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Demographic and Health Survey

2007

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Ministry of Health
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PREFACE

The 2007 Zambia Demographic and Health Survey (ZDHS) is a national sample survey designed to provide up-to-date information on background characteristics of the respondents, fertility levels, nuptiality, sexual activity, fertility preferences, awareness and use of family planning methods; breastfeeding practices; nutritional status of mothers and young children; early childhood mortality and maternal mortality; maternal and child health; and awareness, behaviour, and prevalence regarding HIV/AIDS and other sexually transmitted infections. The target groups were men age 15-59 and women age 15-49 in randomly selected households across Zambia. Information about children age 0-5 was also collected, including weight and height. The survey collected blood samples for syphilis and HIV testing in order to determine national prevalence rates.

While significantly expanded, the 2007 ZDHS is a follow-up to the 1992, 1996, and 2001-2002 ZDHS surveys and provides updated estimates of basic demographic and health indicators covered in the earlier surveys. The 2007 ZDHS is the second DHS that includes the collection of information on violence against women, and syphilis and HIV testing. In addition, data on malaria prevention and treatment were collected.

The ZDHS was implemented by the Central Statistical Office (CSO) in partnership with the Ministry of Health, the Tropical Disease Research Centre (TDRC), and the Demography Division at the University of Zambia (UNZA) from April to October 2007. The TDRC provided technical support in the implementation of the syphilis and HIV testing. Macro International provided technical assistance as well as funding to the project through MEASURE DHS, a USAID-funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide.

Funding for the ZDHS was provided by the Ministry of Health, the Ministry of Finance and National Planning, the United States Agency for International Development (USAID), the Centers for Disease Control and Prevention (CDC), the Malaria Control and Evaluation Partnership in Africa (MACEPA), the European Union (EU), the World Bank through the Zambia National Response to HIV/AIDS (ZANARA) project, the United Nations Population Fund (UNFPA), the United Nations Development Programme (UNDP), the Joint United Nations Programmes on HIV/AIDS (UNAIDS), the United Nations Children's Fund (UNICEF), the Japan International Cooperation Agency (JICA), the Swedish International Development Assistance (SIDA), the United Kingdom Department for International Development (DFID), the World Health Organization (WHO), and Development Cooperation Ireland (DCI).

Key people in the implementation of the 2007 ZDHS were Dr Simon Miti, Permanent Secretary, Ministry of Health; Mr Davies Chifwembe, Director Policy and Planning; Mr William Mayaka, Deputy Director, Social Statistics Central Statistical Office; Dr Christopher Simoonga, Deputy Director of Policy and Planning, Ministry of Health; Ms Nchimunya Nkombo, Survey Coordinator from Central Statistical Office; and Mr Chipalo Kaliki, Survey Coordinator from Ministry of Health. Also instrumental to the implementation of the survey were Ms Chanda Mulenga, TDRC; Ms Margaret Tembo-Mwanamwenge from Central Statistical Office; Jacob RS Malungo, UNZA; and Ms Adrienne Cox, Project Manager from Macro International.

Special gratitude goes to the Field Monitors, Supervisors, Editors, Interviewers, Laboratory Technicians, Regional Statisticians, Provincial Directors of Health, and Drivers for their hard work. Gratitude also goes to the respondents for their patience and generosity in providing the required information and the blood samples. Without their cooperation, this survey would not have been a success.

Ms Efreda Chulu
Director – Central Statistical Office

SUMMARY OF FINDINGS

The 2007 Zambia Demographic Health Survey (ZDHS) is a nationally representative survey of 7,146 women age 15-49 and 6,500 men age 15-59. The 2007 ZDHS is the fourth comprehensive survey conducted in Zambia as part of the Demographic and Health Surveys (DHS) programme. The data are intended to furnish programme managers and policymakers with detailed information on levels and trends in fertility; nuptiality; sexual activity; fertility preferences; awareness and use of family planning methods; infants and young children feeding practices; nutritional status of mothers and young children; early childhood mortality and maternal mortality; maternal and child health; and awareness and behaviour regarding HIV/AIDS and other sexually transmitted infections. Additionally, the 2007 ZDHS collected information on malaria prevention and treatment, domestic violence, and HIV and syphilis prevalence among women age 15-49 and men age 15-59. The 2007 ZDHS is the second survey in Zambia to provide population-based prevalence estimates for HIV.

FERTILITY

The survey results show fertility in Zambia has remained at a high level over the last 15 years from 6.5 births per woman in 1992 to 6.2 births in 2007. On average, rural women are having three children more than urban women (7.5 and 4.3 children, respectively). The low level of fertility among urban women is also reflected in the lower fertility among women in the urban provinces of Lusaka and Copperbelt, where women on average are having 4.1 and 4.8 children, respectively, compared with 6.2 or more children in other provinces. Fertility differentials by education and wealth are noticeable. Women who have no formal education and women in the lowest wealth quintile on average are having more than 8 children, while women with higher than a secondary education and women in the highest wealth quintile are having less than 4 children.

Unplanned pregnancies are common in Zambia. Overall, 16 percent of births are unwanted, while 26 percent are mistimed (wanted later). If all unwanted births were prevented, women would have an average of 5.2 children, compared with the actual average of 6.2 children.

Marriage patterns are an important determinant of fertility levels in a population. The median age at first marriage in Zambia among women age 25-49 is 18.2 years. Urban women marry one year later than rural women (19.1 and 17.8 years old, respectively). The median age at first marriage varies greatly by the woman's educational status. The median age at marriage for women age 25-49 with no education is 17.3 years compared with 24.4 years for women with more than secondary education. Men enter into first union at a much later age than women; the median age at first marriage for men age 25-59 is 23.5 years.

The average man and woman in Zambia initiate sexual activity before marriage. Among the population age 25-49, the median age at first sexual intercourse is 17.9 years for men and 17.2 years for women.

Teenage pregnancy is high in Zambia. About three in ten young women age 15-19 have begun childbearing, that is, they have given birth already or are currently pregnant with their first child.

The 2007 ZDHS shows that 14 percent of currently married women are married to men who are in a polygynous union. Older women, women who live in rural areas, women with less education, and women in the lowest wealth quintiles are more likely than other women to have co-wives. The prevalence of polygyny varies markedly across provinces, with Lusaka having the lowest level (4 percent), while Southern having the highest (25 percent).

FAMILY PLANNING

Overall, knowledge of family planning in Zambia has been nearly universal since 1996. In the 2007 ZDHS, 97 percent of all women and 99 percent of all men know about a contraceptive method. The pill, male condoms, and injectables are the most widely known methods.

Seventy-seven percent of currently married women have used a family planning method at least once in their lifetime. About four in ten of currently married women are using any contraceptive method, and about three in ten report using a modern method. The most commonly used method among currently married women is the pill (11 percent), followed by injectables (9 percent) and the male condom (5 percent).

The current use of contraception in Zambia has increased from a rate of 15 percent in 1992, 26 percent in 1996 and 34 percent in 2001-2002 to the rate of 41 percent in 2007. There has also been a corresponding increase in the use of modern methods from 9 percent in 1992, 14 percent in 1996 and 23 percent in 2001-2002 to 33 percent in 2007.

Government-sponsored facilities remain the chief providers of contraceptive methods in Zambia. The distribution of sources of modern method supplies for current users shows that the majority of users (68 percent) obtain their contraceptives from the public sector. The participation of the private medical sector in family planning service delivery has decreased steadily during the last 15 years from 36 percent in 1992 to 17 percent in 2007. Ten percent of current users obtain their methods from retail outlets.

Overall, 27 percent of currently married women have an unmet need for family planning—17 percent for spacing, and 9 percent for limiting. Unmet need for family planning has remained the same since 1996. If all married women with an unmet need for family planning were to use a contraceptive method, the contraceptive prevalence rate for any method in Zambia would increase from 41 to 67 percent.

CHILD HEALTH

Data from the 2007 ZDHS indicate that the infant mortality rate is 70 deaths per 1,000 live births, while the under-five mortality rate is 119 per 1,000 live births for the five-year period immediately preceding the survey. The neonatal mortality rate is 34 per 1,000 births. Thus, almost two-thirds of childhood deaths occurred during infancy, with more than one-quarter taking place during the first month of life.

Child mortality is consistently lower in urban areas than in rural areas; however, the differences are not great. There is also variation in the mortality level across provinces. Infant mortality rate is highest in Luapula, Western and Northern provinces, while under-five mortality rate is highest in Northern and Luapula provinces.

In Zambia, children are considered fully vaccinated when they receive one dose of BCG vaccine, three doses of DPT or the combination DPT-HepB-Hib vaccine, three doses of polio vaccine, and one dose of measles vaccine. Overall, 68 percent of children 12-23 months have received all vaccinations at the time of the survey. Ninety-two percent of children have received the BCG vaccination, and 85 percent have vaccinated against measles. The coverage of the first dose of DPT or DPT-HepB-Hib vaccine and polio is relatively high (92 and 94 percent, respectively). However, only 80 percent of children have received the third dose of DPT or DPT-HepB-Hib vaccine, and 77 percent have received the third dose of polio vaccine. A comparison of the 2007 ZDHS results with those of the earlier surveys shows there has been a decline in the overall vaccination coverage in Zambia from 78 percent in 1996 to 70 percent in 2001-2002 to the current rate of 68 percent.

Five percent of children under age five showed symptoms of acute respiratory infection (ARI) within the two weeks before the survey. Treatment from a health facility or provider was sought for about two-thirds of children (68 percent). About half of children (47 percent) received antibiotics.

Eighteen percent of children under five were reported to have had fever, a major manifestation of malaria, within the two weeks prior to the survey. Almost two-thirds of children (63 percent) were taken to a health facility or provider for treatment. About four in ten children with fever (38 percent) received antimalarial drugs and more than one-quarter (27 percent) received antibiotics.

At the time of the survey, 16 percent of children under age five had diarrhoea at some time within the two weeks before the survey. Six in ten children with diarrhoea were taken to a health provider. The majority (74 percent) of children were treated with some type of oral rehydration therapy (ORT) or increased fluids: 60 percent were treated with solution prepared from an oral rehydration salt (ORS) packet; 10 percent were given recommended home fluids (RHF) prepared at home; and 34 percent were given increased fluids. Sixteen percent of children with diarrhoea did not receive any type of treatment at all.

MATERNAL HEALTH

In Zambia almost all women who had a live birth in the five years preceding the survey received antenatal care from a health professional (94 percent); 2 percent from a doctor, 5 percent from a clinical officer, and 87 percent from a trained nurse or midwife. Only 2 percent of mothers did not receive any antenatal care.

Tetanus toxoid injections are given during pregnancy to prevent neonatal tetanus. Overall, eight in ten (81 percent) of women's last births in Zambia were protected against neonatal tetanus.

Less than half of births in the five years before the survey were delivered in a health facility (48 percent). Forty-three percent of births occurred in public health facilities and 5 percent occurred in private health facilities. More than half (52 percent) of births occurred at home. Three percent of births were assisted by a doctor, 1 percent by and clinical officer, 42 percent by a trained nurse or midwife, and 23 percent by a traditional birth attendant. A quarter of births were assisted by a relative and 5 percent of births had no assistance at all. Three percent of births were delivered by a Caesarean section.

Overall, 48 percent of mothers received a postnatal check-up for the most recent birth in the five years preceding the survey, with 39 percent having the check-up within the critical 48 hours after delivery.

Results from the 2007 ZDHS show that the estimated maternal mortality ratio during the seven-year period prior to the survey is 591 maternal deaths per 100,000 live births.

BREASTFEEDING AND NUTRITION

Ninety-eight percent of Zambian children under age five were breastfed at some point in their life. The median breastfeeding duration in Zambia is long (20.3 months). On the other hand, the median duration for exclusive breastfeeding is only 3.1 months. A large majority of babies (61 percent) are exclusively breastfed throughout the first six months of life. More than nine in ten (93 percent) children age 6-9 months receive complementary foods, and more than half (55 percent) of children age 18-23 months have been weaned. Bottle feeding is not very common; only 3 percent of babies less than six months of age are fed with a bottle with a nipple, and the proportion bottle-fed peaks at 5 percent among children 4-5 months.

Overall, 45 percent of children are stunted (short for their age) at the time of the survey, 5 percent are wasted (thin for their height), and 15 percent are underweight. The indices indicate that malnutrition increases with a child's age, with prevalence peaking in the 18-23 months age range for the stunting and underweight indices, and declining as children approach their second birthday. Stunting affects more than six in ten children 18-23 months, and one-third of children in that age range are severely stunted. Eighteen percent of children 18-23 months are underweight. The highest rate of wasting is found in the 9-11 month age group (12 percent).

Overall, 71 percent of women have a body mass index (BMI) in the normal range. Nineteen percent of women are overweight or obese, with 5 percent classified as obese. At the other extreme, 10 percent are thin, while 3 percent are severely thin.

MALARIA

Sixty-four percent of all households interviewed during the survey had at least one mosquito net, while 31 percent had more than one. Sixty-two percent of households had at least one net that had ever been treated with an insecticide. Half of households (53 percent) had at least one insecticide-treated net (ITN). There is an average of one ITN per household.

Bednet usage is moderate among young children and pregnant women, groups which are particularly vulnerable to malaria's effect. Overall, a third of children under five slept under a mosquito net the night before the survey. Thirty-three percent of children slept under an ever-treated net and 29 percent slept under an ITN. Among pregnant women, 39 percent slept under any mosquito net the night before the interview. Thirty-seven percent slept under an ever-treated net and 33 percent slept under an ITN.

Sixteen percent of households reported that the interior walls of their dwelling had been sprayed within the last 12 months, principally as part of the Ministry of Health programme (61 percent). Fifteen percent of households were sprayed by local councils, 10 percent were sprayed by a household member, and 8 percent were sprayed by a mining company.

Among women who had their last birth in the two years before the survey, the majority (87 percent) took an antimalarial drug during their pregnancy. Eighty-seven percent of all pregnant women took at least one dose of SP/Fansidar., while 66 percent reported taking two or more doses of SP/Fansidar. Almost all of the women who took SP/Fansidar were given the drug during an antenatal care visit, and are thus considered to have had preventive intermittent treatment (IPT).

HIV/AIDS AND SYPHILIS

Knowledge of HIV and AIDS is universal in Zambia. Almost all (99 percent) of women and men age 15-49 have heard of HIV or AIDS. However, only 36 percent of women and 39 percent of men have what can be considered comprehensive knowledge about the modes of HIV transmission and prevention. Comprehensive knowledge means knowing that used of condoms and having just one uninfected, faithful partner can reduce the chance of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission or prevention, that HIV and AIDS can be transmitted through supernatural means or through mosquito bites.

Eighty-five percent of women and 75 percent of men age 15-49 know that HIV can be transmitted through breastfeeding. Sixty-eight percent of women and 56 percent of men know that the risk of mother-to-child transmission (MTCT) can be reduced by a mother taking special drugs during pregnancy.

Given that most HIV infections in Zambia are contracted through heterosexual contact, information on the level of higher-risk sex (i.e., sexual intercourse with a partner who is neither a spouse nor a cohabitating partner and/or sex with two or more partners in the past 12 months) is important for planning prevention programmes. The 2007 results indicate that 1 percent of women and 14 percent of men have had two or more partners during the 12 months preceding the survey, and 13 percent of women and 28 percent of men have had higher-risk sexual **INTERCOURSE**. Among the respondents who engaged in higher-risk sexual intercourse, only 37 percent of women and 50 percent of men reported that they used a condom at the last high-risk sexual intercourse.

Among the adult population age 15-49, 39 percent of women and 22 percent of men have been tested for HIV at some point in time. Nineteen percent of women and 12 of men received the results from their last HIV test that was taken within the last 12 months.

Results from the HIV testing component in the 2007 ZDHS indicate that 14 percent of Zambian adults age 15-49 are HIV positive. Among women, the HIV rate is 16 percent compared to 12 percent among men. For adult women, the HIV prevalence peaks at 26 percent in the 30-34 age group, which is four times the rate among women 15-19 and around twice the rate observed among women age 45-49. Among men, the HIV prevalence increases from 4 percent in the 15-19 age group to 24 percent in the 40-44 years age range, and then decreases to 12 percent in the 55-59 age group. HIV prevalence in urban areas is twice that of rural areas (20 percent versus 10 percent, respectively). The differentials by province range from the highest prevalence rate in Lusaka (21 percent) to the lowest prevalence in North-Western and Northern (7 percent for both).

More than 2,000 cohabiting couples were tested for HIV in the 2007 ZDHS. Results indicate that among 81 percent of cohabiting couples, both partners tested negative for HIV. Both partners were HIV positive among 8 percent of cohabiting couples. Overall, 11 percent of cohabiting partners were discordant, that is, one partner was infected and the other was not. In 7 percent of couples, the male partner was infected and the woman was not, while in another 5 percent of couples, the woman was infected and the man was not.

Results from the syphilis testing component in the 2007 ZDHS indicate that 4 percent of Zambia adults age 15-49 tested positive for syphilis. Among women, the syphilis rate was 4 percent compared with 5 percent among men. For women, syphilis prevalence peaks at 7 percent among those in the 30-34 age group, while for men it peaks at 10 percent among those in the 40-44 age group. There is no variation in syphilis rates by urban and rural residence.

DOMESTIC VIOLENCE

One eligible woman in each household was asked questions on domestic violence. In Zambia, domestic violence occurs across all socio-economic and cultural backgrounds. Almost half (47 percent) of all women have experienced physical violence since they were 15 and one-third of women experienced physical violence in

the 12 months preceding the survey. Among women who experienced violence since age 15, a total of 60 percent reported that their current husband or partner was the perpetrator and 17 percent reported that the perpetrator was a former husband or partner. Seven percent of all women who have experienced physical violence since 15 reported that the perpetrator was their sister or brother, while 6 percent reported the perpetrator was their father or step-father.

Overall, one in five women reported that they have experienced sexual violence at some point in their lives. Thirty-five percent of women reported that their first experience with sexual intercourse occurred when they were age 19 or younger. The majority (64 percent) of women reported that their current or former husband, partner, or boyfriend committed the act of sexual violence. It is important to highlight that among women who were younger than 15 years old when their first experience of sexual violence occurred, 19 percent reported that the perpetrators were a relative, 6 percent reported that the person was a family friend, and 10 percent reported that the person was their own friend.

Forty-six percent of Zambian women who ever experienced physical or sexual violence have ever sought help from any source. Only 6 percent of abused women who never sought help told someone about the violence, and 41 percent never sought help and never told anyone.

ORPHANS AND VULNERABLE CHILDREN

Four in ten Zambian children under age 18 in the households sampled for the 2007 ZDHS are not living with both parents. One in five children are not living with either parent. Fifteen percent of children under age 18 are orphaned, that is, one or both parents are dead.

Earlier ZDHS surveys obtained information on orphanhood only for children under age 15. A comparison of the results from the 2001-2002 and 2007 surveys for this age group indicates that there has been a slight decrease in orphanhood. The proportion of children orphaned has decreased from 15 to 13 percent between the two surveys. However, the proportion of children who are not living with either parent remains the same (17 percent).

Overall, 6 percent of children under age 18 was considered as vulnerable, i.e., they live in a household in which at least one adult had been chronically ill during the year before the survey or they have at least a parent living in the household or elsewhere who had suffered from a chronic illness. Overall, about one in five children (19 percent) under age 18 are considered orphans and/or vulnerable

MILLENNIUM DEVELOPMENT GOAL INDICATORS

Goal	Indicator	Value		
		Female	Male	Total
Eradicate extreme poverty and hunger	4-Prevalence of underweight children under five years of age[1]	12.6	16.7	14.6
Achieve universal primary education	6-Net attendance ratio in primary school[2]	80.1	80.0	80.0
	7-Percentage of pupils starting grade 1 who reach grade 5[3]	93.5	92.1	92.8
	8-Literacy rate of 15-24 year-olds[4]	67.6	82.5	74.4
Promote gender equality and empower women	9-Ratio of girls to boys in primary, secondary and tertiary education	na	na	91.8
	10-Ratio of literate women to men, 15-24 years old	na	na	81.9
	11-Share of women in wage employment in the non-agricultural sector[5]	na	na	43.8
Reduce child mortality	Under-five mortality rate (per 1,000 live births)			
	Infant mortality rate (per 1,000 live births)			
	15-Percentage of 1 year-old children immunized against measles	84.9	84.9	84.9
Improve maternal health	16-Maternal mortality ratio (0 - 6 year period before survey)	na	na	591.2
	17-Percentage of births attended by skilled health personnel[6]	45.8	47.1	46.5
Combat HIV/AIDS, malaria and other diseases	19-Percentage of current users of contraception who are using condoms (any contraceptive method, currently married women and men age 15-49)	11.9	32.4	20.9
	19A-Condom use at last high-risk sex[7]	38.0	47.6	44.0
	19B-Percentage of population 15-24 years with comprehensive correct knowledge of HIV/AIDS[8]	34.0	36.9	34.9
	19C-Contraceptive prevalence rate (any contraceptive method, currently married women and men age 15-49)	40.8	38.8	39.9
	20-Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years	97.2	89.8	93.4
	22-Percentage of population in malaria-risk areas using effective malaria prevention and treatment measures	na	na	56.2
	22A-Percentage of children under five sleeping under ITN	27.6	29.5	28.5
	22B-Percentage of children under five with fever who are appropriately treated[9]	39.2	37.6	38.4
		Urban	**Rural**	**Total**
Ensure environmental sustainability	29-Percentage of population using solid fuels (de jure population)[10]	58.7	98.2	84.1
	30-Percentage of population with sustainable access to an improved water source (de jure population)[11]	82.2	19.6	41.9
	31-Percentage of population with access to improved sanitation (de jure population)[12]	43.7	12.9	23.9

na=Not applicable

[1] Proportion of children age 0-59 months who are below -2 standard deviations (SD) from the median of the WHO child Growth Standards in weight-for-age

[2] 2007 ZDHS data are based on reported attendance, not enrolment.

[3]The cohort of people enrolled in grade 1 who are expected to reach grade 5.

[4] Refers to respondents who attended secondary school or higher or who can read a whole sentence

[5] Wage employment includes respondents who received wages in cash or in cash and kind.

[6] Among births in the past 5 years

[7] High-risk refers to sexual intercourse with a partner who neither was a spouse nor who lived with the respondent; time frame is 12 months preceding the survey.

[8] A person is considered to have a comprehensive knowledge about HIV/AIDS when they say that use of condoms for every sexual intercourse and having just one uninfected and faithful partner can reduce the chance of getting HIV, that a healthy-looking person can have HIV, and when they reject the two most common misconceptions that HIV can be transmitted through mosquito bites and that a person can become infected with HIV by eating from the same plate as someone who has HIV.

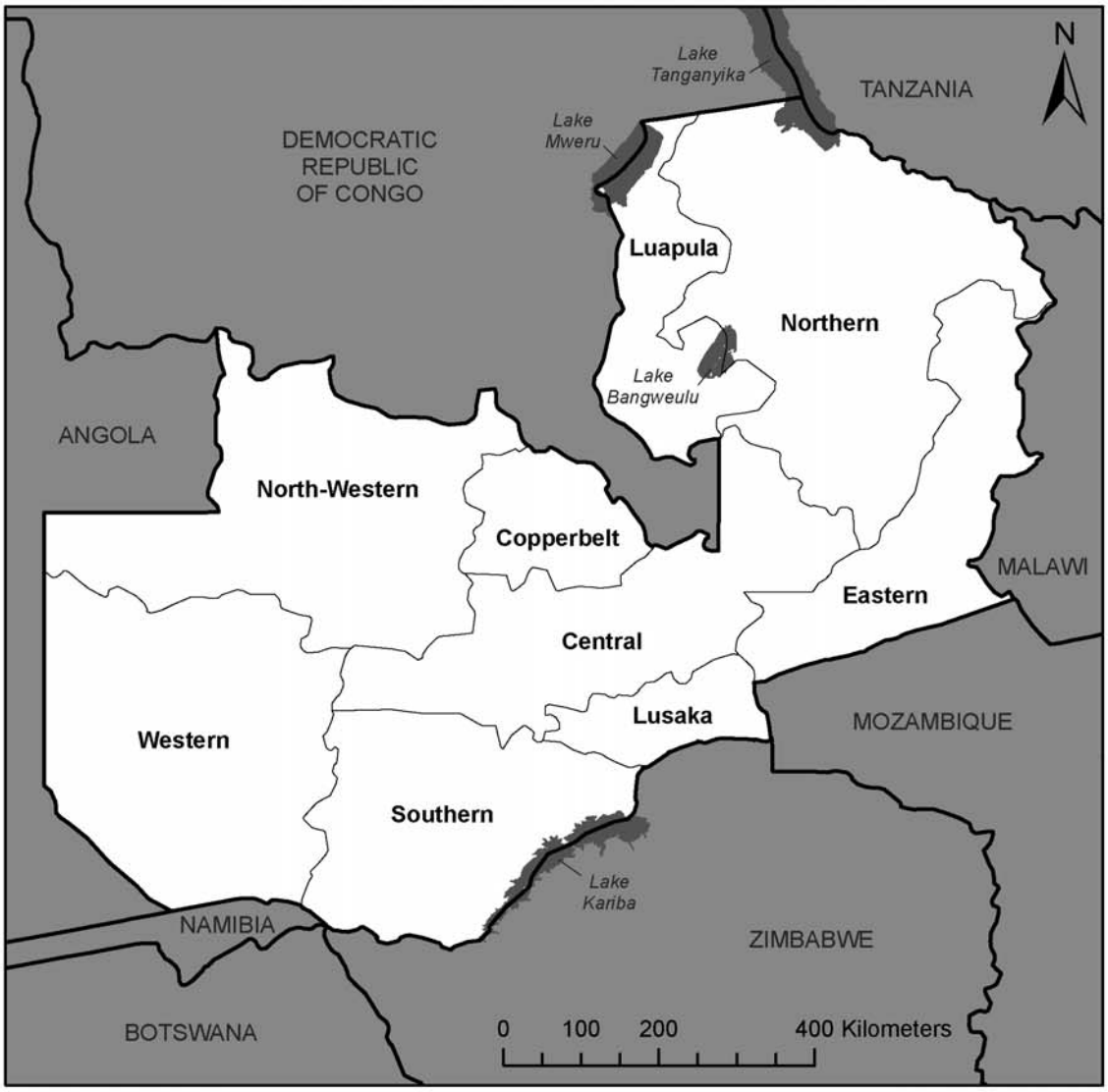
[9] Malaria treatment is measured as the percentage of children ages 0-59 months who were ill with a fever in the two weeks preceding the interview who received an antimalarial drug.

[10] Includes coal/lignite, charcoal, wood/straw/shrubs, agricultural crops, and animal dung

[11] Proportion whose main source of drinking water is a household connection (piped), public standpipe, borehole, protected dug well or spring, or rainwater collection.

[12] Improved sanitation technologies are: flush toilet, ventilated improved pit latrine, traditional pit latrine with a slab, or composting toilet.

ZAMBIA


N
Lake Tanganyika
TANZANIA
Lake Mweru
DEMOCRATIC REPUBLIC OF CONGO
Luapula
Northern
Lake Bangweulu
ANGOLA
North-Western
Copperbelt
MALAWI
Eastern
Central
Lusaka
MOZAMBIQUE
Western
Southern
Lake Kariba
NAMIBIA
ZIMBABWE
BOTSWANA
0 100 200 400 Kilometers

INTRODUCTION 1

Nchimunya Nkombo, Chanda Mulenga and Webster Kasongo

1.1 HISTORY, GEOGRAPHY, AND ECONOMY

1.1.1 History

Historical and archaeological evidence indicates that by the year 1500, much of modern Zambia was occupied by Bantu-speaking horticulturalists, ancestors of the present inhabitants. In the late nineteenth century, the British South Africa Company administered various parts of what was to become Northern Rhodesia. In 1924, the British Colonial Office assumed responsibility for administering the territory. In 1953, Northern Rhodesia (Zambia) and Southern Rhodesia (Zimbabwe) joined Nyasaland (Malawi) to form the Central African Federation of Rhodesia and Nyasaland, despite the opposition of Northern Rhodesia's Africans. This Federation was dissolved in 1963. Soon after the Federation was dissolved, in October 1964, Zambia gained political independence and adopted a multiparty system of government. This system changed in 1972 when the country became a one-party state. Zambia adopted the current multiparty system of government again in 1991.

1.1.2 Geography

Zambia is a land-locked sub-Saharan country sharing boundaries with the Democratic Republic of Congo (DRC) and Tanzania in the north; Malawi and Mozambique in the east; Zimbabwe and Botswana in the south; Namibia in the southwest and Angola in the west. Zambia covers a land area of 752,612 square kilometres, which is about 2.5 percent of Africa. Administratively, the country is divided into nine provinces and 72 districts. Of the nine provinces, two are predominantly urban, namely Lusaka and Copperbelt provinces. The remaining provinces—Central, Eastern, Northern, Luapula, North-Western, Western, and Southern—are predominantly rural provinces.

Zambia lies between 8 and 18 degrees south latitude and between 20 and 35 degrees east longitude. It has a tropical climate and vegetation with three distinct seasons: the cool dry winter from May to August, a hot dry season during September and October, and a warm wet season from November to April.

Zambia has a number of major rivers that are the main sources of water—the Zambezi, Kafue, Luangwa, and Luapula. The country also has major lakes such as Tanganyika, Mweru, Bangweulu, and the man-made Kariba. The northern part of the country receives the highest rainfall, with an annual average ranging from 1,100 mm to over 1,400 mm. The southern and eastern parts of the country have less rainfall, ranging from 600 mm to 1,100 mm annually, which often results in droughts.

1.1.3 Economy

Zambia has a mixed economy consisting of a modern urban sector that, geographically, follows the rail line and a rural agricultural sector. For a long time, the modern sector was dominated by parastatal organizations, while private businesses dominated the construction and agriculture sector. Since 1991, the government has actively pursued policies that facilitated private sector growth, including decontrol of prices, trade liberalization, market-determined exchange and interest rates; financial sector liberalization; and more responsible fiscal and monetary policies. With the introduction of the liberalized market-oriented economy, most parastatals were privatized and some were liquidated.

Copper mining continues to be the country's main economic activity, accounting for 95 percent of export earnings and contributing 45 percent of government revenue during the decade following independence (1965-1975). In the mid-1970s, following a sharp decline in copper prices and a sharp increase in oil prices, the country's economy deteriorated. Attempts were made to minimise dependency on copper exports by diversifying the economy through the creation of import substitution parastatals. This did not achieve the desired results.

Zambia embarked on implementing vigorous Structural Adjustment Programmes (SAP) in the 1980s amidst a stagnating economy. The SAP failed to substantially alter the economy and led to increased levels of poverty for the majority of Zambians. According to the Living Conditions Monitoring Survey 2006, 64 percent of Zambians were classified as poor. Poverty has remained more prevalent in rural areas than urban areas (80 and 34 percent, respectively) in 2006. Poverty in the Zambian context can be defined as lack of access to income, employment opportunities, entitlements for citizens to such things as freely determined consumption of goods and services, shelter, and other basic needs of life (MOFNP, 2002).

In an effort to halt the economic recession, the Movement for Multiparty Democracy (MMD) Government has launched an Economic Recovery Programme (ERP) to turn around the protracted decline of the economy into sustained positive growth, leading to improvement in living standards and the quality of life (Republic of Zambia, 1992).

The performance of the Zambian economy considerably improved during the period of the implementation of the Poverty Reduction Strategy Plan (PRSP) and Transitional National Development Plan (TNDP) from 2002 to 2005. Both strategies serve as frameworks for economic and social development. Real gross domestic product (GDP) growth averaged 4.7 percent per year, up from an annual average of 2.2 percent in the preceding four years. Growth actually exceeded the 4 percent target identified in the PRSP/TNDP. The improvements in performance represented a marked reversal of the economic stagnation experienced during the 1990s. These positive growth trends are largely due to several factors including favourable global economic conditions and the overall impact of economic reforms that started in the early 1990s. The rapid expansion of mining and construction primarily drove the growth during the period. The increase in global metal prices had a positive impact on Zambia's mining industry and the macroeconomic environment in general. The mining industry, which faced difficulties during the 1998-2001 period, received a major boost as a consequence of the rise in prices since 2003. Locally, the renewed expansion of the mining sector was a result of recapitalization and new investments following the privatisation of the state-owned mines and the buoyant world commodity markets. The construction sector recorded rapid growth as a result of private construction activities, especially in residential housing in the main urban centres (MOFNP, 2006 FNDP).

1.2 POPULATION

Table 1.1 presents selected demographic indicators from the 1980, 1990, and 2000 Zambia Census Reports. The 2000 national census reported a population of 9.9 million with a population growth rate of 2.4 percent per annum. The population increased from 5.7 million in 1980 to 7.8 million in 1990. During the 1990-2000 intercensal period, growth rates varied by province, ranging from 0.8 percent in Copperbelt to 3.4 percent in Lusaka.

The population density in Zambia increased from 7.5 people per square kilometre in 1980 to 10.4 in 1990 and 13.1 in 2000. The average density by prov-

Table 1.1 Demographic characteristics

Selected demographic indicators, Zambia, 1980, 1990, and 2000

Indicator	Census year 1980	1990	2000
Population (millions)	5.7	7.8	9.9
Density (pop/sq km)	7.5	10.4	13.1
Percent urban	39.9	38.0	35.0
Total fertility rate	7.2	6.7	6.0
Completed family size (women age 45-49)	6.6	7.1	6.9
Infant mortality rate	97	123	110
Life expectancy at birth			
Male	50.4	46.1	48.0
Female	52.5	47.6	52.0

Sources: Central Statistical Office, 1985a, 1985b, 1995b, 2002b, and 2003

ince in 2000 ranged from 64 people per square kilometre in Lusaka province to five people per square kilometre in North-Western province. In addition to being the most densely populated provinces, Lusaka and Copperbelt are also the most urbanized.

The decline in the economy has gradually reduced the proportion of the population in urban areas. The proportion of the population living in urban areas has decreased steadily from 40 percent in 1980 to 38 percent in 1990 and to 35 percent in 2000. The proportion of the urban population varies by province from 81 percent in Copperbelt to 9 percent in Eastern province (CSO, 2002b).

Total fertility rates estimated from the 1969 and 1980 censuses were 7.4 and 7.2 births per woman, respectively. The fertility rate declined to 6.7 births per woman in 1990, to 6.0 in 2000, and to 5.9 in 2002. Life expectancy at birth for males was 50 years in 1980 and was estimated to have declined to 46 years by 1990. In 2000, it increased to 48 years. Overall, life expectancy at birth ranged from 44 years in Western province to 56 years in North-Western province (CSO, 2002b). Zambian women live, on average, 4 years longer than men. The overall infant mortality rate declined from 141 deaths per 1,000 live births in the mid-1960s (based on the 1969 census) to 99 deaths in the late 1980s, after which it increased to 123 in 1990. According to the 2000 Census, infant mortality was estimated at 110 deaths per 1,000 live births. The ZDHS estimates show a decline in infant mortality from 95 deaths per 1,000 live births in 2001-2002 to 70 deaths in 2007.

1.3 The Population Policy and National Population and Development Programme of Action

The results of the 1980 Population and Housing Census emphasised the rapidity with which the population was expanding and the implied adverse effect on development and individual welfare. This led the government to reappraise the role of population in national development efforts.

In 1984, the then National Commission for Development Planning (NCDP) was given a mandate to initiate a draft population policy that would aim at achieving a population growth rate consistent with the growth rate of the economy (NCDP, 1989). The National Population Policy was accepted in May 1989. Since then, the country's population growth rate has remained high and continues to be a serious impediment to sustainable development.

The demographic factors and other emerging issues such as rapid urbanization, gender concerns, brain drain, and HIV/AIDS started unfolding in the 1990s, thereby constituting major obstacles to ensuring improved quality of life for Zambia's population. In an effort to address these issues, the process of revising the population policy started in December 1996, and was based on issues adopted by the 1994 Cairo International Conference on Population and Development. The new objectives of the policy took into account the concerns regarding HIV and AIDS, poverty, reproductive health, the environment, unemployment, gender issues, and a global perspective on population and development. The policy was finally revised in 2007 with a vision to improve the quality of life for the people through the achievement of improved population trends with socio-economic development. The main objectives of the policy are to:

- Integrate population variables, reproductive health including family planning, gender, and HIV/AIDS into development planning and programme implementation processes, especially in education, health, and agriculture.
- Reduce the incidence of morbidity and mortality, particularly maternal, infant and child mortality.
- Reduce the high level of fertility, particularly adolescent fertility.
- Improve sexual and reproductive health (including family planning) so as to encourage a manageable family size.
- Improve and maintain the nation's population database.

- Achieve a more even distribution of the population between rural and urban areas and to regulate international migration. (MOFNP, 2007).

1.4 HEALTH PRIORITIES AND PROGRAMMES

The high disease burden in Zambia is compounded by the high prevalence of HIV, high poverty levels, and the poor macroeconomic situation. The Government of the Republic of Zambia is committed to improving the quality of life for all Zambians, and this commitment is demonstrated through the government's efforts to improve health care delivery by reforming the health sector. In 1991, the Government of the Republic of Zambia launched radical health policy reforms characterised by a move from a strongly centralized health system in which the central structures provided support and national guidance to the peripheral structures. An important component of health policy reform is the restructured Primary Health Care (PHC) programme. The government is committed to providing efficient and cost-effective quality basic health care services for common illnesses as close to the family as possible through the implementation of the Basic Health Care Package (BHCP) at all levels of health care. Currently, the following priority areas for health services have been identified for inclusion into the basic health care package: nutrition; environmental health; control and management of communicable diseases; malaria; tuberculosis; epidemic and disaster prevention, preparedness, and response; school health; and oral health. The elements of the BHCP are selected on the basis of an epidemiological analysis of diseases and conditions that cause the highest burden of morbidity and mortality. Population-based and health facility-based surveys are regularly and consistently conducted to guide policy and planning.

The 1996 launch of the Health Information System and Financial Administration management marked a major milestone in the development of health sector performance monitoring under the health reforms. Performance appraisals are regularly executed by Provincial Health Offices, and the Integrated Diseases Surveillance Response is well developed for polio, measles, and tetanus. A Health Information Management System is in place to allow for collection of routine data for health indicators in the subject matters of childhood nutritional status; measles immunization coverage; care during delivery; malaria and TB incidence; and TB Directly-Observed Treatment, Short-Course (DOTS) coverage.

Since the commencement of the health care reforms, the public health sector in Zambia has taken significant steps towards meeting the objectives of the reforms, particularly in improving access to health care, affordability of health services, and health systems strengthening. These health reforms established the government's commitment to improve the population's health and set the following targets to be achieved by the year 2000:

- Reduce the percentage of underweight children (0-5 years) from 23 to 18 percent.
- Bring under control 80 percent of tuberculosis cases.
- Increase accessibility to and acceptability of family planning services and appropriate use of information in order to increase family planning use.

- Improve the quality of, access to, and utilization of maternal and child health services in order to reduce maternal deaths and complications.
- Reduce the incidence of STIs, HIV, and reproductive tract infections.
- Reduce the incidence of induced abortions in order to reduce maternal complications and deaths.
- Increase the percentage of the population having adequate sanitation from 66 to 75 percent in urban areas and from 37 to 57 percent in rural areas by 1996 (MOH, 1992)

The targets were to be achieved through a basic health care services package to be provided at all levels of the health care system. A number of challenges were encountered in trying to meet the above objectives, therefore calling for a set of renewed strategies to counter the challenges.

In 2005 the Ministry of Health embarked on the National Health Strategic Plan, aimed at reducing the disease burden and accelerating the attainment of the Millennium Development Goals and other national priorities. The plan presents a major departure from the past strategic plans. While it is recognized that all health care interventions are important and should continue to receive the necessary levels of support, prioritization of interventions is of critical importance as the resources and capabilities available are significantly constrained. In order to improve the health sector's general performance and meet the Millennium Development Goals, the National Health Strategic Plan places emphasis on dealing with human resources crises; improving the state of the health care infrastructure; fostering multisectoral responses in key areas such as nutrition, HIV/AIDS, control of epidemics, health education; and increased access to basic environmental health facilities such as water, acceptable basic sanitation, electricity, and telecommunication. The plan has placed greater emphasis on establishing effective, strong, and sustainable partnerships among all key stakeholders involved in health service delivery in Zambia.

The National Health Strategic Plan identifies priority areas grouped into four major categories—human resources, health service delivery interventions, clinical care and diagnostic services priority interventions, and priority integrated support systems. The objectives under these health priority areas are to:

- Train, recruit, and retain appropriate and adequate staff at all levels.
- Reduce the mortality rate among children under five.
- Reduce the maternal mortality ratio.
- Reduce the spread of HIV, TB, and STIs through effective interventions.
- Reduce the incidence and mortality due to malaria.
- Improve public health surveillance and control of epidemics.
- Promote and implement appropriate interventions aimed at improving hygiene, access to basic sanitation, safe water, and safe food.
- Ensure availability of essential drugs and medical supplies at all levels.
- Ensure availability of appropriate infrastructure and equipment at all levels, including the availability of basic services such as water, electricity, and telecommunications at all health facilities.
- Strengthen existing integrated operational systems, financing mechanisms, and governance arrangements for effective policy implementation and delivery of health services.

Zambia, like many sub-Saharan countries, has been adversely affected by the HIV/AIDS pandemic. In response to the high morbidity and mortality associated with HIV infection, the government introduced free antiretroviral drugs in two major public health care facilities in 2005. The distribution of highly effective antiretroviral therapy (ART) has since been scaled up to include almost all the districts in Zambia. A laboratory infrastructure for basic assessment and monitoring of HIV-positive patients has been set up in almost all provincial hospitals. Further, the Ministry of Health has expanded quality services for prevention of mother-to-child HIV transmission, Voluntary HIV counselling and testing (VCT), ART, and other treatment and care services.

1.5 Strategic Framework to Combat the National HIV/AIDS Epidemic

The first AIDS case in Zambia was diagnosed in 1984. Upon the realization of the need for behavioural interventions, as well as care and support programmes, the Government of the Republic of Zambia, with the assistance from the WHO Global Programme on HIV/AIDS, established the National AIDS Prevention and Control Programme (NACP). Three national plans have been developed to respond to the HIV/AIDS epidemic. The first one was the Emergency Short-Term Plan developed in 1987 to ensure safe blood and blood product supplies. Second, the two Medium-Term Plans (MTP1 and MTP2) covered the years 1988-1992 and 1994-1998, respectively. The National HIV/AIDS Intervention Strategic Plan and the National Monitoring and Evaluation Plan were

developed for 2002-2005. These comprehensive plans focused on national-level decisionmaking and coordination.

To coordinate and support the development, monitoring, and evaluation of the multisectoral national response for the prevention and mitigation of HIV/AIDS, STIs, and TB, the National HIV/AIDS/STI/TB Council (NAC) was established by an act of Parliament in December 2002. The National HIV/AIDS Policy was published in 2005 to provide the directive and mandate for the national response.

In 2006, the Government of the Republic of Zambia created a National HIV/AIDS/STI/TB Monitoring and Evaluation Plan for 2006-2010. The plan was developed to prevent, halt, and begin to reverse the spread of HIV and AIDS by 2010. The plan defines six themes, which describe priority action areas: 1) intensifying prevention; 2) expanding treatment, care, and support; 3) mitigating the socio-economic impact of HIV and AIDS; 4) strengthening decentralized response and mainstreaming HIV and AIDS; 5) improving the monitoring of the response; and 6) integrating advocacy and coordination of the multisectoral response.

The Government of the Republic of Zambia has made monitoring and evaluation an increasingly key component of this programme design and management approach. To facilitate effective coordination, the NAC developed a National HIV/AIDS Monitoring and Evaluation System to allow the country to track its progress towards the goal and objectives as stated in the plan.

1.6 Objectives and Organization of the Survey

1.6.1 Objectives

The Zambia Demographic and Health Survey (ZDHS) is a nationally representative sample survey of women and men of reproductive age. The main objective is to provide information on levels and trends in fertility, childhood mortality, use of family planning methods, and maternal and child health indicators including HIV/AIDS. This information is necessary for programme managers, policymakers, and implementers to monitor and evaluate the impact of existing programmes and to design new initiatives for health policies in Zambia.

The primary objectives of the 2007 ZDHS project are:

- To collect up-to-date information on fertility, infant and child mortality, and family planning.
- To collect information on health-related matters such as breastfeeding, antenatal care, children's immunisations, and childhood diseases.
- To assess the nutritional status of mothers and children.
- To support dissemination and utilization of the results in planning, managing, and improving family planning and health services in the country.
- To enhance the survey capabilities of the institutions involved in order to facilitate the implementation of surveys of this type in future.
- To document current epidemics of STIs and HIV/AIDS through use of specialized modules.

For HIV/AIDS and syphilis in particular, the testing component of the 2007 Zambia DHS was undertaken to provide information to address the monitoring and evaluation needs of government and non-governmental organization programmes addressing HIV/AIDS and syphilis, and to provide programme managers and policy makers with the information that they need to effectively plan and implement future interventions. The overall objective of the survey was to collect high-quality and representative data on knowledge, attitudes, and behaviours regarding HIV/AIDS and other STIs, and on the prevalence of HIV and syphilis infection among women and men.

1.6.2 Organization

The 2007 ZDHS was implemented by the Central Statistical Office (CSO) in partnership with the Ministry of Health, Tropical Diseases Research Centre (TDRC), and the Demography Division at the University of Zambia (UNZA) from April to October 2007. The TDRC provided technical support in the implementation of the syphilis and HIV testing. Macro International provided technical assistance to the project through the USAID-funded MEASURE DHS programme. Funding for the ZDHS was provided by USAID, the Ministry of Health, the Ministry of Finance and National Planning, the Centres for Disease Control and Prevention (CDC), the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the Malaria Control and Evaluation Partnership in Africa (MACEPA), the European Union (EU), the World Bank through the Zambia National Response to HIV/AIDS (ZANARA) project, the United Nations Population Fund (UNFPA), the United Nations Development Programme (UNDP), the Joint United Nations Programme on HIV/AIDS (UNAIDS), the United Nations Children's Fund (UNICEF), the Japan International Cooperation Agency (JICA), Swedish International Development Assistance (SIDA), the United Kingdom Department for International Development (DFID), the World Health Organization (WHO), and Development Cooperation Ireland (DCI).

While significantly expanded in content, the 2007 ZDHS is a follow-up to the 1992, 1996, and 2001-2002 ZDHS and provides updated estimates of basic demographic and health indicators covered in the earlier surveys. The 2007 ZDHS is the second DHS survey that includes information on violence against women and testing of individuals for syphilis and HIV. In addition, data on malaria prevention and treatment were also collected.

1.7 Sample Design

The sample for the 2007 ZDHS was designed to provide estimates of population and health indicators at the national and provincial levels. The sample design allowed for specific indicators, such as contraceptive use, to be calculated for each of the nine provinces (Central, Copperbelt, Eastern, Lusaka, Luapula, Northern, North-Western, Southern, and Western). The sampling frame used for the 2007 ZDHS was adopted from the Census of Population and Housing of the Republic of Zambia (CPH) conducted in 2000, provided by the CSO. The frame consists of 16,757 standard enumeration areas (SEA) created for the CPH 2000. A SEA is a convenient geographical area with an average size of 130 households or 600 people. A SEA contains information about its location, the type of residence, the number of households and the number of males and females in the population. Each SEA has a cartographical map, which delimits the boundaries and shows the main landmarks of the SEA.

A representative sample of 8,000 households was drawn for the 2007 ZDHS survey. The sample for ZDHS 2007 was a stratified sample selected in two stages from the CPH 2000 frame. Stratification was achieved by separating every province into urban and rural areas. Therefore, the nine provinces were stratified into 18 sampling strata. Samples were selected independently in every stratum by a two-stage selection. Implicit stratifications and proportional allocation was achieved at each of the lower geographical/administrative levels by sorting the sampling frame according to the geographical/administrative order and by using a probability proportional to size selection at the first-stage sampling.

In the first stage, 320 SEAs were selected with probability proportional to the SEA size.[1] The household listing operation was conducted in all selected SEAs, with the resulting lists of households serving as the sampling frame for the selection of households in the second stage. Selected SEAs with more than 300 households were segmented, with only one segment selected for the survey with probability proportional to the segment size. Household listing was conducted only in the selected

[1] The final survey sample included 319 clusters instead of 320 clusters. During fieldwork, access was not granted for the field team to conduct data collection exercises in one cluster.

segment. Therefore, a ZDHS 2007 cluster is either an SEA or a segment of an SEA. In the second-stage selection, an average number of 25 households were selected in every cluster, by equal probability systematic sampling. A complete listing of households and a mapping exercise was carried out for each cluster in August 2006. All private households were listed. The listing excluded people living in institutional households (army barracks, hospitals, police camps, boarding schools, etc.). CSO listing enumerators were trained to use Global Positioning System (GPS) receivers to record the geographic coordinates of the 2007 ZDHS sample clusters.

