 _____																					
NAME AND LINE NUMBER OF WIFE # 3 _____ (NOTE: include only wives in household)																					

INTERVIEWER VISITS													
	1	2	3	FINAL VISIT									
DATE	_____	_____	_____	DAY <table border="1" style="width: 20px; height: 20px;"></table>									
				MONTH <table border="1" style="width: 20px; height: 20px;"></table>									
				YEAR <table border="1" style="width: 20px; height: 20px;"></table>									
INTERVIEWER'S NAME	_____	_____	_____	NAME <table border="1" style="width: 20px; height: 20px;"></table>									
RESULT*	_____	_____	_____	RESULT <table border="1" style="width: 20px; height: 20px;"></table>									
NEXT VISIT: DATE TIME	_____	_____	_____	TOTAL NUMBER OF VISITS <table border="1" style="width: 20px; height: 20px;"></table>									
<p>* RESULT CODES:</p> <table style="width: 100%;"> <tr> <td style="width: 33%;">1 COMPLETED</td> <td style="width: 33%;">4 REFUSED</td> <td style="width: 33%;">7 OTHER _____</td> </tr> <tr> <td>2 NOT AT HOME</td> <td>5 PARTLY COMPLETED</td> <td align="right">(SPECIFY)</td> </tr> <tr> <td>3 POSTPONED</td> <td>6 INCAPACITATED</td> <td></td> </tr> </table>					1 COMPLETED	4 REFUSED	7 OTHER _____	2 NOT AT HOME	5 PARTLY COMPLETED	(SPECIFY)	3 POSTPONED	6 INCAPACITATED	
1 COMPLETED	4 REFUSED	7 OTHER _____											
2 NOT AT HOME	5 PARTLY COMPLETED	(SPECIFY)											
3 POSTPONED	6 INCAPACITATED												

NAME DATE	FIELD EDITED BY _____ _____	OFFICE EDITED BY _____ _____	KEYED BY _____ _____	KEYED BY <table border="1" style="width: 20px; height: 20px;"></table>
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SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
101	RECORD THE TIME.	HOUR..... <input type="text"/> <input type="text"/> MINUTES..... <input type="text"/> <input type="text"/>	
102	First I would like to ask some questions about you and your household. For most of the time until you were about 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)?	YEARS..... <input type="text"/> <input type="text"/> 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..... <input type="text"/> <input type="text"/> DK MONTH.....98 YEAR..... <input type="text"/> <input type="text"/> DK YEAR.....98	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS..... <input type="text"/> <input type="text"/>	
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..... <input type="text"/> <input type="text"/>	
110	CHECK 108: PRIMARY <input type="checkbox"/> SECONDARY OR HIGHER <input type="checkbox"/>		→112
111	Are you able to read and understand English or Chichewa easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	→113
112	Do you usually read a newspaper or magazine at least once a week?	YES.....1 NO.....2	
113	Do you usually listen to a radio at least once a week?	YES.....1 NO.....2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
114	What kind of work do you mainly do?	<div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto;"></div>	
115	CHECK 114: WORKS IN AGRICULTURE <input type="checkbox"/> DOES NOT WORK IN AGRICULTURE <input type="checkbox"/>		117
116	Do you work mainly on your own land or family's land, or on land that you rent, or on someone else's land?	OWN/FAMILY LAND.....1 RENTED LAND.....2 SOMEONE ELSE'S LAND.....3	
117	CHECK Q.4 IN THE HOUSEHOLD QUESTIONNAIRE THE MAN INTERVIEWED IS NOT A USUAL RESIDENT <input type="checkbox"/> THE MAN INTERVIEWED IS A USUAL RESIDENT <input type="checkbox"/>		201
118	How I would like to ask about the place in which you usually live. Do you usually live in a city, in a town, or in a village?	CITY.....1 TOWN.....2 VILLAGE.....3	
119	In which region is that located?	NORTH.....1 CENTRAL.....2 SOUTH.....3 OUTSIDE MALAWI.....4	
120	What is the source of water your household uses for handwashing and dishwashing?	PIPED WATER PIPED INSIDE DWELLING UNIT ...11 → 122 PIPED INTO YARD/PLOT12 → 122 PUBLIC TAP.....13 WELL WATER PROTECTED WELL/BOREHOLE.....21 UNPROTECTED WELL.....22 SURFACE WATER SPRING.....31 RIVER/STREAM.....32 POND/DAM33 LAKE.....34 RAINWATER.....41 → 122 OTHER71 (SPECIFY)	
121	How long does it take to go there, get water, and come back?	MINUTES..... <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> ON PREMISES.....996 DX.....998	
122	Does your household get drinking water from this same source?	YES.....1 → 124 NO.....2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO															
123	What is the source of drinking water for members of your household?	PIPED WATER PIPED INSIDE DWELLING UNIT ...11 PIPED INTO YARD/PLOT12 PUBLIC TAP.....13 WELL WATER PROTECTED WELL/BOREHOLE.....21 UNPROTECTED WELL.....22 SURFACE WATER SPRING.....31 RIVER/STREAM.....32 POND/DAM33 LAKE.....34 RAINWATER.....41 OTHER71 (SPECIFY)																
124	What kind of toilet facility does your household have?	FLUSH TOILET OWN FLUSH TOILET.....11 SHARED FLUSH TOILET.....12 PIT LATRINE TRADITIONAL PIT LATRINE.....21 VENTILATED IMPROVED PIT (VIP) LATRINE.....22 NO FACILITY31 OTHER41 (SPECIFY)																
125	Does your household have: Electricity? A radio? A paraffin lamp?	<table border="0"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>ELECTRICITY.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>RADIO.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>PARRAFIN LAMP.....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	ELECTRICITY.....	1	2	RADIO.....	1	2	PARRAFIN LAMP.....	1	2				
	YES	NO																
ELECTRICITY.....	1	2																
RADIO.....	1	2																
PARRAFIN LAMP.....	1	2																
126	How many rooms in all of the dwelling units of your household are used for sleeping?	ROOMS..... <input type="text"/> <input type="text"/>																
127	Does any member of your household own: A bicycle? A motorcycle? A car? An oxcart?	<table border="0"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>BICYCLE.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>MOTORCYCLE.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>CAR.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>OX CART.....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	BICYCLE.....	1	2	MOTORCYCLE.....	1	2	CAR.....	1	2	OX CART.....	1	2	
	YES	NO																
BICYCLE.....	1	2																
MOTORCYCLE.....	1	2																
CAR.....	1	2																
OX CART.....	1	2																
128A	At your own house, what is the main material that the floor is made from? NOTE: IF HIS HOUSEHOLD LIVES IN MORE THAN ONE DWELLING UNIT AND THE DWELLING UNITS DIFFER IN FLOOR MATERIALS, ASK FOR THE FLOOR MATERIAL OF THE DWELLING OF THE HEAD OF HOUSEHOLD.	MUD/EARTH FLOOR11 FINISHED FLOOR CEMENT31 BRICKS32 WOOD.....33 TILES34 OTHER41 (SPECIFY)																
128B	At your own house, what is the main material that the roof is made from? NOTE: IF HIS HOUSEHOLD LIVES IN MORE THAN ONE DWELLING UNIT AND THE DWELLING UNITS DIFFER IN ROOF MATERIALS, ASK FOR THE ROOF MATERIAL OF THE DWELLING OF THE HEAD OF HOUSEHOLD.	GRASS THATCH.....1 IRON SHEETS.....2 IRON AND TILES.....3 ASBESTOS4 CEMENT.....5 WOOD.....6 OTHER7 (SPECIFY)																