All women age 15-49 and all men age 15-59 who were either permanent residents of the households in the 2007 ZDHS sample or visitors present in the household on the night before the survey were eligible to be interviewed. HIV testing was performed in each household among eligible women and men who consented to the test. In a sub-sample of one in every three households, syphilis testing was performed among eligible women and men who consented to the test. In addition, a sub-sample of one eligible woman in each household was randomly selected to be asked additional questions about domestic violence.

1.8 QUESTIONNAIRES

Three questionnaires were used for the 2007 ZDHS. They are the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. These questionnaires were based on questionnaires developed for the MEASURE DHS programme and were adapted to reflect the population and health issues relevant to Zambia at a series of meetings with various stakeholders from government ministries and agencies, non-governmental organizations, and international donors. In addition to English, the questionnaires were translated into seven major local languages, Nyanja, Bemba, Kaonde, Lunda, Lozi, Tonga, and Luvale.

The Household Questionnaire was used to list all the usual members and visitors of selected households. Some basic information was collected on the characteristics of each person listed, including age, sex, education, and relationship to the head of the household. For children under age 18, survival status of the parents was determined. If a child in the household had a parent who was sick for more than three consecutive months in the 12 months preceding the survey or had a parent who had died, additional questions related to support for orphans and vulnerable children were asked. Additionally, if an adult in the household was sick for three or more consecutive months in the 12 months preceding the survey or an adult in the household died, questions were asked related to support for sick people or people who had died. The Household Questionnaire was also used to identify women and men who were eligible for the individual interview. In addition, the Household Questionnaire collected information about the dwelling, such as the source of water; type of toilet facilities; materials used to construct the house; ownership of various durable goods; and ownership and use of mosquito nets. The Household Questionnaire was also used to record height and weight measurements for children age 5-59 months and women age 15-49 years. Additionally, the Household Questionnaire included questions on malaria prevention as well as the information on the consent of eligible household members for the HIV and syphilis testing.

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

- Background characteristics (education, residential history, media exposure, etc.)
- Birth history and childhood mortality
- Knowledge and use of family planning methods
- Fertility preferences
- Antenatal and delivery care
- Breastfeeding and infant feeding practices
- Vaccinations and childhood illnesses
- Marriage and sexual activity

- Women's work and husband's background characteristics
- Women's and children's nutritional status
- Malaria prevention and treatment
- Domestic violence
- Awareness and behaviour regarding HIV and other STIs
- Adult mortality including maternal mortality

The Men's Questionnaire was administered to all men age 15-59 in each household in the 2007 ZDHS sample. The Men's Questionnaire collected much of the same information found in the Women's Questionnaire, but was shorter because it did not contain a detailed reproductive history or questions on maternal and child health or nutrition.

1.9 SYPHILIS AND HIV TESTING

In the 2007 ZDHS, dried blood spot (DBS) samples were collected for HIV testing from all voluntary, consenting, eligible women and men, in all selected survey households. In addition, in every third household selected for the survey, venous blood specimens were collected from all eligible women and men who voluntarily consented to having the syphilis test. The protocol for the blood specimen collection and testing for syphilis and HIV was reviewed and approved by the TDRC Ethical Review Committee, the Institutional Review Board of Macro International, and CDC Atlanta.

1.9.1 Syphilis Testing

For the syphilis testing activities, a nurse/nurse counsellor and a laboratory technician were added to each of the 12 ZDHS field teams. The nurse/nurse counsellors and laboratory technicians were recruited through the Ministry of Health and had experience in venous blood collection and testing. According to the protocol, syphilis testing was conducted in the field by the laboratory technician, using a qualitative Rapid Plasma Reagin (RPR). If the respondent had also consented to HIV testing, all blood specimens were given a bar code label unique to the respondent, which was identical to the label fixed on the individual's questionnaire and on the DBS filter paper used for collecting blood for HIV testing. Those individuals who were found to test positive for syphilis were offered treatment at home with one injection of benzathine penicillin, which is the standard treatment in Zambia. Alternative treatment was given to those allergic to penicillin and to pregnant women (erythromycin capsules for pregnant women and doxycycline capsules for men and non-pregnant women). An emergency kit (epinephrine) was provided to each nurse/nurse counsellor for penicillin-allergic cases. If the respondent tested positive for syphilis and did not want to be treated at home, a referral letter was given for free treatment at the nearest health facility. All RPR reactive sera samples were collected in cryo vials and labelled with appropriate bar code labels, frozen in liquid nitrogen tanks and transported to TDRC for syphilis confirmatory testing using Treponema Pallidum Haemaglutination Assay (TPHA).

1.9.2 HIV Testing

The protocol for the blood specimen collection and analysis for the 2007 ZDHS was based on the anonymous linked protocol developed for MEASURE DHS. The protocol allows for the merging of the HIV results to the socio-demographic data collected in the individual questionnaires, provided that information that could potentially identify an individual is destroyed before the linking takes place. Eligible women and men who consented to HIV testing were asked to voluntarily provide five drops of blood from a finger prick for anonymous HIV testing.

Interviewers explained the procedure, the confidentiality of the data, and the fact that the test results would not be made available to the respondent. They also explained the option of dried blood spot (DBS) storage for use in additional testing. If a respondent consented to the HIV testing, five blood spots from the finger prick were collected on a filter paper card, which a bar code label unique

to the respondent was affixed. If the respondent did not consent to additional testing using their sample, the words "no further testing" were indicated on the filter paper card. Each household, whether individuals consented to HIV testing or not, was given an information brochure on HIV/AIDS and a list of fixed sites providing voluntary counselling and testing (VCT) services grouped by province.

Each DBS sample was given a bar code label, with a duplicate label attached to the Women's or Men's Questionnaire. A third copy of the same bar code was affixed to the Blood Sample Transmittal Form to track the blood samples from the field to the laboratory. DBS samples were dried overnight and packaged for storage the following morning. Samples were periodically collected in the field along with the completed questionnaires and transported to CSO in Lusaka to be logged in, checked, and then transported to the TDRC in Ndola.

The processing of DBS samples for HIV testing at TDRC was handled by eight laboratory personnel. Each DBS sample was logged into the CSPro HIV Test Tracking System (CHTTS) database, given a laboratory number, and stored at -20˚C until tested. Testing on all samples was conducted between February and April 2008, after all of the questionnaire data entry was completed, verified, cleaned, and all unique identifiers removed from the questionnaire file except the bar code number. All samples were tested on the first assay test, an ELISA, Vironostika® HIV Uni-Form II Plus O, Biomerieux. A negative result was considered negative. All positives were subjected to a second ELISA test by Enzygnost® Anti-HIV 1/2 Plus, Dade Behring. Positive samples on the second test were considered positive. If the first and second tests were discordant, the sample was retested with tests 1 and 2. If on repeat of tests 1 and 2, both were negative, the sample was rendered negative. If both were positive, the sample was rendered positive. If there was still a discrepancy in the results after repeating tests 1 and 2, a third confirmatory test, Western Blot 2.2, Abbott Labs, was administered. The final result was rendered positive if the Western Blot (WB) confirmed the result to be positive, and rendered negative if the WB confirmed it to be negative. If the results were still discordant, the sample was rendered indeterminate.

1.9.3 Quality Control

To ensure quality and validity of test results, two forms of quality control were employed for the survey at TDRC laboratory. During testing, an internal quality control was established. Additionally, a selected number of the samples were sent to Global Clinical Viral Laboratory for external quality control. Procedures for internal quality control are outlined below.

1) Positive and negative serum controls supplied by the manufacturer with the test kits were included in each run.
2) Known HIV-negative, low-positive, and high-positive DBS samples obtained from CDC, Atlanta, USA were included in each run.

3) Known HIV negative, low-positive, and high-positive serum samples from the TDRC laboratory were also included in each run.

1.9.4 External quality control

External quality control for the 2007 ZDHS HIV samples was conducted by Global Clinical Viral Laboratory (GCVL) in Durban, South Africa. Following the standard protocol in DHS for external quality control, TDRC sent 10 percent of all the HIV samples collected during the survey to the GCVL. The samples included both reactive (positive) samples and HIV non-reactive (negative) samples. The CHTTS programme randomly selected the 10 percent sub-sample, comprising approximately 60 percent positives and 40 percent negatives, for retesting. The external quality control testing yielded a 99 percent agreement with the TDRC results.

The HIV test results for the 2007 ZDHS were entered into a spreadsheet with the bar code as the unique identifier for the result. Data from the HIV results and linked demographic and health data are published in this 2007 report.

1.10 PRETEST ACTIVITIES

The 2007 ZDHS was significantly expanded in content and included a different methodology for collecting HIV samples. A pretest was conducted to pilot the procedures involved and to pilot the ZDHS questionnaires. The training and fieldwork for the pretest took place from August 8 to September 4, 2006. Fourteen interviewers (seven females and seven males) were trained to administer the questionnaires, take anthropometric measurements, and collect blood samples for and HIV testing. In addition, three laboratory technicians and seven interviewers who were nurses were also trained to collect venous blood samples for syphilis testing. Representatives from the TDRC assisted in training participants to perform the finger prick for HIV sample collection, venous draws for syphilis sample collection, and proper handling and storage of the dried blood spots (DBS) and venous blood. The trainers/resource persons included professionals from UNZA, CSO, TDRC, the MOH, and Macro International. Guest lecturers were also invited from the Ministry of Health, the Centre for Infectious Disease Research in Zambia (CIDRZ), and the Johns Hopkins Program for International Education in Gynaecology and Obstetrics (JHPIEGO).

The pretest fieldwork was conducted in two urban and three rural clusters, covering 151 households. Debriefing sessions were held with the pre-test field staff, and modifications to the questionnaires were made based on lessons drawn from the exercise. The pretest field staff was divided into 3 teams of at least eight field people. The female interviewers were nurses. The supervisors and editors were drawn from amongst the resource people.

1.10.1 Training of Field Staff

CSO recruited and trained 122 people for the fieldwork to serve as supervisors, field editors, male and female interviewers, and reserve interviewers. Training of field staff for the main survey was conducted during February 2007. The training course consisted of instruction regarding interviewing techniques and 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 with real respondents in areas outside the 2007 ZDHS sample clusters. Field practice in syphilis testing and HIV DBS specimen collection was also conducted. During this period, field editors and team supervisors were provided with additional training in methods of field editing, data quality control procedures, and fieldwork coordination. Twelve supervisors, 12 editors, 36 female interviewers, and 36 male interviewers were selected to make up 12 data collection teams for the 2007 ZDHS.

1.10.2 Fieldwork

Twelve interviewing teams carried out data collection for the 2007 ZDHS. Each team consisted of one supervisor (team leader), one female field editor, one laboratory technician, three female interviewers, three male interviewers, and one driver. Seven senior staff members from CSO coordinated and supervised fieldwork activities. Three members of staff from UNZA assisted in the field supervision. In addition, three Macro staff members conducted field supervision. Data collection took place over a six-month period, from April 2007 to October 2007.

1.11 DATA PROCESSING

All questionnaires for the ZDHS were returned to the CSO in Lusaka for data processing, which consisted of office editing, coding of open-ended questions, data entry, and editing computer-identified errors. The data were processed by a team of 11 data entry clerks, four data editors, four

data entry supervisors, and one administrator to receive and check the blood samples received from the field. Data entry and editing were accomplished using the CSPro software. The process of office editing and data processing was initiated in May 2007 and the completed in November 2007.

1.12 RESPONSE RATES

Table 1.2 shows response rates for the 2007 ZDHS. A total of 7,969 households were selected for the sample, of which 7,326 were occupied. The shortfall was largely due to households that were away for an extended period of the time and structures that were found to be vacant at the time of the interview. Of the 7,326 existing households, 7,164 were successfully interviewed, yielding a response rate of 98 percent.

Table 1.2 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence, Zambia 2007

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	2,899	5,070	7,969
Households occupied	2,748	4,578	7,326
Households interviewed	2,694	4,470	7,164
Household response rate	98.0	97.6	97.8
Individual interviews: women			
Number of eligible women	3,320	4,088	7,408
Number of eligible women interviewed	3,178	3,968	7,146
Eligible woman response rate	95.7	97.1	96.5
Individual interviews: men			
Number of eligible men	3,225	3,921	7,146
Number of eligible men interviewed	2,831	3,669	6,500
Eligible man response rate	87.8	93.6	91.0

In the interviewed households, a total of 7,408 women were identified, of whom 7,146 were successfully interviewed, yielding a response rate of 97 percent. With regard to the male survey results, 7,146 eligible men identified, of whom 6,500 were successfully interviewed, yielding a 91 percent response rate. The response rates are slightly lower in the urban than rural sample for women, and more markedly for men (88 percent compared with 94 percent).

The principal reason for non-response among eligible men was the failure to find individuals at home despite repeated visits to the household, followed by refusal to be interviewed. The substantially lower response rate for men reflects the more frequent and longer absence of men from the households.

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

2

Palver Sikanyiti

The purpose of this chapter is to provide a summary of some demographic and socio-economic characteristics of the population in the households sampled in the 2007 ZDHS. For the purpose of the 2007 ZDHS, a household was defined as a person or a group of persons, related or unrelated, who live together and share common cooking and eating arrangements. The Household Questionnaire (see Appendix G) included a schedule for collecting basic demographic and socio-economic information (e.g., age, sex, educational attainment, and current school attendance) for all usual residents and visitors who slept in the household the night preceding the interview. This method of data collection allows the analysis of the results for either the de jure population (usual residents) or the de facto population (i.e., persons in the household at the time of the survey). The Household Questionnaire also obtained information on housing facilities, e.g., dwelling characteristics, source of water supply, and sanitation facilities) and household possessions.

The information presented in this chapter is intended to facilitate interpretation of the key demographic, socio-economic, and health indices presented later in the report. It is also intended to assist in the assessment of the representativeness of the survey sample.

2.1 POPULATION BY AGE AND SEX

Age and sex are important demographic variables and are the primary basis of demographic classification. They are also very important variables in the study of mortality, fertility, and nuptiality. The distribution of the de facto household population in the 2007 ZDHS is shown in Table 2.1 by five-year age groups, according to sex and residence. There are more women (17,551) than men (16, 314) in Zambia (52 and 48 percent, respectively). The sex ratio (proportion of men per 100 women) is 93. The ratio in rural areas is lower than that of urban areas (92 compared with 95). The data show that the household population has a greater number of younger people than older people. Fifty percent of the total population is under 15 years of age while 3 percent is 65 or older. The proportions decline as age increases; the lowest age group (0-4) has the largest proportion of the population (19 percent), while the highest age group (80+) has the smallest proportion with less than 1 percent.

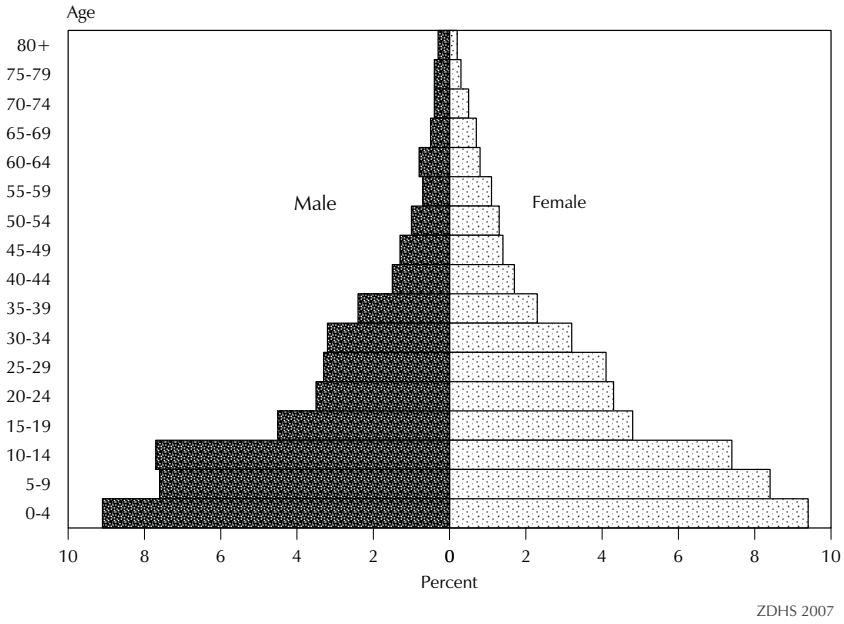
Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Zambia 2007

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	15.8	13.6	14.7	20.8	20.5	20.6	18.9	18.0	18.5
5-9	13.2	13.9	13.5	17.4	17.4	17.4	15.9	16.1	16.0
10-14	15.0	15.4	15.2	16.4	13.7	15.0	15.9	14.3	15.1
15-19	11.9	12.5	12.2	8.0	7.5	7.7	9.4	9.2	9.3
20-24	9.4	10.2	9.8	6.1	7.3	6.7	7.3	8.3	7.8
25-29	8.1	9.5	8.8	6.0	7.1	6.6	6.8	8.0	7.4
30-34	7.6	6.9	7.2	6.0	5.8	5.9	6.6	6.2	6.4
35-39	5.5	4.4	4.9	4.7	4.4	4.5	5.0	4.4	4.7
40-44	3.5	3.7	3.6	3.0	3.1	3.1	3.2	3.3	3.3
45-49	2.6	3.0	2.8	2.7	2.6	2.6	2.6	2.7	2.7
50-54	2.4	2.4	2.4	1.8	2.5	2.2	2.0	2.5	2.3
55-59	1.5	1.8	1.7	1.3	2.3	1.8	1.4	2.1	1.8
60-64	1.7	0.9	1.3	1.5	1.8	1.7	1.6	1.5	1.5
65-69	0.6	0.7	0.7	1.3	1.6	1.5	1.1	1.3	1.2
70-74	0.6	0.6	0.6	1.0	1.2	1.1	0.9	1.0	0.9
75-79	0.3	0.3	0.3	1.1	0.8	1.0	0.8	0.6	0.7
80 +	0.2	0.3	0.2	0.8	0.5	0.7	0.6	0.5	0.5
Don't know/missing	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	5,935	6,217	12,152	10,378	11,334	21,712	16,314	17,551	33,864

Figure 2.1 illustrates the age structure of the household population in a population pyramid. Another feature of population pyramids is their strength in illustrating whether a population is "young" or "old." The broad base of the pyramid indicates that Zambia's population is young. This scenario is typical of countries with higher fertility rates. The pyramid also shows that there are slightly more females than males, as can be noticed from the slightly longer bars for females than those for males, especially in lower age groups.

Figure 2.1 **Population Pyramid**



2.2 HOUSEHOLD COMPOSITION

Information on key aspects of the household composition, including the sex of the household head and the size of the household, is presented in Table 2.2. These characteristics are important because they are associated with the household welfare. Female-headed households are, for example, typically poorer than male-headed households. Economic resources are often more limited in larger households. Moreover, where the size of the household is large, crowding also can lead to health problems.

Table 2.2 shows that about three-quarters (76 percent) of the households are male-headed while only about a quarter (24 percent) are female-headed. This is true for both rural and urban areas. However, the proportion of female-headed households is higher in rural areas (25 percent) than urban areas (22 percent). There has been a slight increase in the proportion of female-headed households from 23 percent in the 2001-2002 ZDHS to 24 percent in the 2007 ZDHS.

In the 2007 ZDHS, the average household size is 4.9 persons, compared with 5.2 persons in the 2001-2002 ZDHS, 5.4 persons in the 1996 ZDHS, and 5.6 persons in the 1992 ZDHS. This shows a modest decline over the past 15 years. The table further shows that the average household size is similar in urban areas (5.0 persons) and in rural areas (4.8 persons). Also, the proportion of households with nine or more members is higher in urban areas (11 percent) than in rural areas (7 percent).

Table 2.2 provides information on the proportion of foster children (children who live in households without either parent), double orphans (children with both parents dead), and single orphans (children with one parent dead in the household population). There are more foster children (31 percent) as opposed to double orphans (7 percent) and single orphans (17 percent). Urban areas have a higher proportion of foster children, double and single orphans, and foster/orphan children than rural areas.

Table 2.2 Household composition

Percent distribution of households by sex of head of household and by household size; mean size of household, and percentage of households with orphans and foster children under 18, according to residence, Zambia 2007

Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male	77.9	74.6	75.7
Female	22.1	25.4	24.3
Total	100.0	100.0	100.0
Number of usual members			
0	0.0	0.0	0.0
1	6.8	8.2	7.7
2	11.1	9.7	10.2
3	13.6	14.0	13.9
4	14.9	15.6	15.4
5	15.3	16.2	15.9
6	12.0	13.7	13.1
7	9.2	9.1	9.1
8	6.4	6.0	6.2
9+	10.7	7.4	8.5
Total	100.0	100.0	100.0
Mean size of households	5.0	4.8	4.9
Percentage of households with orphans[1] and foster children[2] under 18			
Foster children	35.3	28.0	30.6
Double orphans	9.8	4.9	6.6
Single orphans	21.9	14.7	17.2
Foster and/or orphan children	43.4	32.4	36.3
Number of households	2,479	4,685	7,164

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

[1] An orphan is a child under age 18 who has lost either one or both parents.

[2] Foster children are those under age 18 living in households with neither their mother nor their father present.

2.3 EDUCATION OF THE HOUSEHOLD POPULATION

Education is a key determinant of the lifestyle and societal status an individual enjoys. Studies have consistently shown that educational attainment has a strong effect on health behaviours and attitudes. Results from the 2007 ZDHS can be used to look at educational attainment among household members and school attendance, repetition, and drop-out rates among youth.

For the purposes of the analysis presented below, the official age for entry into the primary level is six years old. Formal education in Zambia is based on a three-tier system: primary education consisting of 7 years, junior secondary school consisting of 2 years, and senior secondary school consisting of 3 years. Upon completion of secondary school, one may choose to further his or her education by either going to university for 4 to 7 years, depending on the field of study, and obtain a degree, or by attending a vocational or technical institute for a 2- to 3-year certificate/diploma course.

2.3.1 Educational Attainment

Tables 2.3.1 and 2.3.2 show data on educational attainment for female and male household members age six and older. Results from both tables indicate that, overall, more females than males have no education (20 percent contrasted to 14 percent, respectively). More than four in ten males (45 percent) and females (47 percent) have some primary education. The proportion of men completing the primary level of education is 13 percent, compared with 12 percent of women. Six percent of men have completed the secondary level of education, compared with 3 percent of women.

There are urban-rural differences in educational attainment. Eleven percent of males in urban areas and 2 percent in rural areas have completed the secondary level, compared with 7 percent of females in urban areas and 1 percent in rural areas. Twenty-seven percent of females and 18 percent of males in rural areas have no education. In urban areas, 9 percent of females and 6 percent of males have no education. Results from past ZDHS surveys indicate that the proportion of children age 10-14 not attending school has decreased slightly over the past five years. In 1992, 11 percent of boys and girls age 10-14 had never attended school; in 1996, 13 percent of males and 12 percent of females in this age group had never attended school; and in 2001-2002, 14 percent of males and 15 percent of females age 10-14 had never attended school. However, the 2007 ZDHS has shown an improvement. Only 6 percent of both males and females age 10-14 had never attended school.

Table 2.3.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age six and over by highest level of schooling attended or completed and median grade completed, according to background characteristics, Zambia 2007

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	46.3	53.0	0.1	0.0	0.0	0.0	0.6	100.0	2,364	0.0
10-14	5.7	85.6	4.0	4.6	0.0	0.0	0.2	100.0	2,510	3.0
15-19	4.3	37.2	15.4	38.6	4.0	0.3	0.2	100.0	1,622	6.5
20-24	10.4	32.5	16.5	23.5	12.1	4.9	0.2	100.0	1,456	6.4
25-29	9.4	33.6	20.6	22.5	5.3	8.2	0.3	100.0	1,398	6.3
30-34	13.2	37.1	20.0	20.1	3.9	5.6	0.2	100.0	1,081	6.0
35-39	13.2	35.3	26.3	14.8	3.0	6.8	0.5	100.0	770	6.0
40-44	17.2	32.0	26.2	15.3	2.7	6.5	0.0	100.0	582	6.0
45-49	19.4	35.5	22.0	13.3	1.0	8.0	0.9	100.0	482	5.3
50-54	22.4	34.5	20.4	12.4	2.1	6.8	1.3	100.0	433	4.9
55-59	40.3	36.3	9.5	7.4	1.1	3.4	1.9	100.0	371	1.8
60-64	52.5	38.1	5.9	1.6	0.1	0.3	1.5	100.0	258	0.0
65+	66.9	24.6	2.8	0.7	0.6	0.6	3.8	100.0	582	0.0
Residence										
Urban	9.2	37.8	13.5	25.0	6.6	7.4	0.6	100.0	5,225	6.2
Rural	26.7	52.1	11.6	7.7	0.8	0.5	0.6	100.0	8,688	2.4
Province										
Central	18.4	47.5	14.5	14.8	2.3	1.8	0.7	100.0	1,329	3.8
Copperbelt	9.9	41.4	14.3	22.3	5.2	6.5	0.4	100.0	2,313	5.8
Eastern	30.8	49.7	9.7	6.5	1.6	0.9	0.8	100.0	2,043	1.9
Luapula	24.9	53.8	10.3	8.9	1.3	0.8	0.1	100.0	1,085	2.8
Lusaka	10.5	39.6	12.3	22.8	5.8	8.4	0.5	100.0	2,008	5.9
Northern	24.3	52.9	11.4	8.6	1.8	0.4	0.7	100.0	1,963	2.8
North-Western	23.8	56.2	7.5	9.0	1.7	0.6	1.2	100.0	753	2.2
Southern	17.3	43.1	17.8	16.5	2.7	2.2	0.5	100.0	1,383	4.4
Western	31.3	44.5	10.3	10.7	1.7	1.2	0.4	100.0	1,035	2.1
Wealth quintile										
Lowest	29.4	55.8	9.8	4.1	0.3	0.1	0.6	100.0	2,608	1.7
Second	31.5	50.3	11.1	6.0	0.3	0.0	0.7	100.0	2,758	1.9
Middle	23.7	53.2	12.8	9.1	0.6	0.2	0.4	100.0	2,729	2.9
Fourth	12.3	44.6	16.1	21.7	3.5	1.3	0.6	100.0	2,765	5.1
Highest	5.9	31.9	11.8	27.9	9.5	12.6	0.5	100.0	3,052	6.9
Total	20.1	46.7	12.3	14.2	3.0	3.1	0.6	100.0	13,913	3.7

[1] Completed 7th year at the primary level
[2] Completed 12th year at the secondary level

At the provincial level, Eastern province has the highest proportion of the population with no education: 31 percent of females and 21 percent of males. Copperbelt has the smallest proportion of uneducated people (10 percent od females and 6 percent of males). Lusaka has the highest proportion who completed more than a secondary education for both females and males (8 percent for females and 12 percent for males). As expected, educational attainment is positively related to household wealth status. Females and males in the highest wealth quintiles are more likely to be educated than those in the lowest wealth quintiles.

Table 2.3.2 Educational attainment of the male household population

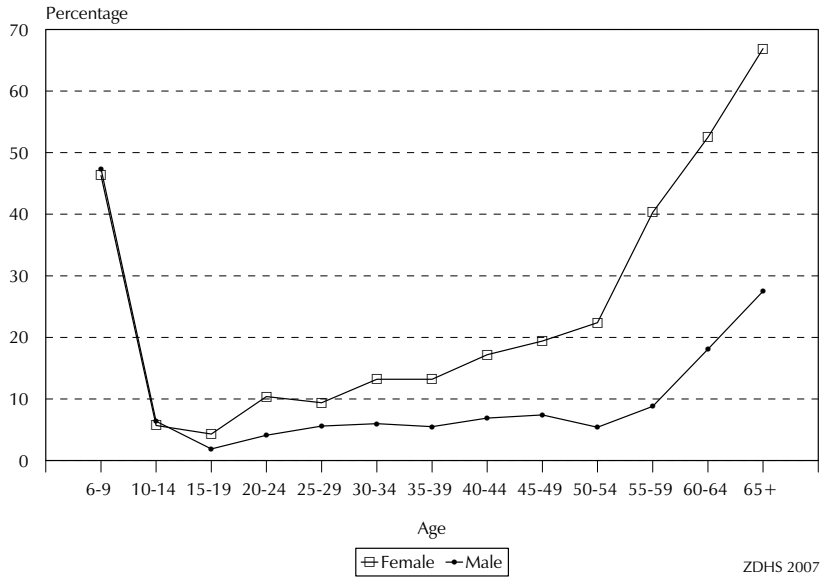
Percent distribution of the de facto male household population age six and over by highest level of schooling attended or completed and median grade completed, according to background characteristics, Zambia 2007

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	47.4	52.1	0.0	0.0	0.0	0.0	0.5	100.0	2,123	0.0
10-14	6.4	87.6	3.5	2.5	0.0	0.0	0.1	100.0	2,596	2.8
15-19	1.9	39.0	14.4	40.9	3.3	0.4	0.2	100.0	1,531	6.5
20-24	4.1	25.5	16.6	32.7	16.1	4.9	0.2	100.0	1,186	7.4
25-29	5.6	22.0	20.8	26.2	16.5	8.4	0.4	100.0	1,103	7.1
30-34	6.0	23.6	21.5	28.0	9.7	10.9	0.2	100.0	1,071	6.9
35-39	5.5	26.2	21.1	26.3	9.2	11.3	0.4	100.0	817	6.8
40-44	6.9	24.3	23.3	23.9	10.0	11.3	0.3	100.0	520	6.8
45-49	7.4	20.8	29.4	23.5	6.1	12.2	0.6	100.0	431	6.7
50-54	5.4	18.2	25.1	30.5	3.8	16.0	0.9	100.0	331	7.3
55-59	8.8	25.6	17.7	25.2	2.9	19.6	0.2	100.0	230	6.9
60-64	18.1	41.1	14.2	14.4	3.7	7.9	0.6	100.0	259	4.4
65+	27.5	45.5	13.1	8.3	1.2	2.9	1.5	100.0	555	3.1
Residence										
Urban	6.3	34.4	10.9	26.6	10.9	10.5	0.5	100.0	4,859	6.7
Rural	18.0	50.8	13.8	13.4	2.4	1.3	0.2	100.0	7,897	3.6
Province										
Central	12.1	47.0	15.0	17.2	5.5	2.9	0.3	100.0	1,252	4.7
Copperbelt	6.3	36.8	12.0	24.5	10.6	9.3	0.5	100.0	2,168	6.5
Eastern	21.2	51.7	11.5	11.1	3.0	1.1	0.3	100.0	1,883	3.0
Luapula	15.9	50.5	15.3	14.0	2.6	1.5	0.1	100.0	993	3.8
Lusaka	8.1	34.8	10.1	25.0	9.3	12.4	0.4	100.0	1,949	6.6
Northern	15.5	48.5	14.0	17.0	3.1	1.8	0.1	100.0	1,715	4.4
North-Western	16.5	50.7	8.7	18.0	3.6	1.8	0.6	100.0	671	3.7
Southern	12.2	45.6	16.8	18.2	4.1	2.7	0.3	100.0	1,351	4.9
Western	23.8	45.5	10.6	14.3	3.2	2.0	0.6	100.0	775	3.0
Wealth quintile										
Lowest	21.3	54.3	13.3	9.9	1.0	0.1	0.2	100.0	2,445	2.9
Second	21.3	51.5	13.4	12.1	1.2	0.2	0.3	100.0	2,343	3.0
Middle	14.4	50.9	15.4	15.6	2.9	0.6	0.3	100.0	2,490	4.1
Fourth	9.3	38.7	14.6	25.9	7.7	3.1	0.6	100.0	2,682	6.1
Highest	3.7	30.1	7.4	26.5	13.8	18.1	0.4	100.0	2,796	8.2
Total	13.6	44.5	12.7	18.4	5.6	4.8	0.4	100.0	12,756	4.8

[1] Completed 7th year at the primary level
[2] Completed 12th year at the secondary level

Figure 2.2 illustrates that the proportion with no education is higher for females than for males in all age groups, apart from the younger age groups 6-9 and 10-14.

Figure 2.2 **Percent Distribution of Household Population with No Education by Sex**



2.3.2 School Attendance Rates

Table 2.4 shows primary school and secondary school net and gross attendance ratios (NAR and GAR) for the school year that started in 2007 by household residence and zones. The NAR for primary school is the percentage of the primary-school-age (6-12 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school-age (13-17 years) population that is attending secondary school. By definition, the NAR cannot exceed 100 percent. The GAR for primary school is the total number of primary school students, of any age, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students, of any age, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent. Youth are considered to be attending school currently if they attended formal academic school at any point during the given school year.

The gender parity index (GPI) assesses sex-related differences in school attendance rates and is calculated by dividing the GAR for females by the GAR for males. A GPI less than 1 indicates a gender disparity in favour of males (i.e., a higher proportion of males than females attends that level of schooling). A GPI greater than 1 indicates a gender disparity in favour of females. A GPI of 1 indicates parity or equality between the rates of participation for males and females.

Table 2.4 shows the NARs and GARs for the de facto household population by sex and level of schooling and the GPI, by background characteristics. Results show that the overall NAR for primary schools is 80 percent, while the GAR is 105 percent. Analysis by rural and urban residences reveals that the NAR is much higher in urban areas (87 percent) than in rural areas (76 percent). Similarly, the GAR is also higher in urban areas than in rural areas (110 and 102 percent, respectively).

At the provincial level, the primary NAR and GAR is highest in the Copperbelt (88 and 113 percent, respectively). Western province has the lowest NAR and GAR with 71 and 93 percent, respectively. In terms of wealth quintile, the NAR is 90 percent for the highest quintile and 73 percent for the lowest quintile. The same trend applies to the GAR at the primary level (112 percent for the highest quintile and 100 percent for the lowest quintile, respectively).

Table 2.4 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and the gender parity index (GPI), according to background characteristics, Zambia 2007

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender Parity Index[3]	Male	Female	Total	Gender Parity Index
PRIMARY SCHOOL								
Residence								
Urban	87.7	86.5	87.1	0.99	110.8	108.8	109.8	0.98
Rural	76.1	76.7	76.4	1.01	105.8	98.3	102.0	0.93
Province								
Central	83.0	83.0	83.0	1.00	108.1	108.7	108.4	1.01
Copperbelt	89.3	86.6	87.9	0.97	114.7	111.9	113.3	0.98
Eastern	73.8	74.5	74.1	1.01	100.4	94.1	97.3	0.94
Luapula	74.0	69.4	71.8	0.94	98.3	89.4	94.1	0.91
Lusaka	85.2	84.8	85.0	0.99	107.8	105.9	106.8	0.98
Northern	74.6	77.1	76.0	1.03	109.8	97.3	103.1	0.89
North-Western	77.3	80.7	79.1	1.04	112.2	108.1	110.1	0.96
Southern	87.7	86.9	87.3	0.99	119.7	104.9	112.6	0.88
Western	67.9	73.2	70.6	1.08	90.9	94.9	93.0	1.04
Wealth quintile								
Lowest	71.5	74.2	72.9	1.04	101.7	97.5	99.6	0.96
Second	74.6	73.5	74.1	0.99	100.3	93.5	97.0	0.93
Middle	79.8	80.0	79.9	1.00	113.0	101.4	107.1	0.90
Fourth	84.8	85.0	84.9	1.00	110.9	107.0	109.0	0.96
Highest	91.2	88.3	89.7	0.97	112.8	110.6	111.7	0.98
Total	80.0	80.1	80.0	1.00	107.5	101.9	104.7	0.95
SECONDARY SCHOOL								
Residence								
Urban	57.8	52.6	55.0	0.91	86.0	70.0	77.4	0.81
Rural	24.2	20.5	22.4	0.85	40.9	24.2	32.7	0.59
Province								
Central	36.2	32.8	34.4	0.91	56.2	38.3	46.9	0.68
Copperbelt	55.3	53.1	54.1	0.96	81.0	70.5	75.3	0.87
Eastern	20.1	20.8	20.4	1.04	37.7	25.2	31.4	0.67
Luapula	30.2	19.4	24.8	0.64	48.5	28.7	38.6	0.59
Lusaka	52.7	45.6	48.9	0.86	74.8	58.2	66.0	0.78
Northern	29.2	22.8	26.2	0.78	50.4	32.9	42.2	0.65
North-Western	31.1	23.3	27.0	0.75	57.3	30.5	43.2	0.53
Southern	37.0	41.9	39.3	1.13	54.3	48.6	51.7	0.89
Western	28.7	26.4	27.3	0.92	56.4	32.8	42.6	0.58
Wealth quintile								
Lowest	14.2	5.4	9.8	0.38	28.7	7.2	18.0	0.25
Second	20.3	19.2	19.7	0.95	37.6	22.8	30.0	0.61
Middle	25.3	22.2	23.9	0.88	42.2	27.9	35.6	0.66
Fourth	43.6	40.7	42.1	0.93	68.6	51.6	59.5	0.75
Highest	69.0	63.1	65.9	0.91	98.1	82.8	89.9	0.84
Total	38.2	35.4	36.8	0.93	59.7	45.5	52.4	0.76

[1] The NAR for primary school is the percentage of the primary-school-age (7-13 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school-age (14-18 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.
[2] The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.
[3] The Gender Parity Index for primary school is the ratio of the primary school NAR(GAR) for females to the NAR(GAR) for males. The Gender Parity Index for secondary school is the ratio of the secondary school NAR(GAR) for females to the NAR(GAR) for males.

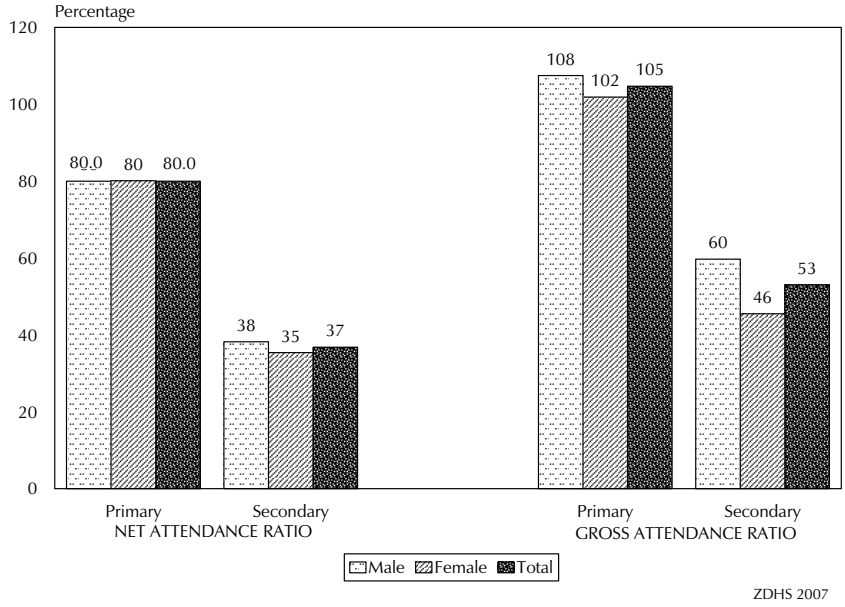
The NAR at the secondary school level is 37 percent, while the GAR is 52 percent. This is an indication that fewer people attend secondary school than primary school. The rural and urban ratios follow the national pattern; however, the ratios are much higher in urban areas than in rural areas.

Copperbelt has the highest NAR (54 percent) while Eastern province has the lowest (20 percent). The same provinces have the highest and lowest GAR (75 percent for Copperbelt and 31 percent for Eastern).

Like primary school ratios, the NAR and GAR are higher in the highest wealth quintile (66 and 90 percent, respectively) and lower in the lowest wealth quintile (10 and 18 percent, respectively).

Figure 2.3 illustrates net and gross attendance ratios by sex. There are no marked differences in the NAR between males and females at the primary school level, but at the secondary school level slight differences can be observed. In terms of gross ratios, differences are noted between males and females, with males having higher ratios in both cases.

Figure 2.3 **Net and Gross Attendance Ratios by Sex**



2.3.3 Grade Repetition and Dropout Rates

Repetition rates and dropout rates shown in Table 2.5 describe the flow of pupils through the educational system in Zambia at the primary level. The repetition rates indicate the percentage of pupils who attended a particular grade during the school year that started in 2006 who again attended that same class during the following school year. The dropout rates show the percentage of pupils in a grade during the school year that started in 2006 who no longer attended school the following school year.

Table 2.5 shows that, overall, repetition and dropping out of school in Zambia is highest at grade seven (5 percent). There are no differences in repetition rates between rural and urban areas at the seventh grade level. However, in terms of sex, the repetition rates are higher among males (7 percent) than among females (3 percent) at the same level. Provincial differentials indicate that repetition rates are generally higher in Copperbelt and Southern provinces and lower in Luapula, Eastern, and Western provinces for primary school grades 1-7.

Table 2.5 Grade repetition and dropout rates

Repetition and dropout rates for the de facto household population age 5-24 who attended primary school in the previous school year by school grade, according to background characteristics, Zambia 2007

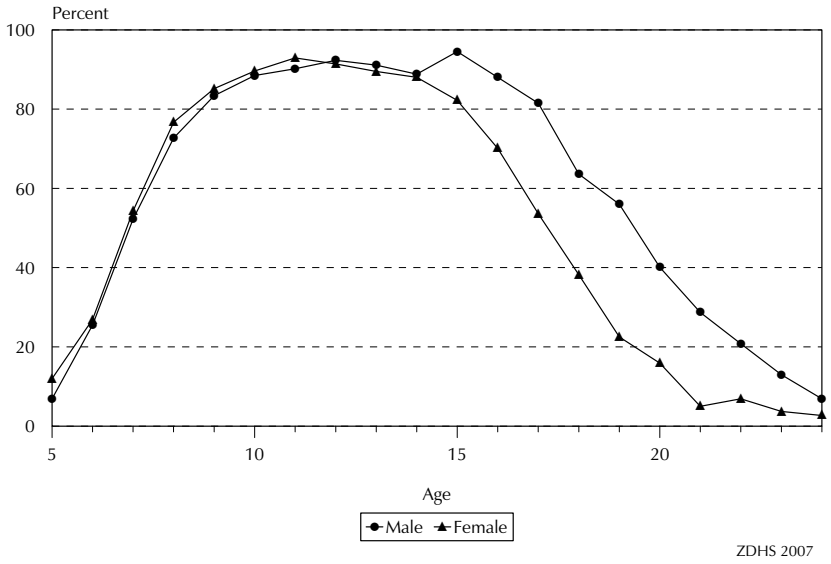
Background characteristic	School grade						
	1	2	3	4	5	6	7
REPETITION RATE[1]							
Sex							
Male	3.1	4.3	2.4	2.0	1.8	1.7	6.9
Female	2.0	3.1	2.1	1.8	3.3	1.4	3.3
Residence							
Urban	1.0	3.1	3.1	1.6	3.4	1.4	5.3
Rural	3.2	3.9	1.8	2.2	2.0	1.8	5.3
Province							
Central	4.8	4.1	1.1	2.2	1.5	2.7	2.8
Copperbelt	0.5	6.1	1.8	1.9	6.0	1.8	10.9
Eastern	3.9	6.4	2.1	1.8	3.0	3.9	0.6
Luapula	0.0	1.1	0.0	0.0	0.0	0.0	0.8
Lusaka	2.0	0.4	5.0	1.2	1.5	1.2	2.8
Northern	3.4	2.7	2.2	5.8	3.6	0.0	6.3
North-Western	4.3	3.3	2.3	2.1	1.3	0.0	2.7
Southern	2.9	4.7	3.5	0.8	1.9	3.1	10.3
Western	0.0	0.0	1.2	0.0	0.0	0.0	1.0
Wealth quintile							
Lowest	6.2	2.5	1.7	3.1	0.0	2.1	7.9
Second	2.0	4.6	1.2	0.7	1.8	0.0	3.2
Middle	0.8	4.4	1.9	1.9	2.5	3.4	5.4
Fourth	1.8	3.3	2.0	2.4	4.0	0.2	6.8
Highest	1.1	3.6	4.3	1.6	3.6	2.0	4.4
Total	2.5	3.7	2.3	1.9	2.5	1.6	5.3
DROPOUT RATE[2]							
Sex							
Male	1.5	1.7	1.8	2.9	1.2	2.7	9.8
Female	1.7	1.6	1.6	1.4	3.9	5.5	13.4
Residence							
Urban	1.4	2.0	1.8	1.3	1.4	3.8	11.0
Rural	1.7	1.6	1.7	2.7	3.2	4.2	11.8
Province							
Central	2.9	1.0	0.0	0.0	2.7	5.6	13.9
Copperbelt	3.3	1.4	2.6	1.4	0.6	4.4	7.3
Eastern	0.7	2.7	3.7	4.2	3.6	8.9	14.5
Luapula	1.8	2.6	1.0	2.3	1.5	0.0	13.6
Lusaka	1.1	3.3	2.7	3.0	2.7	4.5	16.6
Northern	1.7	0.0	0.9	1.7	3.0	2.1	6.1
North-Western	0.0	2.4	1.3	3.2	5.1	4.1	8.4
Southern	2.2	0.0	0.0	0.8	0.0	1.0	10.8
Western	0.0	2.8	1.2	1.7	6.9	4.5	11.6
Wealth quintile							
Lowest	1.7	1.6	1.9	4.8	3.8	8.0	17.9
Second	1.4	1.6	1.9	0.4	6.3	1.7	9.8
Middle	2.1	1.4	0.7	3.3	1.9	4.2	10.8
Fourth	2.2	2.6	4.3	1.9	1.5	5.9	16.8
Highest	0.7	1.2	0.0	0.6	0.0	1.5	7.0
Total	1.6	1.7	1.7	2.1	2.5	4.0	11.4

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

The patterns for dropout rates are similar to those of repetition rates. Dropout rates are highest in the seventh grade (1 percent) and lowest in the first grade (2 percent). Dropout rates at grade seven are higher among females (13 percent) than among males (10 percent). In terms of residence, dropout rates at grade seven are similar in rural (12 percent) and urban areas (11 percent). The table also shows that dropout rates at grade seven are highest among respondents in the lowest wealth quintile (18 percent) and lowest among respondents in the highest wealth quintile (7 percent).

Figure 2.4 shows the age-specific attendance rates for the male and female de facto population age 5 to 24. The figure shows that there are no marked differences in the attendance rates between males and females from age 5 to 14; however, after age 14 attendance rates for males are much higher than those for females at all ages.

Figure 2.4 **Age-Specific Attendance Rates of the De Facto Population Age 5 to 24 by Sex**



2.4 HOUSEHOLD ENVIRONMENT

The physical characteristics of a household dwelling are important determinants of socio-economic and health status. The 2007 ZDHS respondents were asked a number of questions about their household environment, including questions on the source of drinking water; type of sanitation facility; type of flooring, walls, and roof; and number of rooms in the dwelling. The results are presented both in terms of households and the de jure population.

2.4.1 Drinking Water

Increasing access to improved drinking water is one of the Millennium Development Goals that Zambia and other nations worldwide have adopted (United Nations General Assembly, 2001). Table 2.6 includes a number of indicators that are useful in monitoring household access to improved drinking water (WHO and UNICEF, 2005). The source of drinking water is an indicator of whether it is suitable for drinking. Sources that are likely to provide water suitable for drinking are identified as improved sources in Table 2.6. They include a piped source within the dwelling or plot, public tap, tube well or borehole, and protected well or spring.[1] Lack of ready access to water may limit the quantity of suitable drinking water that is available to a household, even if the water is obtained from an improved source. Water that must be fetched from a source that is not immediately accessible to the household may be contaminated during transport or storage. Another factor in considering the accessibility of water sources is that the burden of fetching water often falls disproportionately on female members of the household. Finally, home water treatment can be effective in improving the quality of household drinking water.

[1] The categorization into improved and non-improved follows that proposed by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (WHO and UNICEF, 2004).