SECTION 2 MARRIAGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
201	Have you ever been married or lived with a woman?	YES.....1 NO.....2	→301
202	Are you now married or living with a woman, or are you now widowed, divorced, or no longer living together?	MARRIED.....1 LIVING TOGETHER.....2 WIDOWED.....3 DIVORCED.....4 SEPARATED.....5	→204
203	How many wives do you have? CHECK CONSISTENCY WITH COVER PAGE	NUMBER..... <input type="text"/>	
204	In what month and year did you start living with your (first) wife/partner?	MONTH..... <input type="text"/> DK MONTH.....98 YEAR..... <input type="text"/> DK YEAR.....98	
205	How old were you when you started living with her?	AGE..... <input type="text"/> DK AGE.....98	
206	CHECK 204 AND 205: YEAR AND AGE GIVEN? YES <input type="checkbox"/> NO <input type="checkbox"/>		→301
207	CHECK CONSISTENCY OF 204 AND 205:	<div style="border: 1px solid black; padding: 5px;"> <p>IF NECESSARY, CALCULATE YEAR OF BIRTH</p> <p>CURRENT YEAR <input type="text"/>9 <input type="text"/>2</p> <p>MINUS -</p> <p>CURRENT AGE (106) <input type="text"/></p> <p>=</p> <p>CALCULATED YEAR OF BIRTH <input type="text"/></p> </div>	
	<p>IS THE CALCULATED YEAR OF MARRIAGE WITHIN ONE YEAR OF THE REPORTED YEAR OF MARRIAGE (204) ?</p> <p>YES <input type="checkbox"/> CONTINUE TO 301</p> <p>NO <input type="checkbox"/> →PRG8E AND CORRECT 204 AND 205.</p>		

SECTION 3. METHODS OF CHILDSPACING

301 Now I would like to talk about childspacing - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about?

CIRCLE CODE 1 IN 302 FOR EACH METHOD MENTIONED SPONTANEOUSLY.
 THEN PROCEED DOWN THE COLUMN, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY.
 CIRCLE CODE 2 IF METHOD IS RECOGNIZED, AND CODE 3 IF NOT RECOGNIZED.
 THEN, FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN 302, ASK 303-304 BEFORE PROCEEDING TO THE NEXT METHOD.

	302 Have you ever heard of (METHOD)? READ DESCRIPTION OF EACH METHOD.	303 Have you ever used (METHOD) with any partner ?	304 Do you know where a person could go to get (METHOD)?
01 PILL Women can take a pill every day.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
02 IUCD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
03 INJECTIONS Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
04 DIAPHRAGM, FOAM, JELLY Women can place a sponge, suppository, diaphragm, jelly or cream inside them before intercourse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
05 CONDOM Men can use a rubber sheath during sexual intercourse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
06 FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
07 MALE STERILIZATION Men can have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	Have you ever had an operation to avoid having any more children? YES.....1 NO.....2	YES.....1 NO.....2
08 NATURAL METHOD Couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	Do you know where a person can obtain advice on how to use the natural method? YES.....1 NO.....2
09 WITHDRAWAL Men can be careful and pull out before climax.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	
10 Have you heard of any other ways or methods that women or men can use to delay or avoid pregnancy? 1 _____ (SPECIFY) 2 _____ (SPECIFY) 3 _____ (SPECIFY)	YES/SPONT.....1 NO.....3	YES.....1 NO.....2 YES.....1 NO.....2 YES.....1 NO.....2	

305 CHECK 303: NOT A SINGLE "YES" (NEVER USED)

AT LEAST ONE "YES" (EVER USED)

→ SKIP TO 308

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO						
306	Have you or (your wife/partner) ever tried in any way to delay or avoid having a baby?	YES..... <input type="checkbox"/> NO..... <input type="checkbox"/>	317						
307	What have you used or done? CORRECT 303-305 (AND 302 IF NECESSARY).								
308	CHECK 303: MAN NOT STERILIZED <input type="checkbox"/> MAN STERILIZED <input type="checkbox"/>		310A						
309	Are you or your wife (or partner) currently doing something or using any method to delay or avoid having a baby?	YES.....1 NO.....2	317						
310	Which method are you using?	PILL.....01 IUCD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 NATURAL METHOD.....08 WITHDRAWAL.....09 OTHER.....10 (SPECIFY)	316						
310A	DO NOT ASK THE QUESTION BELOW IF MAN NOT STERILIZED. You have said that you had an operation that keeps you from ever making a woman pregnant. Is that correct? IF RESPONDENT SAYS "NO", CORRECT 303-305 (AND 302 IF NECESSARY). IF RESPONDENT SAYS "YES", CIRCLE '07' FOR MALE STERILIZATION.								
311	CHECK 310: SHE/HE STERILIZED <input type="checkbox"/> USING ANOTHER METHOD <input type="checkbox"/> v Where did the sterilization take place? v Where did you obtain (METHOD) the last time? _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 PRIMARY HEALTH CENTRE.....12 DISPENSARY/MATERNITY CLINIC...13 MOBILE CLINIC.....14 MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL.....21 PRIVATE HEALTH CENTRE.....22 DISPENSARY/MATERNITY CLINIC...23 MOBILE CLINIC.....24 PRIVATE DOCTOR.....25 OTHER PRIVATE SECTOR SHOP/PHARMACY.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER.....41 (SPECIFY) DK.....98	314						
312	How long does it take to travel from your home to this place? IF LESS THAN 2 HOURS, RECORD MINUTES. OTHERWISE, RECORD HOURS.	MINUTES.....1 HOURS.....2 DK.....9998	<table border="1"> <tr><td></td><td></td><td></td></tr> <tr><td>0</td><td></td><td></td></tr> </table>				0		
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313	Is it easy or difficult to get there?	EASY.....1 DIFFICULT.....2							

322	CHECK 310: USING NATURAL METHOD, WITHDRAWAL, OR OTHER TRADITIONAL METHOD	<input type="checkbox"/>	USING A MCGERN METHOD	<input type="checkbox"/> → 327
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323	Do you know of a place where you can obtain a method of childspacing?	YES.....1	NO.....2 → 327
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324	Where is that? _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 PRIMARY HEALTH CENTRE.....12 DISPENSARY/MATERNITY CLINIC...13 MOBILE CLINIC.....14 → 327	MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL21 PRIVATE HEALTH CENTRE.....22 DISPENSARY/MATERNITY CLINIC...23 MOBILE CLINIC.....24 → 327 PRIVATE DOCTOR.....25	OTHER PRIVATE SECTOR SHOP/PHARMACY.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 → 327 OTHER41
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(SPECIFY)

325	How long does it take to travel from your home to this place? IF LESS THAN 2 HOURS, RECORD MINUTES. OTHERWISE, RECORD HOURS.	MINUTES.....1	<table border="1" style="display: inline-table;"> <tr><td> </td><td> </td><td> </td></tr> <tr><td>0</td><td> </td><td> </td></tr> </table>				0			HOURS.....2 DK.....9998
0										

326	Is it easy or difficult to get there?	EASY.....1	DIFFICULT.....2
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327	In the last month, have you heard a message about childspacing on the radio?	YES.....1	NO.....2
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328	Is it acceptable or not acceptable to you for child- spacing information to be provided on the radio?	ACCEPTABLE.....1	NOT ACCEPTABLE.....2 DK.....8
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329	CHECK 302 (CONDOM): EVER HEARD OF THE CONDOM	<input type="checkbox"/>	NEVER HEARD OF THE CONDOM	<input type="checkbox"/> → 401
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330	Have you seen or heard any advertisement in the last month about the condom?	YES.....1	NO.....2 → 332
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331	Where did you see or hear the advertisement? CIRCLE ALL MENTIONED	RADIO.....A NEWSPAPER.....B MAGAZINE.....C POSTERS.....D CAN NOT REMEMBER.....E OTHERF	(SPECIFY)
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332	CHECK 310: NOT CURRENTLY USING CONDOM: <input type="checkbox"/>	CURRENTLY USING CONDOM <input type="checkbox"/>	401
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333 Where can someone go to get condoms?