Table 2.6 Household drinking water

Percent distribution of households and de jure population by characteristics of source of drinking water, and percentage using an appropriate method to treat drinking water, according to residence, Zambia 2007

Characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source	82.2	19.2	41.0	82.0	19.6	41.8
Piped water into dwelling/yard/plot	39.7	1.4	14.7	42.5	1.3	16.0
Public tap/standpipe	36.9	1.9	14.0	33.8	1.8	13.2
Protected dug well	5.6	15.9	12.3	5.7	16.4	12.6
Non-improved source	13.7	78.0	55.8	14.0	77.7	55.0
Unprotected dug well	12.6	46.8	35.0	13.1	46.9	34.9
Tanker truck/cart with small tank	0.0	0.0	0.0	0.0	0.0	0.0
Surface water	1.1	31.1	20.7	1.0	30.7	20.1
Bottled water, improved source for cooking/washing[1]	0.3	0.0	0.1	0.2	0.0	0.1
Other	3.8	2.8	3.2	3.8	2.8	3.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using any improved source of drinking water	82.5	19.2	41.1	82.2	19.6	41.9
Time to obtain drinking water (round trip)						
Water on premises	48.9	8.1	22.2	51.9	8.4	23.9
Less than 30 minutes	42.1	60.8	54.3	39.3	60.1	52.7
30 minutes or longer	8.4	30.0	22.5	8.3	30.5	22.6
Don't know/missing	0.6	1.2	1.0	0.5	1.0	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Person who usually collects drinking water						
Adult female 15+	37.3	81.3	66.1	36.5	83.4	66.7
Adult male 15+	9.0	6.3	7.2	6.0	3.3	4.3
Female child under age 15	3.3	2.9	3.0	3.8	3.5	3.6
Male child under age 15	1.3	1.1	1.1	1.5	1.1	1.2
Other	0.2	0.4	0.3	0.3	0.2	0.3
Water on premises	48.8	8.0	22.1	51.8	8.4	23.9
Missing	0.1	0.1	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking[2]						
Boiled	26.5	9.3	15.2	28.5	9.4	16.2
Bleach/chlorine/Clorin	43.5	18.6	27.2	44.5	20.2	28.9
Strained through cloth	0.1	0.1	0.1	0.2	0.2	0.2
Ceramic, sand or other filter	0.1	0.0	0.1	0.0	0.0	0.0
Solar disinfection	0.0	0.1	0.1	0.0	0.1	0.0
Other	0.4	1.0	0.8	0.4	1.0	0.8
No treatment	44.9	75.9	65.1	42.7	74.6	63.2
Percentage using an appropriate treatment method [3]	54.8	23.2	34.2	57.0	24.5	36.1
Method for storing water						
Closed container/jerry can	91.3	89.1	89.9	90.9	89.0	89.7
Open container/bucket	7.7	8.9	8.5	8.0	9.1	8.7
Other	1.0	1.7	1.5	1.1	1.6	1.4
Missing	0.1	0.2	0.2	0.1	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,479	4,685	7,164	12,457	22,523	34,980

[1] Because the quality of bottled water is not known, households using bottled water for drinking are classified as using an improved or non-improved source according to their water source for cooking and washing.
[2] Respondents may report multiple treatment methods so the sum of treatment may exceed 100 percent.
[3] Appropriate water treatment methods include boiling, bleaching, straining, filtering, and solar disinfecting.

The table shows that only 41 percent of the households have access to improved sources of water. Households in urban areas are more likely to have access to improved sources of water than those in rural areas (83 percent compared with 19 percent). More than half of the households (56 percent) draw their water from an unimproved source. Almost half of the households in urban areas (49 percent) have water on their premises, while about one in every ten households (8 percent) in rural areas have water on their premises. Overall, 23 percent of the households take 30 or more minutes to obtain water; 8 percent in urban areas compared with 30 percent in the rural areas.

It can also be observed that adult females collect drinking water more often than adult males (66 and 7 percent, respectively). Results also show that both male and female children below age 15 are involved in collecting drinking water. Most of the households (65 percent) do not treat their water, while only 34 percent use an appropriate method to treat their water. Bleach, chlorine or Clorin use and boiling are the most common methods used by households for water treatment (27 and 15 percent, respectively).

Treating drinking water with Clorin, a locally produced solution of 0.5% sodium hypochlorite, is promoted throughout Zambia to make the water safer to drink. Table 2.7 shows that 91 percent of Zambians have heard of Clorin. The sources of where Clorin messages are heard differ by urban and rural residence. Forty percent of respondents living in urban areas have heard Clorin messages on the radio, compared with only 17 percent in rural areas. Respondents living in rural areas are informed of Clorin primarily at health facilities (38 percent). Overall, 13 percent of respondents use Clorin, of which 24 percent are in urban areas and 8 percent are in rural areas.

Table 2.7 Knowledge and use of Clorin

Percent distribution of households by knowledge of Clorin, source of information about Clorin, and current use of Clorin, according to residence, Zambia 2007

Characteristic	Residence		Total
	Urban	Rural	
Ever heard about/saw Clorin			
Yes	97.8	86.6	90.5
No	2.2	13.3	9.5
Missing	0.0	0.0	0.0
Total	100.0	100.0	100.0
Source where heard/saw messages about Clorin[1]			
Radio	40.0	17.2	25.1
Television	32.0	2.7	12.8
Shop	25.0	17.4	20.1
Leaflets/booklets	3.9	0.8	1.9
Poster	3.2	0.8	1.6
Community-based agent	34.2	32.0	32.7
Health facility	30.5	37.7	35.2
Other	9.1	8.1	8.4
Never heard or saw messages/no source mentioned/missing	2.2	13.4	9.5
Currently using Clorin			
Yes	23.6	7.7	13.2
No	74.0	89.9	84.4
Missing	2.4	2.4	2.4
Total	100.0	100.0	100.0
Number	2,479	4,685	7,164

[1] Respondents may report multiple information sources so the sum of sources may exceed 100 percent.

2.4.2 Household Sanitation Facilities

Ensuring adequate sanitation facilities is another of the Millennium Development Goals that Zambia shares with other countries. A household is classified as having an improved toilet if the toilet is used only by members of one household (i.e., it is not shared) and if the facility used by the household separates the waste from human contact (WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2004).

Table 2.8 shows that almost four in ten households in Zambia (39 percent) use pit latrines that are open or have no slab: 27 percent in urban areas and 45 percent in rural areas. Flush toilets are mainly found in urban areas and are used by 26 percent of households, compared with 1 percent in rural areas. Overall, 25 percent of households in Zambia have no toilet facilities. This problem is more common in rural areas (37 percent) than in urban areas (2 percent).

Table 2.8 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Zambia 2007

Type of toilet/latrine facility	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Improved, not shared facility	**36.9**	**11.4**	**20.2**	**43.7**	**12.9**	**23.9**
Flush/pour flush to piped sewer system	19.2	0.2	6.8	22.6	0.3	8.2
Flush/pour flush to septic tank	6.5	0.4	2.5	7.5	0.5	3.0
Flush/pour flush to pit latrine	0.4	0.1	0.2	0.5	0.1	0.3
Ventilated improved pit (VIP) latrine	3.1	5.4	4.6	3.9	5.9	5.2
Pit latrine with slab	7.6	5.3	6.1	9.1	6.1	7.2
Composting toilet	0.1	0.0	0.0	0.1	0.0	0.0
Non-improved facility	**63.2**	**88.6**	**79.8**	**56.2**	**87.1**	**76.1**
Any facility shared with other households	32.8	5.8	15.1	27.8	5.5	13.4
Flush/pour flush not to sewer/septic tank/pit latrine	0.4	0.0	0.1	0.3	0.0	0.1
Pit latrine without slab/open pit	27.0	44.5	38.5	25.9	45.4	38.5
Hanging toilet/hanging latrine	0.0	0.1	0.1	0.0	0.1	0.0
No facility/bush/field	2.4	37.3	25.2	1.8	35.4	23.5
Other	0.5	0.8	0.7	0.3	0.7	0.5
Missing	0.1	0.1	0.1	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,479	4,685	7,164	12,457	22,523	34,980

2.4.3 Housing Characteristics

Table 2.9 presents information on a number of household dwelling characteristics. These characteristics reflect the household's socio-economic situation. They also may influence environmental conditions—for example, in the case of the use of biomass fuels, exposure to indoor pollution—that have a direct bearing on household members' health and welfare.

The proportion of households with electricity in Zambia is 19 percent. There are more households with electricity in urban areas (48 percent) than in rural areas (3 percent). Figure 2.5 shows that there has been a slight improvement in electrification during the past 15 years. Overall, less than one in every five households has electricity. In urban areas, there has been a continuous improvement in electrification from 39 percent in 1992 to 48 percent in 2007.

Earth/sand is the most common material used for floors, with six in every ten households having floors made of earth/sand. The percentages are higher in rural areas where more than eight in ten households (86 percent) have floors made out of earth/sand, compared with 16 percent in urban areas. Cement is the second most common flooring material (35 percent). Almost half of the households in Zambia (47 percent) live in housing units with only one bedroom, while less than one in five households (17 percent) live in housing units with three or more bedrooms.

About four in ten households (41 percent) cook outdoors, while slightly over a quarter (27 percent) cook in their dwelling. The percentage of households that cook in their dwelling is much higher in urban areas (63 percent) than in rural areas (8 percent). Wood is the most common fuel used for cooking, reported by 60 percent of households. Wood is more commonly used in rural areas (88 percent) than in urban areas (8 percent). In urban areas, charcoal is more commonly used than in rural areas (53 and 10 percent, respectively).

Table 2.9 Household characteristics

Percent distribution of households and de jure population by housing characteristics and percentage using solid fuel for cooking; and among those using solid fuels, percent distribution by type of fire/stove, according to residence, Zambia 2007

Housing characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Electricity						
Yes	47.8	3.0	18.5	52.1	3.3	20.7
No	52.2	97.0	81.5	47.9	96.7	79.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Flooring material						
Earth, sand	15.5	85.5	61.3	14.3	84.2	59.3
Dung	1.5	2.0	1.8	1.2	1.9	1.7
Palm/bamboo	0.0	0.0	0.0	0.0	0.0	0.0
Parquet or polished wood	0.3	0.0	0.1	0.4	0.0	0.1
Vinyl or asphalt strips	0.9	0.0	0.4	1.1	0.0	0.4
Ceramic tiles	2.6	0.1	1.0	2.9	0.1	1.1
Cement	78.0	12.4	35.1	79.1	13.7	37.0
Carpet	0.8	0.0	0.3	0.9	0.0	0.3
Other	0.2	0.0	0.1	0.2	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Main roof material						
No roof	0.1	0.6	0.4	0.0	0.6	0.4
Thatch/palm leaf	8.2	83.5	57.4	7.2	82.2	55.5
Rustic mat	0.0	0.0	0.0	0.0	0.0	0.0
Palm/bamboo	0.0	0.0	0.0	0.0	0.0	0.0
Metal/Iron Sheets	41.4	13.1	22.9	40.1	14.0	23.3
Wood	0.1	0.1	0.1	0.2	0.2	0.2
Calamine/cement fibre (asbestos)	46.7	2.4	17.7	49.0	2.6	19.1
Ceramic tiles/Harvey tiles	0.7	0.0	0.3	0.9	0.1	0.4
Cement	1.9	0.1	0.7	1.7	0.1	0.7
Roofing shingles	0.1	0.0	0.0	0.0	0.0	0.0
Mud tiles	0.2	0.0	0.1	0.3	0.0	0.1
Other	0.6	0.2	0.3	0.5	0.2	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Main wall material						
No walls	0.0	0.8	0.5	0.0	0.8	0.5
Cane/palm/trunks	0.2	2.5	1.7	0.2	2.3	1.5
Mud	7.4	33.7	24.6	6.7	33.3	23.8
Bamboo/pole with mud	0.6	9.8	6.7	0.5	8.5	5.7
Stone with mud	1.2	0.9	1.0	0.9	0.9	0.9
Plywood	0.1	0.0	0.0	0.1	0.0	0.1
Cardboard	0.0	0.0	0.0	0.0	0.0	0.0
Reused wood	0.0	0.0	0.0	0.0	0.1	0.0
Cement	22.8	2.2	9.3	24.5	2.3	10.2
Stone with lime/cement	9.9	0.5	3.8	10.0	0.6	4.0
Bricks	26.2	46.1	39.2	26.2	47.9	40.2
Cement blocks	30.8	2.4	12.2	30.2	2.6	12.4
Wood planks/shingles	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.7	1.0	0.8	0.5	0.8	0.7
Missing	0.1	0.0	0.1	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Rooms used for sleeping						
One	34.3	54.0	47.2	22.3	45.3	37.1
Two	37.9	33.6	35.1	38.7	37.3	37.8
Three or more	26.9	11.6	16.9	38.0	16.6	24.2
Missing	0.9	0.7	0.8	0.9	0.8	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Continued…

Table 2.9—*Continued*

Housing characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Place for cooking						
In the house	63.1	7.6	26.8	64.4	6.9	27.4
Has separate kitchen	39.9	5.7	17.5	45.4	5.4	19.6
No separate kitchen	21.5	1.8	8.6	17.3	1.4	7.0
Missing	1.8	0.2	0.8	1.8	0.2	0.8
In a separate building	5.0	45.7	31.6	5.7	48.0	32.9
Outdoors	31.7	45.7	40.9	29.6	44.0	38.9
Other	0.1	0.9	0.7	0.2	1.1	0.8
Missing	0.0	0.0	0.0	0.1	0.0	0.0
Total	163.1	107.6	126.8	164.4	106.9	127.4
Cooking fuel						
Electricity	38.5	1.8	14.5	41.2	1.8	15.8
LPG/natural gas/biogas	0.0	0.0	0.0	0.0	0.0	0.0
Kerosene	0.0	0.0	0.0	0.0	0.0	0.0
Coal/lignite	0.6	0.0	0.2	0.5	0.0	0.2
Charcoal	53.1	10.2	25.0	50.7	10.0	24.5
Wood	7.5	87.8	60.0	7.5	88.1	59.4
Straw/shrubs/grass	0.0	0.1	0.1	0.0	0.1	0.1
Agricultural crop	0.0	0.0	0.0	0.0	0.0	0.0
No food cooked in household	0.2	0.1	0.1	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using solid fuel for cooking [1]	61.3	98.2	85.4	58.7	98.2	84.1
Number of households	2,479	4,685	7,164	12,457	22,523	34,980
Type of fire/stove among households using solid fuel						
Closed stove with chimney	0.1	0.0	0.0	0.1	0.0	0.0
Open fire/stove with chimney	0.2	0.2	0.2	0.2	0.2	0.2
Open fire/stove with hood	0.4	0.1	0.2	0.5	0.1	0.2
Open fire/stove without chimney or hood	98.7	99.2	99.1	98.5	99.1	99.0
Missing	0.6	0.4	0.4	0.6	0.5	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/population using solid fuel	1,518	4,599	6,117	7,311	22,119	29,430

LPG = Liquid petroleum gas
[1] Includes coal/lignite, charcoal, wood/straw/shrubs/grass, agricultural crops, and animal dung

The percentage of households using solid fuel is quite high (85 percent)—98 percent of household in rural areas and 61 percent of households in urban areas. Among the households that reported use of solid fuel for cooking, almost all (99 percent) were using an open fire/stove without a chimney or hood.

2.5 HOUSEHOLD POSSESSIONS

The availability of durable consumer goods is a good indicator of a household's socio-economic status. Moreover, particular goods have specific benefits. For instance, having access to a radio or a television exposes household members to innovative ideas; a refrigerator prolongs food storage; and a means of transport allows greater access to many services away from the local area.

Table 2.10 shows the availability of selected consumer goods by residence; 58 percent of households own a radio, (71 percent in urban areas and 50 percent in rural areas) and 24 percent own a television (57 percent in urban areas and 7 percent in rural areas). A mobile telephone is owned by 28 percent of the households (62 percent in urban areas and 10 percent in rural areas). Thirteen percent of households own a refrigerator. Televisions, refrigerators, and telephones or cell phones are predominantly in urban areas, presumably because of the lack of electricity and/or financial resources in rural areas.

Table 2.10 Household possessions goods

Percentage of households and de jure population possessing various household effects, and means of transportation, agricultural land and livestock/farm animals, by residence, Zambia 2007

	Households			Population		
Possession	Urban	Rural	Total	Urban	Rural	Total
Household effects						
Radio	71.1	50.3	57.5	75.0	54.7	61.9
Television	56.7	7.3	24.4	63.9	8.8	28.4
Mobile telephone	61.7	10.2	28.0	67.9	12.0	31.9
Non-mobile telephone	5.9	0.2	2.1	6.4	0.2	2.4
Refrigerator	32.9	1.7	12.5	38.6	1.9	15.0
Bed	89.4	54.3	66.4	92.3	57.1	69.6
Chair	71.7	44.9	54.2	76.9	48.9	58.9
Table	80.1	43.0	55.8	85.0	47.4	60.8
Cupboard	61.5	15.3	31.3	67.2	17.6	35.3
Sofa	59.9	10.1	27.3	67.1	11.7	31.4
Clock	57.3	11.1	27.1	62.8	12.7	30.5
Fan	26.4	1.3	10.0	30.5	1.3	11.7
Sewing machine	12.9	4.6	7.5	15.8	5.4	9.1
Cassette player	46.2	18.3	27.9	50.3	21.1	31.5
Plough	2.5	13.7	9.8	2.9	16.2	11.5
Grain grinder	2.3	1.5	1.7	2.7	1.9	2.2
VCR/DVD	29.9	2.0	11.7	34.4	2.1	13.6
Tractor	0.5	0.3	0.4	0.5	0.3	0.4
Hammer mill	0.4	0.9	0.7	0.5	1.3	1.1
Watch	51.2	31.7	38.5	55.1	35.4	42.4
Means of transport						
Bicycle	27.1	47.8	40.6	31.5	54.1	46.0
Animal drawn cart	0.5	5.7	3.9	0.8	7.0	4.8
Motorcycle/scooter	0.4	0.4	0.4	0.5	0.4	0.5
Car/truck	6.5	0.6	2.7	7.9	0.8	3.3
Boat with a motor	0.2	0.1	0.1	0.2	0.1	0.1
Banana boat	0.3	3.8	2.6	0.3	4.2	2.8
Ownership of agricultural land	27.4	88.3	67.2	30.7	89.7	68.7
Ownership of farm animals[1]	19.7	72.3	54.1	23.5	77.9	58.5
Ownership of bank/savings account[2]	31.1	4.2	13.5	35.6	4.9	15.8
Number	2,479	4,685	7,164	12,457	22,523	34,980

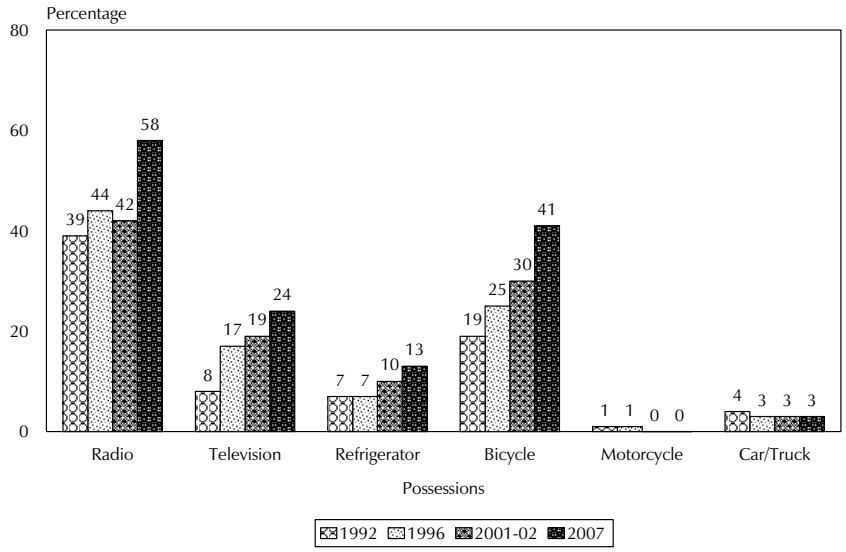
[1] Includes livestock and poultry
[2] At least one household member has an account.

Four in ten households (41 percent) own a bicycle (27 percent in urban areas and 48 percent in rural areas), while only 3 percent own a car and less than 1 percent own a motorcycle. Among the household possessions listed above, the bicycle and animal drawn cart are the only possessions that are more common in rural areas than in urban areas.

Agricultural land is owned by 67 percent of households (88 percent in rural areas and 27 percent in urban areas, respectively), whereas farm animals are owned by 54 percent of households (72 percent in rural areas and 20 percent in urban areas).

Figure 2.6 shows that household ownership of a television and bicycle has increased over time, while possession of a car/truck has remained at the same level from 1996 to 2007. There has been an increase in the ownership of a radio from 42 percent in 2002 to 58 percent in 2007.

Figure 2.6 **Trends in Percentage of Households Owning Specific Possessions, Zambia 1992-2007**



2.6 WEALTH INDEX

The wealth index is a background characteristic that is used throughout the report as a proxy for measuring the household's long-term standard of living. It is based on data from the household's ownership of consumer goods; dwelling characteristics; type of drinking water source; toilet facilities; and other characteristics that are related to a household's socio-economic status. To construct the index, each of these assets was assigned a weight (factor score) generated through principal component analysis, and the resulting asset scores were standardized in relation to a standard normal distribution with a mean of zero and standard deviation of one (Gwatkin et al., 2000). Each household was then assigned a score for each asset, and the scores were summed for each household. Individuals were ranked according to the total score of the household in which they resided. The sample was then divided into quintiles from one (lowest) to five (highest). A single asset index was developed on the basis of data from the entire country sample and this index is used in all the tabulations presented.

Table 2.11 shows the distribution of the de jure household population into five wealth levels (quintiles) based on the wealth index by residence and province. The distributions indicate the degree to which wealth is evenly (or unevenly) distributed geographically. The table shows that urban areas have higher proportions of people in the fourth and highest quintiles (40 and 53 percent, respectively) as opposed to rural areas (9 and 2 percent, respectively). On the other hand, rural areas have more people in the lowest and second quintiles (31 percent each) than urban areas, which have less than 1 percent for both categories combined. It also follows that the more urbanized provinces of Lusaka and Copperbelt have high proportions of people in the highest quintiles (58 and 48 percent, respectively) while predominantly rural provinces, apart from Luapula (9 percent), have higher proportions of people in the lowest quintiles. Among the rural provinces, Eastern and Western exhibit the highest proportions of people in the lowest quintile (45 percent for both).

Table 2.11 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, according to residence and province, Zambia 2007

Residence/region	Wealth quintile					Total	Number of population
	Lowest	Second	Middle	Fourth	Highest		
Residence							
Urban	0.1	0.5	5.8	40.3	53.4	100.0	12,457
Rural	31.0	30.8	27.9	8.8	1.5	100.0	22,523
Province							
Central	17.6	24.1	27.9	21.5	8.9	100.0	3,450
Copperbelt	3.4	4.9	7.8	35.8	48.1	100.0	5,676
Eastern	44.8	23.8	15.8	12.5	3.0	100.0	5,216
Luapula	8.8	32.1	43.0	12.0	4.1	100.0	2,811
Lusaka	1.6	2.0	5.5	33.5	57.5	100.0	4,817
Northern	24.7	31.8	27.4	9.8	6.3	100.0	5,044
North-Western	21.7	37.3	28.2	9.9	2.8	100.0	2,023
Southern	21.9	14.8	29.0	22.0	12.3	100.0	3,610
Western	45.2	32.3	12.6	5.7	4.2	100.0	2,333
Total	20.0	20.0	20.0	20.0	20.0	100.0	34,980

2.7 BIRTH REGISTRATION

Birth registration is the formal inscription of the facts of a birth into an official log kept at the registrar's office. A birth certificate is issued at the time of registration or later as proof of the registration of the birth. Birth registration is basic to ensuring a child's legal status and, thus, basic rights and services (UNICEF, 2006; United Nations General Assembly, 2002).

Table 2.12 shows the percentage of children under five years of age whose births were officially registered and the percentage who had a birth certificate at the time of the survey. Not all children who are registered have a birth certificate because some certificates may have been lost or were never issued. However, all children with a certificate have been registered. The table shows that only 14 percent of children under the age of five have been registered. Only 5 percent of registered children under five have birth certificates.

More births are registered in urban areas (28 percent) than in rural areas (9 percent). This could be attributed to the fact that most of the registration centres are in urban areas. At the provincial level, Lusaka has the highest proportion of registered births (35 percent) while Eastern and Luapula have the lowest (1 percent each). Children in wealthier households are more likely to be registered than those in poorer households; 31 percent are registered in household in the highest quintile compared with 5 percent in households in the lowest quintile.

Table 2.12 Birth registration of children under age five

Percentage of de jure children under five years of age whose births are registered with the civil authorities, by background characteristics, Zambia 2007

Background characteristic	Children whose births are registered: Percentage who had birth certificate	Percentage who did not have birth certificate	Percentage registered	Number of children
Age				
<2	5.0	8.6	13.7	2,697
2-4	5.5	8.8	14.3	3,644
Sex				
Male	5.2	8.8	14.0	3,133
Female	5.4	8.7	14.0	3,208
Residence				
Urban	14.4	13.2	27.7	1,795
Rural	1.7	7.0	8.6	4,546
Province				
Central	1.8	15.8	17.6	643
Copperbelt	9.9	7.4	17.3	872
Eastern	0.4	0.6	1.0	997
Luapula	0.8	0.3	1.1	577
Lusaka	20.8	14.4	35.2	695
Northern	2.1	16.6	18.7	1,003
North-Western	1.2	14.2	15.4	428
Southern	5.6	7.0	12.6	679
Western	4.2	1.3	5.5	447
Wealth quintile				
Lowest	0.9	4.4	5.3	1,526
Second	0.8	7.8	8.6	1,425
Middle	2.4	9.9	12.3	1,360
Fourth	9.9	11.7	21.6	1,166
Highest	18.7	12.2	30.9	864
Total	5.3	8.7	14.0	6,341

CHARACTERISTICS OF RESPONDENTS 3

Chipalo Kaliki and Arthur Kachemba

The objective of this chapter is to provide a demographic and socioeconomic profile of respondents in the 2007 ZDHS. Information on the basic characteristics of women and men interviewed in the survey is important for the interpretation of findings presented in the report.

The chapter begins by describing basic background characteristics, including age, marital status, educational level, and residential characteristics. This is followed by more detailed information on education, literacy, and exposure to mass media. Next, data on the employment status and earnings of women and men, health insurance coverage, and knowledge and attitudes concerning tuberculosis are presented. Last, data on tobacco use are provided as a lifestyle measure.

3.1 CHARACTERISTICS OF SURVEY RESPONDENTS

The percent distributions of women age 15-49 and of men age 15-59 interviewed in the 2007 ZDHS by key background characteristics, including age, marital status, urban-rural residence, place of residence, educational level, and household wealth quintile are presented in Table 3.1. For both sexes, a high proportion of the respondents are youth age 15-24 (41 percent of both women and men). The proportion in each age group tends to decrease with increasing age.

Table 3.1 shows that most of the respondents are currently married (61 percent of women and 52 percent of men). About a quarter (26 percent) of female respondents have never been married compared with over two-fifths (43 percent) of male respondents. Table 3.1 also shows that female respondents are twice as likely as male respondents to be divorced or separated (8 and 4 percent, respectively).

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Zambia 2007

Background characteristic	Women			Men		
	Weighted percent	Weighted	Unweighted	Weighted percent	Weighted	Unweighted
Age						
15-19	22.0	1,574	1,598	23.6	1,416	1,412
20-24	19.2	1,370	1,405	17.8	1,066	1,065
25-29	19.1	1,363	1,374	16.3	977	987
30-34	14.8	1,056	1,042	15.9	954	940
35-39	10.5	747	732	12.0	717	733
40-44	7.9	561	533	7.9	475	472
45-49	6.6	475	462	6.5	390	396
Marital status						
Never married	26.0	1,856	1,941	42.6	2,553	2,542
Married	60.9	4,351	4,264	52.3	3,136	3,158
Living together	0.7	52	52	0.5	32	28
Divorced/separated	8.1	577	577	3.6	217	220
Widowed	4.4	311	312	1.0	57	57
Residence						
Urban	42.1	3,009	3,178	43.4	2,601	2,631
Rural	57.9	4,137	3,968	56.6	3,395	3,374

Continued…

Table 3.1—*Continued*

Background characteristic	Women			Men		
	Weighted percent	Weighted	Unweighted	Weighted percent	Weighted	Unweighted
Province						
Central	9.2	659	672	9.3	559	550
Copperbelt	17.7	1,264	829	19.0	1,140	743
Eastern	13.6	971	940	13.3	795	783
Luapula	7.4	530	704	6.5	387	516
Lusaka	16.4	1,172	939	17.9	1,072	896
Northern	13.5	966	783	13.4	805	661
North-Western	5.1	365	685	5.0	303	583
Southern	10.2	727	822	10.4	621	726
Western	6.9	492	772	5.2	315	547
Education						
No education	10.4	744	741	4.5	267	263
Primary	54.4	3,891	3,805	46.3	2,775	2,759
Secondary	29.9	2,140	2,242	41.9	2,512	2,562
More than secondary	5.2	371	358	7.4	441	421
Wealth quintile						
Lowest	17.4	1,240	1,131	18.6	1,114	1,051
Second	18.0	1,283	1,245	14.5	869	870
Middle	17.9	1,280	1,409	18.3	1,097	1,214
Fourth	21.9	1,567	1,733	23.0	1,381	1,503
Highest	24.9	1,776	1,628	25.6	1,534	1,367
Religion						
Catholic	20.4	1,461	1,368	21.6	1,295	1,228
Protestant	77.8	5,558	5,652	75.1	4,501	4,586
Muslim	0.5	33	26	0.5	32	24
Other	1.2	87	90	2.6	154	158
Missing	0.1	9	10	0.2	12	9
Total 15-49	100.0	7,146	7,146	100.0	5,995	6,005
50-59	na	na	na	100.0	505	495
Total men 15-59	na	na	na	100.0	6,500	6,500

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.
na = Not applicable

More than half of women and men interviewed live in rural areas (58 and 57 percent, respectively). The largest proportion of both female and male respondents are from the Copperbelt province (18 and 19 percent, respectively), with the smallest proportion residing in North-Western province (5 percent for both women and men).

Table 3.1 further shows that 90 percent of women and 96 percent of men have some form of education at the primary, secondary, and higher than secondary levels. Fifty-four percent of women and 46 percent of men have attended primary school, while the proportion is reversed for secondary education where more men than women (42 and 30 percent, respectively) have attended secondary education.

Table 3.1 also shows that the majority of women (78 percent) and men (75 percent) are Protestant, followed by Catholic (20 and 22 percent, respectively). A quarter of both female and male respondents live in households in the highest wealth quintile.

3.2 EDUCATIONAL ATTAINMENT

Educational attainment is generally one of the key indicators for analysing women's status. As stated in an International Labour Organisation (ILO) briefing kit, large educational differentials between men and women tend to sustain a perpetual gender inequality within the family and in society at large. Data on enrolment ratios suggest that educational attainment is largely conditioned by a society's level of socioeconomic development and that larger gender gaps in schooling are observed in regions with lower overall educational levels (ILO, 1995).

Overall, the level of education in Zambia is higher among men than women. Tables 3.2.1 and 3.2.2 provide an overview of the relationship between the respondents' level of education and other background characteristics. The tables show that younger respondents, especially among women, are more likely to be educated and to reach higher levels of education than respondents of older age groups. The proportion of women without education ranges from 4 percent for women age 15-19 years to 20 percent for women age 45-49. In contrast, men with no education range from 1 percent for the age group 15-19 to 7 percent for age group 45-49.

Tables 3.2.1 and 3.2.2 also show that when compared with women, higher proportions of men complete secondary school, particularly at age 20-24 and 25-29 (16 and 17 percent of men compared with 12 and 5 percent of women, respectively). High dropout rates among girls at the primary and secondary levels may explain some of the differences in educational attainment between women and men. The Government of Zambia has considered measures to enhance girls' retention rates in school. One such measure allows girls who drop out of school due to pregnancy to return and continue their education after they have delivered.

At the provincial level, rural provinces[1] have the highest proportion of respondents with no schooling, with Western province leading for females (22 percent) and Eastern province leading for males (11 percent). Among provinces, the gender gap (the difference in percentage points between women and men) in the proportion reporting no schooling is 9 percentage points in Eastern province versus only 1 and 2 percentage points in Copperbelt and Lusaka, respectively.

Table 3.2.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median number of years completed, according to background characteristics, Zambia 2007

Background characteristic	Highest level of schooling						Total	Median years completed	Number of women
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	6.5	34.2	14.9	33.7	8.0	2.7	100.0	6.6	2,944
15-19	4.0	34.2	14.3	42.3	4.7	0.5	100.0	6.7	1,574
20-24	9.4	34.1	15.5	23.9	11.9	5.2	100.0	6.4	1,370
25-29	9.6	34.6	19.5	22.8	5.3	8.4	100.0	6.3	1,363
30-34	12.9	38.3	21.4	18.5	3.8	5.1	100.0	5.9	1,056
35-39	12.7	38.7	24.5	13.7	2.9	7.4	100.0	5.8	747
40-44	17.3	33.3	25.2	15.9	2.1	6.2	100.0	5.9	561
45-49	19.5	36.5	22.5	13.4	0.9	7.2	100.0	5.3	475
Residence									
Urban	3.2	19.7	17.3	37.7	10.7	11.3	100.0	8.0	3,009
Rural	15.6	46.8	20.3	15.0	1.5	0.8	100.0	4.9	4,137
Province									
Central	7.7	35.7	21.7	27.5	4.2	3.3	100.0	6.3	659
Copperbelt	2.8	23.6	18.4	36.0	9.0	10.2	100.0	7.5	1,264
Eastern	19.5	46.7	17.7	11.7	3.0	1.4	100.0	4.3	971
Luapula	12.0	49.1	17.0	18.3	2.0	1.6	100.0	4.9	530
Lusaka	4.4	24.5	17.3	31.9	9.4	12.5	100.0	7.3	1,172
Northern	13.2	46.7	19.4	16.1	3.6	1.0	100.0	5.1	966
North-Western	15.4	48.2	14.5	17.3	3.3	1.3	100.0	4.8	365
Southern	8.3	26.2	25.7	31.4	4.5	3.9	100.0	6.6	727
Western	22.2	36.4	18.8	17.5	3.1	1.9	100.0	5.2	492
Wealth quintile									
Lowest	19.6	53.8	17.9	8.2	0.6	0.0	100.0	3.9	1,240
Second	19.0	48.3	20.1	11.9	0.7	0.1	100.0	4.4	1,283
Middle	12.0	45.3	22.4	18.7	1.3	0.3	100.0	5.4	1,280
Fourth	4.9	30.3	22.8	35.1	5.5	1.4	100.0	6.6	1,567
Highest	1.5	10.7	13.3	40.0	15.1	19.4	100.0	8.8	1,776
Total	10.4	35.4	19.0	24.5	5.4	5.2	100.0	6.2	7,146

[1] Completed 7th grade at the primary level
[2] Completed 12th grade at the secondary level

[1] Rural provinces refers to all provinces of Zambia with the exception of Copperbelt and Lusaka.

Higher wealth status is associated with higher level of educational attainment. Nine percent of women in the lowest wealth quintile have attended or completed secondary or higher education compared with 55 percent of women in the highest wealth quintile. Among men, 20 percent in the lowest wealth quintile have attended or completed secondary or higher education, compared with 60 percent in the highest quintile.

Tables 3.2.1 and 3.2.2 also show the median number of years of schooling. Overall, the median number of years of schooling completed is 6.2 for women and 6.9 for men. Younger female and male respondents and those living in urban areas have more years of schooling. Respondents in Copperbelt and Lusaka provinces have more years of schooling than those in other provinces.

Table 3.2.2 Educational attainment: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median number of years completed, according to background characteristics, Zambia 2007

Background characteristic	Highest level of schooling						Total	Median years completed	Number of men
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	2.4	29.9	14.9	40.7	9.3	2.8	100.0	7.1	2,482
15-19	1.1	34.1	14.4	45.8	4.1	0.6	100.0	6.9	1,416
20-24	4.0	24.3	15.7	34.0	16.3	5.7	100.0	7.7	1,066
25-29	5.6	23.9	20.5	23.8	16.7	9.5	100.0	7.0	977
30-34	5.4	25.1	22.0	27.0	9.7	10.8	100.0	6.9	954
35-39	5.9	28.8	20.6	26.2	7.9	10.5	100.0	6.7	717
40-44	6.8	23.9	24.4	25.1	7.9	11.7	100.0	6.8	475
45-49	7.1	21.0	29.3	26.4	4.6	11.7	100.0	6.8	390
Residence									
Urban	1.5	12.2	14.6	40.4	16.9	14.4	100.0	8.7	2,601
Rural	6.8	38.2	23.0	25.4	4.7	1.9	100.0	6.2	3,395
Province									
Central	3.9	27.3	21.9	32.0	10.4	4.4	100.0	6.8	559
Copperbelt	2.0	13.2	15.9	39.8	16.1	12.9	100.0	8.6	1,140
Eastern	10.7	43.1	18.8	19.7	6.0	1.8	100.0	5.6	795
Luapula	2.6	37.9	23.6	28.1	5.0	2.8	100.0	6.4	387
Lusaka	2.5	16.1	15.1	36.0	13.7	16.6	100.0	8.4	1,072
Northern	4.8	33.1	23.6	29.0	7.0	2.5	100.0	6.5	805
North-Western	5.3	35.8	13.2	35.4	7.1	3.1	100.0	6.5	303
Southern	2.6	27.5	26.5	32.0	7.4	4.0	100.0	6.7	621
Western	9.6	33.3	18.5	28.4	6.5	3.6	100.0	6.4	315
Wealth quintile									
Lowest	9.3	46.9	23.5	18.3	2.0	0.0	100.0	5.4	1,114
Second	7.7	40.3	23.2	25.8	2.9	0.2	100.0	6.1	869
Middle	4.8	35.8	24.1	29.4	5.1	0.9	100.0	6.4	1,097
Fourth	2.6	18.0	22.2	40.9	12.4	3.9	100.0	7.8	1,381
Highest	0.6	6.7	8.1	39.0	21.2	24.5	100.0	10.4	1,534
Total 15-49	4.5	27.0	19.3	31.9	10.0	7.4	100.0	6.9	5,995
50-59	6.2	23.7	22.6	27.5	3.0	16.9	100.0	6.9	505
Total men 15-59	4.6	26.7	19.6	31.6	9.5	8.1	100.0	6.9	6,500

[1] Completed 7th grade at the primary level
[2] Completed 12th grade at the secondary level

3.3 LITERACY ASSESSMENT

The ability to read is an important personal asset allowing women and men increased opportunities in life. Knowing the distribution of the literate population can help programme managers—especially those concerned with health and family planning programmes—adopt approaches that are most likely to best reach women and men with their messages. In the 2007 ZDHS, literacy was assessed by a respondent's ability to read all or part of a simple sentence in any of the seven major language groups of Zambia.[2] The literacy test was administered only to respondents who had less than secondary education.

[2] The major language groups are Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja, Tonga, and English.

Tables 3.3.1 and 3.3.2 show the percent distribution of female and male respondents according to their level of schooling attended, level of literacy, and percent literate by background characteristics. As with educational achievement, literacy rates are higher among men than women. More than six in ten women (64 percent) compared with eight in ten men (82 percent) in Zambia are literate. There are no clear patterns of literacy by age. For women, however, literacy is highest (73 percent) among young women age 15-19; for men, literacy is highest among those age 15-19 and 40-44 (84 percent each).

Table 3.3.1 Literacy: Women

Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Zambia 2007

Background characteristic	Secondary school or higher	No schooling or primary school: Can read a whole sentence	No schooling or primary school: Can read part of a sentence	No schooling or primary school: Cannot read at all	No schooling or primary school: No card with required language	No schooling or primary school: Blind/ visually impaired	Missing	Total	Percentage literate[1]	Number
Age										
15-19	47.5	16.9	8.9	24.7	1.6	0.0	0.4	100.0	73.3	1,574
20-24	41.0	10.4	9.6	37.9	0.9	0.0	0.2	100.0	61.0	1,370
25-29	36.4	17.4	10.6	33.9	1.5	0.3	0.0	100.0	64.3	1,363
30-34	27.4	19.0	9.9	40.8	2.3	0.2	0.5	100.0	56.2	1,056
35-39	24.1	24.9	10.1	38.6	2.1	0.2	0.0	100.0	59.1	747
40-44	24.2	28.3	11.8	34.1	1.0	0.3	0.3	100.0	64.3	561
45-49	21.5	27.1	12.0	35.5	3.0	0.8	0.0	100.0	60.7	475
Residence										
Urban	59.7	13.0	8.7	16.4	1.8	0.2	0.2	100.0	81.3	3,009
Rural	17.3	22.5	11.1	47.3	1.5	0.2	0.2	100.0	50.8	4,137
Province										
Central	34.9	18.4	15.7	28.5	2.1	0.2	0.2	100.0	69.0	659
Copperbelt	55.2	18.2	7.0	18.0	1.3	0.1	0.2	100.0	80.3	1,264
Eastern	16.1	23.4	8.2	52.0	0.0	0.1	0.1	100.0	47.7	971
Luapula	21.9	19.9	16.0	41.9	0.2	0.2	0.0	100.0	57.8	530
Lusaka	53.8	8.9	11.3	22.7	2.6	0.3	0.4	100.0	74.1	1,172
Northern	20.8	20.7	10.8	45.7	1.5	0.2	0.3	100.0	52.3	966
North-Western	21.9	8.4	16.3	47.1	5.9	0.2	0.2	100.0	46.6	365
Southern	39.8	22.9	3.9	31.4	1.6	0.2	0.1	100.0	66.6	727
Western	22.6	27.1	7.6	40.5	1.7	0.0	0.4	100.0	57.4	492
Wealth quintile										
Lowest	8.7	21.7	9.9	58.0	1.6	0.1	0.1	100.0	40.3	1,240
Second	12.6	22.9	12.1	50.5	1.3	0.2	0.3	100.0	47.6	1,283
Middle	20.3	22.9	12.9	41.9	1.5	0.2	0.3	100.0	56.1	1,280
Fourth	42.1	19.0	10.3	26.4	2.0	0.2	0.0	100.0	71.4	1,567
Highest	74.5	9.4	6.4	7.4	1.7	0.2	0.4	100.0	90.3	1,776
Total	35.1	18.5	10.1	34.3	1.6	0.2	0.2	100.0	63.7	7,146

[1] Refers to women who attended secondary school or higher and women who can read a whole sentence or part of a sentence.

Women and men in urban areas have higher literacy rates (81 and 90 percent, respectively) than their rural counterparts (51 and 75 percent, respectively). Variations in literacy by province show that Copperbelt and Lusaka have the highest literacy rates for women (80 and 74 percent, respectively) and men (90 and 85 percent, respectively). It must be noted that literacy rates among men are reasonably high across all provinces, ranging from 71 percent in Eastern to 90 percent in Copperbelt. As with educational attainment, literacy is positively associated with household wealth status.

Table 3.3.2 Literacy: Men

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Zambia 2007

Background characteristic	Secondary school or higher	No schooling or primary school: Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Missing	Total	Percentage literate[1]	Number
Age										
15-19	50.4	21.5	11.6	15.2	1.0	0.0	0.3	100.0	83.5	1,416
20-24	56.0	15.7	9.4	18.2	0.7	0.0	0.0	100.0	81.0	1,066
25-29	50.0	17.8	11.2	19.2	1.3	0.0	0.4	100.0	79.1	977
30-34	47.5	20.5	12.5	18.0	1.5	0.0	0.0	100.0	80.5	954
35-39	44.7	23.2	12.0	18.8	1.2	0.0	0.1	100.0	79.9	717
40-44	44.8	28.8	10.7	14.4	1.2	0.0	0.0	100.0	84.4	475
45-49	42.7	32.3	8.1	13.9	3.0	0.0	0.0	100.0	83.1	390
Residence										
Urban	71.7	9.9	8.3	8.8	1.1	0.0	0.2	100.0	89.9	2,601
Rural	32.0	29.8	13.1	23.4	1.4	0.0	0.2	100.0	75.0	3,395
Province										
Central	46.9	19.5	16.3	15.2	1.9	0.0	0.2	100.0	82.7	559
Copperbelt	68.9	12.8	8.6	9.6	0.2	0.0	0.0	100.0	90.2	1,140
Eastern	27.4	27.3	16.5	28.6	0.0	0.0	0.2	100.0	71.2	795
Luapula	35.9	37.9	8.7	17.3	0.0	0.0	0.2	100.0	82.5	387
Lusaka	66.3	7.6	10.8	13.3	1.7	0.0	0.3	100.0	84.8	1,072
Northern	38.4	32.1	9.6	18.3	1.6	0.0	0.0	100.0	80.2	805
North-Western	45.7	11.7	15.1	18.2	9.2	0.0	0.1	100.0	72.5	303
Southern	43.4	28.0	8.7	19.6	0.1	0.0	0.2	100.0	80.1	621
Western	38.6	32.6	4.6	22.5	1.2	0.0	0.4	100.0	75.8	315
Wealth quintile										
Lowest	20.2	32.9	14.8	30.2	1.7	0.0	0.2	100.0	67.9	1,114
Second	28.8	33.5	11.9	23.9	1.7	0.0	0.1	100.0	74.2	869
Middle	35.4	28.9	12.9	21.3	1.4	0.0	0.1	100.0	77.2	1,097
Fourth	57.3	15.8	12.6	13.0	1.3	0.0	0.1	100.0	85.7	1,381
Highest	84.6	5.1	5.0	4.5	0.5	0.0	0.2	100.0	94.8	1,534
Total 15-49	49.3	21.2	11.0	17.1	1.3	0.0	0.2	100.0	81.5	5,995
50-59	47.5	28.3	11.1	11.2	1.0	0.9	0.1	100.0	86.8	505
Total men 15-59	49.1	21.7	11.0	16.6	1.2	0.1	0.2	100.0	81.9	6,500

[1] Refers to men who attended secondary school or higher and men who can read a whole sentence or part of a sentence.

3.4 EXPOSURE TO MASS MEDIA

Access to information is essential to increasing people's knowledge and awareness of what is taking place around them, which may eventually affect their perceptions and behaviour. This information is important for use in planning programmes intended to spread information about health and family planning through various media messages. In the 2007 ZDHS, exposure to the media was assessed by asking how often a respondent reads the newspaper, watches television, or listens to the radio. Tables 3.4.1 and 3.4.2 show the percentage of women and men who were exposed to different types of media at least once a week by background characteristics.

Tables 3.4.1 and 3.4.2 show distinct patterns of exposure to different forms of mass media. The majority of women and men listen to the radio at least once a week (59 percent of women and 74 percent of men, respectively). Thirty-one percent of women and 37 percent of men watch television at least once a week. It is apparent that print media are least utilised by both women and men when compared with other media. This is particularly true for women (22 percent read a newspaper at least once a week) compared with men (29 percent read a newspaper at least once a week). Only 12 percent of women and 18 percent

of men have access to all three types of media at least once a week. One-third of women and one-fifth of men are not exposed to media of any type. It is important to note that there are pronounced differentials by sex and residence in exposure to different forms of mass media. Generally, urban residents are more likely to be exposed to any or all forms of mass media than rural residents.

Education has a major impact on access to any of the specified media for women and men. Exposure to mass media increases steadily with an increase in educational attainment. A similar pattern is observed in the relationship between mass media exposure and wealth quintiles.