(NAME OF PLACE)

- PUBLIC SECTOR
- GOVERNMENT HOSPITAL.....11
- PRIMARY HEALTH CENTRE.....12
- DISPENSARY/MATERNITY CLINIC...13
- MOBILE CLINIC.....14

- MEDICAL PRIVATE SECTOR
- PRIVATE HOSPITAL21
- PRIVATE HEALTH CENTRE.....22
- DISPENSARY/MATERNITY CLINIC...23
- MOBILE CLINIC.....24
- PRIVATE DOCTOR.....25

- OTHER PRIVATE SECTOR
- SHOP/PHARMACY... ..31
- CHURCH.....32
- FRIENDS/RELATIVES.....33
- OTHER41
- (SPECIFY)
- DK..... 98

SECTION 4. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
401	How many own sons do you have who are still alive? IF NONE, RECORD '00'	NUMBER OF OWN SONS..... <input type="text"/>	
402	How many own daughters do you have who are still alive? IF NONE, RECORD '00'	NUMBER OF OWN DAUGHTERS.. <input type="text"/>	
403	CHECK 310: NEITHER <input type="checkbox"/> HE OR SHE <input type="checkbox"/> STERILIZED		→406
404	How I have some questions about the future. Would you like to have another (a) child or would you prefer to have (no more children/no children) ?	HAVE ANOTHER (A) CHILD.....1 NO MORE/NONE.....2 NO MORE AFTER THIS PREGNANCY...3 SAYS WIFE CAN'T GET PREGNANT...4 UNDECIDED OR DK.....5	→409
405	How long would you like to wait before the birth of another (a) child ?	MONTHS.....1 <input type="text"/> YEARS.....2 <input type="text"/> SOON/NOW.....994 SAYS WIFE CAN'T GET PREGNANT..995 OTHER _____ 996 (SPECIFY) DK.....998	→409
406	Given your present circumstances, if you had to do it over again, do you think (you/your wife or partner) would make the same decision to have an operation not to have any more children?	YES.....1 NO.....2	
407	Do you regret that (you/your wife or partner) had the operation not to have any (more) children?	YES.....1 NO.....2	→414
408	Why do you regret it?	RESPONDENT WANTS ANOTHER CHILD..1 PARTNER WANTS ANOTHER CHILD....2 SIDE EFFECTS.....3 OTHER REASON _____ 4 (SPECIFY)	→414
409	CHECK 202: CURRENTLY MARRIED OR LIVING TOGETHER <input type="checkbox"/> NOT MARRIED/ NOT LIVING TOGETHER <input type="checkbox"/>		→414
410	Do you think that your (wife/partner) approves or disapproves of couples using a method to avoid pregnancy?	APPROVES.....1 DISAPPROVES.....2 DK.....8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
411	How often have you talked to your (wife/partner) about childspacing in the past year?	NEVER.....1 ONCE OR TWICE.....2 MORE OFTEN.....3	
412	Have you and your (wife/partner) ever discussed the number of children you would like to have?	YES.....1 NO.....2	
413	Do you think your (wife/partner) wants the <u>same</u> number of children that you want, or does she want <u>more</u> or <u>fewer</u> than you want?	SAME NUMBER.....1 MORE CHILDREN.....2 FEWER CHILDREN.....3 DK.....8	
414	How long should a couple wait before starting sexual intercourse after the birth of a baby?	MONTHS.....1 <input type="checkbox"/> YEARS.....2 <input type="checkbox"/> OTHER _____ 996 (SPECIFY)	
415	Should a mother wait until she has completely stopped breastfeeding before starting to have sexual relations again, or doesn't it matter?	WAIT.....1 DOESN'T MATTER.....2	
416	In general, do you approve or disapprove of couples using a method to avoid getting pregnant?	APPROVE.....1 DISAPPROVE.....2	
417	CHECK 401 and 402: HAS LIVING CHILD(REN) <input type="checkbox"/> ↓ 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 <input type="checkbox"/> ↓ If you could choose exactly the number of children to have in your whole life, how many would that be? RECORD SINGLE NUMBER OR OTHER ANSWER.	NUMBER..... <input type="checkbox"/> OTHER ANSWER _____ 96 (SPECIFY)	
418	What do you think is the best number of months or years between the birth of one child and the birth of the next child?	MONTHS.....1 <input type="checkbox"/> YEARS.....2 <input type="checkbox"/> OTHER _____ 996 (SPECIFY)	