Table 3.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Zambia 2007

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to radio at least once a week	All three media at least once a week	No media at least once a week	Number
Age						
15-19	29.3	36.3	58.3	14.8	29.4	1,574
20-24	20.5	29.9	57.8	11.6	34.2	1,370
25-29	20.9	32.5	61.3	11.7	31.5	1,363
30-34	16.3	28.4	56.6	10.2	36.3	1,056
35-39	21.2	28.2	59.2	12.6	34.5	747
40-44	23.9	26.5	57.7	10.7	35.3	561
45-49	21.2	28.5	57.8	10.6	34.4	475
Residence						
Urban	34.7	60.8	71.0	25.2	16.6	3,009
Rural	13.3	9.4	49.5	2.5	45.1	4,137
Province						
Central	16.2	30.6	59.2	7.3	32.2	659
Copperbelt	26.6	55.8	73.6	20.0	16.5	1,264
Eastern	29.5	12.3	65.2	6.8	26.8	971
Luapula	4.5	10.0	43.9	2.5	53.7	530
Lusaka	36.4	64.8	69.1	28.1	17.1	1,172
Northern	4.6	11.4	42.5	3.0	55.1	966
North-Western	10.3	7.8	50.1	2.4	45.9	365
Southern	39.8	27.0	58.1	13.7	27.3	727
Western	8.6	9.6	35.2	3.2	61.4	492
Education						
No education	0.6	8.1	41.3	0.0	56.7	744
Primary	11.0	17.4	52.4	2.6	41.1	3,891
Secondary	40.0	53.6	71.0	23.7	15.7	2,140
More than secondary	82.0	91.0	85.5	68.9	1.8	371
Wealth quintile						
Lowest	9.3	1.7	39.9	0.2	55.8	1,240
Second	10.0	2.4	44.8	0.5	50.9	1,283
Middle	13.1	9.4	52.9	1.5	41.0	1,280
Fourth	20.3	33.4	64.2	8.1	26.3	1,567
Highest	48.6	85.9	80.6	39.8	4.7	1,776
Total	22.3	31.1	58.6	12.1	33.1	7,146

Table 3.4.2 Exposure to mass media: Men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Zambia 2007

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to radio at least once a week	All three media at least once a week	No media at least once a week	Number
Age						
15-19	24.6	44.4	69.4	14.1	19.8	1,416
20-24	33.0	40.1	72.6	20.5	18.2	1,066
25-29	30.6	35.5	77.2	19.1	17.7	977
30-34	30.4	35.0	75.3	18.4	19.4	954
35-39	27.5	28.6	77.1	16.8	20.2	717
40-44	27.4	32.6	77.3	18.7	18.5	475
45-49	29.1	29.9	74.5	15.8	20.0	390
Residence						
Urban	47.1	66.5	80.3	34.6	9.0	2,601
Rural	14.9	14.3	69.3	4.5	26.8	3,395
Province						
Central	17.4	29.7	69.4	10.5	23.2	559
Copperbelt	36.3	59.2	78.2	25.8	12.5	1,140
Eastern	23.1	15.2	71.8	6.4	22.6	795
Luapula	15.2	20.8	81.3	8.8	17.8	387
Lusaka	51.0	68.7	80.3	38.7	8.7	1,072
Northern	17.5	15.2	67.3	6.7	28.3	805
North-Western	25.5	13.8	64.5	6.7	29.1	303
Southern	24.9	35.7	75.6	15.8	18.8	621
Western	18.2	15.9	66.2	8.7	30.5	315
Education						
No education	1.1	10.8	56.0	0.0	41.7	267
Primary	11.7	19.9	69.3	3.8	26.2	2,775
Secondary	41.5	49.8	78.4	26.0	12.0	2,512
More than secondary	81.4	86.5	89.7	66.6	1.2	441
Wealth quintile						
Lowest	12.8	4.0	59.1	0.8	36.4	1,114
Second	11.9	6.1	70.6	2.0	27.5	869
Middle	13.4	15.8	73.0	4.0	23.5	1,097
Fourth	32.0	42.9	76.8	17.0	15.3	1,381
Highest	58.3	88.1	85.2	48.7	2.0	1,534
Total 15-49	28.9	36.9	74.1	17.5	19.1	5,995
50-59	32.6	34.2	75.5	19.5	20.0	505
Total men 15-59	29.1	36.7	74.2	17.7	19.2	6,500

3.5 EMPLOYMENT STATUS

Female and male respondents were asked whether they were employed at the time of the survey and if not, whether they had been employed in the 12 months preceding the survey. Accurate assessment of employment status can be difficult because some work, especially on family farms, family businesses, or in the informal sector, is often not perceived as employment and hence not reported as such. To avoid underestimating a respondent's employment status, the 2007 ZDHS asked respondents several questions to probe for their employment status and to ensure complete coverage of employment in both the formal or informal sectors. Respondents were asked a number of questions to elicit their current employment status and continuity of employment in the past 12 months. Employed individuals are those who reported that they were currently working (i.e., had worked in the past 7 days) and those who had worked at any time during the 12 months preceding the survey.

Tables 3.5.1 and 3.5.2 show the percent distribution of respondents according to current and recent employment status. Overall, less than half (47 percent) of women and about eight in ten men (76 percent) are currently employed. Seven percent of women were not employed at the time of the survey, while 46 percent did not work in the 12 months preceding the survey. Among men, 4 percent were not employed at the time of the survey and 20 percent had not worked in the 12 months preceding the survey.

Table 3.5.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Zambia 2007

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of women
	Currently employed[1]	Not currently employed				
Age						
15-19	19.2	4.3	76.5	0.0	100.0	1,574
20-24	44.0	7.2	48.8	0.0	100.0	1,370
25-29	52.4	6.8	40.6	0.2	100.0	1,363
30-34	58.3	8.8	32.8	0.1	100.0	1,056
35-39	62.2	8.3	29.4	0.1	100.0	747
40-44	64.8	9.7	25.6	0.0	100.0	561
45-49	65.5	10.4	24.1	0.0	100.0	475
Marital status						
Never married	26.6	3.0	70.5	0.0	100.0	1,856
Married or living together	51.9	9.1	38.9	0.1	100.0	4,402
Divorced/separated/widowed	67.3	6.9	25.9	0.0	100.0	888
Number of living children						
0	27.4	3.8	68.8	0.0	100.0	1,855
1-2	49.3	7.3	43.3	0.1	100.0	2,150
3-4	55.5	8.8	35.6	0.1	100.0	1,642
5+	59.6	9.8	30.6	0.1	100.0	1,499
Residence						
Urban	45.2	3.1	51.6	0.1	100.0	3,009
Rural	48.7	10.2	41.1	0.1	100.0	4,137
Province						
Central	46.0	2.1	51.7	0.2	100.0	659
Copperbelt	49.9	5.7	44.2	0.1	100.0	1,264
Eastern	22.9	24.9	52.1	0.0	100.0	971
Luapula	33.0	1.7	65.4	0.0	100.0	530
Lusaka	42.6	1.7	55.7	0.0	100.0	1,172
Northern	53.5	8.2	38.3	0.0	100.0	966
North-Western	72.9	4.4	22.7	0.0	100.0	365
Southern	57.7	8.1	34.0	0.1	100.0	727
Western	69.3	1.3	29.2	0.2	100.0	492
Education						
No education	48.8	12.6	38.4	0.1	100.0	744
Primary	48.8	8.5	42.6	0.1	100.0	3,891
Secondary	38.8	3.9	57.2	0.1	100.0	2,140
More than secondary	75.7	2.4	21.9	0.0	100.0	371
Wealth quintile						
Lowest	48.4	14.6	36.9	0.1	100.0	1,240
Second	51.7	9.0	39.3	0.0	100.0	1,283
Middle	45.4	8.1	46.5	0.1	100.0	1,280
Fourth	46.8	4.7	48.4	0.1	100.0	1,567
Highest	44.8	2.4	52.7	0.1	100.0	1,776
Total	47.2	7.2	45.5	0.1	100.0	7,146

[1] Currently employed is defined as having done work in the past seven days. The category includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Current employment levels increase with age among women, ranging from 19 percent for women age 15-19 to 66 percent for women age 45-49. The highest proportion of currently employed men is among men age 30-39 (95 percent). Women who are divorced, separated, or widowed are more likely to be currently employed (67 percent) than women who have never been married (27 percent) or those who are currently in union (52 percent), whereas men who are currently in union are more likely to be currently employed (95 percent) than men who have never been married (51 percent) or are divorced, separated, or widowed (87 percent). The data further indicate that the proportion of women and men who are employed increases with the number of living children. Women and men with no children are least likely to be employed.

Diverting from the general pattern observed in most countries, variations by place of residence

show that a higher percentage of women and men in rural areas (49 and 82 percent, respectively) are employed compared with their urban counterparts (45 and 69 percent, respectively). There are substantial provincial variations in women's and men's employment characteristics. Women in North-Western (73 percent), Western (69 percent), and Southern (58 percent) provinces are more likely than women in other provinces to have been currently employed in the past 12 months, while the same is true for men in Central (90 percent), Luapula (84 percent), Northern (83 percent), and North-Western (81 percent) provinces, who are more likely than men in other provinces to be currently employed.

Table 3.5.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, Zambia 2007

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of men
	Currently employed[1]	Not currently employed				
Age						
15-19	37.0	3.8	59.0	0.1	100.0	1,416
20-24	71.7	4.4	23.6	0.4	100.0	1,066
25-29	90.8	3.8	5.4	0.0	100.0	977
30-34	94.9	2.1	2.9	0.1	100.0	954
35-39	94.9	2.6	2.5	0.0	100.0	717
40-44	92.5	3.6	3.9	0.0	100.0	475
45-49	92.0	5.0	2.6	0.5	100.0	390
Marital status						
Never married	51.1	4.2	44.6	0.1	100.0	2,553
Married or living together	95.2	2.8	1.7	0.2	100.0	3,168
Divorced/separated/widowed	86.5	6.0	7.4	0.0	100.0	274
Number of living children						
0	54.0	4.0	41.8	0.2	100.0	2,697
1-2	93.3	3.2	3.4	0.1	100.0	1,235
3-4	94.3	2.6	2.9	0.2	100.0	1,085
5+	94.9	3.7	1.4	0.0	100.0	978
Residence						
Urban	68.9	2.9	28.0	0.3	100.0	2,601
Rural	81.6	4.1	14.3	0.1	100.0	3,395
Province						
Central	90.1	1.9	8.0	0.0	100.0	559
Copperbelt	69.8	2.3	27.6	0.2	100.0	1,140
Eastern	75.0	7.1	17.8	0.1	100.0	795
Luapula	83.8	1.9	14.1	0.2	100.0	387
Lusaka	69.1	3.2	27.3	0.4	100.0	1,072
Northern	83.0	1.6	15.5	0.0	100.0	805
North-Western	80.9	4.8	14.3	0.0	100.0	303
Southern	77.6	4.2	18.2	0.0	100.0	621
Western	65.0	8.2	26.8	0.0	100.0	315
Education						
No education	84.6	7.2	8.2	0.0	100.0	267
Primary	80.9	3.7	15.3	0.1	100.0	2,775
Secondary	67.8	2.9	29.1	0.2	100.0	2,512
More than secondary	87.4	3.8	8.5	0.4	100.0	441
Wealth quintile						
Lowest	84.1	5.3	10.7	0.0	100.0	1,114
Second	82.0	3.7	14.3	0.0	100.0	869
Middle	81.2	3.9	14.6	0.2	100.0	1,097
Fourth	76.4	2.5	20.9	0.2	100.0	1,381
Highest	62.9	2.9	34.0	0.2	100.0	1,534
Total 15-49	76.0	3.6	20.2	0.1	100.0	5,995
50-59	92.7	3.6	3.7	0.0	100.0	505
Total men 15-59	77.3	3.6	19.0	0.1	100.0	6,500

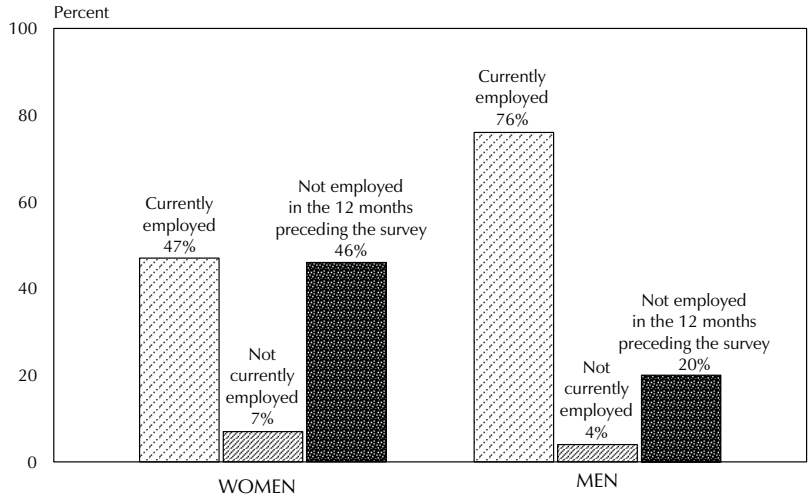
[1] Currently employed is defined as having done work in the past seven days. The category Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Women and men with more than secondary education are most likely to be currently employed (76 percent of women and 87 percent of men). Women and men with secondary education are least likely to be currently employed compared with their counterparts in other educational categories (39 percent for women and 68 percent for men).

The proportion of men who are currently employed declines as wealth quintile increases. For women, current employment is highest for those in the second quintile but there is no discernable pattern in the relationship between current employment and wealth quintile.

Figure 3.1 shows the percent distribution of women and men by employment status during the 12 months preceding the survey. Comparison between women and men shows that women in general were less likely to be employed in the past 12 months than men.

Figure 3.1 **Men's and Women's Employment Status (Past 12 months)**



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3.6 OCCUPATION

Tables 3.6.1 and 3.6.2 show the occupations reported by women and men employed in the 12-month period before the survey. The majority of currently employed women (49 percent) and men (48 percent) worked in agriculture, followed by 37 percent of women and 21 percent of men who were working in sales and services occupations.

Table 3.6.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Zambia 2007

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Number of women
Age									
15-19	1.1	0.5	40.4	4.3	0.1	52.6	1.0	100.0	370
20-24	4.7	1.4	34.2	4.6	0.0	54.3	0.7	100.0	701
25-29	7.2	2.0	41.0	6.1	0.0	43.1	0.4	100.0	807
30-34	5.5	1.5	39.6	7.8	0.1	45.2	0.2	100.0	709
35-39	6.9	0.8	37.0	7.4	0.0	47.9	0.0	100.0	526
40-44	6.8	2.1	33.2	8.2	0.1	49.1	0.5	100.0	418
45-49	7.4	0.7	33.7	5.9	0.0	52.3	0.0	100.0	360
Marital status									
Never married	12.1	3.1	47.0	6.5	0.2	29.6	1.5	100.0	548
Married or living together	4.9	1.0	32.8	6.4	0.0	54.6	0.2	100.0	2,685
Divorced/separated/ widowed	4.1	1.7	48.3	6.0	0.0	39.6	0.3	100.0	658
Number of living children									
0	11.4	2.2	44.2	5.9	0.0	35.2	1.2	100.0	579
1-2	6.9	1.8	41.7	5.3	0.0	44.0	0.3	100.0	1,217
3-4	4.9	1.5	34.5	6.7	0.1	52.1	0.3	100.0	1,055
5+	2.3	0.4	31.6	7.6	0.1	57.9	0.2	100.0	1,040
Residence									
Urban	12.9	3.2	68.4	8.3	0.0	6.6	0.5	100.0	1,456
Rural	1.6	0.4	18.8	5.2	0.1	73.6	0.4	100.0	2,435
Province									
Central	5.4	1.5	45.0	6.5	0.0	41.7	0.0	100.0	317
Copperbelt	12.4	1.3	60.3	7.9	0.0	17.3	0.9	100.0	703
Eastern	2.7	0.8	18.5	5.2	0.1	72.5	0.3	100.0	465
Luapula	3.3	0.6	37.8	6.9	0.0	51.4	0.0	100.0	184
Lusaka	12.4	4.2	69.4	7.2	0.1	6.7	0.0	100.0	518
Northern	2.1	0.6	17.8	6.1	0.0	73.1	0.3	100.0	596
North-Western	0.8	0.2	13.2	5.5	0.0	80.0	0.3	100.0	282
Southern	3.6	1.6	31.7	5.2	0.2	56.9	0.8	100.0	478
Western	1.9	0.9	22.6	5.9	0.0	67.9	0.7	100.0	347
Education									
No education	0.2	0.4	20.9	3.0	0.0	75.3	0.3	100.0	457
Primary	0.3	0.2	33.9	6.5	0.1	58.7	0.2	100.0	2,230
Secondary	4.6	2.1	59.3	7.7	0.0	25.5	0.7	100.0	914
More than secondary	60.8	10.0	21.3	5.9	0.0	0.9	1.2	100.0	290
Wealth quintile									
Lowest	0.5	0.0	12.0	5.0	0.0	82.0	0.5	100.0	782
Second	0.2	0.1	14.1	4.8	0.0	80.7	0.1	100.0	779
Middle	1.2	0.4	27.8	6.1	0.2	63.6	0.7	100.0	684
Fourth	2.8	1.5	68.7	8.3	0.1	18.2	0.3	100.0	808
Highest	22.5	4.6	60.5	7.4	0.0	4.5	0.5	100.0	839
Total	5.8	1.4	37.4	6.4	0.1	48.6	0.4	100.0	3,891

Table 3.6.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Zambia 2007

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Number of men
Age									
15-19	0.4	0.9	16.6	11.1	0.8	50.7	19.6	100.0	578
20-24	3.6	0.2	24.2	19.1	0.7	45.8	6.4	100.0	811
25-29	6.2	1.0	25.3	20.1	0.7	44.5	2.2	100.0	924
30-34	7.4	0.7	22.0	21.1	0.7	46.6	1.4	100.0	926
35-39	8.8	1.3	20.4	20.6	0.8	47.7	0.6	100.0	699
40-44	9.6	0.9	14.7	22.1	0.1	51.6	1.1	100.0	457
45-49	6.7	1.9	12.3	20.2	0.4	57.9	0.5	100.0	378
Marital status									
Never married	4.4	1.0	24.5	18.1	0.8	39.4	11.8	100.0	1,413
Married or living together	7.0	0.9	18.2	19.0	0.5	53.2	1.2	100.0	3,106
Divorced/separated/ widowed	2.8	0.4	29.6	30.0	1.5	33.5	2.2	100.0	254
Number of living children									
0	5.0	1.1	23.0	18.4	0.9	40.8	10.8	100.0	1,565
1-2	7.5	0.6	25.7	20.8	0.4	42.9	2.2	100.0	1,192
3-4	6.8	1.2	18.1	19.1	0.7	53.3	0.7	100.0	1,052
5+	5.2	0.7	13.4	19.1	0.4	60.5	0.6	100.0	964
Residence									
Urban	11.3	1.9	39.2	32.3	1.2	9.6	4.4	100.0	1,866
Rural	2.6	0.3	8.7	11.0	0.3	72.8	4.3	100.0	2,907
Province									
Central	4.3	0.4	15.2	11.6	0.5	63.4	4.6	100.0	514
Copperbelt	9.7	1.6	29.7	32.7	0.9	21.1	4.3	100.0	822
Eastern	2.6	0.6	11.4	8.5	0.2	72.6	4.2	100.0	652
Luapula	3.3	0.5	8.3	27.5	0.9	59.2	0.4	100.0	331
Lusaka	11.3	1.9	39.8	29.8	1.2	13.3	2.7	100.0	774
Northern	3.8	0.2	11.3	9.5	0.4	66.8	8.0	100.0	681
North-Western	3.2	0.5	13.0	15.2	0.6	64.8	2.7	100.0	259
Southern	5.2	0.9	21.4	13.1	0.5	51.7	7.2	100.0	508
Western	4.7	0.7	14.4	19.3	0.0	59.7	1.2	100.0	230
Education									
No education	0.8	0.0	10.8	10.6	1.0	74.9	1.9	100.0	246
Primary	0.4	0.1	17.0	14.8	0.3	62.9	4.5	100.0	2,349
Secondary	4.7	1.5	27.3	25.6	1.1	35.1	4.8	100.0	1,776
More than secondary	48.1	3.8	18.7	23.2	0.4	2.5	3.4	100.0	402
Wealth quintile									
Lowest	0.2	0.0	2.7	3.6	0.1	90.8	2.6	100.0	995
Second	1.2	0.0	7.2	12.6	0.2	74.4	4.3	100.0	745
Middle	2.0	0.1	13.7	17.3	0.6	60.8	5.4	100.0	935
Fourth	5.8	1.1	39.1	30.1	0.9	17.9	5.0	100.0	1,089
Highest	19.4	3.0	34.7	29.9	1.2	7.4	4.5	100.0	1,009
Total 15-49	6.0	0.9	20.6	19.3	0.6	48.1	4.4	100.0	4,773
50-59	11.9	1.1	12.6	20.0	0.8	51.6	2.2	100.0	486
Total men 15-59	6.6	0.9	19.9	19.4	0.6	48.4	4.2	100.0	5,259

3.7 TYPE OF EMPLOYMENT

Table 3.7.1 shows the percent distribution of women employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to type of employment (agriculture or non-agriculture). Table 3.7.1 and Figure 3.2 show that 55 percent of all women employed in agricultural work are not paid for their work, while 83 percent of women in non-agricultural work are given their earnings in cash only. Seventy-nine percent of women employed in agricultural work and 64 percent of women in non-agricultural work are self-employed. Differentials by continuity of employment show that 71 percent of all women in agricultural work are seasonally employed, whereas 67 percent of women in non-agricultural work are employed all year.

Table 3.7.1 Type of employment: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to type of employment (agricultural or non-agricultural), Zambia 2007

Employment characteristics	Agricultural work	Non-agricultural work	Total
Type of earnings			
Cash only	29.3	83.3	57.0
Cash and in-kind	12.5	7.0	9.6
In-kind only	2.9	1.9	2.3
Not paid	55.2	7.8	31.0
Missing	0.1	0.0	0.0
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	15.6	6.0	10.8
Employed by nonfamily member	5.1	30.0	17.8
Self-employed	79.3	63.9	71.3
Missing	0.0	0.1	0.0
Total	100.0	100.0	100.0
Continuity of employment			
All year	25.1	67.1	46.7
Seasonal	71.1	14.2	41.9
Occasional	3.6	18.6	11.3
Missing	0.2	0.1	0.1
Total	100.0	100.0	100.0
Number of women employed during the past 12 months	1,890	1,985	3,891

Note: Total includes 16 women with information missing on type of employment who are not shown separately.

Figure 3.2 Type of Earnings among Women Employed in the Past 12 Months

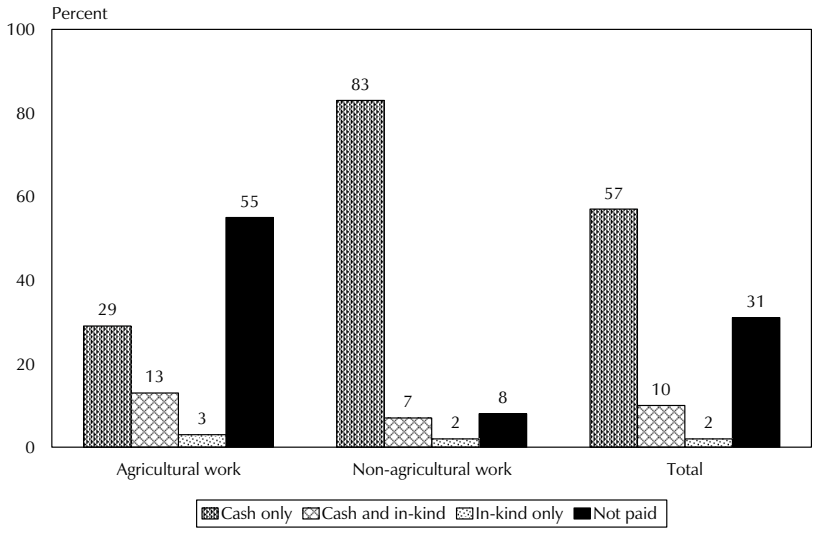

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Table 3.7.2 shows the percent distribution of men employed in the 12 months preceding the survey by type of earnings, type of employer, continuity of employment, and whether employment is in the agricultural or non-agricultural sector. Overall, 58 percent of men were paid in cash only, 12 percent received cash and in-kind payment, and just 2 percent received in-kind payment only. Overall, 24 percent of men were not paid for their work.

Among men working in the agricultural sector, 43 percent were not paid, 35 percent were paid in cash only, 19 percent received cash and in-kind payment, and 3 percent received in-kind payment only. In contrast, among men working in the non-agricultural sector, 86 percent received cash only, 6 percent received a combination of cash and in-kind payment, and less than 1 percent received in-kind payment only. Overall, 8 percent did not receive any payment for their work.

Table 3.7.2 Type of employment: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to type of employment (agricultural or non-agricultural), Zambia 2007

Employment characteristics	Agricultural work	Non-agricultural work	Missing	Total
Type of earnings				
Cash only	35.3	85.7	13.7	58.3
Cash and in-kind	18.9	6.2	0.0	12.0
In-kind only	3.2	0.6	0.7	1.8
Not paid	42.6	7.5	1.9	24.1
Missing	0.1	0.0	83.7	3.7
Total 15-49	100.0	100.0	100.0	100.0
Type of employer				
Employed by family member	17.5	6.1	2.6	11.4
Employed by nonfamily member	8.3	55.7	12.3	31.0
Self-employed	74.2	38.2	1.5	53.9
Missing	0.0	0.0	83.7	3.7
Total 15-49	100.0	100.0	100.0	100.0
Continuity of employment				
All year	44.4	73.8	8.9	56.8
Seasonal	52.2	17.5	5.4	33.6
Occasional	3.2	8.7	2.0	5.8
Missing	0.2	0.0	83.7	3.8
Total	100.0	100.0	100.0	100.0
Number of men age 15-49 employed during the past 12 months	2,295	2,269	209	4,773

Note: Total includes 38 men with information missing on type of employment who are not shown separately.

3.8 HEALTH INSURANCE COVERAGE

Access to health care improves when individuals are covered by some form of health insurance. Tables 3.8.1 and 3.8.2 present information on the coverage of various health insurance plans among women and men in Zambia. The majority of Zambian women and men age 15-49 do not have access to health insurance (92 and 91 percent, respectively) . Among the 8 percent of women with health insurance, 5 percent have insurance through a low-cost prepayment scheme, and 2 percent are covered under other employer-based insurance. Similarly, out of the 9 percent of men with health insurance, 6 percent have insurance through a low-cost prepayment scheme and 2 percent are covered under other employer-based insurance. Women in urban areas and those in the highest wealth quintile are the most likely to have health insurance coverage. Education is also strongly associated with health care coverage. While 98 percent of women with no education have no health insurance coverage, only 70 percent of women with more than secondary education have no health insurance. Table 3.8.2 shows that the trends for men are similar to those for female respondents.

Table 3.8.1 Health insurance coverage: Women

Percentage of women age 15-49 with specific types of health insurance coverage, according to background characteristics, Zambia 2007

Background characteristic	Other employer-based insurance	Mutual health organization/ community-based insurance	Privately purchased commercial insurance	Low-cost pre-payment scheme	High-cost pre-payment scheme	Other	None	Number
Age								
15-19	1.2	0.3	0.0	5.1	1.0	0.1	92.4	1,574
20-24	0.8	0.2	0.0	4.6	0.6	0.2	93.5	1,370
25-29	1.7	0.2	0.1	5.8	0.8	0.4	90.9	1,363
30-34	1.5	0.2	0.3	4.8	0.8	0.0	92.4	1,056
35-39	2.0	0.1	0.2	4.5	1.5	0.8	91.1	747
40-44	1.8	0.1	0.3	5.1	1.3	0.2	91.6	561
45-49	2.6	0.0	0.0	5.3	1.4	0.2	90.9	475
Residence								
Urban	3.3	0.3	0.2	8.4	2.2	0.3	85.5	3,009
Rural	0.2	0.1	0.1	2.6	0.1	0.2	96.8	4,137
Province								
Central	0.2	0.4	0.4	1.5	0.7	0.2	96.7	659
Copperbelt	2.5	0.0	0.0	2.1	3.8	0.4	91.4	1,264
Eastern	0.2	0.0	0.1	0.2	0.2	0.0	99.3	971
Luapula	0.1	0.3	0.1	0.4	0.0	0.1	99.0	530
Lusaka	5.3	0.8	0.1	16.7	1.0	0.0	76.6	1,172
Northern	0.3	0.0	0.1	0.0	0.0	0.0	99.6	966
North-Western	0.9	0.0	0.0	0.1	0.2	2.1	96.8	365
Southern	0.3	0.0	0.3	16.8	0.4	0.4	81.7	727
Western	0.1	0.2	0.0	0.2	0.0	0.1	99.5	492
Education								
No education	0.0	0.0	0.0	1.6	0.0	0.3	98.1	744
Primary	0.4	0.2	0.0	4.3	0.2	0.1	94.8	3,891
Secondary	2.3	0.3	0.1	7.2	1.3	0.3	88.8	2,140
More than secondary	11.9	0.6	1.3	7.2	8.6	1.3	69.7	371
Wealth quintile								
Lowest	0.0	0.0	0.0	1.6	0.0	0.1	98.3	1,240
Second	0.0	0.1	0.0	1.2	0.0	0.3	98.4	1,283
Middle	0.0	0.0	0.0	2.7	0.0	0.2	97.1	1,280
Fourth	0.5	0.2	0.1	7.5	0.3	0.2	91.1	1,567
Highest	5.5	0.5	0.4	9.8	3.6	0.4	80.2	1,776
Total	1.5	0.2	0.1	5.0	1.0	0.3	92.0	7,146

Table 3.8.2 Health insurance coverage: Men

Percentage of men age 15-49 with specific types of health insurance coverage, according to background characteristics, Zambia 2007

Background characteristic	Employer-based insurance	Mutual health organization/ community-based insurance	Privately purchased commercial insurance	Low-cost pre-payment scheme	High-cost pre-payment scheme	Other	None	Number
Age								
15-19	0.3	0.3	0.4	5.7	0.1	0.3	92.9	1,416
20-24	0.6	0.2	0.0	4.7	0.2	0.1	93.9	1,066
25-29	1.9	0.2	0.2	7.6	0.8	0.1	89.2	977
30-34	3.1	0.3	0.4	6.5	0.3	0.0	89.3	954
35-39	3.7	0.2	0.1	6.2	0.1	0.0	89.7	717
40-44	2.9	0.8	0.1	5.2	0.2	0.1	90.8	475
45-49	5.5	0.0	0.2	4.3	0.0	0.0	89.9	390
Residence								
Urban	4.2	0.3	0.4	10.8	0.5	0.1	83.6	2,601
Rural	0.4	0.2	0.1	2.2	0.1	0.2	97.0	3,395
Province								
Central	2.3	0.4	0.1	1.0	0.0	0.1	96.2	559
Copperbelt	4.0	0.3	0.0	0.6	0.0	0.0	95.0	1,140
Eastern	0.3	0.2	0.0	0.1	0.2	0.0	99.0	795
Luapula	0.3	0.2	0.0	0.0	0.0	0.0	99.5	387
Lusaka	4.4	0.4	1.0	26.3	1.2	0.0	66.5	1,072
Northern	0.1	0.3	0.0	0.1	0.0	0.0	99.5	805
North-Western	1.2	0.0	0.1	0.5	0.0	2.0	96.2	303
Southern	1.1	0.1	0.3	8.9	0.3	0.0	89.4	621
Western	0.2	0.2	0.0	0.0	0.0	0.0	99.5	315
Education								
No education	0.1	0.0	0.0	3.1	0.0	0.0	96.8	267
Primary	0.2	0.2	0.1	4.2	0.2	0.1	95.0	2,775
Secondary	1.8	0.3	0.2	6.7	0.4	0.1	90.5	2,512
More than secondary	16.0	0.9	1.5	13.5	0.3	0.3	67.3	441
Wealth quintile								
Lowest	0.0	0.2	0.0	0.8	0.0	0.1	98.9	1,114
Second	0.0	0.0	0.0	1.0	0.0	0.1	98.8	869
Middle	0.2	0.2	0.0	1.9	0.1	0.2	97.4	1,097
Fourth	0.9	0.3	0.1	7.8	0.6	0.1	90.1	1,381
Highest	6.9	0.5	0.8	13.5	0.5	0.1	77.7	1,534
Total 15-49	2.0	0.3	0.2	5.9	0.3	0.1	91.2	5,995
50-59	3.7	0.4	0.0	4.6	0.8	0.7	90.2	505
Total men 15-59	2.1	0.3	0.2	5.8	0.3	0.2	91.1	6,500

3.9 KNOWLEDGE AND ATTITUDES REGARDING TUBERCULOSIS

The 2007 ZDHS collected data on women's and men's knowledge and attitudes regarding tuberculosis (TB), a major public health concern worldwide, particularly in countries like Zambia that have a widespread AIDS epidemic, which fuels the spread of TB because of lowered immunity among people living with HIV. To assess knowledge about TB, the 2007 ZDHS asked respondents whether they had heard about TB and, if so, how it was transmitted. Respondents who knew about TB were asked if they believed it could be cured. To assess attitudes toward the illness, respondents were asked whether they would want to keep it secret if a family member had TB. Tables 3.9.1 and 3.9.2 present these data for women and men age 15-49 by background characteristics.

Knowledge of TB in Zambia is almost universal, with 98 percent of both women and men reporting that they had heard of TB. Among respondents who have heard of TB, 66 percent of women and 67 percent of men correctly reported that TB is spread through the air by coughing.

Women age 15-19, those residing in rural areas, and women in Eastern and Central provinces are less likely than other women to know that TB is spread through the air by coughing. Knowledge that TB is spread through the air by coughing increases with women's level of education and wealth status.

Table 3.9.1 Knowledge and attitudes concerning tuberculosis: Women

Percentage of women age 15-49 who have heard of tuberculosis (TB), and among women who have heard of TB, the percentages who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Zambia 2007

Background characteristic	Women		Women who have heard of TB			
	Percentage who have heard of TB	Number	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number
Age						
15-19	96.3	1,574	58.7	68.7	33.8	1,515
20-24	97.7	1,370	64.7	79.0	36.4	1,338
25-29	97.5	1,363	68.7	83.2	33.1	1,329
30-34	98.9	1,056	68.1	81.8	32.7	1,044
35-39	98.7	747	70.5	85.1	27.5	738
40-44	98.7	561	71.4	84.7	29.5	554
45-49	99.2	475	70.4	83.7	29.3	471
Residence						
Urban	99.5	3,009	73.9	87.3	34.3	2,994
Rural	96.6	4,137	60.5	73.4	31.5	3,995
Province						
Central	94.5	659	62.0	61.4	37.1	622
Copperbelt	99.2	1,264	71.9	85.7	44.6	1,253
Eastern	98.9	971	53.1	75.8	21.9	961
Luapula	97.9	530	66.1	72.2	30.4	520
Lusaka	99.9	1,172	72.4	89.8	26.0	1,170
Northern	95.0	966	65.3	58.6	44.5	918
North-Western	98.9	365	75.4	91.2	9.2	361
Southern	96.9	727	65.9	88.8	33.8	704
Western	97.6	492	63.5	92.7	29.8	480
Education						
No education	94.7	744	49.7	69.5	26.7	705
Primary	97.4	3,891	60.8	74.7	34.9	3,791
Secondary	99.2	2,140	76.4	88.3	33.5	2,124
More than secondary	99.5	371	95.1	95.3	16.7	369
Wealth quintile						
Lowest	96.7	1,240	57.6	72.7	29.4	1,199
Second	96.3	1,283	59.0	71.4	31.1	1,236
Middle	96.4	1,280	62.0	71.7	34.3	1,234
Fourth	98.9	1,567	67.9	83.8	39.7	1,551
Highest	99.6	1,776	78.5	91.0	28.7	1,769
Total	97.8	7,146	66.2	79.4	32.7	6,989

Among men, those in the 25-34 age groups, rural men, men residing in Eastern and Southern provinces, and men with no education are less likely than other men to report that TB is spread through the air by coughing.

Overall, 79 percent of women and 84 percent of men who had heard of TB believe that it can be cured. The knowledge that TB can be cured is generally higher for older age groups. Rural women are less likely than urban women to believe that TB can be cured (73 percent versus 87 percent). Among provinces, the percentage of women who believe that TB could be cured ranges from 59 percent of women in Northern to 93 percent of women in Western provinces. This belief is highest among more highly educated women and those in the fourth wealth quintile. Similar patterns are seen among men. Provincial differentials among men who believe TB can be cured are not large.

Thirty-three percent of women and 26 percent of men would want keep it secret if a family member had TB. Among both women and men, the proportion expressing the desire to keep secret that a family member had TB was highest in Northern and Copperbelt provinces.

Table 3.9.2 Knowledge and attitudes concerning tuberculosis: Men

Percentage of men age 15-49 who have heard of tuberculosis (TB), and among men who have heard of TB, the percentages who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Zambia 2007

	Men		Men who have heard of TB			
Background characteristic	Percentage who have heard of TB	Number	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number
Age						
15-19	96.4	1,416	67.5	74.1	29.7	1,364
20-24	98.8	1,066	66.2	81.2	27.7	1,054
25-29	98.7	977	63.9	87.7	25.4	964
30-34	98.7	954	63.6	87.9	22.5	941
35-39	99.1	717	65.9	88.7	24.4	710
40-44	98.1	475	71.6	89.8	26.0	466
45-49	98.7	390	73.9	90.8	22.0	385
Residence						
Urban	99.1	2,601	73.3	88.5	26.4	2,577
Rural	97.4	3,395	61.4	80.3	25.8	3,308
Province						
Central	97.6	559	69.6	81.6	25.5	546
Copperbelt	98.9	1,140	76.2	88.8	36.1	1,127
Eastern	98.4	795	55.0	77.4	18.8	782
Luapula	99.4	387	71.8	82.3	21.5	385
Lusaka	98.8	1,072	64.4	87.1	19.1	1,058
Northern	95.7	805	69.9	75.1	41.9	771
North-Western	97.9	303	78.9	92.6	6.1	296
Southern	98.4	621	55.2	83.5	19.2	611
Western	98.3	315	59.2	92.1	31.3	309
Education						
No education	96.2	267	46.7	77.1	28.7	257
Primary	97.3	2,775	57.0	76.9	26.6	2,699
Secondary	99.2	2,512	74.7	89.6	26.4	2,493
More than secondary	98.8	441	91.2	98.7	19.2	436
Wealth quintile						
Lowest	96.2	1,114	56.3	78.1	26.7	1,071
Second	98.1	869	60.7	79.3	28.3	852
Middle	97.9	1,097	64.4	81.3	22.7	1,074
Fourth	98.9	1,381	67.6	85.3	26.2	1,367
Highest	99.1	1,534	77.8	91.2	26.6	1,521
Total 15-49	98.2	5,995	66.6	83.9	26.1	5,885
50-59	99.5	505	71.1	90.4	22.6	502
Total men 15-59	98.3	6,500	67.0	84.4	25.8	6,387

3.10 TOBACCO USE

Smoking has been shown to have significant adverse health effects including increased risk of respiratory and cardiovascular illnesses, both for the individual smoker and for other persons exposed to second-hand or "environmental" tobacco smoke (WHO, 1999). The 2007 ZDHS collected information on women's and men's tobacco use. Tables 3.10.1 and 3.10.2 show the percentage of women and men who smoke cigarettes, a pipe, or use other tobacco products, and the percent distribution of cigarette smokers by number of cigarettes smoked in the past 24 hours, according to background characteristics. Table 3.10.1 also includes data on women's tobacco use by maternity status.

The majority of women (98 percent) reported that they do not use tobacco. Only 53 women reported smoking cigarettes, so it is not possible to look at patterns of cigarette use among women.

Table 3.10.1 Use of tobacco: Women

Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics and maternity status, Zambia 2007

Background characteristic	Cigarettes	Pipe	Other tobacco	Does not use tobacco	Number of women
Age					
15-19	0.2	0.1	0.2	99.6	1,574
20-24	0.2	0.0	0.3	99.5	1,370
25-29	0.5	0.0	0.8	98.8	1,363
30-34	0.4	0.2	0.9	98.4	1,056
35-39	0.9	0.2	2.7	96.7	747
40-44	2.1	0.4	3.7	95.2	561
45-49	3.8	0.5	4.6	93.3	475
Residence					
Urban	0.3	0.0	0.4	99.2	3,009
Rural	1.1	0.2	1.9	97.4	4,137
Province					
Central	0.6	0.0	0.1	99.3	659
Copperbelt	0.4	0.0	0.6	98.7	1,264
Eastern	0.4	0.1	1.1	98.6	971
Luapula	0.4	0.0	2.6	97.3	530
Lusaka	0.0	0.0	0.3	99.7	1,172
Northern	0.8	0.0	1.3	98.4	966
North-Western	0.2	0.0	0.4	99.5	365
Southern	0.3	0.0	0.4	99.2	727
Western	5.5	1.7	7.8	88.9	492
Education					
No education	3.4	0.8	5.1	92.7	744
Primary	0.6	0.1	1.2	98.3	3,891
Secondary	0.2	0.0	0.2	99.6	2,140
More than secondary	0.5	0.0	0.0	99.5	371
Maternity status					
Pregnant	0.5	0.3	1.1	98.6	762
Breastfeeding (not pregnant)	0.5	0.2	1.5	98.1	2,186
Neither	0.9	0.1	1.2	98.1	4,198
Wealth quintile					
Lowest	1.2	0.5	2.1	96.8	1,240
Second	1.6	0.3	3.0	96.4	1,283
Middle	0.8	0.0	1.1	98.4	1,280
Fourth	0.3	0.0	0.4	99.1	1,567
Highest	0.2	0.0	0.3	99.4	1,776
Total	0.7	0.1	1.3	98.2	7,146

Table 3.10.2 Use of tobacco: Women

Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics and maternity status, Zambia 2007

Background characteristic	Ciga-rettes	Pipe	Other tobacco	Does not use tobacco	Number of women	Number of cigarettes in the past 24 hours					Total	Number of cigarette smokers
						1-2	3-5	6-9	10+	Don't know/ missing		
Age												
15-19	0.2	0.1	0.2	99.6	1,574	*	*	*	*	*	100.0	3
20-24	0.2	0.0	0.3	99.5	1,370	*	*	*	*	*	100.0	3
25-29	0.5	0.0	0.8	98.8	1,363	*	*	*	*	*	100.0	7
30-34	0.4	0.2	0.9	98.4	1,056	*	*	*	*	*	100.0	5
35-39	0.9	0.2	2.7	96.7	747	*	*	*	*	*	100.0	7
40-44	2.1	0.4	3.7	95.2	561	*	*	*	*	*	100.0	12
45-49	3.8	0.5	4.6	93.3	475	*	*	*	*	*	100.0	18
Residence												
Urban	0.3	0.0	0.4	99.2	3,009	*	*	*	*	*	100.0	8
Rural	1.1	0.2	1.9	97.4	4,137	*	*	*	*	*	100.0	46
Province												
Central	0.6	0.0	0.1	99.3	659	*	*	*	*	*	100.0	4
Copperbelt	0.4	0.0	0.6	98.7	1,264	*	*	*	*	*	100.0	5
Eastern	0.4	0.1	1.1	98.6	971	*	*	*	*	*	100.0	4
Luapula	0.4	0.0	2.6	97.3	530	*	*	*	*	*	100.0	2
Lusaka	0.0	0.0	0.3	99.7	1,172	*	*	*	*	*	100.0	1
Northern	0.8	0.0	1.3	98.4	966	*	*	*	*	*	100.0	8
North-Western	0.2	0.0	0.4	99.5	365	*	*	*	*	*	100.0	1
Southern	0.3	0.0	0.4	99.2	727	*	*	*	*	*	100.0	2
Western	5.5	1.7	7.8	88.9	492	*	*	*	*	*	100.0	27
Education												
No education	3.4	0.8	5.1	92.7	744	*	*	*	*	*	100.0	25
Primary	0.6	0.1	1.2	98.3	3,891	*	*	*	*	*	100.0	23
Secondary	0.2	0.0	0.2	99.6	2,140	*	*	*	*	*	100.0	3
More than secondary	0.5	0.0	0.0	99.5	371	*	*	*	*	*	100.0	2
Maternity status												
Pregnant	0.5	0.3	1.1	98.6	762	*	*	*	*	*	100.0	4
Breastfeeding (not pregnant)	0.5	0.2	1.5	98.1	2,186	*	*	*	*	*	100.0	10
Neither	0.9	0.1	1.2	98.1	4,198	*	*	*	*	*	100.0	39
Wealth quintile												
Lowest	1.2	0.5	2.1	96.8	1,240	*	*	*	*	*	100.0	15
Second	1.6	0.3	3.0	96.4	1,283	*	*	*	*	*	100.0	21
Middle	0.8	0.0	1.1	98.4	1,280	*	*	*	*	*	100.0	10
Fourth	0.3	0.0	0.4	99.1	1,567	*	*	*	*	*	100.0	4
Highest	0.2	0.0	0.3	99.4	1,776	*	*	*	*	*	100.0	4
Total	0.7	0.1	1.3	98.2	7,146	(39.2)	(23.7)	(6.9)	(3.5)	(26.6)	100.0.	53

Note: Figures in parentheses are based on 24-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1]All female smokers had smoked at least 1 cigarette in the past 24 hours.

Table 3.10.3 presents tobacco use for men. Twenty-nine percent of men age 15-49 reported smoking cigarettes, a pipe, or using other tobacco products. Most of these men smoked cigarettes (23 percent). The largest proportion of male cigarette smokers is in the 30-34 age group (323 cigarette smokers). There is not much variance by urban-rural residence, except among men who smoke ten or more cigarettes per day (17 percent for urban men contrasted to 11 percent for their rural counterparts). Among men who smoke, 39 percent had smoked three to five cigarettes within the 24 hours prior to the interview, and 14 percent had smoked 10 or more cigarettes during the same time period.

Table 3.10.3 Use of tobacco: Men

Percentage of men age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics, Zambia 2007

Background characteristic	Ciga-rettes	Pipe	Other tobacco	Does not use tobacco	Number of men	Number of cigarettes in past 24 hours						Total	Number of cigarette smokers
						0	1-2	3-5	6-9	10+	Don't know/ missing		
Age													
15-19	3.6	0.0	0.8	96.3	1,416	(22.5)	(37.8)	(16.4)	(14.6)	(5.8)	(3.0)	100.0	51
20-24	16.5	1.3	2.4	83.3	1,066	13.6	27.3	35.5	8.7	14.2	0.7	100.0	176
25-29	25.9	1.6	4.1	73.5	977	7.1	30.6	36.9	11.6	12.6	1.2	100.0	253
30-34	33.8	1.8	5.3	65.9	954	6.1	24.6	40.3	15.2	12.9	0.9	100.0	323
35-39	38.4	1.3	8.4	61.4	717	5.0	24.2	41.1	14.0	14.8	0.9	100.0	275
40-44	35.5	1.5	8.1	63.6	475	3.5	22.8	46.1	14.2	12.1	1.2	100.0	169
45-49	36.8	2.5	6.8	62.4	390	5.9	26.0	35.7	11.9	20.1	0.4	100.0	143
Residence													
Urban	21.2	1.5	3.2	78.3	2,601	8.1	23.2	36.6	14.0	17.3	0.7	100.0	551
Rural	24.7	1.0	5.0	75.0	3,395	6.8	28.4	39.9	12.4	11.4	1.2	100.0	839
Province													
Central	22.1	0.1	5.1	77.9	559	2.2	13.0	38.8	19.3	23.9	2.8	100.0	123
Copperbelt	24.7	0.1	3.0	75.0	1,140	10.6	21.6	41.9	11.9	13.6	0.3	100.0	281
Eastern	25.3	0.6	0.5	74.7	795	6.3	34.3	34.7	11.9	11.2	1.6	100.0	201
Luapula	30.6	0.0	6.1	69.4	387	4.6	40.8	37.8	12.4	4.2	0.3	100.0	118
Lusaka	20.6	3.3	5.1	78.4	1,072	5.6	25.5	32.0	13.6	22.7	0.7	100.0	220
Northern	23.3	1.0	10.4	76.5	805	9.5	24.6	43.7	11.1	11.1	0.0	100.0	188
North-Western	23.2	0.3	4.4	76.7	303	11.3	35.5	27.5	14.0	11.3	0.4	100.0	70
Southern	14.3	0.5	1.5	85.0	621	13.8	25.8	35.1	13.8	7.4	4.1	100.0	89
Western	31.2	5.9	0.5	68.4	315	0.0	22.5	54.0	12.2	10.8	0.5	100.0	98
Education													
No education	41.3	1.8	8.2	57.8	267	3.3	21.1	42.9	18.4	11.1	3.2	100.0	110
Primary	27.3	1.3	5.3	72.3	2,775	5.4	28.0	40.0	11.5	14.2	0.8	100.0	757
Secondary	18.3	1.1	3.1	81.4	2,512	10.6	25.4	36.0	13.4	13.6	0.9	100.0	461
More than secondary	14.1	1.2	1.2	85.9	441	12.5	22.3	32.8	18.1	14.3	0.0	100.0	62
Wealth quintile													
Lowest	28.7	1.4	5.6	71.1	1,114	7.0	28.4	38.7	11.6	13.3	1.0	100.0	319
Second	28.2	0.8	7.7	71.3	869	8.1	26.8	45.3	13.6	5.3	1.0	100.0	245
Middle	22.3	1.0	3.8	77.4	1,097	3.7	29.0	41.8	11.7	12.7	0.9	100.0	245
Fourth	25.7	1.4	4.2	73.8	1,381	6.3	22.2	36.2	14.2	19.6	1.6	100.0	355
Highest	14.7	1.3	1.5	85.0	1,534	12.3	26.8	31.4	13.8	15.6	0.2	100.0	226
Total 15-49	23.2	1.2	4.2	76.5	5,995	7.3	26.4	38.6	13.0	13.8	1.0	100.0	1,390
50-59	31.7	1.6	7.3	67.0	505	3.6	31.8	38.4	10.5	14.2	1.5	100.0	160
Total men 15-59	23.8	1.2	4.5	75.7	6,500	6.9	26.9	38.6	12.7	13.8	1.1	100.0	1,550

Note: Figures in parentheses are based on 25-29 unweighted cases.

FERTILITY LEVELS, TRENDS, AND DIFFERENTIALS 4

Margaret Tembo-Mwanamwenge

4.1 INTRODUCTION

This chapter looks at a number of fertility indicators including levels, patterns, and trends in both current and cumulative fertility; the length of birth intervals; and the age at which women begin childbearing. Information on current and cumulative fertility is essential to monitoring population growth. The data on birth intervals are important because short intervals are associated with higher childhood mortality. The age at which childbearing begins can also have a major impact on the health and well-being of both the mother and the child.