M 12

SECTION 5. AIDS KNOWLEDGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																																
501	Now I have a few questions about a very important topic. Have you heard of an illness called AIDS?	YES.....1 NO.....2	601																																
502	From which sources of information or persons have you heard about AIDS in the last month? CIRCLE ALL MENTIONED.	RADIO.....A NEWSPAPERS.....B HEALTH WORKERS.....C MOSQUES/CHURCHES.....D FRIENDS/RELATIVES.....E SCHOOLS/QURAN TEACHERS.....F BOOKLETS/PAMPHLETS/POSTERS.....G COMMUNITY MEETINGS.....H OTHER.....I (SPECIFY) NONE.....J																																	
503	How is AIDS transmitted? CIRCLE ALL MENTIONED.	SEXUAL INTERCOURSE.....A NEEDLES/BLADES/SKIN PUNCTURES...B MOTHER TO CHILD.....C TRANSFUSION OF INFECTED BLOOD...D OTHER.....E (SPECIFY) DON'T KNOW.....F																																	
504	Do you think that you can get AIDS from shaking hands with someone who has AIDS? hugging someone who has AIDS? kissing someone who has AIDS? wearing the clothes of someone who has AIDS? sharing eating utensils with someone who has AIDS? stepping on the urine or stool of someone with AIDS? mosquito, flea or bedbug bites?	<table border="0"> <tr> <td></td> <td style="text-align: right;">YES</td> <td style="text-align: center;">NO</td> <td style="text-align: center;">DK</td> </tr> <tr> <td>HANDSHAKING.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>HUGGING.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>KISSING.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>SHARING CLOTHES.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>SHARING EATING UTENSILS....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>STEPPING ON URINE/STOOL....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>MOSQUITO/FLEA/BEDBUG BITES.</td> <td>1</td> <td>2</td> <td>8</td> </tr> </table>		YES	NO	DK	HANDSHAKING.....	1	2	8	HUGGING.....	1	2	8	KISSING.....	1	2	8	SHARING CLOTHES.....	1	2	8	SHARING EATING UTENSILS....	1	2	8	STEPPING ON URINE/STOOL....	1	2	8	MOSQUITO/FLEA/BEDBUG BITES.	1	2	8	
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KISSING.....	1	2	8																																
SHARING CLOTHES.....	1	2	8																																
SHARING EATING UTENSILS....	1	2	8																																
STEPPING ON URINE/STOOL....	1	2	8																																
MOSQUITO/FLEA/BEDBUG BITES.	1	2	8																																
505	Is it possible for a healthy looking person to be infected with the AIDS virus?	YES.....1 NO.....2 DK.....8																																	
506	Is it possible for a woman who has the AIDS virus to give birth to a child with the AIDS virus?	YES.....1 NO.....2 DK.....8																																	
507	Can a person protect himself or herself from getting AIDS?	YES.....1 NO.....2	509																																
508	How can a person protect himself of herself from getting AIDS? CIRCLE ALL MENTIONED	DO NOT HAVE SEX AT ALLA LIMIT NO. SEXUAL PARTNERSB USE CONDOMS DURING SEXC STERILIZE SYRINGES/NEEDLES.....D AVOID PROSTITUTES.....E OTHER.....F (SPECIFY)																																	
509	If your relative is suffering with AIDS, who would you prefer to care for him or her?	RELATIVES/FRIENDS.....1 GOVERNMENT FACILITY.....2 RELIGIOUS ORG./MISSION.....3 NOBODY/ABANDON.....4 OTHER.....5 (SPECIFY)																																	

SECTION 6. MATERNAL MORTALITY

601 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 yourself?

NUMBER OF BIRTHS TO NATURAL MOTHER.....

602 CHECK 601: TWO OR MORE BIRTHS ONLY ONE BIRTH (RESPONDENT ONLY) → SKIP TO END

603 How many of these births did your mother have before you were born?

NUMBER OF PRECEDING BIRTHS.....

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
604 What was the name given to your oldest (next oldest) brother or sister?							
605 Is (NAME) male or female?	MALE.....1 FEMALE.....2						
606 Is (NAME) still alive?	YES.....1 NO.....2 GO TO 608<						
	DK.....8 GO TO [2]<	DK.....8 GO TO [3]<	DK.....8 GO TO [4]<	DK.....8 GO TO [5]<	DK.....8 GO TO [6]<	DK.....8 GO TO [7]<	DK.....8 GO TO [8]<
607 How old is (NAME)?	<input type="text"/> <input type="text"/> GO TO [2]	<input type="text"/> <input type="text"/> GO TO [3]	<input type="text"/> <input type="text"/> GO TO [4]	<input type="text"/> <input type="text"/> GO TO [5]	<input type="text"/> <input type="text"/> GO TO [6]	<input type="text"/> <input type="text"/> GO TO [7]	<input type="text"/> <input type="text"/> GO TO [8]
608 How many years ago did (NAME) die?	<input type="text"/> <input type="text"/>						
609 How old was (NAME) when she/he died?	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [2]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [3]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [4]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [5]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [6]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [7]	<input type="text"/> <input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [8]
610 Was (NAME) pregnant when she died?	YES.....1 GO TO 613<						
	NO.....2						
611 Did (NAME) die during childbirth?	YES.....1 GO TO 613<						
	NO.....2						
612 Did (NAME) die within six weeks after the end of a pregnancy or childbirth?	YES.....1 NO.....2 GO TO [2]<	YES.....1 NO.....2 GO TO [3]<	YES.....1 NO.....2 GO TO [4]<	YES.....1 NO.....2 GO TO [5]<	YES.....1 NO.....2 GO TO [6]<	YES.....1 NO.....2 GO TO [7]<	YES.....1 NO.....2 GO TO [8]<
613 How many children had (NAME) given birth to before that pregnancy?	<input type="text"/> <input type="text"/>						