Data on childbearing patterns were collected in the 2007 ZDHS in several ways. First, each woman was asked a series of questions on the number of sons and daughters currently living with her, the number living elsewhere, and the number who were born alive and later died. Next, a complete history of all of the woman's births was obtained, including the name, sex, month and year of birth, age, and survival status for each of the births. For living children, a question was asked about whether the child was living in the household or away. For dead children, the age at death was recorded. Finally, information was collected on whether female respondents were pregnant at the time of the survey.

4.2 CURRENT FERTILITY

The level of current fertility is one of the most important topics in this report because of its direct relevance to population policies and programs. Measures of current fertility presented in this chapter include age-specific fertility rates (ASFR), the total fertility rate (TFR), the general fertility rate (GFR), and the crude birth rate (CBR). The rates are generally presented for the period 1-36 months preceding the survey, determined from the date of interview and a child's birth date. A three-year period is chosen for calculating these rates to provide the most current information, to reduce sampling error, and to avoid problems of the displacement of births.

Age-specific fertility rates show the age pattern of fertility. Numerators for the ASFRs are calculated by identifying live births that occurred in the three-year period preceding the survey and classifying them by the age of the mother (in five-year age groups) at the time of the child's birth. The denominators of the rates represent the number of woman-years lived by the survey respondents in each of the five-year age groups during the specified period. The TFR refers to the number of live births a woman would have if she were subject to the current age-specific fertility rates throughout her reproductive years (15-49 years). The GFR represents number of live births per 1,000 women of reproductive age. The CBR is the number of live births per 1,000 population. The latter two measures are based on the birth history data for the three-year period before the survey and the age-sex distribution of the household population.

Current fertility rates for the three years preceding the survey are presented in Table 4.1 for the country as a whole and by urban-rural residence. The survey results indicate that the TFR is 6.2 births per woman. This means that, on average, a Zambian woman will give birth to 6.2 children by the end of her childbearing years. The current TFR is a slight increase from 2001-2002 TFR of 5.9. Overall, fertility peaks at 274 births per 1,000 women among women age 20-24 and declines thereafter.

The general fertility rate is 214. This means that there were 214 births for every 1,000 women during the three-year period preceding the survey. The table also shows a crude birth rate of 43.6 per 1,000 population for the period under review.

Rural areas have a much higher TFR than urban areas (7.5 and 4.3, respectively). Table 4.1 also shows that there are large urban-rural differences in ASFRs for all age groups. The largest variations are in age groups 20-24 and 25-29 in which the rates among rural women exceed 300 births per thousand women, compared with urban rates of 201 and 190 births per thousand women, respectively.

Figure 4.1 compares the fertility levels of various countries in sub-Saharan Africa. Zambia's fertility rate remains one of the highest in the region.

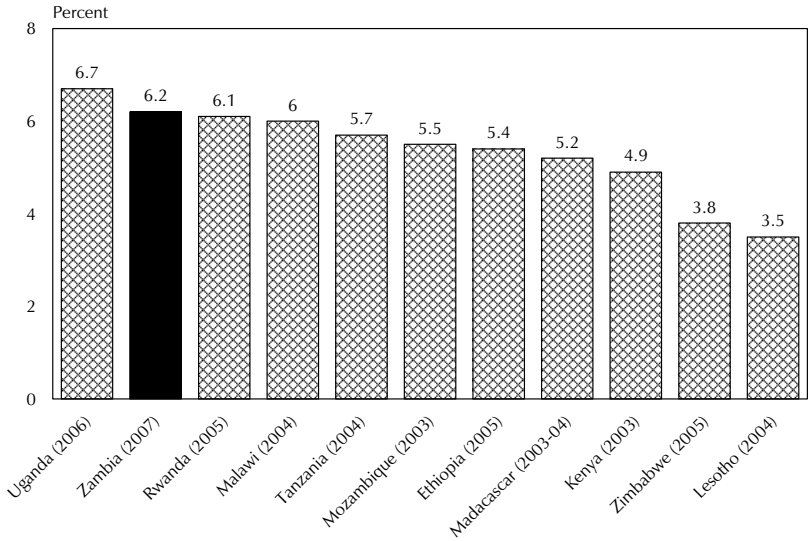
Table 4.1 Current fertility

Age-specific and total fertility rates, general fertility rate, and crude birth rate for the three years preceding the survey, by residence, Zambia 2007

	Residence		
Age group	Urban	Rural	Total
15-19	99	189	146
20-24	201	329	274
25-29	190	314	263
30-34	181	277	240
35-39	127	228	191
40-44	52	114	90
45-49	5	44	29
TFR	4.3	7.5	6.2
GFR	151	259	214
CBR	36.3	47.5	43.6

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months prior to interview.
TFR: Total fertility rate expressed per woman
GFR: General fertility rate expressed per 1,000 women
CBR: Crude birth rate, expressed per 1,000 population

Figure 4.1 **Total Fertility Rates of Various Countries in Sub-Saharan Africa**



4.3 FERTILITY DIFFERENTIALS

Table 4.2 and Figure 4.2 present several fertility indicators (the TFR, the percentage of women who are currently pregnant, and the mean number of births to women age 40-49), by background characteristics. These indicators provide a basis for inferring long-term trends in fertility by allowing for the comparison of the TFR with the mean number of births to women age 40-49. The latter indicator takes into account the fertility behaviour among older women who are nearing the end of their reproductive period; thus, it serves as an indicator for average completed fertility among women who began childbearing during the three decades preceding the survey. If fertility is stable over time in a population, the TFR and the mean number of children ever born (CEB) for women age 40-49 will be similar. If fertility levels have been falling, the TFR will be lower than the mean CEB among women age 40-49. Some caution should be taken when assessing trends in fertility from comparison of the TFR and mean number of children ever born because older women may understate their total childbearing experience. The percentage pregnant provides a useful additional measure of current fertility, although it is recognized that it may not capture pregnancies that are in an early stage.

Table 4.2 indicates that there are variations in the TFR by residence, province, education, and wealth quintile. The more urbanised provinces, Copperbelt (4.8) and Lusaka (4.1), have lower rates than the rest, which are typically rural. The highest TFR is seen in Northern Province (7.9), followed by North-Western with 7.3 and Luapula with 7.2. The TFR decreases with increasing level of education. Women with more than a secondary education have a TFR of 2.4 compared with women with no education who have a TFR of 8.2. Women in the highest wealth quintile have an average of five children fewer than women in the lowest quintile (3.4 and 8.4 births per woman, respectively).

Table 4.2 Fertility by background characteristics

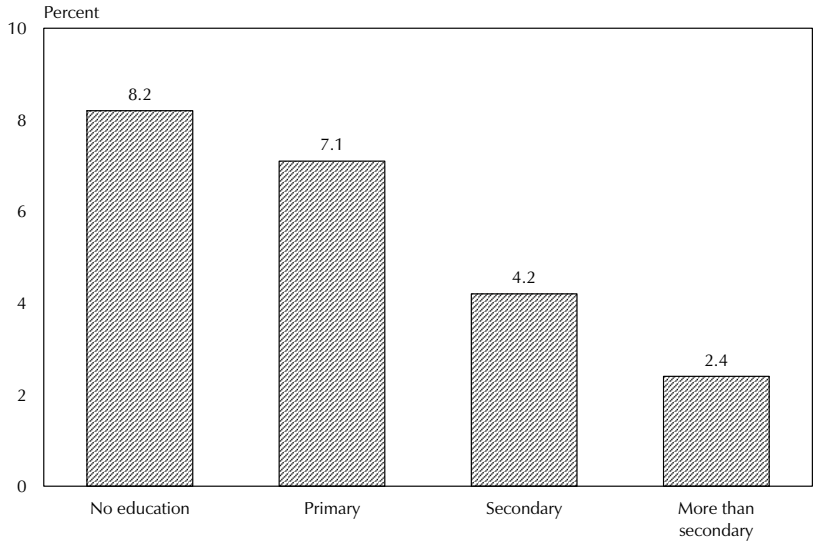
Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Zambia 2007

Background characteristic	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	4.3	7.8	6.0
Rural	7.5	12.8	6.8
Province			
Central	6.4	9.8	6.9
Copperbelt	4.8	8.0	6.3
Eastern	7.1	10.7	6.6
Luapula	7.2	15.3	7.0
Lusaka	4.1	8.4	5.7
Northern	7.9	12.8	6.8
North-Western	7.3	13.4	6.9
Southern	6.7	10.6	6.9
Western	6.2	12.8	5.7
Education			
No education	8.2	10.8	6.8
Primary	7.1	12.4	6.9
Secondary	4.2	8.1	5.8
More than secondary	2.4	7.2	3.8
Wealth quintile			
Lowest	8.4	13.5	7.0
Second	7.6	12.2	7.0
Middle	7.2	13.7	6.5
Fourth	5.2	9.5	6.7
Highest	3.4	6.4	5.3
Total	6.2	10.7	6.5

Note: Total fertility rates are for the period 1-36 months preceding the interview.

At the time of the survey, 11 percent of interviewed women reported that they were pregnant. The percentage of women pregnant provides another measure of current fertility, although it is recognized that the survey may not capture all pregnancies because women may not know or may be reluctant to report early-stage pregnancies. A comparison of the TFR and the mean number of children ever born to women age 40-49 suggests that fertility has remained fairly constant with a CEB of 6.5 and TFR of 6.2.

Figure 4.2 Total Fertility Rate by Level of Education



ZDHS 2007

4.4 FERTILITY TRENDS

Table 4.3 uses information from the retrospective birth histories obtained from the 2007 ZDHS respondents to examine trends in age-specific fertility rates for successive five-year periods before the survey. To calculate these rates, births are classified according to the period of time in which the birth occurred and the mother's age at the time of birth. Because birth histories were not collected for women age 50 and older, the rates for older age groups become progressively more truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 45-49 for the period 5-9 years or more preceding the survey, because women in that age group would have been 50 years or older at the time of the survey.

Table 4.3 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Zambia 2007

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	151	169	160	154
20-24	271	269	310	275
25-29	264	271	296	288
30-34	229	243	254	[256]
35-39	182	171	[209]	-
40-44	87	[108]	-	-
45-49	[29]	-	-	-

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates exclude the month of interview.

The results in Table 4.3 show that fertility increased between the periods 15-19 and 10-14 years preceding the survey for all age groups. Over time, fertility has remained fairly constant for all age groups, except the 25-29 and 30-34 age groups.

Another way to examine fertility trends is to compare current estimates with earlier surveys and censuses. Table 4.4 and Figure 4.3 show estimates of ASFRs from a series of surveys and censuses conducted in Zambia since 1980. In addition to the 2007 ZDHS, these sources include the 1980, 1990 and 2000 censuses and the earlier rounds of the ZDHS in 1992, 1996 and 2001-02.

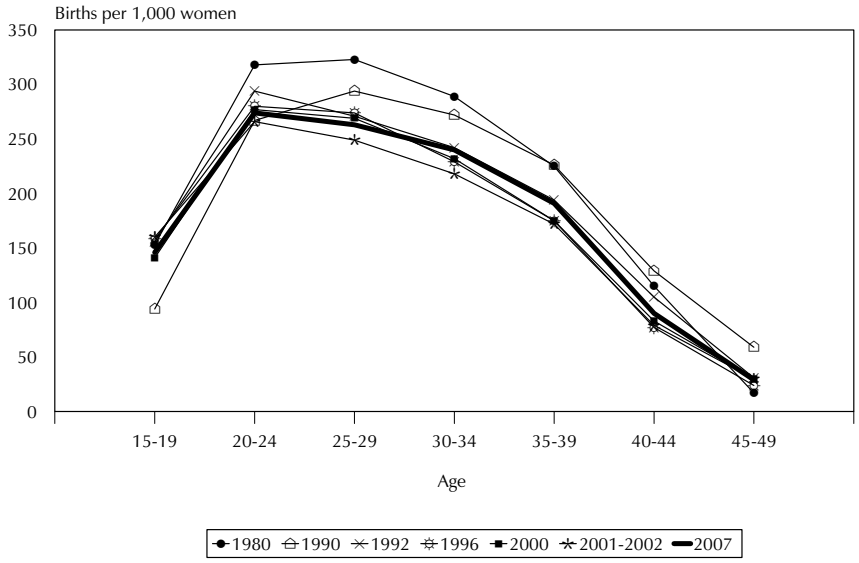
Table 4.4 Trends in age-specific and total fertility rates, various sources

Age-specific fertility rates and total fertility rate as adjusted in the 1980, 1990, and 2000 censuses and as reported in the 1992, 1996, 2001-2002 and 2007 ZDHS surveys

Age group	Census 1980	Census 1990	ZDHS 1992	ZDHS 1996	Census 2000	ZDHS 2001-2002	ZDHS 2007
15-19	153	94	156	158	141	160	146
20-24	318	267	294	280	277	266	274
25-29	323	294	271	274	269	249	263
30-34	289	272	242	229	232	218	240
35-39	225	226	194	175	175	172	191
40-44	115	129	105	77	83	79	90
45-49	17	59	31	24	30	30	29
TFR 15-49	7.2	6.7	6.5	6.1	6.0	5.9	6.2

Note: The census figures for 1980 and 1990 were estimated using the Gompertz function while the 2000 Census rates used the Brass P/F ratio and refer to the year before the survey. The ZDHS rates refer to the three-year period preceding the survey year.
Source: CSO, 1995a; CSO, CBoH, and ORC Macro, 2003; CSO, 2002b; CSO, MOH, and Macro International, 1997; Gaisie et al., 1993

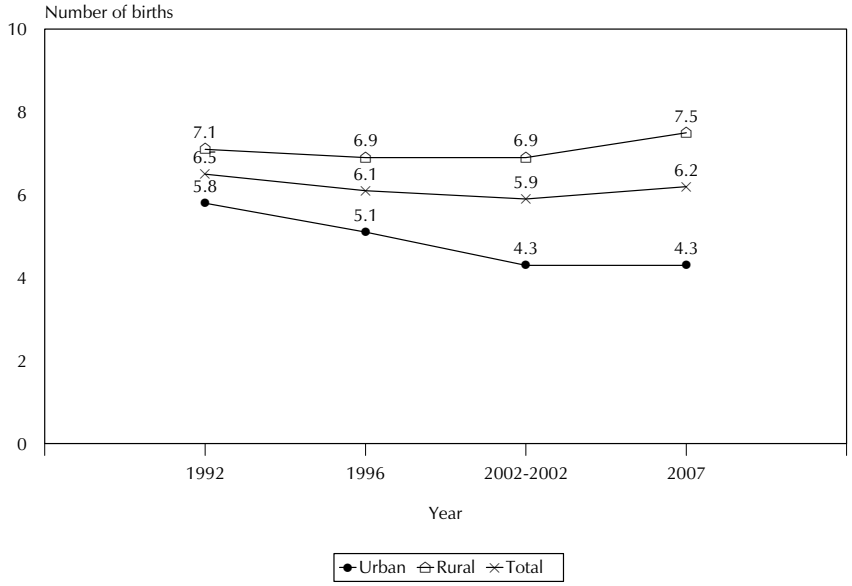
Figure 4.3 Trends in Fertility, 1980-2007



Before 1992, the peak ASFR was in age group 25-29. Results from 1992, 1996, 2001-2002 and 2007 ZDHS surveys, as well as the 2000 Census, show that the peak has shifted to the 20-24 age group.

Fertility rates have decreased by one birth over the 27-year period from 7.2 births per woman at the time of the 1980 Census to 6.2 births in the 2007 ZDHS. The most recent ZDHS survey data show a slight increase in fertility, mainly due to an increase in rural fertility from 6.9 in 2001-2002 to 7.5 in 2007. Fertility in urban areas remained constant between 2001-2002 and 2007 at 4.3. Figure 4.4 shows the fertility trends for rural and urban areas from the ZDHS (1992, 1996, 2001-2002, and 2007).

Figure 4.4 Trends in Fertility Rates by Urban-Rural Residence



4.5 CHILDREN EVER BORN AND LIVING

Table 4.5 presents the distribution of all women and currently married women by number of children ever born, according to five-year age groups. The table also shows the mean number of children ever born. Data on the number of children ever born reflect the accumulation of births to women over their entire reproductive years (parity) and therefore have limited reference to current fertility levels, particularly when a country has experienced a decline in fertility. However, the information on children ever born is useful for observing how average family size varies across age groups, and for observing the level of primary infertility. Comparison of the differences in the mean number of children ever born and surviving reflects the cumulative effects of mortality levels during the period in which women have been bearing children.

Table 4.5 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born, mean number of children ever born and mean number of living children, according to age group, Zambia 2007

Age	Number of children ever born											Total	Number of women	Mean number of children ever born	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	78.3	18.2	3.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,574	0.26	0.23
20-24	21.4	28.9	28.9	15.2	5.1	0.5	0.0	0.1	0.0	0.0	0.0	100.0	1,370	1.56	1.37
25-29	7.7	13.0	19.2	24.2	22.2	10.7	2.4	0.6	0.0	0.0	0.0	100.0	1,363	2.85	2.48
30-34	4.2	6.2	10.9	12.3	21.0	18.9	14.7	8.2	2.8	0.6	0.2	100.0	1,056	4.19	3.59
35-39	2.8	3.8	5.6	10.7	8.6	14.8	15.5	16.1	12.5	6.2	3.4	100.0	747	5.53	4.65
40-44	3.9	4.6	5.1	5.8	7.6	10.8	11.4	13.4	11.7	13.7	12.1	100.0	561	6.24	5.20
45-49	1.9	3.2	5.5	4.1	6.2	13.3	10.6	11.1	14.2	11.5	18.4	100.0	475	6.75	5.49
Total	24.2	13.9	12.9	11.2	10.2	8.2	5.8	4.8	3.6	2.6	2.6	100.0	7,146	3.03	2.58
CURRENTLY MARRIED WOMEN															
15-19	35.5	47.2	16.2	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	280	0.83	0.73
20-24	7.0	27.0	37.9	20.6	6.9	0.4	0.0	0.1	0.0	0.0	0.0	100.0	889	1.95	1.73
25-29	2.9	9.3	19.1	27.1	25.2	12.8	2.8	0.7	0.1	0.0	0.0	100.0	1,053	3.16	2.76
30-34	2.1	4.5	9.8	10.7	21.1	21.2	16.6	9.4	3.5	0.7	0.3	100.0	826	4.50	3.86
35-39	1.8	2.9	3.5	10.0	6.9	13.9	17.6	18.2	14.3	7.0	3.8	100.0	590	5.88	4.97
40-44	2.8	2.9	3.8	5.3	5.8	10.8	10.5	12.8	14.4	16.5	14.2	100.0	411	6.71	5.62
45-49	1.4	2.9	5.2	3.6	5.0	12.3	9.4	11.3	15.4	12.8	20.7	100.0	353	7.04	5.73
Total	5.4	12.4	16.4	14.8	13.3	11.0	7.9	6.5	5.2	3.6	3.5	100.0	4,402	4.02	3.43

Table 4.5 shows the percent distribution of all women and currently married women by number of children ever born, mean number of children ever born, and mean number of children living. More than three-fourths of women age 15-19 (78 percent) have never given birth. However, this proportion declines to 8 percent for women age 25-29 and 4 percent or less among women age 30 and older, indicating that childbearing among Zambian women is nearly universal. On average, Zambian women nearing the end of their reproductive years have attained a parity of 6.8 children.

The same pattern is seen for currently married women, except that the mean number of children ever born is higher (4.0 children) compared with all women (3.0 children). The difference in the mean number of children ever born between all women and currently married women can be attributed to a substantial proportion of young and unmarried women in the former category who exhibit lower fertility.

In Zambia, primary infertility is low, with 2 percent of all women unable to have children. It should be noted, however, that this estimate of primary infertility does not include women who had one or more births, but who are unable to have more children (secondary infertility).

4.6 Birth Intervals

A birth interval is defined as the length of time between two successive live births. The study of birth intervals is important in understanding young children's health status. Research has shown that short birth intervals are closely associated with poor health, especially during infancy. Children born too close to a previous birth, especially if the interval between the births is less than two years, have an increased risk of morbidity and mortality at an early age. Longer birth intervals, on the other hand, contribute to improved health status for both the mother and child.

Table 4.6 presents the distribution of second- and higher-order births in the five years preceding the survey by the number of months since the previous birth, according to background characteristics. The table also shows the median number of months since the last birth.

Data in Table 4.6 show that about 5 percent of births are less than 18 months apart and 15 percent have an interval of less than two years. Two in five births (40 percent) are born 24-35 months after the previous birth, and 24 percent are born 36-47 months after the previous birth. The median birth interval is 34 months, one month longer than the median birth interval in the 2001-2002 ZDHS (33 months). Forty-five percent of all non-first births occur at least 36 months after the previous birth.

The median number of months since a preceding birth increases significantly with age, from 25 months among mothers age 15-19 to 39 months among mothers age 40-49. The median birth interval does not vary by birth order or sex of preceding birth. However, notable variation in the median birth interval is observed with survival of preceding birth, residence, mother's education, and household wealth quintile. The median birth interval is higher (35 months) if the preceding birth's survival status is living rather than dead (27 months). In terms of education, the median birth interval is 34 months among women with no education compared with 48 months among mothers with more than secondary education. The birth interval among women in the lowest wealth quintile is 34 months compared with 40 months for women in the highest wealth quintile.

Table 4.6 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Zambia 2007

Background characteristic	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
Age									
15-19	20.1	23.5	44.1	11.1	1.1	0.0	100.0	58	25.2
20-29	5.9	11.8	43.8	23.4	9.6	5.4	100.0	2,564	32.6
30-39	3.5	8.7	37.1	24.2	11.8	14.8	100.0	2,039	36.2
40-49	4.0	7.8	28.4	24.4	13.3	22.0	100.0	486	38.8
Birth order									
2-3	4.8	10.9	39.7	23.6	10.8	10.2	100.0	2,214	34.3
4-6	5.1	9.1	40.5	24.1	10.3	11.0	100.0	1,998	34.5
7+	4.9	11.6	37.9	23.1	11.6	10.9	100.0	936	34.5
Sex of preceding birth									
Male	5.0	10.4	39.2	23.9	10.5	11.0	100.0	2,527	34.5
Female	4.9	10.2	40.1	23.5	11.0	10.3	100.0	2,620	34.3
Survival of preceding birth									
Living	3.0	9.1	41.0	24.6	11.2	11.0	100.0	4,512	35.0
Dead	18.5	18.7	30.1	17.2	7.3	8.3	100.0	635	27.4
Residence									
Urban	5.1	8.5	31.8	24.4	12.3	17.9	100.0	1,341	37.2
Rural	4.9	11.0	42.4	23.4	10.2	8.1	100.0	3,806	33.5
Province									
Central	3.2	10.4	43.5	24.5	8.9	9.6	100.0	518	33.7
Copperbelt	4.1	8.0	38.8	20.8	12.2	16.1	100.0	651	35.8
Eastern	4.1	13.5	42.8	20.9	12.2	6.6	100.0	861	33.3
Luapula	3.0	12.8	43.0	23.3	9.9	8.0	100.0	480	32.9
Lusaka	6.8	7.2	31.9	25.2	11.5	17.4	100.0	538	37.6
Northern	7.5	10.8	39.3	25.0	10.1	7.3	100.0	867	33.8
North-Western	6.1	12.9	40.6	23.7	9.8	6.9	100.0	334	32.4
Southern	4.2	8.9	37.8	26.1	10.0	12.9	100.0	540	35.6
Western	4.9	6.7	38.1	25.9	10.7	13.7	100.0	358	36.1
Education									
No education	6.5	10.7	37.5	25.2	11.3	8.8	100.0	767	34.2
Primary	4.8	10.8	41.9	22.8	10.0	9.7	100.0	3,418	33.7
Secondary	3.9	8.9	35.1	25.8	12.2	14.2	100.0	877	36.5
More than secondary	6.2	3.8	17.5	23.1	19.2	30.2	100.0	86	47.9
Wealth quintile									
Lowest	3.8	10.2	43.6	24.3	11.0	7.0	100.0	1,306	34.1
Second	5.9	12.3	42.9	22.6	9.4	6.8	100.0	1,225	32.4
Middle	5.2	10.6	41.3	23.1	9.8	10.0	100.0	1,104	33.7
Fourth	4.8	9.6	36.1	24.7	9.6	15.2	100.0	921	35.8
Highest	5.2	6.9	27.0	23.8	16.3	20.8	100.0	592	40.1
Total	4.9	10.3	39.7	23.7	10.7	10.7	100.0	5,147	34.4

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

4.7 AGE AT FIRST BIRTH

The age at which childbearing commences is an important determinant of the overall level of fertility as well as the health and welfare of the mother and child. In some societies, postponement of first births because of an increase in the age at marriage has contributed to overall fertility decline. Table 4.7 shows the percentage of women who have given birth by specific ages, according to age at the time of the survey. The median age at first birth has increased from 18.4 years for women age 45-49 to 19.1 years for women age 20-24.

In Zambia, 5 percent of women age 25-29 have given birth by age 15, and 61 percent have become mothers by age 20. The increase in age at marriage can also be detected from the increase over time in the proportion of women who have given birth at age 15. Whereas 2 percent of women age 15-19 gave birth by age 15, the corresponding proportion for women age 45-49 is 10 percent. This reduction in the percentage of women giving birth early implies that more young women are postponing childbearing.

Table 4.7 Age at first birth

Percentage of women age 15-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to current age, Zambia 2007

Current age	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
	15	18	20	22	25			
15-19	1.8	na	na	na	na	78.3	1,574	a
20-24	4.0	33.6	61.3	na	na	21.4	1,370	19.1
25-29	3.5	33.6	59.0	77.2	87.9	7.7	1,363	19.2
30-34	3.5	33.0	61.3	77.6	88.4	4.2	1,056	19.0
35-39	4.6	36.7	61.9	78.2	90.2	2.8	747	19.0
40-44	5.6	36.1	61.5	76.4	89.6	3.9	561	19.1
45-49	9.7	45.0	67.2	79.4	90.2	1.9	475	18.4
20-49	4.5	35.1	61.3	na	na	8.9	5,572	19.0
25-49	4.7	35.6	61.4	77.6	88.9	4.8	4,202	19.0

na = Not applicable
a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

Table 4.8 presents trends in the median age at first birth across age cohorts for key sub-groups of women. The measures are presented for women age 25-49 to ensure that half of the women have already had a birth. Overall, the median age at first birth for women age 25-49 in Zambia is 19 years. Urban women age 25-49 have a higher median age at first birth (20 years) than their rural counterparts (19 years). A comparison among the provinces shows that the median age at first birth for women age 25-49 ranges from 18 years in North-Western to 20 years in Lusaka.

The median age at first birth increases with level of education. Women with no education have their first birth at about 19 years, while women who have attained a higher level of education have a median age at first birth of 25 years, a difference of six years.

Table 4.8 Median age at first birth

Median age at first birth among women age 20-49 (25-49) years, according to background characteristics, Zambia 2007

Background characteristic	Age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	a	20.4	19.2	19.9	19.6	18.7	19.9	19.7
Rural	18.6	18.8	18.9	18.6	18.8	18.3	18.7	18.7
Province								
Central	18.8	18.9	19.5	18.9	18.6	17.5	18.8	18.8
Copperbelt	19.7	19.8	18.8	20.3	19.5	18.3	19.4	19.2
Eastern	18.6	18.8	19.0	18.9	19.1	18.7	18.8	18.9
Luapula	19.1	18.5	18.7	18.1	18.2	17.9	18.5	18.4
Lusaka	a	20.6	19.8	19.9	20.1	19.0	a	20.0
Northern	19.2	19.2	19.0	18.6	19.1	18.7	19.1	19.0
North-Western	18.5	18.6	18.0	18.4	18.5	17.6	18.4	18.3
Southern	18.6	19.1	18.7	18.9	18.7	18.2	18.8	18.8
Western	18.9	19.3	19.7	18.9	19.2	18.7	19.2	19.3
Education								
No education	17.9	18.6	19.2	18.6	18.4	18.7	18.6	18.7
Primary	18.4	18.6	18.5	18.5	18.8	17.8	18.5	18.5
Secondary	a	20.1	20.0	19.9	19.9	19.3	a	20.0
More than secondary	a	a	24.5	24.7	23.5	23.0	a	24.7
Wealth quintile								
Lowest	18.2	18.8	18.8	18.6	19.1	18.4	18.6	18.8
Second	18.5	18.9	19.0	18.8	18.4	18.5	18.7	18.8
Middle	18.9	18.4	18.7	18.3	18.8	17.7	18.6	18.5
Fourth	18.9	18.7	18.7	19.3	19.0	17.7	18.8	18.7
Highest	a	21.8	20.4	20.6	20.2	19.6	a	20.7
Total	19.1	19.2	19.0	19.0	19.1	18.4	19.0	19.0

a = Omitted because less than 50 percent of the women had a birth before reaching the beginning of the age group

4.8 TEENAGE PREGNANCY AND MOTHERHOOD

Teenage pregnancy is a major health concern because of its association with higher morbidity and mortality for both the mother and child. Childbearing during the teenage years also frequently has adverse social consequences, particularly on female educational attainment, because women who become mothers in their teens are more likely to curtail education. Table 4.9 shows the percentage of women age 15-19 who are mothers or who are pregnant with their first child.

Table 4.9 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, Zambia 2007

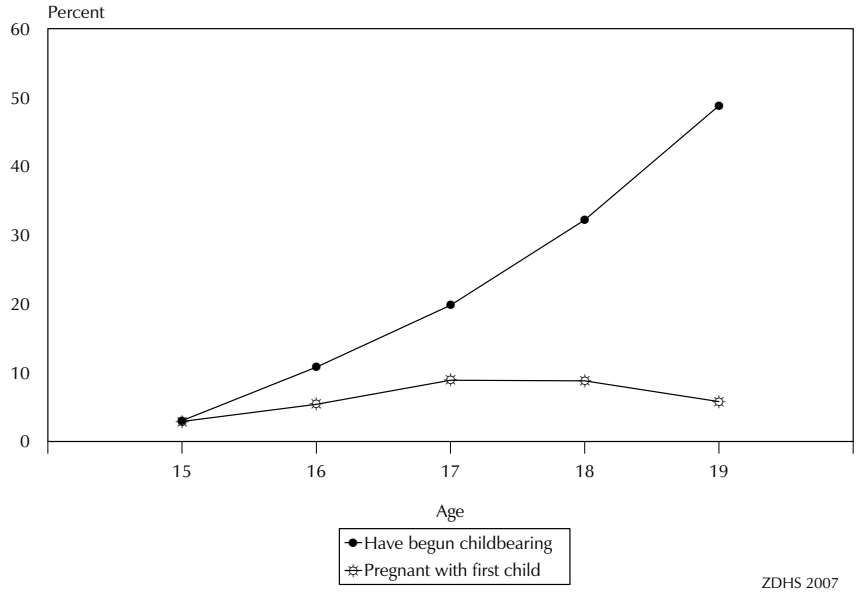
Background characteristic	Percentage of women age 15-19 who: Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing	Number of women
Age				
15	3.0	2.9	5.8	364
16	10.8	5.4	16.2	328
17	19.8	8.9	28.7	295
18	32.2	8.8	41.0	293
19	48.8	5.8	54.6	294
Residence				
Urban	16.5	3.9	20.4	761
Rural	26.7	8.3	35.0	813
Province				
Central	23.5	5.8	29.3	141
Copperbelt	16.0	4.1	20.1	303
Eastern	22.8	6.9	29.7	188
Luapula	23.5	8.5	32.1	109
Lusaka	17.3	3.5	20.8	285
Northern	18.5	8.2	26.6	196
North-Western	29.7	7.6	37.3	82
Southern	27.5	8.3	35.9	171
Western	35.6	8.0	43.6	99
Education				
No education	42.4	11.9	54.3	63
Primary	26.1	6.8	32.9	764
Secondary	15.7	5.1	20.8	739
More than secondary	*	*	*	8
Wealth quintile				
Lowest	30.7	6.4	37.2	219
Second	24.3	10.1	34.4	246
Middle	27.3	9.4	36.7	261
Fourth	22.2	7.2	29.4	385
Highest	12.7	1.3	14.0	463
Total	21.7	6.2	27.9	1,574

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

Overall, 28 percent of women age 15-19 have begun childbearing; 22 percent have had a child and 6 percent are pregnant with their first child. A larger proportion of teenagers in rural areas (35 percent) have begun childbearing compared with teenagers in urban areas (20 percent). A comparison of the provinces shows that Western has the largest proportion (44 percent) of teenagers who have started childbearing, while Copperbelt (20 percent) and Lusaka (21 percent) have the lowest proportion. The percentage of teenagers who have started childbearing decreases with increasing level of education. Teenagers with no education are more than twice as likely to start childbearing early as those with secondary education (54 and 21 percent, respectively). Teenagers in the lowest wealth quintile are more than twice as likely to have started childbearing as those in the highest wealth quintile (37 and 14 percent, respectively).

Data on teenage pregnancy and motherhood by age are shown in Figure 4.5. The rates for teen motherhood increase slowly between age 15 and 16 , after which the increase is rapid. In the case of first pregnancies, the increase is slow between age 15 and 17, after which it starts decreasing.

Figure 4.5 **Percentage of Teenagers Who Have Begun Childbearing or Are Pregnant With Their First Child**



FAMILY PLANNING 5

Chola Nakazwe Daka and Brian Munkombwe

This chapter presents results from the 2007 ZDHS on a number of aspects of contraception including knowledge of specific contraceptive methods, attitudes and behaviour regarding contraceptive use, sources of methods, and cost of methods. The focus in this chapter is on women who are sexually active because these women have the greatest risk of exposure to pregnancy and the need for regulating their fertility. However, the results of interviews with men are presented alongside those with women because men play an equally important role in the realization of reproductive health and family planning decisions and behaviour. Comparisons are also made, where feasible, with findings from previous surveys to evaluate changes in the contraceptive measures over time in Zambia.

5.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Information on knowledge of contraception was collected in the survey by asking female and male respondents to name ways or methods by which a couple could delay or avoid pregnancy. If the respondent failed to mention a particular method spontaneously, the interviewer described the method and asked whether the respondent had heard of it. Contraceptive methods are grouped into two types in the table. Modern methods include female sterilization, male sterilization, the pill, intrauterine device (IUD), injectables, implants, male condom, female condom, diaphragm, foam/jelly, lactational amenorrhoea (LAM), and emergency contraception. Traditional methods include the rhythm method (periodic abstinence) and withdrawal. Provision was also made in the questionnaire to record any other methods, including folk methods, the respondent mentioned.

The data show that knowledge of any contraceptive method is almost universal in Zambia, with 97 percent of women and 99 percent of men knowing at least one method of contraception (Table 5.1). Modern methods are more widely known than traditional methods; 97 percent of all women know of a modern method, compared with 68 percent with knowledge of traditional methods. Among modern methods for women, the male condom and the pill are the most commonly known (92 percent for both). Emergency contraception is the least known, reported by only 9 percent of all women. Among the traditional methods, withdrawal is the most commonly known (59 percent) among women. Women know a mean of 6.7 methods.

Like women, a larger proportion of men (99 percent) know a modern method than a traditional method (71 percent). Similar to women, the most commonly known modern method among men is the male condom (98 percent). Similarly, withdrawal is the most commonly known traditional method (61 percent). It is worth noting that men are half as likely as women to know of implants. The mean number of methods known by men is 6.2.

Table 5.1 Knowledge of contraceptive methods

Percentage of all respondents, currently married respondents, and sexually active unmarried respondents age 15-49 who know any contraceptive method, by specific method, Zambia 2007

	Women			Men		
Method	All women	Currently married women	Sexually active unmarried women[1]	All men	Currently married men	Sexually active unmarried men[1]
Any method	**97.0**	**98.8**	**97.7**	**99.0**	**99.8**	**99.8**
Any modern method	**96.9**	**98.7**	**97.7**	**98.9**	**99.8**	**99.8**
Female sterilization	64.6	70.8	60.2	62.0	72.6	56.8
Male sterilization	19.3	21.1	18.0	30.0	35.0	27.6
Pill	91.5	96.5	93.5	85.6	95.0	81.4
IUD	35.8	39.5	36.3	20.7	26.2	14.8
Injectables	86.8	94.4	87.3	75.1	88.1	68.6
Implants	43.3	49.4	40.4	19.9	26.0	14.8
Male condom	92.2	94.3	95.0	98.4	99.2	99.6
Female condom	65.8	68.0	70.2	65.6	69.4	69.0
Lactational amenorrhoea (LAM)	37.7	47.0	32.2	20.7	30.7	12.2
Emergency contraception	9.3	8.8	11.8	11.4	13.7	11.9
Any traditional method	**67.9**	**77.9**	**64.1**	**71.3**	**87.3**	**63.1**
Rhythm/Natural family planning	33.8	36.1	37.1	43.7	53.0	38.9
Withdrawal	59.4	70.7	56.7	61.3	78.4	53.0
Cycle beads/Standard days method	10.5	12.3	7.1	11.9	15.1	9.2
Other	17.1	21.1	15.6	9.6	13.8	7.1
Mean number of methods known by respondents 15-49	6.7	7.3	6.6	6.2	7.2	5.6
Number of respondents	7,146	4,402	320	5,995	3,168	521
Mean number of methods known by respondents 15-59	na	na	na	6.3	7.2	5.7
Number of respondents	na	na	na	6,500	3,624	528

[1] Had last sexual intercourse within 30 days preceding the survey
na = Not applicable

Table 5.2 presents data on knowledge of any family planning method by background characteristics. There is little variation by background characteristics. Younger women age 15-19 and women living in Western province are least likely to know of a contraceptive method (95 percent for both). For men, knowledge of any family planning method is almost uniform regardless of age, residence, province, educational level, or wealth quintile.

Table 5.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women and currently married men age 15-49 who have heard of at least one contraceptive method and who have heard of at least one modern method by background characteristics, Zambia 2007

Background characteristic	Women			Men		
	Heard of any method	Heard of any modern method[1]	Number	Heard of any method	Heard of any modern method[1]	Number
Age						
15-19	*	*	*	*	*	17
20-24	98.9	98.9	889	99.5	99.5	282
25-29	99.7	99.7	1,053	99.7	99.7	651
30-34	99.3	99.1	826	99.9	99.9	795
35-39	99.4	99.2	590	100.0	100.0	641
40-44	99.1	99.1	411	99.8	99.8	424
45-49	97.0	96.8	353	99.7	99.4	358
Residence						
Urban	99.8	99.7	1,540	99.9	99.9	1,093
Rural	98.4	98.2	2,863	99.8	99.7	2,075
Province						
Central	99.3	99.3	438	99.6	99.6	313
Copperbelt	99.9	99.9	699	99.8	99.6	466
Eastern	99.4	99.4	689	100.0	100.0	514
Luapula	97.5	97.0	363	100.0	100.0	252
Lusaka	100.0	100.0	620	99.7	99.7	479
Northern	97.9	97.8	655	99.7	99.7	483
North-Western	99.6	99.6	232	99.3	99.3	177
Southern	98.9	98.9	447	100.0	100.0	319
Western	94.6	93.6	258	100.0	100.0	165
Education						
No education	96.7	96.1	572	99.2	99.2	191
Primary	98.9	98.8	2,678	99.7	99.7	1,622
Secondary	99.8	99.8	959	100.0	100.0	1,074
More than secondary	100.0	100.0	193	100.0	99.7	281
Wealth quintile						
Lowest	97.7	97.4	912	99.4	99.4	745
Second	98.4	98.3	864	100.0	100.0	558
Middle	98.6	98.5	889	99.9	99.9	617
Fourth	99.6	99.5	911	99.8	99.8	664
Highest	100.0	100.0	825	100.0	99.9	584
Total 15-49	98.8	98.7	4,402	99.8	99.8	3,168
50-59	na	na	na	98.9	98.9	456
Total men 15-59	na	na	na	99.7	99.7	3,624

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, diaphragm, foam or jelly, lactational amenorrhoea method (LAM), and emergency contraception

5.2 EVER USE OF CONTRACEPTION

All women interviewed in the 2007 ZDHS who said that they had heard of a method of family planning were asked whether they had ever used that method. Men were only asked about ever use of male sterilization, male condom, LAM, the rhythm method, and withdrawal. Table 5.3.1 shows the percentage of all women, currently married women, and sexually active unmarried women who have ever used specific methods of family planning, by age. Table 5.3.2 presents comparable information for men. Table 5.3.1 also presents data for past ZDHS surveys (1992, 1996, and 2001-2002). Table 5.3.2 presents data from the 2001-2002 ZDHS survey.

Sixty-three percent of all women report using a method of contraception at some time; 56 percent used a modern method and 32 percent used a traditional method. In the 15-year period between the 1992 and 2007 ZDHS surveys, ever use of modern methods among all women has more than doubled from 23 percent to 56 percent. The pill (33 percent) is the most common method, followed by the male condom (28 percent) and injectables (19 percent). Implants, IUD, and emergency contraception are the least used modern methods with less than 1 percent of women having ever used any of these methods. Among traditional methods, withdrawal is most commonly used by women (27 percent), while cycle beads are the least used (1 percent).

Table 5.3.1 Ever use of contraception: Women

Percentage of all women, currently married women, and sexually active unmarried women age 15-49 who have ever used any contraceptive method by method, according to age, Zambia 2007

		Modern method										Traditional method					
Age	Any method	Any modern method	Female sterilisation	Pill	IUD	Injectables	Implants	Male condom	Female condom	LAM[1]	Emergency contraception	Any traditional method	Rhythm	Withdrawal	Cycle beads	Other	Number of women
ALL WOMEN																	
15-19	21.9	19.9	0.0	4.4	0.0	2.7	0.0	15.0	0.6	3.1	0.2	7.1	1.4	5.7	0.1	0.6	1,574
20-24	67.9	60.9	0.1	28.1	0.1	18.5	0.4	36.4	1.1	15.9	0.4	29.2	7.2	24.4	1.2	2.6	1,370
25-29	81.9	74.4	0.3	46.4	0.3	27.6	1.5	39.3	1.6	20.3	0.5	40.3	10.6	34.0	1.1	2.8	1,363
30-34	78.2	71.5	0.7	48.6	0.6	28.2	1.0	33.6	1.6	21.9	0.5	42.7	8.3	36.9	1.6	4.3	1,056
35-39	76.9	67.9	2.7	45.9	0.7	24.4	1.2	28.2	1.5	23.0	0.4	46.8	12.1	37.8	2.1	6.9	747
40-44	73.7	61.8	5.4	39.6	1.9	21.8	1.7	20.5	1.2	20.8	0.6	46.8	12.7	35.3	2.3	8.1	561
45-49	64.6	52.8	7.5	32.6	4.2	14.8	1.2	13.6	0.6	17.4	1.1	41.1	9.4	30.1	2.2	11.7	475
Total 2007	63.1	56.3	1.4	32.5	0.7	18.8	0.8	28.2	1.2	16.0	0.5	32.4	7.8	26.6	1.2	4.0	7,146
2001-02	57.3	42.0	1.5	28.1	0.8	9.2	0.4	20.9	1.0	7.9	0.3	34.2	6.8	23.3	na	6.9	7,658
1996	48.9	32.6	1.4	20.7	1.3	1.8	0.0	17.0	na	na	na	28.2	10.8	19.2	na	11.8	8,021
1992	39.9	22.9	1.5	15.5	2.2	1.5	na	9.1	na	na	na	27.5	7.1	18.0	na	8.9	7,060
CURRENTLY MARRIED WOMEN																	
15-19	52.7	44.7	0.0	15.7	0.0	8.5	0.0	27.0	1.6	12.3	0.0	24.7	5.3	20.6	0.2	1.6	280
20-24	77.5	68.7	0.2	34.8	0.1	23.0	0.2	35.6	1.5	21.3	0.5	36.8	8.3	31.3	1.4	3.6	889
25-29	84.3	75.4	0.3	48.6	0.5	29.5	1.3	36.4	1.5	22.9	0.5	43.8	11.3	38.0	1.1	2.9	1,053
30-34	80.1	72.3	0.5	48.4	0.6	28.7	0.7	32.1	1.5	24.2	0.5	45.8	9.1	39.9	2.0	4.3	826
35-39	79.2	69.9	2.8	47.2	0.8	27.0	1.0	26.5	1.2	24.7	0.3	51.2	12.3	41.9	2.6	7.3	590
40-44	76.0	63.2	6.2	39.0	2.6	24.1	1.6	18.3	1.6	23.6	0.1	49.2	13.1	37.0	2.1	9.3	411
45-49	65.9	54.5	8.7	34.9	5.0	17.2	1.6	14.0	0.7	19.0	0.4	42.4	9.1	31.1	2.5	12.4	353
Total 2007	77.2	68.0	1.9	41.5	1.0	24.9	0.9	30.0	1.4	22.1	0.4	42.9	10.0	35.8	1.7	5.2	4,402
2001-02	70.0	49.3	2.0	36.4	0.9	12.3	0.5	21.8	1.1	11.0	0.4	44.9	8.4	30.8	na	9.4	4,694
1996	59.4	38.5	2.0	26.0	1.5	2.1	0.0	18.6	na	na	na	35.9	12.5	25.5	na	15.7	4,902
1992	49.2	27.1	2.1	18.8	2.6	1.9	na	10.5	na	na	na	34.9	7.9	23.7	na	11.7	4,457
SEXUALLY ACTIVE UNMARRIED WOMEN[2]																	
15-19	56.3	53.9	0.0	5.6	0.0	6.0	0.0	49.3	0.3	3.0	0.0	15.8	3.5	14.7	0.0	0.0	98
20-24	79.0	76.7	0.0	35.4	0.0	24.0	2.5	63.3	0.9	10.9	0.0	21.3	6.4	15.6	1.5	0.0	81
25-29	98.3	97.1	0.0	68.5	0.0	40.1	0.0	78.1	3.8	8.2	2.8	42.8	15.8	33.5	0.0	3.9	55
30-34	(76.8)	(70.9)	(0.0)	(56.7)	(2.5)	(31.9)	(2.5)	(49.1)	(3.6)	(10.0)	(1.4)	(37.5)	(8.6)	(35.1)	(0.9)	(3.3)	42
35-39	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	22
40-44	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18
45-49	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Total 2007	75.3	71.7	0.5	36.7	0.3	22.7	1.0	58.2	1.4	7.4	0.7	29.4	8.1	24.7	0.6	2.5	320
2001-02	62.5	54.1	1.3	26.5	0.0	7.4	0.4	39.8	0.0	3.1	0.0	27.1	8.3	17.2	na	3.7	321
1996	51.1	40.0	0.0	18.8	1.5	2.3	0.0	29.5	na	na	na	23.3	11.8	13.2	na	8.2	492
1992	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
LAM = Lactational amenorrhoea method
na = Not applicable
[1] LAM is usually considered a modern method. Analysis of the 2001-2002 ZDHS data indicated that many women confused it with simple breastfeeding. Therefore, the 2001-02 ZDHS classified LAM as a traditional method.
[2] Women who had sexual intercourse within 30 days preceding the survey

Contraceptive use differs slightly among married women and sexually active unmarried women. Seventy-seven percent of currently married women have used a method of contraception at some time, 68 percent have used a modern method, while 43 percent have used a traditional method. Among sexually active unmarried women, 75 percent have used a method of contraception at some time, with 72 percent using a modern method, and 29 percent using a traditional method.

Ever use of contraception among all women varies by age. Ever use of a modern contraceptive method is 20 percent for women age 15-19, rises sharply to reach a peak of 74 percent among women age 25-29, and then drops to 53 percent at age 45-49.