	[8]	[9]	[10]	[11]	[12]	[13]	[14]
604 What was the name given to your oldest (next oldest) brother or sister?							
605 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	MALE.....1 FEMALE.....2
606 Is (NAME) still alive?	YES.....1 NO.....2 GO TO 608< DK.....8 GO TO [9]<	YES.....1 NO.....2 GO TO 608< DK.....8 GO TO [10]<	YES.....1 NO.....2 GO TO 608< DK.....8 GO TO [11]<	YES.....1 NO.....2 GO TO 608< DK.....8 GO TO [12]<	YES.....1 NO.....2 GO TO 608< DK.....8 GO TO [13]<	YES.....1 NO.....2 GO TO 608< DK.....8 GO TO [14]<	YES.....1 NO.....2 GO TO 608< DK.....8 GO TO [15]<
607 How old is (NAME)?	<input type="text"/> GO TO [9]	<input type="text"/> GO TO [10]	<input type="text"/> GO TO [11]	<input type="text"/> GO TO [12]	<input type="text"/> GO TO [13]	<input type="text"/> GO TO [14]	<input type="text"/> GO TO [15]
608 How many years ago did (NAME) die?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
609 How old was (NAME) when she/he died?	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [9]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [10]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [11]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [12]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [13]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [14]	<input type="text"/> IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [15]
610 Was (NAME) pregnant when she died?	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2
611 Did (NAME) die during childbirth?	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2	YES.....1 GO TO 613< NO.....2
612 Did (NAME) die within six weeks after the end of a pregnancy or childbirth?	YES.....1 NO.....2 GO TO [9]<	YES.....1 NO.....2 GO TO [10]<	YES.....1 NO.....2 GO TO [11]<	YES.....1 NO.....2 GO TO [12]<	YES.....1 NO.....2 GO TO [13]<	YES.....1 NO.....2 GO TO [14]<	YES.....1 NO.....2 GO TO [15]<
613 How many children had (NAME) given birth to before that pregnancy?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

614	RECORD THE TIME.	HOUR.....	<input type="text"/>
		MINUTES.....	<input type="text"/>

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

Comments About Respondent: _____

Comments on Specific Questions: _____

Any Other Comments: _____

SUPERVISOR'S OBSERVATIONS

Name of Supervisor: _____ Date: _____

EDITOR'S OBSERVATIONS

MALAWI DEMOGRAPHIC AND HEALTH SURVEY
MALAWI GOVERNMENT - NATIONAL STATISTICAL OFFICE

HEALTH SERVICES AVAILABILITY QUESTIONNAIRE

FORM MDHS-S/92

IDENTIFICATION							
REGION/DISTRICT _____							
TA/STA/TOWN _____							
ENUMERATION AREA							
CENTRAL VILLAGE OR PLACE _____							
MDHS CLUSTER NUMBER.....							
URBAN/RURAL (urban=1, rural=2).....							
INTERVIEWER NAME AND NUMBER _____			<table border="1" style="width: 100%; height: 20px;"> <tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr> </table>				
DATE OF VISIT			<table border="1" style="width: 100%; height: 20px;"> <tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr> </table>				
			DAY				
			MONTH				
			YEAR				
NAME	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY			
DATE	_____	_____	_____	<table border="1" style="width: 100%; height: 20px;"> <tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr> </table>			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																								
1	What is the name of the nearest health facility that provides health services to (VILLAGE/PLACE)? _____ (NAME)	<input type="text"/> <input type="text"/> <input type="text"/>																									
2	Under what authority is the facility operated?	GOVERNMENT.....1 MISSION/CHURCH.....2 PRIVATE EMPLOYER.....3 OTHER PRIVATE.....4 OTHER _____5 (SPECIFY)																									
3	How far is the facility from here (in kms or miles) ? RECORD '00' IF LESS THAN 1 KM, IF 97 KM OR MORE RECORD '97', IF UNKNOWN RECORD '98'	KILOMETERS.....1 <input type="text"/> <input type="text"/> MILES.....2 <input type="text"/> <input type="text"/>																									
4	How do most persons in this community get from here to (HEALTH FACILITY NAME) ?	CAR / MOTORCYCLE.....1 PUBLIC TRANSPORT (BUS,TAXI).....2 BICYCLE.....3 ANIMAL / ANIMAL CART.....4 WALKING.....5 OTHER _____6 (SPECIFY)	5 5																								
4A	FOR RURAL CLUSTERS ONLY: How often per week is motorized transport available to residents to go to the facility ? RECORD '00' IF LESS THAN ONCE PER WEEK. IF UNKNOWN RECORD '98'.	NO. OF TIMES PER WEEK.... <input type="text"/> <input type="text"/>																									
5	How long does it take to get from here to (HEALTH FACILITY NAME) using (MEANS MENTIONED IN 4) ? RECORD IN MINUTES IF LESS THAN 2 HOURS AND IN HOURS IF 2 HOURS OR MORE.	HOURS.....1 <input type="text"/> <input type="text"/> <input type="text"/> MINUTES.....2 <input type="text"/> <input type="text"/> <input type="text"/>																									
6	Does (HEALTH FACILITY NAME) provide: antenatal care? Delivery care? child immunization? childspacing services? condoms?	<table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>ANTENATAL CARE.....1</td> <td>2</td> <td>8</td> <td></td> </tr> <tr> <td>DELIVERY CARE.....1</td> <td>2</td> <td>8</td> <td></td> </tr> <tr> <td>CHILD IMMUNIZATION.....1</td> <td>2</td> <td>8</td> <td></td> </tr> <tr> <td>CHILDSPACING SERVICES..1</td> <td>2</td> <td>8</td> <td></td> </tr> <tr> <td>CONDOMS.....1</td> <td>2</td> <td>8</td> <td></td> </tr> </tbody> </table>		YES	NO	DK	ANTENATAL CARE.....1	2	8		DELIVERY CARE.....1	2	8		CHILD IMMUNIZATION.....1	2	8		CHILDSPACING SERVICES..1	2	8		CONDOMS.....1	2	8		
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CHILDSPACING SERVICES..1	2	8																									
CONDOMS.....1	2	8																									
7	CHECK 1: IS THE NEAREST FACILITY A HOSPITAL? <table style="margin-left: 100px;"> <tr> <td>NO</td> <td>YES</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	NO	YES	<input type="checkbox"/>	<input type="checkbox"/>		14																				
NO	YES																										
<input type="checkbox"/>	<input type="checkbox"/>																										
C	What is the name of the nearest hospital that provides health services to (VILLAGE/PLACE)? _____ (NAME OF HOSPITAL)	<input type="text"/> <input type="text"/> <input type="text"/>																									

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																								
9	Under what authority is the hospital operated?	GOVERNMENT.....1 MISSION/CHURCH.....2 PRIVATE EMPLOYER.....3 OTHER PRIVATE.....4 OTHER5 (SPECIFY)																									
10	How far is the hospital from here (in kms or miles) ? RECORD '00' IF LESS THAN 1 KM, IF 97 KM OR MORE RECORD '97', IF UNKNOWN RECORD '98'	KILOMETERS.....1 <input type="text"/> <input type="text"/> MILES.....2 <input type="text"/> <input type="text"/>																									
11	How do most persons in this community get from here to (HOSPITAL NAME) ?	CAR / MOTORCYCLE.....1 PUBLIC TRANSPORT (BUS, TAXI).....2 BICYCLE.....3 ANIMAL / ANIMAL CART.....4 WALKING.....5 OTHER6 (SPECIFY)	→12 →12																								
11A	FOR RURAL CLUSTERS ONLY: How often per week is motorized transport available to residents to go to the facility ? RECORD '00' IF LESS THAN ONCE PER WEEK. IF UNKNOWN RECORD '98'.	NO. OF TIMES PER WEEK.... <input type="text"/> <input type="text"/>																									
12	How long does it take to get from here to (HOSPITAL NAME) using (MEANS MENTIONED IN 11) ? RECORD IN MINUTES IF LESS THAN 2 HOURS AND IN HOURS IF 2 HOURS OR MORE.	HOURS.....1 <input type="text"/> <input type="text"/> <input type="text"/> MINUTES.....2 <input type="text"/> <input type="text"/> <input type="text"/>																									
13	Does (HOSPITAL NAME) provide: antenatal care? delivery care? child immunization? childspacing services? condoms?	<table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>ANTENATAL CARE.....1</td> <td>2</td> <td>8</td> <td></td> </tr> <tr> <td>DELIVERY CARE.....1</td> <td>2</td> <td>8</td> <td></td> </tr> <tr> <td>CHILD IMMUNIZATION.....1</td> <td>2</td> <td>8</td> <td></td> </tr> <tr> <td>CHILDSPACING SERVICES..1</td> <td>2</td> <td>8</td> <td></td> </tr> <tr> <td>CONDOMS.....1</td> <td>2</td> <td>8</td> <td></td> </tr> </tbody> </table>		YES	NO	DK	ANTENATAL CARE.....1	2	8		DELIVERY CARE.....1	2	8		CHILD IMMUNIZATION.....1	2	8		CHILDSPACING SERVICES..1	2	8		CONDOMS.....1	2	8		
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CHILD IMMUNIZATION.....1	2	8																									
CHILDSPACING SERVICES..1	2	8																									
CONDOMS.....1	2	8																									
14	Is (NAME OF VILLAGE/PLACE) served by mobile outreach, that is, by a health unit that arrives regularly nearby to provide health services to persons in this community? IF YES: What is the name of the outreach point? _____ (NAME) IF NO: RECORD '000'.	<input type="text"/> <input type="text"/> <input type="text"/> NO MOBILE OUTREACH.....000	→21																								
15	Under what authority is this service operated?	GOVERNMENT.....1 MISSION/CHURCH.....2 PRIVATE EMPLOYER.....3 OTHER PRIVATE.....4 OTHER5 (SPECIFY)																									
16	How far is the outreach point from here (in km or miles)? RECORD '00' IF LESS THAN 1 KM, IF 97 KM OR MORE RECORD '97', IF UNKNOWN RECORD '98'	KILOMETERS.....1 <input type="text"/> <input type="text"/> MILES.....2 <input type="text"/> <input type="text"/>																									