Table 5.3.2 shows that 63 percent of men age 15-49 reported having used a method of contraception at some time, 54 percent used a modern male method, and 40 percent used a traditional method. The male condom is the most common method (52 percent), while less than 1 percent of men

Table 5.3.2 Ever use of contraception: Men

Percentage of all men, currently married men, and sexually active unmarried men age 15-49 who have ever used any contraceptive method by method, according to age, Zambia 2007

		Modern method				Traditional method			
Age	Any method	Any modern method	Male sterili-sation	Male condom	LAM	Any tradi-tional method	Rhythm	With-drawal	Number of men
ALL MEN									
15-19	20.4	18.9	0.0	18.9	0.1	5.4	2.7	3.9	1,416
20-24	62.9	59.2	0.3	57.6	3.5	23.9	11.3	16.4	1,066
25-29	79.1	71.3	0.3	70.1	6.8	49.7	26.9	38.0	977
30-34	82.1	69.6	0.4	66.5	12.7	61.2	33.3	48.2	954
35-39	81.4	68.7	0.2	64.5	17.9	63.4	38.5	47.9	717
40-44	79.3	62.2	0.7	54.4	17.1	62.5	34.7	46.4	475
45-49	76.0	51.0	0.3	42.4	17.9	63.2	38.4	46.5	390
Total 15-49	62.9	54.2	0.3	51.5	8.4	40.0	22.2	30.1	5,995
50-59	72.7	49.0	0.5	35.9	20.2	58.6	37.3	43.4	505
Total men 15-59, 2007	63.7	53.8	0.3	50.3	9.3	41.5	23.3	31.1	6,500
2001-01	67.3	47.9	0.3	47.7	na	48.7	27.9	36.1	2,145
CURRENTLY MARRIED MEN									
15-19	90.9	82.3	0.0	82.3	0.0	40.0	10.6	40.0	17
20-24	80.8	72.6	0.0	67.0	12.3	48.5	22.3	34.6	282
25-29	82.8	71.7	0.5	69.9	9.8	59.2	31.5	46.6	651
30-34	84.0	69.9	0.4	66.2	14.7	64.4	35.0	51.1	795
35-39	82.5	69.4	0.2	64.9	19.0	65.1	39.7	49.5	641
40-44	79.4	62.0	0.7	53.7	18.7	63.3	34.6	49.2	424
45-49	77.1	50.6	0.2	41.4	19.0	65.5	40.9	47.4	358
Total 15-49	81.8	67.2	0.3	62.4	15.3	61.9	34.6	47.7	3,168
50-59	73.4	49.2	0.6	35.4	20.8	59.5	37.3	44.4	456
Total men 15-59, 2007	80.7	65.0	0.4	59.0	16.0	61.6	34.9	47.2	3,624
2001-02	80.9	51.7	0.3	51.4	na	68.0	39.8	51.3	1,248
SEXUALLY ACTIVE UNMARRIED MEN[1]									
15-19	57.7	54.5	0.3	54.5	0.6	12.9	5.4	10.1	165
20-24	83.6	80.4	0.0	80.4	0.6	27.4	14.1	17.3	181
25-29	82.6	79.2	0.0	79.2	1.8	42.2	25.6	29.3	100
30-34	(80.5)	(73.3)	(1.2)	(73.3)	(0.8)	(50.3)	(30.1)	(35.0)	47
35-39	*	*	*	*	*	*	*	*	14
40-44	*	*	*	*	*	*	*	*	8
45-49	*	*	*	*	*	*	*	*	5
Total 15-49	74.8	70.9	0.2	70.8	0.9	29.3	15.6	20.6	521
50-59	*	*	*	*	*	*	*	*	7
Total men 15-59, 2007	75.0	71.0	0.2	70.9	1.0	29.8	16.2	21.1	528
2001-02	76.7	70.1	0.0	70.1	na	33.1	13.5	25.1	100

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
LAM = Lactational amenorrhoea method
[1] Men who had sexual intercourse within 30 days preceding the survey

have used male sterilization. For the traditional methods, withdrawal (30 percent) is more common than the rhythm method (22 percent). The male condom was reported to be the most commonly used method among currently married men (62 percent). Similarly, male condoms were the most common method ever used among sexually active unmarried men (71 percent). Ever use of any contraceptive method is 20 percent for men age 15-19, rises sharply to a peak of 82 percent among men age 30-34, and then declines to 76 percent at age 45-49.

5.3 Current Use of Contraceptive Methods

This section presents information on the prevalence of contraceptive use among women age 15-49. The level of current use is the most widely used and valuable measure of the success of a family planning program. It is also widely used as a measure in analyzing the determinants of fertility. This section focuses on the levels and differentials in current use of family planning.

Table 5.4 shows the percent distribution of women who are currently using specific family planning methods by age. The contraceptive prevalence for women in Zambia is 30 percent, while 70 percent of women are not currently using a contraceptive method. The use of any family planning method increases with age from 10 percent in the age group 15-19 years to 40 percent in the age group 25-29 years, and then starts to decline to 24 percent in the 45-49 age group. Most women currently using contraceptives use a modern method (25 percent), while 5 percent are using traditional methods. The pill is the most commonly used method (7 percent), while the IUD, implant, and female condom are the least used modern methods (less than 1 percent each). Among the traditional methods, withdrawal is the most commonly used (4 percent), while less than 1 percent of women use the rhythm method or other traditional family planning methods.

The most commonly used modern methods among currently married women is the pill (11 percent) followed by injectables (9 percent), while withdrawal is the most commonly used traditional method (6 percent). After the male condom (26 percent), the most commonly used modern methods among sexually active unmarried women are the pill and injectables (8 percent for both). Withdrawal (2 percent) is the most widely used traditional method. The use of modern family planning methods is higher for sexually active unmarried women than for currently married women (44 percent versus 33 percent). The most notable difference among these two groups of women is that 26 percent of sexually active unmarried women use male condoms, compared with 5 percent of married women.

Current use of any contraceptive methods among women has increased over the years from 12 percent in 1992 to 30 percent in 2007. The contraceptive prevalence rate for modern methods has increased from 7 percent in 1992 to 25 percent in 2007.

Table 5.4 Current use of contraception by age

Percent distribution of all women, currently married women, and sexually active unmarried women age 15-49 by contraceptive method currently used, according to age, Zambia 2007

		Modern method									Traditional method						
Age	Any method	Any modern method	Female sterilisation	Pill	IUD	Injectables	Implants	Male condom	Female condom	LAM[1]	Any traditional method	Rhythm	Withdrawal	Other	Not currently using	Total	Number of women
ALL WOMEN																	
15-19	9.7	8.4	0.0	1.5	0.0	1.9	0.0	3.8	0.0	1.2	1.3	0.0	1.0	0.3	90.3	100.0	1,574
20-24	33.3	27.9	0.1	8.2	0.0	8.2	0.0	6.9	0.1	4.4	5.5	1.1	3.6	0.7	66.7	100.0	1,370
25-29	40.3	33.9	0.3	12.1	0.0	9.0	0.4	5.8	0.0	6.2	6.4	1.0	4.7	0.7	59.7	100.0	1,363
30-34	37.6	31.6	0.7	11.0	0.2	7.8	0.6	5.5	0.0	5.9	6.0	0.9	4.7	0.4	62.4	100.0	1,056
35-39	37.2	29.6	2.7	8.9	0.0	6.0	0.5	5.1	0.0	6.4	7.6	1.4	5.2	1.1	62.8	100.0	747
40-44	33.5	25.1	5.4	5.5	0.2	6.1	0.8	4.3	0.3	2.5	8.4	1.9	4.5	2.0	66.5	100.0	561
45-49	24.3	17.6	7.5	3.0	0.2	3.1	0.2	1.7	0.1	1.7	6.7	0.6	2.3	3.8	75.7	100.0	475
Total 2007	29.9	24.6	1.4	7.4	0.1	6.2	0.3	5.0	0.0	4.1	5.3	0.9	3.6	0.9	70.1	100.0	7,146
2001-02	24.6	18.6	1.5	8.1	0.0	3.1	0.2	4.0	0.0	1.7	5.7	0.8	3.2	1.7	75.4	100.0	7,658
1996	19.2	11.2	1.4	5.2	0.3	0.7	na	3.5	na	na	7.9	1.5	2.9	3.5	80.8	100.0	8,021
1992	11.6	7.0	1.5	3.5	0.4	0.1	na	1.4	na	na	4.6	0.8	1.9	1.7	88.4	100.0	7,060
CURRENTLY MARRIED WOMEN																	
15-19	28.1	22.0	0.0	7.3	0.0	6.6	0.0	3.4	0.0	4.7	6.1	0.0	4.8	1.3	71.9	100.0	280
20-24	41.8	34.1	0.2	11.5	0.0	10.4	0.0	6.0	0.0	5.9	7.7	1.5	5.5	0.8	58.2	100.0	889
25-29	45.4	37.6	0.3	14.0	0.0	10.2	0.4	4.9	0.0	7.7	7.8	1.1	6.1	0.6	54.6	100.0	1,053
30-34	41.7	34.3	0.5	12.5	0.2	8.1	0.4	5.5	0.0	7.1	7.4	1.0	5.8	0.6	58.3	100.0	826
35-39	42.9	33.7	2.8	11.0	0.0	7.3	0.6	4.3	0.0	7.7	9.3	1.4	6.6	1.3	57.1	100.0	590
40-44	39.9	29.3	6.2	7.0	0.3	7.5	1.1	3.5	0.4	3.4	10.6	2.4	5.9	2.3	60.1	100.0	411
45-49	29.5	21.3	8.7	4.0	0.3	3.5	0.3	2.0	0.2	2.2	8.3	0.3	3.1	4.9	70.5	100.0	353
Total 2007	40.8	32.7	1.9	11.0	0.1	8.5	0.4	4.7	0.1	6.2	8.1	1.2	5.6	1.3	59.2	100.0	4,402
2001-02	34.2	25.3	2.0	11.9	0.1	4.5	0.3	3.8	0.0	2.7	8.9	1.1	5.1	2.7	65.8	100.0	4,694
1996	25.9	14.4	2.0	7.2	0.4	1.0	na	3.5	na	na	11.5	1.9	4.5	5.2	74.1	100.0	4,902
1992	15.2	8.9	2.1	4.3	0.5	0.1	na	1.8	na	na	6.3	0.9	3.0	2.2	84.8	100.0	4,457
SEXUALLY ACTIVE UNMARRIED WOMEN[2]																	
15-19	40.5	37.8	0.0	0.6	0.0	5.1	0.0	31.1	0.0	1.1	2.7	0.0	2.7	0.0	59.5	100.0	98
20-24	51.3	0.0	8.4	0.0	12.5	0.0	26.3	0.9	3.3	2.7	0.0	1.7	1.0	46.0	46.0	100.0	81
25-29	49.7	0.0	18.7	0.0	8.2	0.0	22.9	0.0	0.0	4.5	3.2	0.0	1.3	45.7	45.7	100.0	55
30-34	(43.2)	(0.0)	(14.4)	(0.0)	(8.7)	(0.0)	(20.1)	(0.0)	(0.0)	(2.5)	(2.5)	(0.0)	(0.0)	(54.3)	(54.3)	100.0	42
35-39	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.0	22
40-44	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.0	18
45-49	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.0	5
Total 2007	47.6	43.5	0.5	7.9	0.0	7.5	0.0	26.2	0.2	1.2	4.0	1.4	1.6	1.0	52.4	100.0	320
2001-02	32.5	29.7	1.3	9.7	0.0	2.9	0.4	15.0	0.0	0.4	2.6	0.7	1.5	0.6	67.5	100.0	321
1996	24.0	17.9	0.0	5.1	0.0	0.8	na	11.6	na	na	6.1	3.9	1.1	1.1	76.0	100.0	492
1992	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na

Note: If more than one method is used, only the most effective method is considered in this tabulation. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
LAM = Lactational amenorrhoea method
[1] LAM is usually considered a modern method. Analysis of the 2001-2002 ZDHS data indicated that many women confused it with simple breastfeeding. Therefore the 2001-2002 ZDHS classified LAM as a traditional method.
[2] Women who have had sexual intercourse within 30 days preceding the survey

5.4 DIFFERENTIALS IN CONTRACEPTIVE USE BY BACKGROUND CHARACTERISTICS

Table 5.5 presents data on current contraceptive use among married women by background characteristics. Current contraceptive use varies with residence, province, education, number of living children, and wealth quintile.

Contraceptive use is higher among women in urban areas than among women in rural areas (48 and 37 percent, respectively). Eastern province has the highest proportion of women currently using a family planning method (53 percent), followed by Copperbelt (48 percent). The lowest proportion of married women using a family planning method is in Luapula (16 percent). In general, women do not begin to use contraception until they have had at least one child. Contraceptive use increases with educational attainment. Fifty-seven percent of women who have been educated above the secondary level use a contraceptive method compared with 35 percent of women who are uneducated. By wealth quintile, women in the middle quintile are least likely to use a contraceptive method (31 percent) and women in the highest quintile are most likely to use a contraceptive method (54 percent).

Table 5.5 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Zambia 2007

Background characteristic	Any method	Modern method									Traditional method				Not currently using	Total	Number of women
		Any modern method	Female sterilisation	Pill	IUD	Injectables	Implants	Male condom	Female condom	LAM	Any traditional method	Rhythm	Withdrawal	Other			
Residence																	
Urban	48.4	42.0	3.4	18.2	0.1	10.5	0.9	6.2	0.1	2.6	6.3	1.5	4.0	0.8	51.6	100.0	1,540
Rural	36.7	27.6	1.0	7.0	0.1	7.3	0.1	3.9	0.0	8.1	9.0	1.0	6.5	1.5	63.3	100.0	2,863
Province																	
Central	32.8	27.2	0.4	11.4	0.0	8.1	0.2	6.6	0.0	0.5	5.6	1.7	3.0	0.9	67.2	100.0	438
Copperbelt	47.7	41.5	4.8	19.9	0.0	7.7	0.8	4.9	0.0	3.4	6.2	1.4	4.3	0.5	52.3	100.0	699
Eastern	52.6	48.5	2.1	8.7	0.1	9.1	0.2	3.3	0.0	24.9	4.1	0.4	0.5	3.2	47.4	100.0	689
Luapula	15.8	14.0	0.8	2.8	0.0	4.6	0.4	1.8	0.0	3.6	1.8	0.6	1.0	0.3	84.2	100.0	363
Lusaka	46.1	39.8	2.0	15.7	0.2	11.5	0.5	6.5	0.2	3.1	6.4	1.1	4.3	1.0	53.9	100.0	620
Northern	37.7	16.9	0.7	5.2	0.0	5.5	0.1	4.3	0.1	1.1	20.7	0.2	20.5	0.0	62.3	100.0	655
North-Western	32.0	22.4	3.0	3.1	0.0	11.7	0.1	3.2	0.0	1.3	9.6	0.7	6.7	2.3	68.0	100.0	232
Southern	45.8	39.1	0.6	13.9	0.5	12.2	0.7	5.1	0.0	6.0	6.7	4.3	2.2	0.2	54.2	100.0	447
Western	33.1	23.0	0.7	8.5	0.0	5.5	0.2	5.7	0.0	2.2	10.1	0.6	4.3	5.2	66.9	100.0	258
Education																	
No education	35.0	27.1	1.8	4.9	0.0	5.0	0.2	2.9	0.0	12.2	7.9	0.1	6.3	1.5	65.0	100.0	572
Primary	37.8	28.9	1.0	9.2	0.0	8.1	0.3	3.6	0.0	6.6	8.9	1.0	6.4	1.5	62.2	100.0	2,678
Secondary	49.2	43.0	2.4	17.6	0.1	11.7	0.7	7.7	0.2	2.7	6.2	2.3	3.3	0.6	50.8	100.0	959
More than secondary	57.4	50.0	10.5	19.8	1.0	7.6	0.9	10.0	0.0	0.2	7.4	2.1	4.5	0.7	42.6	100.0	193
Number of living children																	
0	9.1	6.9	0.0	1.6	0.0	1.9	0.0	3.1	0.0	0.4	2.2	1.7	0.6	0.0	90.9	100.0	315
1-2	39.8	33.1	0.7	13.0	0.1	9.0	0.2	5.7	0.1	4.3	6.7	0.9	4.8	1.0	60.2	100.0	1,458
3-4	46.2	37.4	1.2	13.3	0.0	9.0	0.4	5.6	0.1	7.8	8.9	1.4	6.7	0.8	53.8	100.0	1,352
5+	43.8	33.5	4.3	8.4	0.2	8.9	0.7	2.9	0.0	8.1	10.4	1.2	6.7	2.4	56.2	100.0	1,277
Wealth quintile																	
Lowest	40.5	30.6	0.5	5.8	0.1	5.8	0.0	4.3	0.0	14.0	9.8	0.9	7.1	1.9	59.5	100.0	912
Second	34.2	24.1	1.1	5.7	0.0	6.9	0.1	3.5	0.0	6.8	10.1	0.7	7.1	2.3	65.8	100.0	864
Middle	31.3	22.5	0.9	7.3	0.1	6.2	0.3	2.9	0.0	4.8	8.9	1.5	6.6	0.8	68.7	100.0	889
Fourth	44.3	38.6	1.4	15.3	0.0	13.4	0.3	4.9	0.2	3.1	5.7	1.6	3.1	1.0	55.7	100.0	911
Highest	54.2	48.3	5.7	21.2	0.2	9.9	1.2	8.1	0.1	1.9	5.9	1.3	4.3	0.4	45.8	100.0	825
Total	40.8	32.7	1.9	11.0	0.1	8.5	0.4	4.7	0.1	6.2	8.1	1.2	5.6	1.3	59.2	100.0	4,402

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

5.5 TRENDS IN CONTRACEPTIVE USE

Table 5.6 and Figure 5.1 present trends in current contraceptive use among currently married women between 1992 and 2007.

The information shows an increase of contraceptive use from a rate of 15 percent in 1992, 26 percent in 1996 and 34 percent in 2001-2002 to the rate of 41 percent in 2007. There has also been a corresponding increase in the use of modern methods from 9 percent in 1992, 14 percent in 1996 and 23 percent in 2001-2002 to 33 percent in 2007. There was an increase in the use of traditional methods from 6 percent in 1992 to 12 percent in 1996 and 2001-2002; then use of these methods declined to 8 percent in 2007.

Figure 5.1 shows trends in current use of specific contraceptive methods between 1992 and 2007. The largest gain observed was in the use of injectables from under 1 percent in 1992 to 9 percent in 2007. Pill use has almost tripled from 4 percent in 1992 to 11 percent in 2007. Condom use has more than doubled from 2 percent in 1992 to 6 percent in 2007. The proportion of married women undergoing female sterilization has remained relatively stable between 1992 and 2007 at 2 percent.

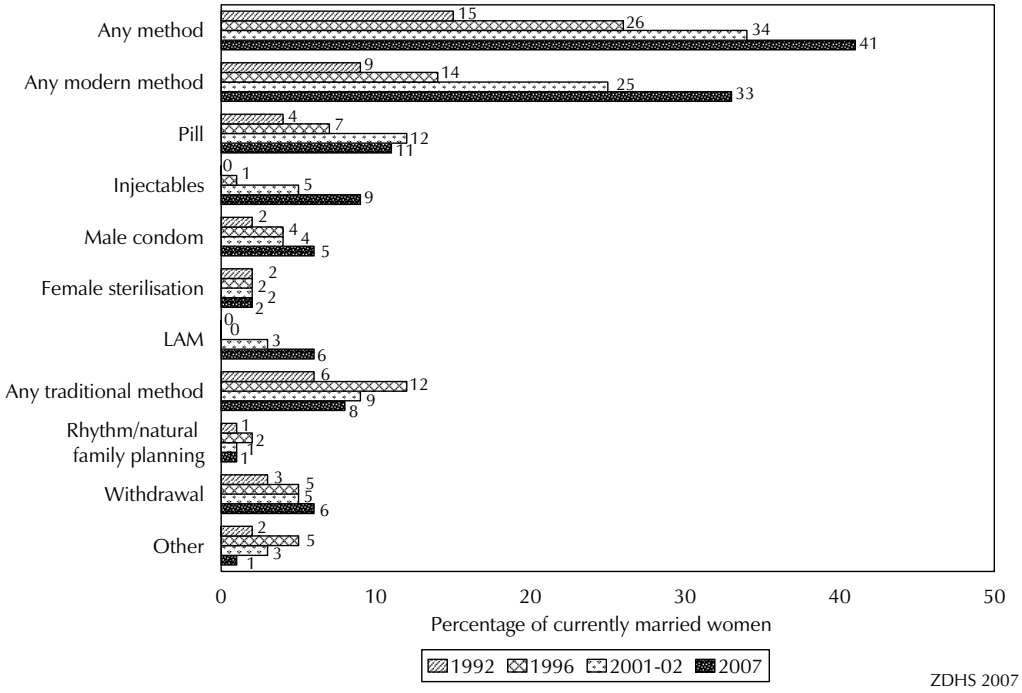
Table 5.6 Trends in the current use of family planning

Percentage of currently married women age 15-49 who are currently using specific family planning methods, Zambia 1992, 1996, 2001-2002, and 2007

Method	ZDHS 1992	ZDHS 1996	ZDHS 2001-2002	ZDHS 2007
Any method	15.2	25.9	34.2	40.8
Any modern method	8.9	14.4	25.3	32.7
Pill	4.3	7.2	11.9	11.0
IUD	0.5	0.4	0.1	0.1
Injectables	0.1	1.0	4.5	8.5
Implants	na	na	0.3	0.4
Male condom	1.8	3.5	3.8	4.7
Female condom	na	na	0.0	0.1
Female sterilization	2.1	2.0	2.0	1.9
Lactational amenorrhoea (LAM)	na	na	2.7	6.2
Any traditional method	6.3	11.5	8.9	8.1
Rhythm/natural family planning	0.9	1.9	1.1	1.2
Withdrawal	3.0	4.5	5.1	5.6
Other	2.2	5.2	2.7	1.3
Number of women	4,457	4,902	4,694	4,402

na = Not applicable

Figure 5.1 Trends in Contraceptive Use among Currently Married Women



ZDHS 2007

5.6 BRANDS OF PILLS, CONDOMS, AND INJECTABLES USED

Women who were currently using oral contraceptives, injectables, and condoms were asked for the brand name they last used. Information on women's use of social marketing brand contraceptives is useful for monitoring the success of social marketing programmes.

Table 5.7 shows the distribution of women using pills and women using injectables by social marketing brand used, according to background characteristics. Among pill users, the brands most commonly used are Safe Plan (38 percent), Microgynon (28 percent), and Oralcon F (26 percent). Among women using injectables, 56 percent use Depo Provera and 42 percent use Noristerat.

Table 5.7 Use of social marketing brand pills and injectables

Percent distribution of pill and injectable users age 15-49 by social marketing brand, according to background characteristics, Zambia 2007

Background characteristic	Brand of pill									Number of women using the pill	Brand type of injectables					Number of women using injectables
	Safe Plan	Micro-gynon	Microlut	Eugynon	Nordette	Oral-con F	Other	Don't know/ missing	Total		Norigynon[1]	Noristerat[1]	Depo Provera[2]	Other	Total	
Age																
15-19	(44.4)	(19.7)	(10.7)	(0.0)	(0.0)	(18.8)	(0.0)	(6.4)	100.0	24	(2.8)	(38.5)	(58.7)	(0.0)	100.0	29
20-24	30.3	36.5	6.2	0.0	0.0	26.0	0.7	0.2	100.0	113	0.5	44.6	54.9	0.0	100.0	113
25-29	39.6	31.8	3.9	0.0	0.0	23.4	0.7	0.7	100.0	165	2.7	39.7	57.6	0.0	100.0	123
30-34	36.6	22.7	8.6	0.0	0.0	29.8	1.0	1.3	100.0	116	1.0	44.6	53.3	1.2	100.0	82
35-39	44.1	22.3	6.0	1.8	2.3	23.5	0.0	0.0	100.0	66	(0.0)	(44.1)	(55.9)	(0.0)	100.0	45
40-44	(40.8)	(26.5)	(0.0)	(0.0)	(0.0)	(30.6)	(2.2)	(0.0)	100.0	31	(0.0)	(41.0)	(59.0)	(0.0)	100.0	34
45-49	*	*	*	*	*	*	*	*	100.0	14	*	*	*	*	100.0	15
Residence																
Urban	42.7	30.0	5.9	0.0	0.5	20.8	0.0	0.2	100.0	302	0.6	41.3	58.1	0.0	100.0	201
Rural	31.9	26.3	5.4	0.5	0.0	32.0	1.7	2.2	100.0	227	2.1	42.8	54.8	0.4	100.0	240
Province																
Central	50.7	21.2	0.0	2.3	0.0	18.9	4.6	2.3	100.0	51	(3.1)	(33.5)	(63.4)	(0.0)	100.0	38
Copperbelt	33.1	38.5	7.1	0.0	0.0	21.3	0.0	0.0	100.0	149	(0.0)	(26.3)	(73.7)	(0.0)	100.0	67
Eastern	40.9	23.0	0.0	0.0	0.0	36.2	0.0	0.0	100.0	66	1.9	51.8	46.3	0.0	100.0	70
Luapula	*	*	*	*	*	*	*	*	100.0	12	(0.0)	(40.7)	(54.4)	(4.9)	100.0	20
Lusaka	43.5	17.9	5.8	0.0	1.5	31.3	0.0	0.0	100.0	100	0.0	45.1	54.9	0.0	100.0	87
Northern	(30.2)	(38.8)	(12.6)	(0.0)	(0.0)	(9.8)	(0.0)	(8.7)	100.0	36	(1.9)	(66.0)	(32.1)	(0.0)	100.0	37
North-Western	*	*	*	*	*	*	*	*	100.0	9	0.0	48.4	51.6	0.0	100.0	36
Southern	32.7	24.1	4.8	0.0	0.0	38.5	0.0	0.0	100.0	78	0.0	29.8	70.2	0.0	100.0	63
Western	32.5	33.8	11.7	0.0	0.0	15.5	2.8	3.6	100.0	30	(12.4)	(47.6)	(39.9)	(0.0)	100.0	24
Education																
No education	(41.1)	(26.4)	(6.6)	(0.0)	(0.0)	(25.9)	(0.0)	(0.0)	100.0	34	(3.9)	(40.7)	(55.5)	(0.0)	100.0	30
Primary	33.8	31.6	5.6	0.0	0.0	26.3	0.6	2.1	100.0	267	1.5	44.4	53.8	0.4	100.0	261
Secondary	39.6	29.0	3.9	0.6	0.0	26.3	0.6	0.0	100.0	186	0.9	35.7	63.4	0.0	100.0	132
More than secondary	(55.4)	(7.3)	(13.1)	(0.0)	(3.6)	(17.9)	(2.8)	(0.0)	100.0	42	*	*	*	*	100.0	17
Wealth quintile																
Lowest	33.8	22.4	2.9	0.0	0.0	36.8	0.0	4.1	100.0	57	1.4	48.0	50.6	0.0	100.0	59
Second	35.6	29.9	5.8	0.0	0.0	25.6	1.1	2.0	100.0	59	4.1	43.4	52.4	0.0	100.0	72
Middle	24.2	33.2	6.7	0.0	0.0	32.3	1.1	2.5	100.0	74	0.0	42.4	57.6	0.0	100.0	65
Fourth	44.9	29.0	5.3	0.0	0.0	19.8	0.8	0.2	100.0	156	1.2	39.9	58.2	0.7	100.0	138
Highest	39.9	27.4	6.3	0.6	0.8	24.3	0.6	0.0	100.0	183	0.7	40.6	58.8	0.0	100.0	106
Total	38.0	28.4	5.7	0.2	0.3	25.6	0.7	1.1	100.0	530	1.4	42.1	56.3	0.2	100.0	441

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Two-month injectables
[2] Three-month injectables

Women who said that they were currently using condoms (male or female) as a form of contraception were asked which brand of condoms they used. Table 5.8 shows the percent distribution for women condom users age 15-49 by social marketing brand of condoms used, according to background characteristics. The most common brand of condom used is the Maximum Classic male condom (45 percent). One in four women use the unbranded public sector male condom.

Table 5.8 Use of social marketing brand condoms: women

Percentage of condom users age 15-49 using a social marketing brand, by background characteristics, Zambia 2007

Background characteristic	Brand of condoms									Total	Number of women using condoms
	Maximum Classic	Maximum Scented	Rough Rider	Durex	Reality	Public sector unbranded	Other	Don't know	Missing		
Age											
15-19	42.3	5.2	0.5	2.8	1.0	26.0	1.0	20.2	0.9	100.0	60
20-24	47.5	6.9	0.8	4.8	0.0	22.0	0.0	15.7	2.4	100.0	94
25-29	48.6	7.9	1.5	4.4	0.3	25.9	0.8	9.0	1.5	100.0	79
30-34	38.9	11.6	0.0	5.9	0.0	25.9	0.0	13.7	4.0	100.0	58
35-39	(40.4)	(11.6)	(0.0)	(2.8)	(4.7)	(27.4)	(1.6)	(8.8)	(2.8)	100.0	38
40-44	*	*	*	*	*	*	*	*	*	100.0	24
45-49	*	*	*	*	*	*	*	*	*	100.0	8
Residence											
Urban	53.9	12.7	0.9	1.3	1.4	18.7	1.0	8.8	1.5	100.0	189
Rural	34.2	3.0	0.7	7.0	0.0	33.0	0.0	18.6	3.6	100.0	172
Province											
Central	(41.4)	(1.8)	(1.8)	(0.0)	(0.0)	(22.7)	(0.0)	(29.3)	(3.0)	100.0	39
Copperbelt	(47.8)	(26.1)	(0.0)	(0.0)	(2.9)	(15.9)	(0.0)	(7.2)	(0.0)	100.0	61
Eastern	(43.7)	(5.9)	(0.0)	(3.3)	(0.0)	(16.5)	(0.0)	(27.4)	(3.3)	100.0	40
Luapula	*	*	*	*	*	*	*	*	*	100.0	6
Lusaka	50.6	2.7	1.5	0.0	0.0	29.0	0.0	13.4	2.7	100.0	77
Northern	(34.0)	(0.0)	(0.0)	(19.0)	(0.0)	(28.0)	(0.0)	(19.0)	(0.0)	100.0	33
North-Western	(40.0)	(10.6)	(1.7)	(0.0)	(0.0)	(40.0)	(0.0)	(7.8)	(0.0)	100.0	17
Southern	50.0	12.4	1.5	9.4	1.5	12.9	4.4	0.0	7.9	100.0	42
Western	32.2	2.3	0.0	6.6	0.6	50.6	0.0	7.8	0.0	100.0	45
Education											
No education	*	*	*	*	*	*	*	*	*	100.0	20
Primary	35.8	8.2	0.4	5.8	0.0	31.9	0.8	14.7	2.4	100.0	160
Secondary	52.0	5.3	0.2	3.4	0.6	24.5	0.0	12.1	1.8	100.0	136
More than secondary	(61.7)	(15.7)	(4.0)	(1.4)	(4.0)	(4.6)	(1.4)	(7.4)	(0.0)	100.0	45
Wealth quintile											
Lowest	(26.8)	(1.7)	(0.0)	(12.3)	(0.0)	(27.7)	(0.0)	(31.5)	(0.0)	100.0	53
Second	35.0	2.0	0.0	6.6	0.0	41.6	0.0	8.0	6.8	100.0	49
Middle	33.2	6.0	0.0	0.0	0.0	38.2	0.0	20.1	2.4	100.0	44
Fourth	52.2	8.1	1.3	3.2	0.8	16.6	0.8	12.5	4.4	100.0	76
Highest	53.9	13.2	1.3	1.6	1.5	19.8	0.9	7.0	0.9	100.0	139
Total	44.5	8.1	0.8	4.0	0.7	25.5	0.5	13.5	2.5	100.0	361

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

Men age 15-49 who reported that they had had sex within the 12 months preceding the survey and used a condom the last time they had sex were asked which brand of condoms they used. Table 5.9 shows the percent distribution of these men by social marketing brand used, according to background characteristics. As reported for women, the majority of men use Maximum Classic (56 percent), while approximately a quarter (26 percent) use the unbranded public sector male condom.

Table 5.9 Use of social marketing brand condoms: men

Percent distribution of men age 15-49 who had sex in the past year and used a condom during last sex by social marketing brand used, according to background characteristics, Zambia 2007

Background characteristic	Brand of condom									Total	Number of men who had sex in the past year and used a condom during last sex
	Maximum classic	Maximum scented	Rough Rider	Durex	Reality	Public sector unbranded	Other	Don't know	Missing		
Age											
15-19	59.9	4.2	1.2	2.4	0.0	24.1	1.3	5.2	1.7	100.0	171
20-24	63.0	4.3	1.3	2.1	0.0	21.2	1.0	6.1	1.0	100.0	267
25-29	53.6	5.2	2.7	3.4	0.8	26.5	1.4	5.6	0.8	100.0	242
30-34	50.5	1.9	1.2	1.8	0.0	30.8	3.3	4.7	5.8	100.0	144
35-39	55.3	1.7	0.0	0.7	0.0	29.8	1.9	3.0	7.7	100.0	111
40-44	46.7	0.6	0.0	5.8	0.0	36.7	0.0	9.1	1.1	100.0	51
45-49	(38.7)	(4.0)	(0.0)	(4.2)	(0.0)	(33.0)	(4.2)	(11.7)	(4.2)	100.0	36
Residence											
Urban	69.3	4.0	1.9	2.1	0.4	12.9	2.0	4.9	2.4	100.0	501
Rural	43.1	3.3	0.9	3.0	0.0	39.4	1.2	6.3	2.8	100.0	521
Province											
Central	48.2	3.3	0.7	1.0	0.0	37.1	0.0	9.7	0.0	100.0	115
Copperbelt	75.5	3.3	1.1	3.4	1.1	9.4	0.0	3.8	2.3	100.0	162
Eastern	43.5	3.6	1.8	0.9	0.0	46.1	0.0	2.6	1.5	100.0	138
Luapula	62.8	3.2	0.0	1.1	0.0	26.3	0.0	4.2	2.5	100.0	38
Lusaka	63.4	4.2	2.6	0.8	0.0	14.2	3.8	7.7	3.2	100.0	258
Northern	43.9	5.9	1.7	11.9	0.0	16.2	3.4	9.3	7.7	100.0	88
North-Western	33.4	6.3	0.0	1.3	0.0	48.4	1.4	7.4	2.0	100.0	48
Southern	62.2	2.0	0.0	2.4	0.0	26.3	3.0	2.6	1.5	100.0	108
Western	37.5	1.5	1.1	2.7	0.0	53.0	0.0	0.7	3.4	100.0	68
Education											
No education	(32.4)	(1.1)	(0.0)	(0.0)	(0.0)	(54.0)	(0.0)	(7.9)	(4.5)	100.0	33
Primary	46.5	4.7	0.3	2.7	0.0	33.6	0.4	8.6	3.1	100.0	392
Secondary	63.4	2.6	1.8	2.1	0.4	21.8	1.9	3.7	2.3	100.0	488
More than secondary	64.4	5.9	3.8	4.3	0.0	12.3	5.4	2.6	1.4	100.0	108
Wealth quintile											
Lowest	37.5	2.7	0.0	5.0	0.0	47.6	0.0	4.7	2.5	100.0	161
Second	33.3	2.2	1.2	3.9	0.0	47.5	0.5	6.8	4.5	100.0	124
Middle	50.0	4.9	1.6	1.0	0.0	29.7	1.5	7.9	3.5	100.0	162
Fourth	62.6	3.0	0.9	2.5	0.7	20.3	1.2	5.2	3.5	100.0	274
Highest	72.4	4.8	2.5	1.5	0.0	10.1	3.4	4.8	0.5	100.0	300
Total 15-49	56.0	3.7	1.4	2.5	0.2	26.4	1.6	5.6	2.6	100.0	1,021
50-59	(35.8)	(1.5)	(0.0)	(1.7)	(0.0)	(34.3)	(0.0)	(15.9)	(10.8)	100.0	43
Total men 15-59	55.2	3.6	1.3	2.5	0.2	26.7	1.6	6.0	2.9	100.0	1,064

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

5.7 KNOWLEDGE OF THE FERTILE PERIOD

An elementary knowledge of reproductive physiology provides a useful background for successful practice of coitus-associated methods such as withdrawal and condoms. Such knowledge is particularly critical in the use of the rhythm method. The 2007 ZDHS included a question designed to obtain information on the respondent's understanding of when a woman is most likely to become pregnant during the menstrual cycle. Respondents were asked, "*From one menstrual period to the next, are there certain days when a woman is more likely to get pregnant if she has sexual relations?"* If the reply was

"yes," the respondent was further asked whether that time was just before a woman's period begins, during her period, right after her period has ended, or halfway between two periods. Table 5.10 shows the results for women who use the rhythm method and those who do not use it.

Among all women, only 24 percent reported the correct fertile period, i.e., a woman is most likely to conceive halfway between two periods. Users of natural family planning methods are more knowledgeable about their fertile period; 36 percent of the rhythm method users correctly identified the middle of the cycle as the fertile time, compared with 23 percent of non-users of the method. It should be noted that the precision of this estimate is limited by small sample size.

Table 5.10 Knowledge of fertile period

Percent distribution of women age 15-49 by knowledge of the fertile period during the ovulatory cycle, according to current use of the rhythm method, Zambia 2007

Perceived fertile period	Users of rhythm method	Nonusers of rhythm method	All women
Just before her menstrual period begins	19.3	19.6	19.6
During her menstrual period	0.0	1.8	1.8
Right after her menstrual period has ended	41.0	29.1	29.2
Halfway between two menstrual periods	36.1	23.4	23.5
Other	1.1	0.3	0.3
No specific time	2.5	5.8	5.8
Don't know	0.0	19.8	19.6
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of women	62	7,084	7,146

5.8 Number of Children at First Use of Contraception

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

Women interviewed in the 2007 ZDHS were asked how many children they had at the time they first used a method of family planning. Table 5.11 shows the percent distribution of women by number of living children at the time of first use of contraception, according to current age. In general, the data show that few women, less than one in ten (9 percent) start using contraception before they begin childbearing. Most women had at least one living child the first time they ever used a method of contraception (29 percent). Women start using contraception at a younger age; while 15 percent of women age 20-24 started using contraception before they had any children, the corresponding number for women age 30-34 is 4 percent, and for women age 40-49 it is 2 percent.

Table 5.11 Number of children at first use of contraception

Percent distribution of women age 15-49 by number of living children at the time of first use of contraception, according to current age, Zambia 2007

Current age	Never used	Number of living children at time of first use of contraception						Total	Number of women
		0	1	2	3	4+	Missing		
15-19	78.1	12.4	8.6	0.6	0.0	0.0	0.3	100.0	1,574
20-24	32.1	15.3	39.2	10.1	2.5	0.5	0.3	100.0	1,370
25-29	18.1	9.2	42.9	18.6	7.8	3.1	0.4	100.0	1,363
30-34	21.8	3.9	35.1	17.4	10.4	11.3	0.2	100.0	1,056
35-39	23.1	2.9	27.9	15.3	10.9	19.7	0.3	100.0	747
40-44	26.3	2.1	26.9	12.8	6.3	24.8	0.8	100.0	561
45-49	35.4	1.7	24.2	9.8	7.3	21.4	0.4	100.0	475
Total	36.9	8.6	29.4	11.4	5.6	7.8	0.3	100.0	7,146

5.9 TIMING OF STERILIZATION

Women who reported that they use female sterilization as a contraceptive method were asked additional questions about how old they were when the procedure was performed. The results indicate that a third of women had the sterilization procedure when they were in their thirties; however, 14 percent were age 25-29 at the time of sterilization (Table 5.12). The median age at the time of sterilization is 33.7 years.

Table 5.12 Timing of sterilization

Percent distribution of sterilized women age 15-49 by age at the time of sterilization and median age at sterilization, according to the number of years since the operation, Zambia 2007

Age at time of sterilization	Percent
<25	8.1
25-29	14.3
30-34	32.6
35-39	36.9
40-44	8.2
Total	100.0
Number of women	100
Median age[1]	33.7

[1] Median age at sterilization is calculated only for women sterilized before age to avoid problems of censoring.

5.10 SOURCE OF CONTRACEPTION

Information on where women obtain their contraceptives is useful for family planning programme managers and implementers for logistic planning. In the 2007 ZDHS, women who reported using a modern contraceptive method at the time of the survey were asked where they obtained the method the last time they acquired it. Interviewers were instructed to note the full name of the source or facility, because some women may not know exactly in which category the source falls (e.g., government or private, health centre or clinic). Supervisors and field editors were trained to verify that the name and source type were consistent, asking informants in the clusters for the names of local family planning outlets, if necessary. This practice was designed to improve the accuracy of source reporting.

Table 5.13 shows that more than two-thirds of current modern method contraceptive users obtained their contraceptive method from the public sector, mostly government health centres (53 percent). Private medical institutions are the second most common source of contraception (17 percent), while non-medical sources are the least common (13 percent).

There has been a shift away from reliance on private medical sources for contraceptive methods. The proportion of current users relying on private medical sources has declined from 36 percent in 1992 to 17 percent in 2007. On the other hand, reliance on public sources has increased from 56 percent in 1992 to 68 percent in 2007.

Table 5.13 Source of modern contraception methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Zambia 2007

Source	Female sterilization	Pill	Injectables	Male condom	Total
Public sector	63.7	60.5	92.1	50.2	68.0
Government hospital	60.5	6.3	5.8	4.6	10.2
Government health centre	1.0	48.8	81.9	39.5	52.8
Health post	0.0	4.5	3.3	3.1	3.5
Other public	2.2	1.0	1.0	3.0	1.6
Private medical sector	29.4	24.3	7.2	12.5	16.5
Private hospital/surgery	24.4	1.7	3.9	3.1	4.2
Mission hospital/clinic	0.0	3.0	1.3	1.6	1.9
Pharmacy	0.0	19.0	1.2	6.4	8.9
Private doctor	0.0	0.3	0.4	0.0	0.3
Work place	0.0	0.2	0.0	1.2	0.4
Other private	5.0	0.1	0.3	0.2	0.7
Other source	6.9	15.4	0.7	37.3	15.5
Shop	0.0	13.0	0.0	21.2	10.0
Friends/relatives	0.0	0.4	0.4	9.1	2.5
Other	6.9	0.5	0.3	4.2	1.8
Missing	0.0	1.3	0.0	2.8	1.2
Total	100.0	100.0	100.0	100.0	100.0
Number of women	100	530	441	361	1,460

Note: Total includes other modern methods, but excludes lactational amenorrhoea method (LAM). Total includes 4 IUD users, 21 implant users, and 4 female condom users who are not shown separately.

5.11 COST OF CONTRACEPTION

In the 2007 ZDHS, women using modern methods of contraception were asked how much they paid in total the last time they obtained the method. Table 5.14 shows the percentage of women who obtained their method for free, those who paid for their method, and the median cost of the method by the source.

The data show that a large majority of women (71 percent) who use modern contraceptive methods get them for free, and 6 percent could not recall how much they paid for their method. The median cost of all contraceptive methods is 807 Kwacha. Nine in ten women who are current users and who get their modern method from the public sector receive them for free, compared with three in ten women who get their method from the private sector.

Table 5.14 Cost of modern contraceptive methods

Percentage of current users of modern contraceptive methods age 15-49 who did not pay for the method and who do not know the cost of the method, and the median cost of the method, by current method and source of method, Zambia 2007

Source of method/cost	Female sterilization	Pill	Injectables	Male condom	Total
Public sector					
Percentage free	64.5	88.2	93.4	92.1	89.6
Do not know cost	12.1	0.0	0.0	5.6	1.9
Median cost [in kwacha][1]	13,625.4	302.7	933.8	na	680.4
Number of women	64	321	406	181	993
Private medical sector/other					
Percentage free	(86.2)	14.4	(52.8)	32.7	30.0
Do not know cost	(2.6)	2.0	(0.0)	32.3	13.6
Median cost [in kwacha][1]	599,416.4	755.4	4,768.1	589.6	835.6
Number of women	36	209	35	180	467
Total					
Percentage free	72.4	59.0	90.2	62.5	70.5
Do not know cost	8.6	0.8	0.0	18.9	5.6
Median cost [in kwacha][1]	15,282.9	687.9	2,702.5	532.5	806.6
Number of women	100	530	441	361	1,460

Note: Total includes other modern methods but excludes lactational amenorrhoea method (LAM). Costs are based on the last time current users obtained method. Costs include consultation costs, if any. For condom, costs are per package; for pills, per cycle. For sterilization, data are based on women who received the operation in the 5 years before the survey. Total includes 4 IUD users, 21 implant users, and 4 female condom users who are not shown separately. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable
[1] Median cost is based only on those women who reported a cost.

5.12 INFORMED CHOICE

Women currently using a modern method of contraception were asked whether they were informed about side effects or problems that they might have with the method, what to do if they experienced side effects, and other methods that they could use. This is a measure of the quality of family planning service provision. Table 5.15 shows the results by method type and source of the method.

Seventy-four percent of contraceptive users were informed of the side effects of the method they used, 73 percent were informed about what to do if they experienced side effects, and 63 percent were informed of other available methods of contraception. About eight in ten women who obtained their current family planning method from public sector facilities were informed about side effects, method-related problems, and what to do if they experienced side effects. In contrast, around two-thirds of women who obtained their method from the private medical sector were informed of method-related problems and how to address them should they occur.

Table 5.15 Informed choice

Among women age 15-49 currently using a modern contraceptive method and who started the last episode of use within the five years preceding the survey, percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed about other methods they could use, by method and initial source of method, Zambia 2007

	Women who started their last episode of use of a modern contraceptive method within the past five years			
Method/source	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if side effects experienced	Percentage who were informed by a health or family planning worker of other methods that could be used	Number of women
Method				
Female sterilization	(59.9)	(68.0)	(62.2)	38
Pill	71.3	71.2	65.2	492
IUD	*	*	*	1
Injectables	77.8	75.6	78.5	427
Implants	*	*	*	19
Other	na	na	35.1	298
Initial source of method[1]				
Public sector	79.5	78.1	78.6	807
Government hospital	78.5	79.3	76.9	94
Government health centre	79.7	78.4	78.4	656
Health Post	(78.8)	(70.1)	(83.2)	42
Other public	*	*	*	15
Private medical sector	64.8	67.5	53.0	129
Private hospital/surgery	(75.6)	(88.3)	(56.3)	28
Mission hospital/clinic	*	*	*	23
Pharmacy	52.3	56.0	42.3	61
Private doctor	*	*	*	4
Work place	*	*	*	1
Other private medical	*	*	*	12
Other private sector	30.1	30.3	40.3	193
Shop	28.3	30.5	38.1	56
Church	na	na	*	2
Friends relatives	55.7	27.9	40.2	135
Other	75.2	82.6	15.8	131
Total	73.9	73.3	62.8	1,275

Note: Table excludes users who obtained their method from friends/relatives. Figures in parentheses are based on 25-29 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Source at start of current episode of use

5.13 FUTURE USE OF CONTRACEPTION

An important indicator of the changing demand for family planning is the extent to which nonusers plan to use contraceptive methods in the future. Currently married women who were not using a contraceptive method at the time of the survey were asked about their intention to use family planning in the future. Table 5.16 shows that 66 percent of currently married nonusers intend to use a method of contraception in the future, 29 percent have no intention of using any method in the future, and 5 percent are unsure of their intentions.

The proportion of women who intend to use a contraceptive method varies with the number of living children. For instance, the proportion of currently married women who intend to use contraception is 51 percent for childless women, 68 percent for women with two children, and 74 percent for women with three children.

Table 5.16 Future use of contraception

Percent distribution of currently married women age 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, Zambia 2007

Intention	Number of living children[1] 0	1	2	3	4+	Total
Intends to use	51.3	67.2	68.2	73.5	64.8	66.2
Unsure	8.7	9.8	3.7	3.5	3.4	4.8
Does not intend to use	40.0	23.0	28.1	22.3	31.7	28.9
Missing	0.0	0.0	0.0	0.7	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	188	370	472	433	1,144	2,608

[1] Includes current pregnancy

5.14 Reasons for Not Intending to Use Contraception in the Future

Table 5.17 shows the main reasons some currently married women who are not using a contraceptive method do not intend to use one in the future. The results show that 55 percent of women do not intend to use a method in the future for fertility-related reasons. The second largest category is women who do not intend to use a method for method-related reasons (26 percent), and the third category comprises women who are not willing to use a method because of respondent's or other people's opposition to the use of contraception (11 percent).

Table 5.17 Reason for not intending to use contraception in the future

Percent distribution of currently married women age 15-49 who are not using contraception and who do not intend to use in the future by main reason for not intending to use, Zambia 2007

Reason	Percent distribution
Fertility-related reasons	54.7
Infrequent sex/no sex	7.9
Menopausal/had hysterectomy	13.4
Subfecund/infecund	22.5
Wants as many children as possible	10.9
Opposition to use	10.5
Respondent opposed	4.9
Husband/partner opposed	4.1
Others opposed	0.1
Religious prohibition	1.4
Lack of knowledge	2.1
Knows no method	1.7
Knows no source	0.4
Method-related reasons	26.2
Health concerns	4.3
Fear of side effects	17.6
Lack of access/too far	0.4
Costs too much	0.1
Inconvenient to use	0.7
Interferes with body's normal process	3.1
Other	4.7
Don't know	1.2
Missing	0.6
Total	100.0
Number of women	752

5.15 Preferred Method for Future Use

Demand for specific methods can be assessed by asking nonusers which method they intend to use in the future. Table 5.18 presents information on method preferences for married women who are not currently using contraception, but say they intend to use in the future.

Table 5.18 shows that currently married women most commonly prefer to use injectables in the future (42 percent), followed by the pill (33 percent), and female sterilization (7 percent). The order of preferred methods for currently married women has changed since the 2001-2002 ZDHS, in which the pill was the most preferred method, followed by injectables. The proportion of nonusers preferring the pill has steadily decreased from 55 percent in 1996, to 42 percent in 2001-2002, and further to 33 percent in 2007. The proportion of nonusers who prefer to use injectables has increased from 12 percent in 1996 to 31 percent in 2001-2002, and to 42 percent in 2007.

Table 5.18 Preferred method of contraception for future use

Percent distribution of currently married women age 15-49 who are not using a contraceptive method but who intend to use in the future by preferred method, Zambia 2007

Method	Percent distribution
Female sterilization	7.2
Male sterilization	0.2
Pill	32.8
IUD	0.6
Injectables	42.1
Implants	3.4
Condom	3.5
Female condom	0.4
Lactation amenorrhoea	0.2
Periodic abstinence	0.7
Withdrawal	1.8
Cycle beads	0.1
Other	2.4
Unsure	4.5
Total	100.0
Number of women	1,727

5.16 EXPOSURE TO FAMILY PLANNING MESSAGES IN THE MEDIA

The media can be a major source of family planning messages. Information on the level of public exposure to a particular type of media allows policymakers to use the most effective media for various target groups in the population. To assess the effectiveness of such media on the dissemination of family planning information, all respondents in the 2007 ZDHS were asked whether they had heard or seen family planning messages on the radio, on television, or in a newspaper or magazine in the few months before the survey.

Table 5.19 shows that radio is the most frequent source of family planning messages for both women (39 percent) and men (52 percent). One in five women and one in four men reported seeing a family planning message on television in the 12 months preceding the survey. Newspapers and magazines are the least common source of family planning messages for both women and men (12 and 19 percent, respectively). More than half of women (56 percent) and about four in ten men (41 percent) were not exposed to any family planning messages through radio, television, newspapers, or magazines.

Exposure to family planning messages is more common among men than women and is also more common in urban areas than rural areas. Among the provinces, respondents in Lusaka and Copperbelt have the highest exposure to family planning messages through any media, while women in North-Western and Western and men in Luapula, Eastern and North-Western have the least exposure. The more education a respondent has, the greater the likelihood that she or he has been exposed to a family planning message through each of the three types of mass media. Media exposure also increases with increased wealth quintile for both women and men.

Table 5.19 Exposure to family planning messages

Percentage of women and men age 15-49 who heard or saw a family planning message on the radio or television or in a newspaper in the past few months, according to background characteristics, Zambia 2007

Background characteristic	Women					Men				
	Radio	Tele-vision	News-paper/ magazine	None of these three media sources	Number	Radio	Tele-vision	News-paper/ magazine	None of these three media sources	Number
Age										
15-19	28.5	19.8	12.5	64.1	1,574	32.7	21.1	11.4	58.1	1,416
20-24	40.0	20.6	13.5	55.9	1,370	49.6	27.1	19.0	41.7	1,066
25-29	42.9	22.5	12.9	53.7	1,363	56.3	27.7	23.3	37.6	977
30-34	45.5	20.8	10.5	51.7	1,056	61.3	26.1	21.9	34.1	954
35-39	43.0	20.9	12.7	53.2	747	63.9	25.6	21.1	31.6	717
40-44	39.1	22.2	14.3	56.2	561	66.0	27.2	20.1	31.2	475
45-49	43.5	24.4	8.8	53.9	475	58.3	25.0	19.7	36.2	390
Residence										
Urban	52.3	43.0	24.4	38.8	3,009	57.8	44.9	30.8	30.5	2,601
Rural	29.9	5.4	3.6	69.0	4,137	47.8	10.3	9.5	49.6	3,395
Province										
Central	33.3	13.4	5.1	63.2	659	53.7	24.4	18.9	40.5	559
Copperbelt	53.8	42.7	22.0	37.5	1,264	56.1	40.9	23.9	30.9	1,140
Eastern	32.6	7.7	7.4	66.2	971	40.0	6.5	8.9	57.1	795
Luapula	34.8	7.0	3.5	64.3	530	38.9	11.4	6.6	59.3	387
Lusaka	51.6	42.9	25.0	38.9	1,172	59.3	46.2	32.3	31.0	1,072
Northern	29.0	7.5	3.8	68.7	966	56.8	11.4	12.8	39.6	805
North-Western	20.6	4.3	2.7	78.9	365	41.1	7.5	10.9	57.0	303
Southern	44.5	19.7	14.9	51.4	727	51.7	25.7	18.9	42.4	621
Western	25.3	8.3	6.8	74.5	492	57.2	16.1	15.7	41.0	315
Education										
No education	20.8	5.1	0.3	78.8	744	38.3	4.4	0.7	60.8	267
Primary	33.2	10.5	2.9	65.2	3,891	44.7	11.1	5.7	53.0	2,775
Secondary	51.4	37.6	25.3	39.4	2,140	57.9	35.2	28.1	31.8	2,512
More than secondary	71.0	71.0	61.3	14.6	371	74.3	71.2	58.3	10.2	441
Wealth quintile										
Lowest	19.8	1.0	1.0	80.0	1,240	40.6	3.1	5.0	58.2	1,114
Second	24.5	1.1	1.6	74.9	1,283	49.8	5.5	8.3	49.2	869
Middle	36.8	5.7	2.8	62.1	1,280	50.2	11.3	9.3	46.9	1,097
Fourth	48.6	24.6	12.8	47.8	1,567	56.7	29.2	22.1	37.5	1,381
Highest	57.2	58.0	34.5	29.6	1,776	59.1	59.1	38.4	24.0	1,534
Total 15-49	39.3	21.2	12.4	56.3	7,146	52.1	25.3	18.7	41.3	5,995
50-59	na	na	na	na	na	63.1	26.3	22.6	31.0	505
Total men 15-59	na	na	na	na	na	53.0	25.4	19.0	40.5	6,500

na = Not applicable

In the 2007 ZDHS, women were asked if they had listened to specific radio programmes or watched specific programmes on television within the past six months. Table 5.20 shows the percentage of women age 15-49 who heard or saw specific radio or television programmes, by background characteristics. Overall, 36 percent of women had listened to "Your Health Matters," 30 percent listened to "Sister Evalina," and 30 percent listened to "Our Neighbourhood." With regard to television programmes, 28 percent watched "Your Health Matters," 12 percent watched "Soul City," and 8 percent watched "Insight."

Table 5.20 Exposure to specific radio and television programs

Percentage of women age 15-49 who heard or saw specific radio or television programmes in the past six months, by background characteristics, Zambia 2007

Background characteristic	Radio				TV				Total
	Your Health Matters	Sister Evalina	Our Neigh-bourhood	Other programme	Your Health Matters	Soul City	Insight	Other programme	
Age									
15-19	30.7	23.4	23.1	4.0	29.8	13.3	6.6	3.8	1,574
20-24	36.0	30.9	29.8	5.1	27.3	13.7	8.3	2.9	1,370
25-29	39.3	31.4	30.6	6.4	28.2	11.8	9.5	2.4	1,363
30-34	39.2	35.0	35.3	6.2	25.7	10.5	7.7	2.7	1,056
35-39	36.4	31.7	31.2	6.9	25.7	12.0	8.7	3.5	747
40-44	34.7	33.3	31.1	7.6	28.5	11.5	10.6	4.0	561
45-49	36.1	33.5	31.8	8.9	24.6	12.2	8.3	4.8	475
Residence									
Urban	57.3	44.5	43.7	9.0	55.8	26.3	17.4	6.9	3,009
Rural	20.3	20.1	19.5	3.7	7.0	2.2	1.7	0.6	4,137
Province									
Central	35.9	20.9	22.1	6.5	25.1	4.8	3.6	1.6	659
Copperbelt	60.5	49.9	48.6	14.1	56.0	32.2	19.4	10.7	1,264
Eastern	16.9	20.8	21.3	3.8	8.6	4.5	2.8	0.3	971
Luapula	18.4	19.6	19.3	1.0	7.9	3.8	2.2	0.2	530
Lusaka	55.4	44.7	43.9	3.2	55.0	20.7	16.1	2.6	1,172
Northern	23.4	18.4	17.3	1.0	11.0	4.1	2.5	0.9	966
North-Western	18.9	14.3	15.2	3.2	7.1	2.1	1.9	0.4	365
Southern	35.1	30.0	28.0	11.8	20.0	8.8	6.4	5.0	727
Western	20.5	25.7	22.6	3.1	9.6	5.1	3.7	1.0	492
Education									
No education	10.9	12.3	12.4	2.0	2.9	1.4	1.0	0.7	744
Primary	25.7	24.6	23.5	4.0	13.4	5.4	3.4	1.3	3,891
Secondary	56.4	43.7	43.9	8.3	51.5	23.5	15.2	5.9	2,140
More than secondary	74.8	51.4	46.4	19.7	87.3	42.3	34.7	13.0	371
Wealth quintile									
Lowest	10.9	12.9	11.9	3.0	1.6	0.6	0.4	0.1	1,240
Second	14.7	16.5	15.4	2.0	1.8	0.4	0.3	0.1	1,283
Middle	25.0	24.0	23.0	3.9	6.3	1.4	1.0	0.6	1,280
Fourth	45.9	40.2	40.1	6.6	30.7	12.3	7.7	3.3	1,567
Highest	67.6	48.6	47.9	11.6	76.8	37.0	25.3	9.6	1,776
Total 15-49	35.9	30.4	29.7	5.9	27.5	12.3	8.3	3.2	7,146

5.17 CONTACT OF NONUSERS WITH FAMILY PLANNING PROVIDERS

In the 2007 ZDHS, women who were not using any family planning method were asked whether they had been visited by a health worker who talked with them about family planning in the 12 months preceding the survey. This information is especially useful for determining whether family planning outreach programmes reach nonusers. Nonusers were also asked if they had visited a health facility in the preceding 12 months for any reason other than family planning, and if so, whether any health worker at the facility had spoken to them about family planning. These questions help to assess the level of so-called "missed opportunities" to inform women about contraception.

The results shown in Table 5.21 indicate that 5 percent of nonusers reported discussing family planning when a fieldworker visited them. Seventeen percent of nonusers reported that they had visited a health facility and discussed family planning, while 23 percent of the nonusers visited a health facility but did not discuss family planning. Staff at health facilities are more likely to discuss family planning with women age 20-39 than with women younger women age 15-19 or older women age 44-49.

The proportion of women who were visited by a fieldworker is the same for urban and rural areas (5 percent). Urban women are somewhat less likely than rural women to visit a health facility and discuss family planning (16 percent versus 18 percent) and they are more likely to visit a health facility but not discuss family planning (29 percent versus 18 percent). The proportion of nonusers who visited a health facility and discussed family planning is highest in Eastern province (25 percent), followed by Lusaka (21 percent) and Luapula (20 percent), and is lowest in Southern and Northern provinces (12 percent). Women with higher levels of education and those in higher wealth quintiles are more likely to visit a health facility and discuss family planning with a provider than women with less education and those in lower wealth quintiles.

Table 5.21 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, the percentage who during the past 12 months were visited by a fieldworker who discussed family planning, the percentage who visited a health facility and discussed family planning, the percentage who visited a health facility but did not discuss family planning, and the percentage who neither discussed family planning with a fieldworker nor at a health facility, by background characteristics, Zambia 2007

Background characteristic	Percentage of women who were visited by fieldworker who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who:		Percentage of women who neither discussed family planning with fieldworker nor at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Age					
15-19	3.2	5.7	18.0	92.1	1,421
20-24	4.7	20.2	25.3	77.6	913
25-29	6.3	25.0	26.8	72.5	814
30-34	8.2	26.7	27.7	70.2	659
35-39	5.0	22.0	23.4	75.6	469
40-44	4.3	17.1	21.1	80.4	373
45-49	5.0	12.9	20.8	84.1	359
Residence					
Urban	5.4	16.3	29.3	81.2	2,081
Rural	4.7	17.7	18.4	79.8	2,928
Province					
Central	3.7	12.7	20.6	84.6	500
Copperbelt	7.7	16.6	38.9	79.5	866
Eastern	3.3	25.1	3.4	74.2	553
Luapula	4.4	20.0	19.8	78.5	466
Lusaka	7.3	21.2	27.8	76.3	821
Northern	4.3	11.9	21.8	85.4	708
North-Western	1.8	14.7	22.5	84.3	266
Southern	2.7	11.9	20.2	86.2	474
Western	5.0	18.4	17.5	78.0	354
Education					
No education	2.7	18.5	17.3	80.7	527
Primary	5.0	18.0	21.7	79.6	2,711
Secondary	5.3	15.2	25.5	81.8	1,545
More than secondary	8.2	17.4	33.8	80.0	225
Wealth quintile					
Lowest	5.2	19.7	16.3	78.0	836
Second	4.0	17.1	16.8	80.6	929
Middle	4.7	17.0	20.6	80.8	955
Fourth	5.3	18.3	27.5	79.2	1,083
Highest	5.6	14.5	30.1	82.7	1,207
Total	5.0	17.1	23.0	80.4	5,009

5.18 HUSBAND/PARTNER'S KNOWLEDGE OF WOMEN'S CONTRACEPTIVE USE

The 2007 ZDHS asked married women whether their husband or partner knew that they were using a method of family planning. Table 5.22 shows that almost all currently married women age 15-49 who were using a method reported that their husband or partner knew about their contraceptive use (95 percent), 3 percent reported that their husband or partner did not know, and 2 percent reported that they were unsure whether their husband or partner knew about their contraceptive use. Women with higher education and women in the highest wealth quintile were most likely to share their method choice with their husband or partner (98 percent for both).

Table 5.22 Husband/partner's knowledge of women's use of contraception

Percent distribution of currently married women age 15-49 who are using a method of contraception by whether their husband/partner knows about their use of a contraceptive method, according to background characteristics, Zambia 2007

Background characteristic	Husband/partner's knowledge of wife's use of contraception: Knows[1]	Does not know	Unsure whether knows/ missing	Total	Number of women
Age					
15-19	98.3	0.0	1.7	100.0	79
20-24	94.7	3.2	2.2	100.0	372
25-29	94.7	3.2	2.1	100.0	478
30-34	95.1	2.8	2.1	100.0	345
35-39	92.4	5.6	1.9	100.0	253
40-44	94.4	4.1	1.5	100.0	164
45-49	95.7	0.0	4.3	100.0	104
Residence					
Urban	95.1	3.6	1.4	100.0	745
Rural	94.3	2.9	2.7	100.0	1,050
Province					
Central	93.8	5.4	0.8	100.0	144
Copperbelt	96.0	2.9	1.1	100.0	333
Eastern	95.8	2.0	2.2	100.0	363
Luapula	92.0	6.7	1.3	100.0	58
Lusaka	94.0	4.5	1.5	100.0	286
Northern	95.4	1.2	3.4	100.0	247
North-Western	94.2	3.1	2.7	100.0	74
Southern	92.9	3.9	3.2	100.0	205
Western	92.0	3.2	4.8	100.0	86
Education					
No education	92.8	3.1	4.0	100.0	200
Primary	94.3	3.3	2.3	100.0	1,012
Secondary	95.4	3.1	1.5	100.0	472
More than secondary	97.5	2.5	0.0	100.0	111
Wealth quintile					
Lowest	94.8	2.1	3.1	100.0	369
Second	94.9	2.4	2.7	100.0	295
Middle	93.1	4.5	2.4	100.0	279
Fourth	91.9	6.0	2.0	100.0	404
Highest	97.7	1.3	1.0	100.0	448
Total	94.6	3.2	2.2	100.0	1,795

[1] Includes women who reported use of male sterilization, male condoms, or withdrawal

OTHER PROXIMATE DETERMINANTS OF FERTILITY 6

Nchimunya Nkombo and Brian Munkombwe

This chapter considers a number of factors other than contraception that influence fertility; they are referred to as other proximate determinants of fertility. Marriage is among the most important of these proximate determinants. Besides marriage, this chapter also explores several other factors that influence fertility, including polygyny, sexual activity, postpartum amenorrhoea, abstinence from sexual activity, and the onset of menopause. *Postpartum amenorrhoea* and *postpartum abstinence* determine the length of time a woman is at risk of becoming pregnant after childbirth; affecting birth intervals and thus fertility levels. Menopause is important because it marks the end of a woman's period of exposure to the risk of pregnancy.

6.1 CURRENT MARITAL STATUS

Marriage is a primary indication of women's regular exposure to the risk of pregnancy and therefore is important for understanding fertility estimates. Populations in which age at first marriage is low tend to have early childbearing and high fertility rates. However, in Zambia, a union is not a prerequisite to childbearing. Many women have children before entering a formal union. Informal unions are common, and women may have children within the context of such unions.

Table 6.1 presents the percent distribution of women and men by marital status according to age. The term "married" refers to legal or formal unions, while "living together" designates an informal union in which a man and a woman live together, even if a formal civil, religious, or traditional ceremony has not occurred. In later tables where "living together" is not a separate category, these women and men are included in the "currently married" group. Respondents who are currently married, widowed, divorced, or separated are referred to as "ever married."

Table 6.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Zambia 2007

Age	Marital status						Total	Percentage of respondents currently in union	Number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed			
				WOMEN					
15-19	80.5	16.9	0.9	0.9	0.6	0.1	100.0	17.8	1,574
20-24	26.4	64.4	0.5	5.4	2.1	1.3	100.0	64.9	1,370
25-29	11.3	76.4	0.9	7.1	2.2	2.1	100.0	77.3	1,363
30-34	4.5	77.8	0.5	8.5	3.2	5.5	100.0	78.3	1,056
35-39	1.8	77.8	1.2	8.5	2.2	8.6	100.0	78.9	747
40-44	1.4	73.0	0.2	10.4	2.7	12.3	100.0	73.2	561
45-49	0.7	73.7	0.7	7.2	2.4	15.2	100.0	74.5	475
Total 15-49	26.0	60.9	0.7	6.0	2.0	4.4	100.0	61.6	7,146
				MEN					
15-19	98.8	1.0	0.2	0.0	0.0	0.0	100.0	1.2	1,416
20-24	70.9	26.1	0.3	1.1	1.3	0.2	100.0	26.4	1,066
25-29	28.6	65.9	0.8	2.2	1.9	0.6	100.0	66.7	977
30-34	9.2	82.5	0.8	4.2	2.1	1.3	100.0	83.3	954
35-39	2.6	88.9	0.5	4.7	1.7	1.7	100.0	89.4	717
40-44	2.2	88.1	1.0	4.2	1.9	2.6	100.0	89.1	475
45-49	0.7	91.3	0.5	3.1	1.2	3.2	100.0	91.8	390
Total 15-49	42.6	52.3	0.5	2.3	1.3	1.0	100.0	52.8	5,995
50-59	0.7	90.0	0.4	3.4	1.5	4.0	100.0	90.4	505
Total men 15-59	39.3	55.2	0.5	2.4	1.3	1.2	100.0	55.8	6,500

Table 6.1 shows that 26 percent of women of childbearing age have never been married; 62 percent are either married or living together with a man; and the remaining 12 percent are divorced, separated, or widowed. The proportion of women who have never married decreases sharply with age. By age 35, almost all women have married. As expected, older women are more likely to be widowed or divorced than younger women. Only 2 percent of women age 40 and older have never married.

Similar patterns are seen for men. Forty-three percent of men age 15-49 have never married, while 53 percent are formally married or living together with a woman. Five percent are widowed, divorced, or separated. Men tend to marry at older ages than women. The overall proportion of men age 15-49 who have never married is higher than for women in the same age group (43 and 26 percent, respectively.

6.2 POLYGYNY

Having more than one wife at the same time, polygyny, has implications for the frequency of sexual intercourse, and thus, may have an effect on fertility; however, the relationship between the type of union and fertility is complex. In the 2007 ZDHS, polygyny was measured by asking all currently married female respondents whether their husbands or partners had other wives, and if so, how many. Married men were asked whether they had one or more wives or partners with whom they were living. Table 6.2 shows the percent distribution of currently married women by number of co-wives and the percent distribution of currently married men by number of wives, according to the background characteristics.

Table 6.2 shows that 14 percent of married women in Zambia are in polygynous unions. Thirteen percent reported they have one co-wife, while 2 percent have two or more co-wives. The level of polygyny increases with age. The increase among women is from 6 percent among married women age 15-19 to 23 percent among women age 40-44. A higher proportion of rural women are in polygynous unions (19 percent) than their urban counterparts (6 percent). There are marked provincial differences in the level of polygyny, ranging from the highest proportion in Southern (25 percent) to 4 percent among women in Lusaka. Eastern and Western also have high proportions of women in polygynous unions (23 and 20 percent, respectively). Women with no education or little education and those who are in the lower wealth quintiles are more likely to have polygynous marriages.

Information relating to the prevalence of polygynous unions among currently married men is presented in Table 6.2. Eight percent of the married men age 15-49 reported having two or more wives.

Table 6.2 Polygyny

Percent distribution of currently married women age 15-49 by number of co-wives and percent distribution of currently married men by number of wives, according to background characteristics, Zambia 2007

Background characteristic	Married women: number of co-wives					Number of women	Married men: number of wives			Number of men
	0	1	2+	Missing	Total		1	2+	Total	
Age										
15-19	93.3	5.2	0.6	0.9	100.0	280	*	*	100.0	17
20-24	90.4	8.2	0.4	1.1	100.0	889	97.0	3.0	100.0	282
25-29	87.2	11.7	0.6	0.5	100.0	1,053	95.4	4.6	100.0	651
30-34	82.7	14.9	1.6	0.9	100.0	826	92.7	7.3	100.0	795
35-39	79.3	16.6	3.4	0.8	100.0	590	90.4	9.6	100.0	641
40-44	76.2	17.1	5.8	0.9	100.0	411	89.2	10.8	100.0	424
45-49	80.5	13.7	4.6	1.3	100.0	353	87.3	12.7	100.0	358
Residence										
Urban	92.9	5.5	0.3	1.3	100.0	1,540	97.1	2.9	100.0	1,093
Rural	80.4	16.3	2.8	0.6	100.0	2,863	89.6	10.4	100.0	2,075
Province										
Central	86.8	10.0	2.9	0.3	100.0	438	94.5	5.5	100.0	313
Copperbelt	92.3	5.7	0.0	2.0	100.0	699	97.1	2.9	100.0	466
Eastern	77.1	18.4	4.3	0.2	100.0	689	87.3	12.7	100.0	514
Luapula	85.2	12.8	0.4	1.6	100.0	363	95.4	4.6	100.0	252
Lusaka	94.5	4.0	0.3	1.2	100.0	620	97.5	2.5	100.0	479
Northern	83.5	15.6	0.7	0.2	100.0	655	90.1	9.9	100.0	483
North-Western	83.6	14.9	1.2	0.4	100.0	232	88.3	11.7	100.0	177
Southern	75.3	19.6	5.1	0.0	100.0	447	85.1	14.9	100.0	319
Western	78.0	16.9	3.2	1.9	100.0	258	92.4	7.6	100.0	165
Education										
No education	74.1	21.8	3.4	0.7	100.0	572	89.8	10.2	100.0	191
Primary	84.5	12.5	2.2	0.8	100.0	2,678	90.4	9.6	100.0	1,622
Secondary	89.3	9.1	0.6	1.0	100.0	959	93.4	6.6	100.0	1,074
More than secondary	97.4	1.7	0.0	0.9	100.0	193	99.3	0.7	100.0	281
Wealth quintile										
Lowest	78.9	16.7	3.7	0.7	100.0	912	87.6	12.4	100.0	745
Second	79.1	18.2	2.3	0.3	100.0	864	88.9	11.1	100.0	558
Middle	81.7	15.2	2.4	0.8	100.0	889	90.9	9.1	100.0	617
Fourth	90.2	8.0	0.9	0.9	100.0	911	96.5	3.5	100.0	664
Highest	94.5	3.8	0.1	1.6	100.0	825	97.6	2.4	100.0	584
Total 15-49	84.8	12.5	1.9	0.9	100.0	4,402	92.2	7.8	100.0	3,168
50-59	na	na	na	na	na	na	89.9	10.1	100.0	456
Total 15-59	na	na	na	na	na	na	91.9	8.1	100.0	3,624

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

6.3 AGE AT FIRST MARRIAGE

Marriage is generally associated with fertility because it is correlated with exposure to the risk of pregnancy. The duration of exposure to the risk of pregnancy depends primarily on the age at which women first marry. Women who marry earlier, on average, are more likely to have their first child earlier and give birth to more children overall, contributing to higher fertility rates. Table 6.3 shows the percentage of women and men who have married by specific ages, and the median age at first marriage by current age.

The results show that almost half (46 percent) of women age 20-49 were married by age 18, and 66 percent were married by age 20. The proportion of women getting married by age 15 decreased from 22 percent among women currently age 45-49 to 3 percent among those age 15-19. The median age at first marriage increased from 18 among women age 45-49 to 19 among younger women age 20-24. Data from the 1996, 2001-2002, and 2007 ZDHS surveys indicate that the median age at first marriage among women age 20-49 has remained constant at 18 years.

The lower panel of Table 6.3 shows the distribution of age at first marriage among men. Men marry considerably later than women. While 11 percent of women age 20-49 were married by age 15, less than 1 percent of men in the same age group were married at the same age. For men age 20-49, 16 percent had married by age 20, compared with 66 percent of their female counterparts. Among men age 25-49, one in three was married by age 22 and 62 percent were married by age 25. The median age at marriage for men is 24 years.

Table 6.3 Age at first marriage

Percentage of women and men age 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Zambia 2007

	Percentage first married by exact age:					Percentage never		Median age at first
Current age	15	18	20	22	25	married	Number	marriage
				WOMEN				
15-19	3.1	na	na	na	na	80.5	1,574	a
20-24	8.5	41.6	59.2	na	na	26.4	1,370	19.0
25-29	8.0	41.9	63.4	74.3	84.6	11.3	1,363	18.7
30-34	9.9	48.0	67.8	78.9	88.9	4.5	1,056	18.2
35-39	11.3	47.8	69.8	80.8	90.3	1.8	747	18.2
40-44	15.7	53.3	72.3	83.2	92.6	1.4	561	17.8
45-49	21.5	57.8	75.8	86.7	94.0	0.7	475	17.5
20-49	10.9	46.3	66.0	na	na	10.6	5,572	18.4
25-49	11.6	47.8	68.2	79.2	88.8	5.4	4,202	18.2
				MEN				
15-19	0.0	na	na	na	na	98.8	1,416	a
20-24	0.9	5.2	12.3	na	na	70.9	1,066	a
25-29	0.6	4.3	16.0	35.3	59.7	28.6	977	23.7
30-34	0.6	5.9	15.5	32.7	62.2	9.2	954	23.5
35-39	0.6	5.5	20.2	39.1	64.8	2.6	717	23.2
40-44	0.5	4.2	14.4	29.5	57.6	2.2	475	23.8
45-49	0.8	6.7	21.3	37.8	64.5	0.7	390	23.1
20-49	0.7	5.2	16.0	na	na	25.2	4,579	a
25-49	0.6	5.2	17.1	34.9	61.6	11.3	3,513	23.5
20-59	0.7	5.3	16.0	na	na	22.8	5,084	a
25-59	0.6	5.3	16.9	34.8	61.7	10.0	4,018	23.5

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner
na = Not applicable due to censoring
a = Omitted because less than 50 percent of the women married for the first time before reaching the beginning of the age group

6.4 MEDIAN AGE AT FIRST MARRIAGE

The median age at first marriage for women and men is shown in Tables 6.4.1 and 6.4.2 by current age and background characteristics. Overall, among women age 20-49, those who reside in urban areas marry two years later than their counterparts in rural areas (20 and 18 years, respectively). The median age at first marriage ranges between 18 and 20 years across provinces. For women 25-49, the median age at first marriage is highest among those with more than secondary education (24 years) and lowest among those with no education (17 years).

Table 6.4.1 Median age at first marriage: Women

Median age at first marriage among women by five-year age groups, age 20-49 and age 25-49, according to background characteristics, Zambia 2007

Background characteristic	Age						Women age	
	20-24	25-29	30-34	35-39	40-44	45-49	20-49	25-49
Residence								
Urban	a	20.1	18.8	19.2	18.5	17.5	19.6	19.1
Rural	17.8	18.1	17.9	17.7	17.5	17.5	17.8	17.8
Province								
Central	18.5	18.5	18.8	17.7	17.2	17.0	18.1	18.0
Copperbelt	a	19.5	17.9	18.8	18.0	17.3	18.9	18.4
Eastern	17.5	17.8	17.6	17.5	17.7	17.4	17.6	17.6
Luapula	18.0	17.4	17.6	17.1	16.8	17.3	17.5	17.3
Lusaka	a	20.1	19.4	19.5	19.1	17.3	19.7	19.4
Northern	18.2	17.8	17.9	17.6	17.5	17.4	17.8	17.7
North-Western	18.2	17.8	17.4	17.3	16.7	17.0	17.6	17.4
Southern	19.2	19.0	18.4	18.7	17.9	18.0	18.7	18.5
Western	a	21.3	20.8	20.1	19.8	18.8	a	20.4
Education								
No education	17.1	17.5	17.5	17.1	17.1	17.2	17.3	17.3
Primary	17.5	17.8	17.6	17.6	17.4	16.9	17.5	17.5
Secondary	a	20.1	20.0	19.6	19.7	19.7	a	19.9
More than secondary	a	a	24.6	23.7	22.8	22.2	a	24.4
Wealth quintile								
Lowest	17.3	18.2	17.6	17.3	17.7	17.5	17.6	17.7
Second	17.8	18.0	17.8	17.9	17.5	17.5	17.8	17.8
Middle	18.2	17.7	18.0	17.9	17.4	16.6	17.8	17.7
Fourth	19.1	18.3	17.9	18.1	16.9	17.2	18.1	17.9
Highest	a	22.1	20.6	19.9	19.5	18.3	a	20.4
Total	19.0	18.7	18.2	18.2	17.8	17.5	18.4	18.2

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner.
a = Omitted because less than 50 percent of the women married for the first time before reaching the beginning of the age group

The results show that men marry at a later age than women. Data from both tables indicate that men marry an average of five years later than women. Results by men's level of education show that for men age 30-39, the median age at first marriage increases with level of education.

Table 6.4.2 Median age at first marriage: Men

Median age at first marriage among men by five-year age groups, age 20-59 and age 25-59, according to background characteristics, Zambia 2007

Background characteristic	Age						Men age 25-59
	25-29	30-34	35-39	40-44	45-49	50-59	
Residence							
Urban	a	25.5	25.3	25.8	24.6	24.3	a
Rural	22.3	22.7	22.3	23.0	22.5	22.9	22.6
Province							
Central	23.6	23.5	23.5	23.0	22.6	24.1	23.4
Copperbelt	a	25.6	24.4	25.8	23.3	23.7	24.9
Eastern	21.6	22.1	21.6	23.1	22.0	21.5	22.0
Luapula	22.0	22.5	22.8	22.8	22.9	24.5	22.6
Lusaka	a	24.5	25.8	26.3	26.7	24.2	a
Northern	23.0	23.0	22.7	24.0	22.4	23.7	23.2
North-Western	23.0	22.7	21.5	23.1	22.5	22.7	22.6
Southern	22.5	23.0	23.0	22.5	23.0	24.0	22.9
Western	23.9	24.4	25.7	23.0	25.1	23.9	24.2
Education							
No education	22.6	22.1	21.9	25.3	24.1	23.2	22.6
Primary	22.0	22.4	22.2	22.7	22.1	22.5	22.3
Secondary	25.0	24.1	24.0	24.5	23.4	23.8	24.2
More than secondary	a	29.0	27.1	26.9	27.1	25.7	a
Wealth quintile							
Lowest	21.7	22.3	22.2	22.7	22.1	22.4	22.2
Second	22.2	23.1	22.5	23.3	22.7	22.8	22.7
Middle	23.0	22.8	22.1	23.2	22.8	23.7	22.8
Fourth	23.8	23.9	24.3	23.5	23.4	23.2	23.7
Highest	a	26.6	26.3	26.5	25.0	25.0	a
Total	23.7	23.5	23.2	23.8	23.1	23.4	23.5

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner.
a = Omitted because less than 50 percent of the men married for the first time before reaching the beginning of the age group

6.5 AGE AT FIRST SEXUAL INTERCOURSE

While age at first marriage is often used as a proxy for first exposure to intercourse, the two events do not necessarily occur at the same time. Women and men sometimes engage in sexual relations before marriage. To obtain information on the age at first intercourse, women and men were asked how old they were when they first had sexual intercourse. Table 6.5 presents information from the 2007 ZDHS on the percentage of women and men who initiated intercourse by specific exact ages, and median age at first intercourse according to current age.

Similar to marriage, sexual activity among women starts at an earlier age than it does among men. Table 6.5 shows that the median age at first intercourse is 17 years for women age 20-49 and 18 years for men in the same age group. Sixteen percent of women age 20-49 and 13 percent of men in the same age group reported that they had sexual intercourse by age 15. By age 18, 60 percent of women in the same age group, compared with 51 percent of men, had sexual intercourse.

Table 6.5 Age at first sexual intercourse

Percentage of women and men age 15-49 who had first sexual intercourse by specific exact ages, percentage who never had intercourse, and median age at first intercourse, according to current age, Zambia 2007

Current age	Percentage who had first sexual intercourse by exact age: 15	18	20	22	25	Percentage who never had intercourse	Number	Median age at first intercourse
				WOMEN				
15-19	12.3	na	na	na	na	51.9	1,574	a
20-24	14.8	59.8	77.4	na	na	7.2	1,370	17.2
25-29	13.7	58.4	76.8	86.0	89.2	1.8	1,363	17.4
30-34	15.4	61.8	77.7	85.8	89.3	0.3	1,056	17.1
35-39	15.2	59.3	76.9	84.9	88.7	0.3	747	17.2
40-44	17.6	60.0	78.3	86.2	89.3	1.0	561	17.2
45-49	25.3	66.8	80.4	86.4	89.8	0.3	475	16.6
20-49	15.9	60.4	77.6	na	na	2.4	5,572	17.2
25-49	16.2	60.6	77.7	85.8	89.2	0.9	4,202	17.2
15-24	13.5	na	na	na	na	31.1	2,944	a
				MEN				
15-19	16.2	na	na	na	na	55.3	1,416	a
20-24	15.7	50.6	71.9	na	na	14.2	1,066	17.9
25-29	13.2	51.0	73.0	85.8	93.8	2.1	977	17.9
30-34	11.7	51.1	69.9	82.9	91.2	0.8	954	17.9
35-39	13.9	53.3	72.9	86.3	92.6	0.5	717	17.7
40-44	10.6	47.7	68.4	81.9	91.0	0.3	475	18.2
45-49	9.2	50.2	70.1	83.0	91.7	0.2	390	18.0
20-49	13.0	50.9	71.4	na	na	4.1	4,579	17.9
25-49	12.1	51.0	71.2	84.3	92.3	1.0	3,513	17.9
15-24	16.0	na	na	na	na	37.6	2,482	a
20-59	12.3	49.7	70.3	na	na	3.7	5,084	18.0
25-59	11.4	49.4	69.9	83.7	91.8	0.9	4,018	18.0

na = Not applicable due to censoring
a = Omitted because less than 50 percent of the respondents had intercourse for the first time before reaching the beginning of the age group

Differentials in age at first sex by background characteristics are shown in Tables 6.6.1 and 6.6.2 for women and men, respectively. For women age 20-49 living in urban areas, the first sexual encounter is delayed by about a year compared with their rural counterparts (18 and 17 years, respectively). Among women 20-49, age at first sex ranges from 16 to 18 years by province. For women in the same age group, the median age at first sex increases with educational attainment and wealth quintile. For men age 20-59, there are no differences based on urban-rural residence (18 years for both). As with women, the median age at first sex increases with level of education and wealth status.

Table 6.6.1 Median age at first intercourse: Women

Median age at first sexual intercourse among women by five-year age groups, age 20-49 and age 25-49, according to background characteristics, Zambia 2007

Background characteristic	Age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	18.1	17.9	17.6	18.1	18.0	17.1	17.9	17.8
Rural	16.6	17.0	16.8	16.9	16.9	16.4	16.8	16.9
Province								
Central	17.4	17.7	17.6	17.6	17.3	16.4	17.4	17.4
Copperbelt	18.0	18.3	17.1	18.0	17.8	17.1	17.8	17.7
Eastern	16.7	17.0	16.9	16.8	17.5	17.3	17.0	17.0
Luapula	17.3	16.5	17.0	16.5	16.2	15.9	16.7	16.5
Lusaka	17.9	17.5	17.8	18.4	17.9	16.7	17.7	17.7
Northern	17.6	17.7	17.9	17.8	17.9	17.2	17.7	17.8
North-Western	15.9	16.2	15.7	15.5	15.6	15.4	15.8	15.7
Southern	16.8	17.5	16.9	17.6	17.1	16.2	17.1	17.2
Western	15.8	16.1	16.0	16.2	16.2	16.3	16.0	16.1
Education								
No education	16.1	16.1	16.6	16.5	16.5	16.1	16.3	16.4
Primary	16.4	16.8	16.7	16.9	16.9	15.9	16.7	16.7
Secondary	18.2	18.1	18.2	18.1	18.6	18.3	18.2	18.2
More than secondary	19.9	21.0	21.4	20.7	21.2	21.6	a	21.1
Wealth quintile								
Lowest	16.3	17.2	16.5	16.7	16.8	16.6	16.7	16.7
Second	16.5	17.0	16.8	16.7	17.0	16.5	16.7	16.8
Middle	16.8	16.6	17.0	16.9	16.9	15.8	16.8	16.8
Fourth	17.2	17.0	16.9	17.3	16.9	16.2	17.0	17.0
Highest	19.1	18.8	18.3	18.9	18.6	17.9	18.7	18.6
Total	17.2	17.4	17.1	17.2	17.2	16.6	17.2	17.2

a = Omitted because less than 50 percent of the women had intercourse for the first time before reaching the beginning of the age group

Table 6.6.2 Median age at first intercourse: Men

Median age at first sexual intercourse among men by five-year age groups, age 20-59 and age 25-59, according to background characteristics, Zambia 2007

Background characteristic	Age							Men age 20-59	Men age 25-59
	20-24	25-29	30-34	35-39	40-44	45-49	50-59		
Residence									
Urban	18.3	18.4	18.4	18.2	18.3	18.1	18.8	18.4	18.4
Rural	17.3	17.5	17.3	17.4	18.1	17.9	18.7	17.7	17.8
Province									
Central	16.6	18.2	18.3	17.8	18.1	18.3	18.7	18.1	18.3
Copperbelt	18.8	19.0	19.4	18.5	18.8	18.5	19.5	18.9	18.9
Eastern	17.6	17.2	17.0	17.3	18.1	17.1	17.4	17.3	17.3
Luapula	16.7	16.8	16.7	17.4	16.6	18.2	18.6	17.2	17.2
Lusaka	18.1	17.8	17.6	17.5	17.3	17.7	18.5	17.8	17.7
Northern	19.4	18.7	19.7	18.7	20.3	20.0	22.0	19.6	19.7
North-Western	16.1	16.7	16.6	16.0	18.4	16.5	17.6	16.7	16.8
Southern	16.7	17.7	17.9	16.4	18.1	18.0	18.7	17.4	17.7
Western	15.7	15.5	15.8	16.3	16.0	16.2	17.3	15.9	16.0
Education									
No education	17.0	17.0	15.9	16.6	16.5	17.0	19.3	16.9	16.9
Primary	17.3	17.2	17.4	17.5	18.0	18.0	18.4	17.6	17.7
Secondary	18.2	18.3	18.2	17.6	18.5	17.8	19.3	18.3	18.3
More than secondary	18.6	19.1	19.5	18.6	18.3	21.4	18.8	19.0	19.1
Wealth quintile									
Lowest	17.1	16.8	17.0	17.5	17.9	17.7	18.2	17.4	17.4
Second	17.1	16.9	17.6	17.1	18.1	17.8	18.7	17.7	17.7
Middle	17.3	18.3	18.0	17.2	18.9	18.3	18.7	18.0	18.2
Fourth	17.7	17.8	17.3	17.6	18.2	17.7	19.7	17.9	17.9
Highest	18.6	18.9	19.1	18.5	18.1	18.4	18.8	18.7	18.7
Total	17.9	17.9	17.9	17.7	18.2	18.0	18.7	18.0	18.0

6.6 RECENT SEXUAL ACTIVITY

In the absence of contraception, the probability of pregnancy is related to the frequency of intercourse. Thus, information on sexual activity is useful in refining measures of exposure to pregnancy. Men and women who have had sex were asked how long ago their last sexual contact occurred. Tables 6.7.1 and 6.7.2 present data on the percent distribution of women and men by recent sexual activity and background characteristics. Respondents are considered to be sexually active recently if they had sexual intercourse at least once in the four weeks preceding the survey.

About half (53 percent) of women age 15-49 were sexually active within the four weeks preceding the interview. Another 21 percent indicated that they had been sexually active in the 12 months preceding the survey, but not in the past month. Twelve percent were not sexually active for one or more years. An additional 13 percent of women in the same age group have never had sex.

Table 6.7.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, Zambia 2007

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Missing	Never had sexual intercourse	Total	Number of women
Age							
15-19	20.7	17.5	9.8	0.1	51.9	100.0	1,574
20-24	58.1	24.7	10.1	0.0	7.2	100.0	1,370
25-29	64.7	23.7	9.4	0.4	1.8	100.0	1,363
30-34	64.7	23.9	11.0	0.1	0.3	100.0	1,056
35-39	64.8	16.4	18.1	0.4	0.3	100.0	747
40-44	60.5	21.0	17.5	0.1	1.0	100.0	561
45-49	58.9	17.4	22.8	0.6	0.3	100.0	475
Marital status							
Never married	9.4	21.6	17.5	0.2	51.3	100.0	1,856
Married or living together	78.9	18.7	2.3	0.2	0.0	100.0	4,402
Divorced/separated/widowed	16.1	32.5	51.0	0.3	0.0	100.0	888
Marital duration[2]							
0-4 years	79.4	19.1	1.2	0.2	0.0	100.0	903
5-9 years	78.8	19.5	1.8	0.0	0.0	100.0	919
10-14 years	81.0	18.2	0.8	0.0	0.0	100.0	630
15-19 years	77.2	18.2	4.0	0.5	0.0	100.0	459
20-24 years	80.1	16.0	3.4	0.5	0.0	100.0	326
25+ years	74.9	20.3	4.3	0.5	0.0	100.0	335
Married more than once	78.8	18.4	2.8	0.0	0.0	100.0	830
Residence							
Urban	46.1	21.0	14.0	0.2	18.7	100.0	3,009
Rural	58.1	21.2	11.1	0.2	9.4	100.0	4,137
Province							
Central	58.0	18.2	10.3	0.0	13.4	100.0	659
Copperbelt	46.6	21.0	13.0	0.4	19.0	100.0	1,264
Eastern	60.0	20.5	9.6	0.3	9.6	100.0	971
Luapula	53.5	22.8	11.5	0.0	12.2	100.0	530
Lusaka	46.5	21.7	14.8	0.0	17.0	100.0	1,172
Northern	52.9	19.5	14.0	0.5	13.1	100.0	966
North-Western	59.5	23.3	8.8	0.0	8.4	100.0	365
Southern	59.8	19.4	9.7	0.1	11.0	100.0	727
Western	49.8	27.9	16.3	0.0	6.0	100.0	492
Education							
No education	61.4	22.2	12.8	0.4	3.1	100.0	744
Primary	57.6	21.4	11.0	0.1	9.9	100.0	3,891
Secondary	42.0	20.5	13.3	0.3	23.9	100.0	2,140
More than secondary	51.3	20.2	19.3	0.2	8.9	100.0	371
Wealth quintile							
Lowest	61.4	20.5	10.0	0.2	7.9	100.0	1,240
Second	56.5	21.6	12.7	0.1	9.1	100.0	1,283
Middle	57.6	22.0	10.9	0.2	9.2	100.0	1,280
Fourth	51.8	23.1	11.5	0.2	13.5	100.0	1,567
Highest	42.5	19.0	15.3	0.2	23.0	100.0	1,776
Total	53.0	21.2	12.3	0.2	13.3	100.0	7,146

[1] Excludes women who had sexual intercourse within the past 4 weeks
[2] Excludes women who are not currently married

The proportion of women who were sexually active in the four weeks preceding the survey increases with age, peaks in the 25-39 age group (65 percent), and decreases thereafter. As expected, sexual activity among teenagers and women who are not currently in union is lower compared with older women and women who are married or living with a man. Twenty-one percent of women age 15-19 were sexually active in the four weeks preceding the survey, and 9 percent of never-married women were sexually active in the same period.

Women in urban areas were less likely to be sexually active over the past 4 weeks (46 percent) than their counterparts in rural areas (58 percent). The proportion of sexually active women was highest in Eastern, Southern, and North-Western (60 percent each). Women in Lusaka and Copperbelt were less likely to have been sexually active (47 percent). The results showed that women with no education (61 percent) were more likely to have been sexually active than educated women. Women with a secondary education were least likely to have been sexually active in the past four weeks (42 percent). Recent sexual activity is inversely related to increasing wealth quintile.

Table 6.7.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Zambia 2007

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Missing	Never had sexual intercourse	Total	Number of men
Age							
15-19	12.7	16.9	15.0	0.1	55.3	100.0	1,416
20-24	38.5	27.9	19.0	0.4	14.2	100.0	1,066
25-29	62.8	27.0	8.1	0.0	2.1	100.0	977
30-34	73.1	19.3	6.8	0.0	0.8	100.0	954
35-39	73.3	20.6	5.2	0.3	0.5	100.0	717
40-44	72.4	20.7	6.6	0.0	0.3	100.0	475
45-49	79.8	15.1	4.3	0.6	0.2	100.0	390
Marital status							
Never married	17.5	24.1	20.5	0.1	37.9	100.0	2,553
Married or living together	80.9	17.8	1.1	0.3	0.0	100.0	3,168
Divorced/separated/widowed	27.0	40.5	32.5	0.0	0.0	100.0	274
Marital duration[2]							
0-4 years	79.4	19.8	0.6	0.2	0.0	100.0	680
5-9 years	78.3	20.4	0.9	0.4	0.0	100.0	654
10-14 years	82.8	16.0	1.0	0.2	0.0	100.0	476
15-19 years	83.7	14.3	1.5	0.5	0.0	100.0	347
20-24 years	87.3	11.5	1.2	0.0	0.0	100.0	210
25+ years	80.0	14.7	5.3	0.0	0.0	100.0	87
Married more than once	80.3	18.6	0.9	0.3	0.0	100.0	714
Residence							
Urban	43.1	22.1	14.3	0.3	20.2	100.0	2,601
Rural	57.7	21.0	8.0	0.1	13.1	100.0	3,395
Province							
Central	57.7	20.1	10.4	0.0	11.8	100.0	559
Copperbelt	40.1	21.4	16.9	0.3	21.3	100.0	1,140
Eastern	59.6	20.5	7.8	0.0	12.1	100.0	795
Luapula	55.5	24.2	5.8	0.0	14.4	100.0	387
Lusaka	45.0	23.6	12.0	0.3	19.1	100.0	1,072
Northern	51.0	22.3	7.9	0.2	18.6	100.0	805
North-Western	60.5	20.4	9.4	0.0	9.6	100.0	303
Southern	56.4	18.1	8.9	0.2	16.4	100.0	621
Western	59.7	22.4	10.6	0.0	7.3	100.0	315
Education							
No education	63.2	23.7	7.0	0.0	6.1	100.0	267
Primary	55.0	20.9	8.3	0.1	15.7	100.0	2,775
Secondary	44.3	22.1	13.9	0.2	19.6	100.0	2,512
More than secondary	62.2	20.8	10.5	0.5	5.9	100.0	441
Wealth quintile							
Lowest	62.5	19.7	6.4	0.2	11.2	100.0	1,114
Second	58.9	21.1	8.1	0.0	11.9	100.0	869
Middle	53.5	22.7	9.1	0.1	14.6	100.0	1,097
Fourth	49.3	22.7	13.2	0.3	14.6	100.0	1,381
Highest	39.5	21.1	14.5	0.2	24.7	100.0	1,534
Total 15-49	51.4	21.5	10.8	0.2	16.2	100.0	5,995
50-59	72.8	17.8	8.9	0.1	0.4	100.0	505
Total men 15-59	53.1	21.2	10.6	0.2	14.9	100.0	6,500

[1] Excludes men who had sexual intercourse within the last 4 weeks
[2] Excludes men who are not currently married

Half (51 percent) of men age 15-49 were sexually active in the four weeks preceding the survey, while 22 percent had sex in the past year but not in the past month. Eleven percent had not been sexually active in the past year or more, and 16 percent had never had sex.