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
17	How many times per month does the mobile outreach come to provide services? RECORD '00' IF LESS THAN 1 TIME PER MONTH, IF UNKNOWN, RECORD '98'	TIMES PER MONTH..... <input type="text"/> <input type="text"/>	
18	How do most persons in this community get from here to the outreach point?	CAR / MOTORCYCLE.....1 PUBLIC TRANSPORT (BUS,TAXI).....2 BICYCLE.....3 ANIMAL / ANIMAL CART.....4 WALKING.....5 OTHER.....6 (SPECIFY)	19 19
18A	FOR RURAL CLUSTERS ONLY: How often per week is motorized transport available to residents to go to the outreach point? RECORD '00' IF LESS THAN ONCE PER WEEK. IF UNKNOWN RECORD '98'.	NO. OF TIMES PER WEEK.... <input type="text"/> <input type="text"/>	
19	How long does it take to get from here to (NAME OF OUTREACH POINT) using (MEANS MENTIONED IN 18)? RECORD IN MINUTES IF LESS THAN 2 HOURS AND IN HOURS IF 2 HOURS OR MORE.	HOURS.....1 <input type="text"/> <input type="text"/> <input type="text"/> MINUTES.....2 <input type="text"/> <input type="text"/> <input type="text"/>	
20	Does the outreach post provide: antenatal care? child immunization? childspacing services? condoms?	YES NO DK ANTENATAL CARE.....1 2 8 CHILD IMMUNIZATION.....1 2 8 CHILDSPACING SERVICES..1 2 8 CONDOMS.....1 2 8	
21	What is the name of the nearest place where a person from (NAME OF VILLAGE/PLACE) can obtain condoms? _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 PRIMARY HEALTH CENTRE.....12 DISPENSARY/MATERNITY CLINIC...13 MOBILE CLINIC.....14 MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL.....21 PRIVATE HEALTH CENTRE.....22 DISPENSARY/MATERNITY CLINIC...23 MOBILE CLINIC.....24 PRIVATE DOCTOR.....25 OTHER PRIVATE SECTOR SHOP.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER.....41 (SPECIFY) DK.....98	25 25 25
22	How far is (PLACE MENTIONED IN 21) from here (in kms or miles)? RECORD '00' IF LESS THAN 1 KM, IF 97 KM OR MORE RECORD '97', IF UNKNOWN RECORD '98'	KILOMETERS.....1 <input type="text"/> <input type="text"/> MILES.....2 <input type="text"/> <input type="text"/>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
23	How do most persons in this community get from here to (PLACE MENTIONED IN 21)?	CAR / MOTORCYCLE.....1 PUBLIC TRANSPORT (BUS,TAXI).....2 BICYCLE.....3 ANIMAL / ANIMAL CART.....4 WALKING.....5 OTHER.....6 (SPECIFY)	→24 →24
23A	FOR RURAL CLUSTERS ONLY: How often per week is motorized transport available to residents to go to (PLACE MENTIONED IN 21) ? RECORD '00' IF LESS THAN ONCE PER WEEK. IF UNKNOWN RECORD '98'.	NO. OF TIMES PER WEEK... <input type="text"/>	
24	How long does it take to get from here to (PLACE MENTIONED IN 21) using (MEANS MENTIONED IN 23)? RECORD IN MINUTES IF LESS THAN 2 HOURS AND IN HOURS IF 2 HOURS OR MORE.	HOURS.....1 <input type="text"/> <input type="text"/> <input type="text"/> MINUTES.....2 <input type="text"/> <input type="text"/> <input type="text"/>	
25	What is the name of the nearest place where a person from (NAME OF VILLAGE/PLACE) can obtain a modern* method of childspacing other than condoms? _____ (NAME OF PLACE) * NOTE: This excludes traditional methods such as herbal medicines, strings, etc.	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 PRIMARY HEALTH CENTRE.....12 DISPENSARY/MATERNITY CLINIC...13 MOBILE CLINIC.....14 MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL.....21 PRIVATE HEALTH CENTRE.....22 DISPENSARY/MATERNITY CLINIC...23 MOBILE CLINIC.....24 PRIVATE DOCTOR.....25 OTHER PRIVATE SECTOR SHOP.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER.....41 (SPECIFY) DK.....98	→29 →29 →29
26	How far is (PLACE MENTIONED IN 25) from here (in kms or miles) ? RECORD '00' IF LESS THAN 1 KM, IF 97 KM OR MORE RECORD '97', IF UNKNOWN RECORD '98'	KILOMETERS.....1 <input type="text"/> <input type="text"/> MILES.....2 <input type="text"/> <input type="text"/>	
27	How do most persons in this community get from here to (PLACE MENTIONED IN 25)?	CAR / MOTORCYCLE.....1 PUBLIC TRANSPORT (BUS,TAXI).....2 BICYCLE.....3 ANIMAL / ANIMAL CART.....4 WALKING.....5 OTHER.....6 (SPECIFY)	→28 →28

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
27A	<p>FOR RURAL CLUSTERS ONLY: How often per week is motorized transport available to residents to go to (PLACE MENTIONED IN 25) ?</p> <p>RECORD '00' IF LESS THAN ONCE PER WEEK. IF UNKNOWN RECORD '98'.</p>	<p>NO. OF TIMES PER WEEK.... <input type="text"/> <input type="text"/></p>	
28	<p>How long does it take to get from here to (PLACE MENTIONED IN 25) using (MEANS MENTIONED IN 27)?</p> <p>RECORD IN MINUTES IF LESS THAN 2 HOURS AND IN HOURS IF 2 HOURS OR MORE.</p>	<p>HOURS.....1 <input type="text"/> <input type="text"/> <input type="text"/></p> <p>MINUTES.....2 <input type="text"/> <input type="text"/> <input type="text"/></p>	
29	<p>Has there been any special educational campaigns in (NAME OF VILLAGE/PLACE) over the past 12 months that were intended to increase awareness about the problem of AIDS ?</p>	<p>YES.....1</p> <p>NO.....2</p>	

S 6