For men, sexual activity in the four weeks preceding the interview increases with age, with the highest level among men age 45-49 (80 percent). Men in union are much more likely to have been sexually active in the past four weeks than men who have never been married or lived with a woman (81 and 18 percent, respectively). Men in urban areas are less likely to be sexually active than men in rural areas (43 and 58 percent, respectively). Recent sexual activity is highest in North-Western (61 percent). The lowest rates of recent sexual activity are in Copperbelt and Lusaka (40 and 45 percent, respectively). As with women, recent sexual activity is inversely related to increasing wealth quintile.

6.7 POSTPARTUM AMENORRHOEA, ABSTINENCE, AND INSUSCEPTIBILITY

Among women who are not using contraception, exposure to the risk of pregnancy in the period after a birth is influenced primarily by two factors: breastfeeding and sexual abstinence. Breastfeeding prolongs postpartum protection from conception through its effect on the length of the period of amenorrhoea (the period prior to the return of menses) after a birth. More frequent breastfeeding for longer durations is associated with longer periods of postpartum amenorrhoea. Delaying the resumption of sexual relations after a birth also prolongs the period of postpartum protection. Women are considered insusceptible to pregnancy if they are not at risk of conception, either because they are amenorrhoeic or abstaining from sexual activity after a birth.

The percentage of births occurring during the three years preceding the survey for which mothers are postpartum amenorrhoeic, postpartum abstaining, and postpartum insusceptible is shown in Table 6.8, by the number of months since birth. The results presented in the table are based on cross-sectional data, representing the experience of mothers of all births at a single point in time rather than showing the experience of a cohort of mothers over time. The data are grouped in two-month intervals to minimize the fluctuations in the estimates. The median- and mean-duration estimates shown at the bottom of Table 6.8 are calculated from the current status distributions presented in the table.

Table 6.8 Postpartum amenorrhoea, abstinence and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Zambia 2007

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrhoeic	Abstaining	Insusceptible[1]	
< 2	98.0	97.4	100.0	206
2-3	86.5	60.3	90.8	219
4-5	83.4	42.6	85.6	242
6-7	66.7	28.1	75.2	217
8-9	64.1	25.2	68.5	252
10-11	54.2	20.2	61.5	212
12-13	42.4	12.9	47.2	243
14-15	35.0	10.9	41.3	217
16-17	20.7	17.4	33.1	202
18-19	21.7	8.7	26.6	219
20-21	9.7	7.1	15.8	210
22-23	5.9	6.8	10.6	237
24-25	4.6	8.1	11.4	228
26-27	3.8	6.7	9.6	199
28-29	0.8	6.9	6.9	201
30-31	1.1	6.8	7.1	201
32-33	0.7	6.3	7.0	210
34-35	0.5	2.1	2.6	213
Total	34.1	20.9	39.7	3,928
Median	11.2	3.9	12.5	na
Mean	12.3	7.8	14.3	na

Note: Estimates are based on status at the time of the survey.
na = Not applicable
[1] Includes births for which mothers are either still amenorrhoeic or still abstaining (or both) following birth

Table 6.8 shows that at the time of the survey, 40 percent of the mothers who had given birth during the three years preceding the survey were insusceptible because they were either amenorrhoeic or still abstaining (or both). The median duration of postpartum insusceptibility to pregnancy is 13 months. Slightly more than half of women (54 percent) were amenorrhoeic for at least 10 months after delivering, with a median duration of 11 months for amenorrhoea. The median duration of postpartum abstinence is much lower (4 months). By 10-11 months after birth, 62 percent are insusceptible to pregnancy, but only 20 percent are abstaining from sexual relations.

Table 6.9 shows the median durations of postpartum amenorrhoea, abstinence, and insusceptibility by background characteristics. The duration of postpartum amenorrhoea is shorter among younger women age 15-29 years with an average of 11 months compared with 13 months for women age 30-49. The duration of amenorrhoea is considerably shorter among urban women than among rural women, averaging 7 months compared with 13 months. It is considerably shorter among mothers in Lusaka (7 months) and longer among mothers in Luapula, North-Western, and Central (13 months each). The median duration of postpartum abstinence is particularly long for mothers in Western (10 months). Amenorrhoea decreases with increasing level of mother's education and wealth quintile.

Table 6.9 Median duration of amenorrhoea, postpartum abstinence and postpartum insusceptibility

Median number of months of postpartum amenorrhoea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Zambia 2007

Background characteristic	Postpartum amenorrhoea	Postpartum abstinence	Postpartum insusceptibility[1]
Mother's age			
15-29	10.6	4.1	11.9
30-49	12.6	3.6	13.7
Residence			
Urban	6.8	3.9	8.4
Rural	12.5	3.9	13.7
Province			
Central	12.8	3.0	13.1
Copperbelt	9.0	4.2	9.9
Eastern	12.4	2.9	13.4
Luapula	13.4	2.7	13.8
Lusaka	7.2	3.7	7.7
Northern	11.3	5.7	13.7
North-Western	13.3	5.9	15.1
Southern	10.5	3.9	12.2
Western	11.0	10.3	12.9
Education			
No education	13.0	4.3	14.8
Primary	11.8	3.8	12.9
Secondary	7.7	3.9	9.9
More than secondary	5.8	3.8	5.8
Wealth quintile			
Lowest	13.5	3.9	15.1
Second	13.0	4.0	14.4
Middle	12.3	4.1	13.0
Fourth	9.4	3.8	10.2
Highest	5.9	3.8	6.4
Total	11.2	3.9	12.5

Note: Medians are based on the status at the time of the survey (current status)
[1] Includes births for which mothers are either still amenorrhoeic or still abstaining (or both) following birth

6.8 MENOPAUSE

Another factor influencing the risk of pregnancy among women is menopause. Table 6.10 presents data on the proportion of women age 30 and older who are menopausal. A respondent was considered menopausal if she had not had her menses for six months or more before the survey and was neither pregnant nor amenorrhoeic.

Table 6.10 shows that 8 percent of women age 30-49 are menopausal. The proportion of menopausal women increases with an increase in age from 1 percent for women age 30-34 to 47 percent for women age 48-49. It is clear that the onset of infertility with increasing age reduces the proportion of women who are exposed to the risk of pregnancy.

Table 6.10 Menopause

Percentage of women age 30-49 who are menopausal, by age, Zambia 2007

Age	Percentage menopausal[1]	Number of women
30-34	1.0	1,056
35-39	0.7	747
40-41	6.9	225
42-43	6.1	234
44-45	18.5	202
46-47	27.6	196
48-49	46.5	178
Total	7.8	2,839

[1] Percentage of women who are not pregnant and not postpartum amenorrhoeic whose last menstrual period occurred six or more months preceding the survey

FERTILITY PREFERENCES 7

Richard Banda

One of the objectives of Zambia's National Population Policy is to reduce the high level of fertility, particularly adolescent fertility (MOFNP, 2007). The guiding principle in achieving this objective is to emphasize the voluntary acceptance of family planning methods, in accordance with fundamental human rights, that all couples and individuals should decide freely and responsibly on the timing, number, and spacing of their children for a manageable family size, and that the Government has a responsibility to facilitate people's ability to make informed choices and to create an enabling environment in which they can effectively manage their lives.

The 2007 ZDHS collected information from both men and women on a number of aspects of fertility preferences, including their current desire to have a/another child, the length of time they would like to wait before the birth, and what they consider to be the ideal number of children. Although survey information on fertility preferences may be influenced by the respondent's current family size and is subject to change over time, it still provides useful information to family planning programmes for assessing the needs for contraception (for spacing or limiting births) and the extent of unwanted and mistimed pregnancies.

7.1 DESIRE FOR MORE CHILDREN

Information on desire for more children is important in understanding future reproductive behaviour. The provision of adequate and accessible family planning services is dependent on the availability of such information. Men and women surveyed in the 2007 ZDHS were asked questions to determine their desire to have a/another child. Sterilized women and men who had undergone tubal ligation and vasectomy operations were considered to want no more children, and therefore not asked questions on fertility desires. Table 7.1 shows the distribution of currently married women and men by the desire for more children, according to the number of living children.

Survey results indicate higher fertility preferences among currently married men than women. Fifteen percent of currently married women and 19 percent of currently married men want a child soon, i.e. they want to have a/another child within the next two years. Thirty-nine percent of women and 49 percent of men want another child later, i.e. they want to delay having a/another child for more than two years. More than one-third (36 percent) of married women and one-fourth (26 percent) of married men want no more children or have been sterilized.

Fertility desire is high among women and men with no children. Seventy-three percent of women and 72 percent of men with no children want a child soon (within the next two years), while 6 percent of women and 15 percent of men with no children want to have a child later. Among respondents with six or more children, 13 percent of women want another child later, compared with 34 percent of men.

Table 7.1 shows that the proportion of women and men who want a/another child generally decreases with the increasing number of living children. It is equally evident that the proportion of women and men age 15-49 who want to stop childbearing increases with the increasing number of living children—from 8 percent among women who have one child to 76 percent among women with six or more children. The same comparison for men shows an increase from 2 to 49 percent.

The 2007 ZDHS shows a large percentage point decline in the percentage of men who want a/another child soon from 35 percent in 2001-2002 to 19 percent in 2007. The percentage of women who want a/another child soon has also declined, although at a slower rate than for men, from 21

percent in 2001-2002 to 15 percent in 2007. There is a significant increase in the proportion of men who want to wait until later (more than two years) before having a/another child, from 27 percent in 2001-2002 to 43 percent in 2007, while the percentage of women that want to wait until later has recorded only a marginal increase from 37 percent in 2001-2002 to 39 percent in 2007.

The percentage of men who want no more children has declined from 31 percent in 2001-2002 to 26 percent in 2007, while among women the percentage who want no more children has remained stable at 34 percent over the same period.

Table 7.1 Fertility preferences by number of living children

Percent distribution of currently married women and currently married men age 15-49 by desire for children, according to number of living children, Zambia 2007

Desire for children	Number of living children[1]							Total 15-49	50-59	Total men 15-59
	0	1	2	3	4	5	6+			
WOMEN										
Have another soon[2]	73.3	25.3	18.1	14.6	7.5	6.1	2.2	15.2	na	na
Have another later[3]	6.4	59.7	52.8	51.9	40.2	26.9	12.6	38.6	na	na
Have another, undecided when	4.3	2.2	3.6	2.5	1.4	1.7	0.6	2.1	na	na
Undecided	4.0	4.7	7.8	6.4	8.6	6.0	6.2	6.6	na	na
Want no more	4.3	6.4	15.8	23.4	39.8	53.2	72.3	34.1	na	na
Sterilized[4]	0.0	1.1	0.5	0.8	1.7	4.3	3.9	1.9	na	na
Declared infecund	7.7	0.7	1.6	0.4	0.2	1.6	1.7	1.4	na	na
Missing	0.0	0.0	0.0	0.0	0.6	0.2	0.3	0.2	na	na
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	na	na
Number	217	604	819	773	645	447	897	4,402	na	na
MEN[5]										
Have another soon[2]	71.6	25.1	21.1	16.7	14.3	12.9	11.7	19.0	9.7	17.8
Have another later[3]	14.7	66.7	57.6	57.1	45.6	42.9	34.0	48.5	7.7	43.4
Have another, undecided when	6.3	3.8	2.7	2.0	1.6	1.2	1.0	2.2	1.2	2.1
Undecided	0.4	1.4	2.8	4.1	4.9	4.2	4.0	3.5	2.8	3.4
Want no more	4.3	2.3	14.9	19.4	32.8	37.8	48.5	25.9	76.2	32.3
Sterilized[4]	0.4	0.2	0.4	0.4	0.3	0.8	0.7	0.5	1.6	0.6
Declared infecund	0.0	0.4	0.3	0.2	0.0	0.0	0.0	0.1	0.7	0.2
Missing	2.4	0.2	0.2	0.1	0.5	0.2	0.1	0.3	0.1	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	129	443	545	541	498	319	693	3,168	456	3,624

na = Not applicable
[1] The number of living children includes current pregnancy for women
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilisation
[5] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

7.2 DESIRE TO LIMIT CHILDBEARING BY BACKGROUND CHARACTERISTICS

Tables 7.2.1 and 7.2.2 show information on the percentage of currently married women and men who want no more children, by number of living children, according to background characteristics. For Table 7.2.1, women who have been sterilized are considered to want no more children. For Table 7.2.2, men who have been sterilized or report that their wife/partner has been sterilized are considered to want no more children.

Overall, 36 percent of women age 15-49 indicate no desire for more children. More women in urban areas (43 percent) than in rural areas (32 percent) want to limit childbearing. The percentage who want to limit childbearing increases with the number of living children, and it increases rapidly

among women with three or more children in both urban and rural areas. Overall, more than half (58 percent) of women with five living children want to limit childbearing, compared with about one-fourth (24 percent) of women with three living children. At the provincial level, the proportion of women who want no more children varies from 28 percent in the Luapula, North-Western, and Western province to 46 percent in Copperbelt.

The desire to limit childbearing is higher among all women with no education than their counterparts who are educated beyond the secondary level (38 percent compared with 44 percent). Among women with at least four living children, 35 percent of those with no education want to limit childbearing, compared with 82 percent of women with more than secondary education. Similarly, the desire to limit childbearing increases with wealth quintile. Among women with at least four living children, 29 percent of those in the lowest wealth quintile want to limit childbearing, compared with 68 percent of women in the highest wealth quintile.

Table 7.2.1 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, Zambia 2007

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	2.5	10.8	25.1	39.3	61.4	75.2	88.3	42.5
Rural	5.6	5.0	9.2	16.7	33.9	48.8	71.8	32.4
Province								
Central	0.0	5.5	14.7	23.3	37.5	56.2	85.2	36.7
Copperbelt	9.4	9.6	26.2	38.6	67.4	76.8	79.4	45.8
Eastern	3.9	7.3	13.4	21.2	49.8	53.5	81.9	39.2
Luapula	18.6	5.3	6.2	14.2	20.4	39.1	65.2	28.0
Lusaka	0.0	12.4	20.3	31.1	55.3	61.3	87.3	35.7
Northern	0.0	4.2	11.6	13.7	30.7	59.9	74.4	32.4
North-Western	0.0	4.9	5.3	19.7	16.9	35.5	61.4	27.9
Southern	7.1	7.0	13.7	27.5	42.0	63.9	68.1	35.6
Western	5.5	4.3	12.5	13.8	28.0	33.8	75.2	28.0
Education								
No education	12.4	4.4	5.6	16.5	34.8	47.1	79.8	37.5
Primary	3.9	6.2	13.5	20.8	37.0	52.5	73.3	35.3
Secondary	0.0	10.3	20.1	30.6	54.3	81.8	86.9	35.3
More than secondary	8.2	7.9	35.7	57.4	82.4	82.0	100.0	43.5
Wealth quintile								
Lowest	2.6	0.0	10.9	10.9	28.8	47.2	70.0	31.7
Second	6.7	3.6	6.3	21.6	30.8	46.4	71.0	32.1
Middle	6.3	7.2	9.1	19.8	36.9	52.8	73.1	32.9
Fourth	3.3	12.9	16.8	26.0	58.8	69.2	84.6	39.1
Highest	3.4	9.4	30.1	46.3	67.9	76.1	91.8	44.5
Total	4.3	7.5	16.2	24.1	41.5	57.5	76.3	35.9

Note: Women who have been sterilized are considered to want no more children.
[1] The number of living children includes the current pregnancy.

Men and women exhibit similar patterns of desired fertility. Men's desire to limit childbearing also increases with urban residence, the number of living children, level of education, and wealth quintile.

Table 7.2.2 Desire to limit childbearing: Men

Percentage of currently married men age 15-49 who want no more children, by number of living children, according to background characteristics, Zambia 2007

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	8.1	5.4	25.3	31.2	48.4	62.6	71.4	34.7
Rural	1.7	0.0	8.1	13.3	25.1	28.6	43.4	22.0
Province								
Central	0.0	5.0	10.2	14.5	25.2	23.3	39.4	19.3
Copperbelt	18.3	4.6	29.9	24.1	45.6	56.4	68.8	35.4
Eastern	1.7	1.2	6.1	15.0	33.1	47.1	44.1	25.3
Luapula	0.0	1.7	9.2	7.8	20.5	39.8	52.0	26.4
Lusaka	2.0	3.4	19.2	34.5	49.0	67.5	76.4	33.2
Northern	0.0	0.0	10.8	7.1	24.0	16.4	45.8	19.4
North-Western	13.5	0.0	2.5	7.8	8.2	14.9	46.8	19.9
Southern	5.0	1.6	19.3	33.5	43.4	40.5	43.8	31.1
Western	3.2	0.0	12.9	9.2	15.7	24.3	29.3	16.3
Education								
No education	0.0	0.0	9.4	19.3	14.0	24.3	38.8	20.5
Primary	1.9	0.0	9.6	9.1	28.0	33.8	46.8	22.9
Secondary	6.0	3.9	16.6	25.4	38.0	38.6	51.6	27.9
More than secondary	11.8	8.0	37.7	52.2	64.8	75.8	91.9	44.9
Wealth quintile								
Lowest	2.3	0.0	4.8	5.2	18.0	22.0	34.6	16.9
Second	0.0	0.0	12.7	6.8	21.7	20.1	43.0	20.5
Middle	0.0	0.0	5.7	19.2	34.2	35.0	50.2	25.0
Fourth	3.3	2.5	16.7	25.5	45.8	55.2	68.3	31.7
Highest	14.9	7.2	31.1	41.2	51.3	71.4	78.2	39.6
Total 15-49	4.7	2.4	15.3	19.8	33.2	38.6	49.2	26.4
50-59	38.0	38.3	77.4	77.8	74.9	92.0	77.5	77.8
Total men 15-59	5.7	3.0	16.9	22.2	36.0	45.3	58.2	32.9

Note: Men who have been sterilized or who state in response to the question about desire for children that their wife has been sterilized are considered to want no more children.
[1] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

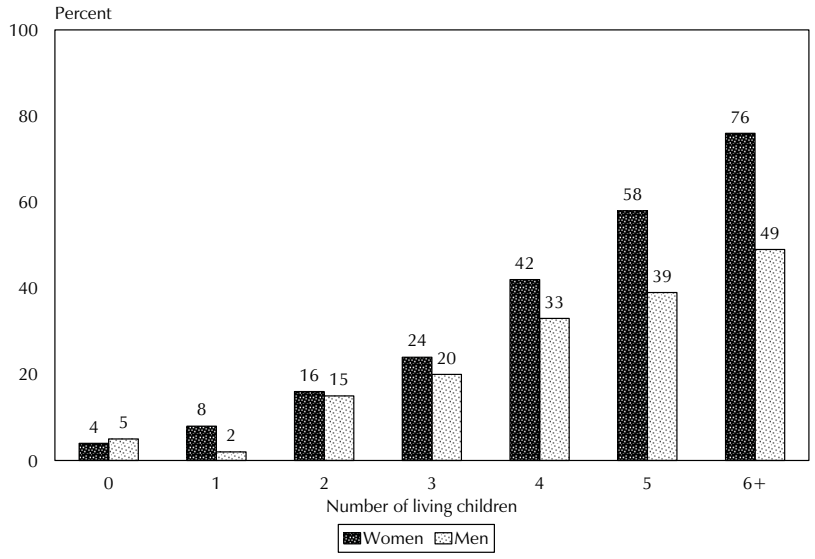
Figure 7.1 shows information on currently married men and women who want no more children,. by number of living children. The desire to stop childbearing is higher among women than men from one living child onward, and the difference increases with each child.

7.3 NEED FOR FAMILY PLANNING SERVICES

Family planning methods can be used to space or limit childbearing. In the 2007 ZDHS, women who indicate that they either want no more children (limiters) or want to wait for two or more years before having another child (spacers), but are not using contraception, are a group identified as having an unmet need for family planning. Women who are currently using a family planning method are considered to have a met need for family planning. Women with unmet need for family planning and those who are currently using contraception together constitute the total demand for family planning. This information is important not only to determine the total demand for family planning but to measure the percentage of that demand satisfied.

Table 7.3.1 presents information on unmet need, met need, and the total demand for family planning among currently married women surveyed in the 2007 ZDHS. Overall, 27 percent of currently married women have an unmet need for family planning—17 percent for spacing, and 9 percent for limiting. More than two in five married women (41 percent) are using contraception, which constitutes met need. The total demand for family planning is estimated at 67 percent, and the percentage of demand satisfied.

Figure 7.1 Percentage of Currently Married Women and Men Who Want No More Children, by Number of Living Children

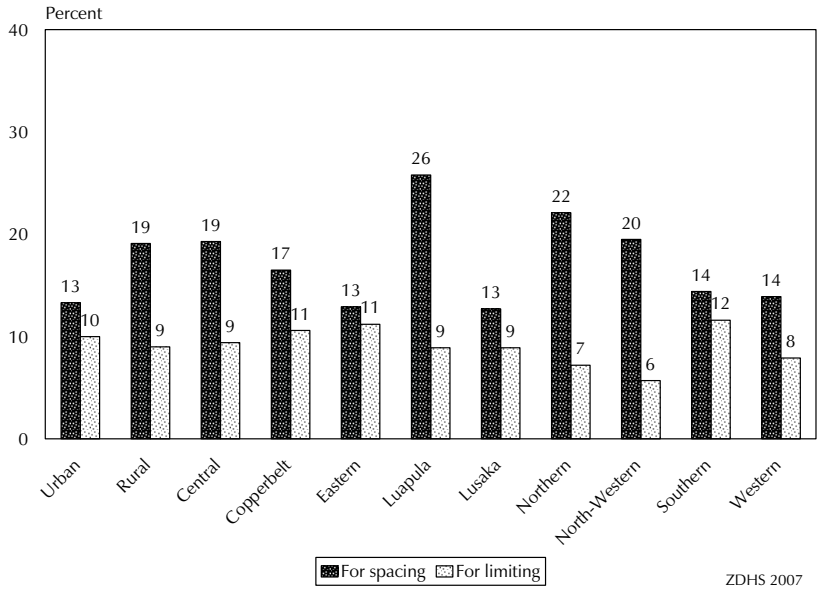


ZDHS 2007

Unmet need for spacing is highest in the 20-29 age group, with more than one-fifth of women having an unmet need for spacing their births, while the unmet need for limiting is highest in the 40-44 age group, with one-fourth of women wanting no more chidlren. More currently married women in rural areas (28 percent) have an unmet need for family planning (19 percent for spacing and 9 percent for limiting), compared with urban women (23 percent), whose unmet need for spacing births is 13 percent and for limiting childbearing is 10 percent.

Luapula (35 percent) has the highest percentage of unmet need for family planning among currently married women, while Lusaka and Western provinces (22 percent each) have the lowest percentage. Figure 7.2 shows unmet need for family planning by residence and province.

Figure 7.2 Unmet Need for Family Planning for Currently Married Women by Residence and Province



ZDHS 2007

Currently married women with no education or only a primary education are more than twice as likely to have an unmet need for family planning, compared with women who have more than a secondary education (28 and 13 percent, respectively). Almost one in three women in the second and middle wealth quintiles have an unmet need for family planning, compared with one in five women in the highest wealth quintile.

Table 7.3.1 Need and demand for family planning: Currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for family planning that is satisfied, by background characteristics, Zambia 2007

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	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	19.3	3.0	22.3	27.7	0.4	28.1	47.0	3.4	50.4	55.8	280
20-24	23.2	1.7	24.9	37.7	4.1	41.8	60.9	5.8	66.8	62.7	889
25-29	22.1	3.8	25.9	37.0	8.3	45.4	59.1	12.2	71.3	63.7	1,053
30-34	19.7	7.8	27.5	23.5	18.2	41.7	43.2	26.0	69.2	60.3	826
35-39	10.9	18.2	29.1	12.9	30.0	42.9	23.8	48.2	72.0	59.6	590
40-44	6.9	25.1	32.0	4.8	35.1	39.9	11.7	60.2	71.9	55.5	411
45-49	1.2	20.8	22.1	0.0	29.5	29.5	1.2	50.4	51.6	57.2	353
Urban	13.3	10.0	23.2	26.7	21.7	48.4	40.0	31.6	71.6	67.5	1,540
Rural	19.1	9.0	28.2	23.8	12.9	36.7	42.9	21.9	64.8	56.5	2,863
Central	19.3	9.4	28.7	20.8	12.0	32.8	40.1	21.4	61.5	53.3	438
Copperbelt	16.5	10.6	27.1	24.0	23.7	47.7	40.5	34.3	74.8	63.7	699
Eastern	12.9	11.2	24.2	30.3	22.4	52.6	43.2	33.6	76.8	68.5	689
Luapula	25.8	8.9	34.7	11.1	4.8	15.8	36.9	13.6	50.6	31.3	363
Lusaka	12.7	8.9	21.5	29.8	16.4	46.1	42.5	25.2	67.7	68.2	620
Northern	22.1	7.2	29.3	23.8	13.8	37.7	45.9	21.0	66.9	56.3	655
North-Western	19.5	5.7	25.2	20.6	11.4	32.0	40.1	17.1	57.2	56.0	232
Southern	14.4	11.6	26.0	30.4	15.4	45.8	44.8	27.0	71.8	63.8	447
Western	13.9	7.9	21.8	23.7	9.4	33.1	37.6	17.4	54.9	60.2	258
Education											
No education	16.0	11.6	27.6	19.8	15.2	35.0	35.8	26.8	62.6	55.9	572
Primary	18.6	9.8	28.4	23.9	13.9	37.8	42.5	23.7	66.2	57.1	2,678
Secondary	15.6	7.4	23.0	30.0	19.2	49.2	45.7	26.5	72.2	68.2	959
More than secondary	7.0	6.1	13.2	26.5	30.9	57.4	33.5	37.1	70.6	81.4	193
Wealth quintile											
Lowest	18.5	7.9	26.4	26.6	13.9	40.5	45.1	21.8	66.9	60.5	912
Second	22.2	9.2	31.4	21.6	12.6	34.2	43.8	21.8	65.5	52.1	864
Middle	19.8	9.8	29.7	20.9	10.4	31.3	40.8	20.2	61.0	51.3	889
Fourth	15.1	10.3	25.4	27.1	17.2	44.3	42.3	27.5	69.8	63.5	911
Highest	9.4	9.6	19.0	28.0	26.3	54.2	37.3	35.9	73.2	74.1	825
Total	17.1	9.4	26.5	24.8	15.9	40.8	41.9	25.3	67.2	60.6	4,402

[1] Unmet need for spacing includes pregnant women whose pregnancy was mistimed; amenorrhoeic women who are not using family planning and whose last birth was mistimed, or whose last birth was unwanted but now say they want more children; and fecund women who are neither pregnant nor amenorrhoeic, who are not using any method of family planning, and say they want to wait 2 or more years for their next birth. Also included in unmet need for spacing are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for limiting refers to pregnant women whose pregnancy was unwanted; amenorrhoeic women who are not using family planning, whose last child was unwanted and who do not want any more children; and fecund women who are neither pregnant nor amenorrhoeic, who are not using any method of family planning, and who want no more children

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

Table 7.3.2 presents data on family planning need and demand for all women and for women who are not currently married. Overall, 18 percent of all women have an unmet need for family planning. Total demand for family planning is 48 percent, with 63 percent of the demand is satisfied.

Among women who are not currently married, 4 percent have an unmet need for family planning. Total demand for family planning is 17 percent, with 74 percent of the demand is satisfied.

Table 7.3.2 Need and demand for family planning for all women and for women who are not currently married

Percentage of all women and women not currently married age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for family planning that is satisfied, by background characteristics, Zambia 2007

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	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
					ALL WOMEN						
Age											
15-19	6.0	1.1	7.1	9.0	0.7	9.7	15.0	1.8	16.8	57.9	1,574
20-24	16.9	1.4	18.3	29.8	3.5	33.3	46.7	4.9	51.6	64.6	1,370
25-29	17.9	3.2	21.1	32.4	7.9	40.3	50.3	11.1	61.4	65.6	1,363
30-34	16.0	6.6	22.6	21.1	16.5	37.6	37.1	23.1	60.2	62.4	1,056
35-39	9.2	15.0	24.1	11.0	26.2	37.2	20.1	41.2	61.3	60.7	747
40-44	5.2	19.2	24.4	4.2	29.4	33.5	9.4	48.5	57.9	57.9	561
45-49	0.9	15.8	16.8	0.2	24.1	24.3	1.1	39.9	41.0	59.1	475
Residence											
Urban	7.9	5.5	13.5	17.9	12.9	30.8	25.9	18.4	44.3	69.6	3,009
Rural	14.5	6.7	21.3	18.9	10.4	29.2	33.4	17.1	50.5	57.9	4,137
Province											
Central	13.9	6.7	20.5	14.9	9.1	24.0	28.8	15.8	44.6	53.9	659
Copperbelt	10.0	6.0	16.0	16.3	15.1	31.5	26.3	21.1	47.4	66.3	1,264
Eastern	10.3	8.8	19.1	24.8	18.3	43.0	35.1	27.0	62.1	69.2	971
Luapula	18.4	6.1	24.5	7.8	4.4	12.2	26.2	10.5	36.7	33.2	530
Lusaka	8.0	5.1	13.1	20.1	9.9	29.9	28.1	14.9	43.0	69.6	1,172
Northern	15.4	5.3	20.7	17.1	9.6	26.7	32.5	14.9	47.4	56.4	966
North-Western	15.1	4.5	19.6	17.8	9.4	27.2	32.9	13.9	46.7	58.1	365
Southern	10.6	7.9	18.5	22.9	11.8	34.8	33.5	19.7	53.2	65.3	727
Western	10.4	4.6	14.9	20.8	7.3	28.0	31.1	11.8	43.0	65.3	492
Education											
No education	13.4	9.5	22.9	16.5	12.6	29.1	29.9	22.1	52.0	56.0	744
Primary	13.8	7.3	21.1	19.1	11.3	30.3	32.8	18.6	51.4	58.9	3,891
Secondary	8.6	3.5	12.1	17.5	10.3	27.8	26.1	13.8	39.9	69.6	2,140
More than secondary	5.6	3.4	9.0	22.2	17.2	39.4	27.8	20.6	48.4	81.5	371
Wealth quintile											
Lowest	14.7	6.3	21.0	21.6	11.0	32.6	36.2	17.4	53.6	60.8	1,240
Second	16.5	6.8	23.3	17.3	10.3	27.6	33.9	17.1	50.9	54.2	1,283
Middle	14.8	7.2	22.0	16.7	8.7	25.4	31.6	15.9	47.4	53.6	1,280
Fourth	10.0	6.7	16.7	18.9	12.1	30.9	28.9	18.8	47.6	64.9	1,567
Highest	5.6	4.6	10.2	18.1	14.0	32.1	23.7	18.5	42.3	75.9	1,776
Total	11.8	6.2	18.0	18.5	11.4	29.9	30.2	17.6	47.9	62.5	7,146

Continued…

Table 7.3.2—*Continued*

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	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
WOMEN NOT CURRENTLY MARRIED											
Age											
15-19	3.1	0.7	3.8	5.0	0.7	5.8	8.1	1.4	9.5	60.4	1,294
20-24	5.2	0.8	6.0	15.2	2.4	17.7	20.4	3.3	23.7	74.6	481
25-29	3.8	1.1	4.9	16.7	6.4	23.0	20.4	7.5	27.9	82.5	310
30-34	2.7	2.3	5.0	12.4	10.3	22.7	15.1	12.7	27.7	81.9	229
35-39	2.9	2.7	5.6	3.6	12.2	15.8	6.5	14.9	21.4	73.8	157
40-44	0.7	2.9	3.6	2.5	13.6	16.1	3.2	16.6	19.7	81.6	151
45-49	0.0	1.3	1.3	0.7	8.2	8.9	0.7	9.5	10.1	87.5	121
Residence											
Urban	2.3	0.9	3.3	8.8	3.7	12.5	11.1	4.6	15.7	79.3	1,469
Rural	4.2	1.5	5.7	7.8	4.7	12.5	12.1	6.2	18.2	68.7	1,274
Province											
Central	3.1	1.2	4.3	3.2	3.4	6.6	6.3	4.6	10.9	60.8	220
Copperbelt	1.9	0.3	2.2	6.9	4.5	11.4	8.7	4.8	13.6	83.9	565
Eastern	4.0	2.8	6.8	11.4	8.2	19.6	15.4	10.9	26.3	74.3	282
Luapula	2.2	0.2	2.4	0.7	3.5	4.2	2.8	3.8	6.6	63.8	167
Lusaka	2.7	0.8	3.5	9.1	2.5	11.7	11.9	3.4	15.2	76.7	551
Northern	1.2	1.4	2.6	3.1	0.7	3.8	4.3	2.1	6.4	59.1	311
North-Western	7.4	2.4	9.8	12.9	5.8	18.7	20.2	8.2	28.4	65.7	133
Southern	4.5	1.9	6.4	11.1	6.1	17.2	15.6	8.0	23.6	72.9	280
Western	6.4	0.8	7.3	17.6	4.9	22.5	24.0	5.7	29.7	75.6	233
Education											
No education	4.8	2.5	7.3	5.3	4.1	9.5	10.2	6.6	16.8	56.3	172
Primary	3.1	1.8	5.0	8.4	5.4	13.8	11.5	7.3	18.8	73.5	1,212
Secondary	2.9	0.4	3.3	7.3	3.1	10.4	10.2	3.5	13.8	75.8	1,181
More than secondary	4.0	0.4	4.4	17.6	2.4	20.0	21.6	2.8	24.4	81.9	178
Wealth quintile											
Lowest	4.1	1.9	5.9	7.6	3.1	10.7	11.7	5.0	16.6	64.3	327
Second	4.9	1.8	6.8	8.5	5.5	14.0	13.4	7.3	20.8	67.3	419
Middle	3.4	1.2	4.6	7.2	4.7	11.9	10.6	5.9	16.5	72.2	390
Fourth	2.8	1.7	4.6	7.4	4.9	12.3	10.3	6.6	16.9	73.0	656
Highest	2.4	0.2	2.6	9.6	3.2	12.8	11.9	3.5	15.4	83.2	951
Total	3.2	1.2	4.4	8.3	4.2	12.5	11.5	5.3	16.9	74.0	2,744

[1] Unmet need for spacing includes pregnant women whose pregnancy was mistimed; amenorrhoeic women who are not using family planning and whose last birth was mistimed, or whose last birth was unwanted but now say they want more children; and fecund women who are neither pregnant nor amenorrhoeic, who are not using any method of family planning, and say they want to wait 2 or more years for their next birth. Also included in unmet need for spacing are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for limiting refers to pregnant women whose pregnancy was unwanted; amenorrhoeic women who are not using family planning, whose last child was unwanted and who do not want any more children; and fecund women who are neither pregnant nor amenorrhoeic, who are not using any method of family planning, and who want no more children

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

7.4 IDEAL FAMILY SIZE

The discussion of fertility preferences earlier in this chapter focused on ZDHS respondents' current childbearing preferences. These preferences are influenced by the number of children a respondent already has. The 2007 ZDHS asked women and men about the total number of children they would like to have in their lifetime. For respondents who already had living children, the question was posed hypothetically: "*If you could go back to the time when you did not have any*

children and could choose exactly the number of children to have in your whole life, how many would that be?"

Table 7.4 shows the distribution of women and men age 15-49 by their ideal number of children, according to number of living children. Overall, all women and men reported that their mean ideal number of children is 5. Among all women and men and currently married women and men who currently have no children, the ideal number of children is 4.

Table 7.4 Ideal number of children

Percent distribution of women and men age 15-49 by ideal number of children, and mean ideal number of children for all respondents and for currently married respondents, according to number of living children, Zambia 2007

Ideal number of children	Number of living children							Total
	0	1	2	3	4	5	6+	
				WOMEN[1]				
0	2.2	0.4	0.2	0.4	0.6	0.5	0.9	0.9
1	2.1	2.0	0.6	0.5	0.5	0.2	0.8	1.1
2	20.0	14.7	9.1	2.9	3.6	6.0	2.5	9.9
3	20.2	24.8	13.8	11.0	3.1	3.6	2.7	13.1
4	29.7	29.0	35.9	28.6	26.5	14.7	12.3	26.4
5	11.8	13.7	17.8	25.2	18.2	22.3	11.4	16.2
6+	7.8	10.8	17.0	25.7	41.0	46.7	59.2	25.9
Non-numeric responses	6.1	4.6	5.7	5.6	6.1	5.5	10.0	6.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,702	1,113	1,042	945	773	535	1,036	7,146
Mean ideal number children for: [2]								
All	3.6	3.9	4.3	4.9	5.2	5.7	6.4	4.6
Number	1,597	1,062	983	892	723	504	930	6,690
Currently married	4.1	4.1	4.4	4.9	5.3	5.7	6.4	5.1
Number	205	574	764	726	603	417	805	4,094
				MEN[3]				
0	1.3	0.0	0.1	0.0	0.4	0.2	0.5	0.7
1	1.2	1.0	0.8	0.8	0.3	0.5	0.1	0.8
2	13.5	13.7	9.4	4.8	5.2	3.7	2.9	9.7
3	18.1	24.1	9.4	8.5	3.2	4.3	3.0	13.1
4	31.6	30.2	39.1	24.4	21.4	12.8	11.7	27.2
5	16.1	16.4	18.7	24.1	19.3	18.4	9.2	16.8
6+	14.7	12.1	19.4	34.7	46.2	56.7	67.3	28.2
Non-numeric responses	3.4	2.3	2.9	2.7	3.5	3.1	5.1	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,602	626	619	577	531	334	706	5,995
Mean ideal number children for men 15-49: [2]								
All	4.1	4.0	4.5	5.2	5.6	6.1	7.5	4.9
Number	2,507	610	600	561	510	323	670	5,782
Currently married	4.4	4.0	4.5	5.2	5.6	6.1	7.6	5.6
Number	121	430	527	527	479	308	656	3,048
Mean ideal number children for men 15-59: [2]								
All	4.1	4.0	4.5	5.2	5.6	6.0	7.4	5.0
Number	2,511	618	614	582	544	368	972	6,252
Currently married	4.4	4.0	4.5	5.2	5.6	6.0	7.5	5.7
Number	124	437	542	548	512	353	95	3,475

[1] The number of living children includes current pregnancy for women.
[2] Means are calculated excluding respondents who gave non-numeric responses.
[3] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Table 7.5 shows the mean ideal number of children for all women, by background characteristics. The mean ideal number of children increases steadily with age, from 4 children among women age 15-19 to 6 children among women age 45-49. Urban women prefer to have fewer children than rural women (4 children compared with 5 children, respectively). The mean ideal number of

children is lowest in Lusaka and Copperbelt (4 children each) and highest in North-Western (6 children). The mean ideal number of children desired declines as women's level of education and wealth status increase. Women with no education want 6 children, while those with more than secondary education want only 3 children. Women in the lowest wealth quintile want 5 children, while women in the highest wealth quintile want 4 children.

7.5 FERTILITY PLANNING

The issue of unplanned and unwanted fertility was further investigated in the 2007 ZDHS by asking women with births in the five years preceding the survey whether the births were wanted at the time (planned), wanted but at a later time (mistimed), or not wanted at all (unwanted). For women who were pregnant at the time of the interview, this question was also asked with reference to the current pregnancy. The procedure required the respondents to recall accurately their wishes at one or more points in time over the past five years. Care should be exercised in interpreting the results because an unwanted conception may have become a cherished child, leading to the rationalization in responses to these questions. Table 7.6 shows the percent distribution of births in the five years preceding the 2007 ZDHS, by planning status of the birth.

Table 7.5 Mean ideal number of children

Mean ideal number of children for all women age 15-49 by background characteristics, Zambia 2007

Background characteristic	Mean	Number of women[1]
Age		
15-19	3.7	1,479
20-24	4.1	1,296
25-29	4.5	1,291
30-34	5.0	997
35-39	5.4	693
40-44	5.8	499
45-49	6.3	434
Residence		
Urban	3.9	2,924
Rural	5.2	3,767
Province		
Central	4.5	568
Copperbelt	4.2	1,228
Eastern	4.7	831
Luapula	5.3	526
Lusaka	3.9	1,152
Northern	5.2	897
North-Western	5.6	330
Southern	4.6	711
Western	5.3	448
Education		
No education	5.8	654
Primary	5.1	3,570
Secondary	3.8	2,098
More than secondary	3.3	368
Wealth quintile		
Lowest	5.4	1,075
Second	5.3	1,169
Middle	5.1	1,198
Fourth	4.3	1,499
Highest	3.7	1,749
Total	4.6	6,690

[1] Women who gave a numeric response

Table 7.6 Fertility planning status

Percent distribution of births in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Zambia 2007

Birth order and mother's age at birth	Planning status of birth: Wanted then	Wanted later	Wanted no more	Total	Number of births
Birth order					
1	59.9	18.8	21.1	100.0	1,408
2	65.4	26.2	7.9	100.0	1,292
3	62.7	27.7	9.1	100.0	1,186
4+	53.2	27.5	19.0	100.0	3,312
Mother's age at birth					
<20	56.0	21.4	22.4	100.0	1,222
20-24	64.2	26.1	9.1	100.0	2,078
25-29	57.9	31.0	10.9	100.0	1,763
30-34	59.5	24.4	15.8	100.0	1,170
35-39	50.7	23.3	25.8	100.0	679
40-44	38.9	17.5	43.4	100.0	249
45-49	(41.0)	(12.7)	(46.3)	100.0	37
Total	58.3	25.6	15.8	100.0	7,198

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

Fifty-eight percent of the births were wanted at the time they occurred, 26 percent were wanted later (mistimed), and 16 percent were unwanted.

7.6 WANTED FERTILITY RATES

Wanted fertility rate measures the potential demographic impact of avoiding unwanted births. It is calculated in the same manner as the total fertility rate, except that only wanted births are included. A birth is considered wanted if the number of living children at the time of conception was less than the ideal number of children reported by the respondent. The gap between wanted and actual fertility shows how successful women are in achieving their reproductive intentions.

A comparison of the total wanted fertility rate and the total fertility rate for the three years preceding the survey is presented in Table 7.7 by background characteristics. Overall, the total fertility rate (6 children per woman) is higher than the total *wanted* fertility rates (5 children per woman). The difference between the two measures decreases with increasing level of education and wealth quintile.

Table 7.7 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Zambia 2007

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	3.6	4.3
Rural	6.3	7.5
Province		
Central	5.3	6.4
Copperbelt	4.2	4.8
Eastern	5.9	7.1
Luapula	5.9	7.2
Lusaka	3.4	4.1
Northern	6.7	7.9
North-Western	6.4	7.3
Southern	5.3	6.7
Western	5.8	6.2
Education		
No education	7.1	8.2
Primary	6.0	7.1
Secondary	3.6	4.2
More than secondary	2.1	2.4
Wealth quintile		
Lowest	7.0	8.4
Second	6.5	7.6
Middle	6.2	7.2
Fourth	4.5	5.2
Highest	2.8	3.4
Total	5.2	6.2

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

INFANT AND CHILD MORTALITY 8

Christopher C. Mapoma

This chapter presents estimates, trends, and differentials for neonatal, perinatal, postneonatal, infant, and child mortality in Zambia. Information on infant and child mortality is a basic indicator of a country's socio-economic development and, as such, is important for the planning and evaluation of health policies and programmes. Reductions in infant and child mortality and the prevalence of high-risk pregnancies remain priority areas in the Zambian health perspective.

8.1 BACKGROUND AND ASSESSMENT OF DATA QUALITY

Mortality estimates at infancy and childhood for the 2007 ZDHS are based on data that was collected in the birth history section of the Woman's Questionnaire. Using this birth history, a listing of all of a respondent's births was obtained, starting with the first birth. For each birth, information was collected on the sex, month and year of birth, survivorship status, and current age, or age at death, of each of the respondent's live births. Because the primary cause of mortality changes as children age, the mortality rates presented are age-specific. They are defined as follows:

- Neonatal mortality (NN): the probability of dying within the first month of life
- Postneonatal mortality (PNN): the difference between infant and neonatal mortality
- Infant mortality ($_1q_0$): the probability of dying before the first birthday
- Child mortality ($_4q_1$): the probability of dying between the first and fifth birthday
- Under-five mortality ($_5q_0$): the probability of dying between birth and the fifth birthday

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

Child mortality data is subject to numerous quality problems. For example, it should be noted that mortality estimates are based on retrospective birth histories that are provided based on the mother's ability to recall all of the children she had given birth to, as well as their birth dates and age at death. As such, it is possible to have selective omission from the birth histories. Further, accuracy of this data is also in question because traditionally and culturally, people, especially mothers, often do not discuss deaths because it is taboo. Such omissions can result in an underestimation of the level of childhood mortality. When selective omission of childhood deaths occurs, it is usually more severe for deaths occurring early in infancy. Generally, if there is substantial underreporting of deaths, the result is an abnormally low ratio of early neonatal deaths (deaths within the first week of life) to all neonatal deaths, and an abnormally low ratio of neonatal deaths to infant deaths. Appendix Table C.5 shows the proportion of neonatal deaths reported in the 2007 ZDHS that took place within the first seven days after birth.

Another potential data quality problem involves the displacement of birth dates, which may cause a distortion of mortality trends. This can occur if an interviewer knowingly records a death as occurring in a different year, which would happen if an interviewer is trying to cut down on his or her workload, because births occurring during the five years preceding the interview are the subject of a lengthy set of additional questions. In the 2007 ZDHS questionnaire, the cut-off year for these questions was 2002. The calendar year ratios presented in Appendix Table C.4 allow for an assessment of the extent of birth displacement in the 2007 ZDHS birth history data.

A third factor that affects childhood mortality estimates is the quality of reporting for age at death. Misreporting a child's age at death may distort the mortality age pattern, especially if the net effect of the age misreporting is a transference of deaths from one age bracket to another. For example, a net transfer of deaths from under one month to a higher age will affect the estimates of neonatal and postneonatal mortality. To minimize errors in reporting of age at death, ZDHS interviewers were instructed to record age at death in days if the death took place in the month following the birth, in months if the child died before age two, and in years if the child was at least two years of age. Interviewers also were instructed to probe for deaths reported as occurring at one year of age, to determine a more precise age at death in months. The extent to which heaping occurred for certain ages at death in the 2007 ZDHS can be seen in Appendix Table C.6, which shows the distribution of the early childhood deaths by child's age at death in months.

Despite the emphasis during interviewer training and fieldwork monitoring on probing for accurate age at death, Appendix Table C.6 shows that, for the five years preceding the survey, the number of reported deaths at age 12 months or one year of age is more than three times the number of deaths reported at 11 months and four times the number reported at 13 months. It is likely that some of these deaths actually occurred before one year of age but are not included in the infant mortality rate, thus distorting the age pattern of mortality.

8.2 INFANT AND CHILD MORTALITY LEVELS AND TRENDS

Early childhood mortality rates for the three five-year periods preceding the 2007 ZDHS survey are presented in Table 8.1. The data show that, for the five-year period immediately prior to the survey, under-five mortality is 119 deaths per 1,000 live births. The child mortality rate, 52 deaths per 1,000, is the rate for children who survived by their first birthday but not to their fifth birthday. The infant mortality rate is 70 deaths per 1,000 live births. The neonatal mortality rate is 34 deaths per 1,000 births.

An examination of mortality levels across the three successive five-year periods suggests that under-five mortality decreased from 157 deaths per 1,000 births during the middle to late 1990s (circa 1993-94 to 1997-98) to 119 deaths per 1,000 births during the first half of this decade (circa 2002-03 to 2007-08). Most of the decrease in mortality occurred outside of the neonatal period.

Table 8.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Zambia 2007

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	34	36	70	52	119
5-9	39	56	95	70	158
10-14	28	56	84	80	157

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

Table 8.2 presents trends in under-five mortality for successive five-year periods before the four rounds of the DHS surveys in Zambia (1992, 1996, 2001-2002, and 2007). The data in this table indicate that neonatal mortality has decreased from 42 deaths per 1,000 births in the first ZDHS in 1992 to 34 deaths per 1,000 births in the 2007 ZDHS. Similarly, postneonatal mortality shows a decrease from 65 deaths per 1,000 births in 1992 to 36 deaths per 1,000 births in the period 2003-2007. Infant mortality has decreased by 35 percent in 15 years, and under-five mortality has decreased by 45 percent over the same period.

Table 8.2 Trends in early childhood mortality rates

Neonatal, postneonatal, infant, child and under-five mortality rates for the five-year period preceding the survey, Zambia 1992-2007

Survey	Approximate calendar period	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
ZDHS 2007	2003-2007	34	36	70	52	119
ZDHS 2001-2002	1997-2001	37	58	95	81	168
ZDHS 1996	1992-1996	35	74	109	98	197
ZDHS 1992	1987-1991	43	65	107	94	191

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

8.3 SOCIO-ECONOMIC DIFFERENTIALS IN INFANT AND CHILD MORTALITY

Table 8.3 presents mortality differentials by background characteristics. The mortality estimates are calculated for the 10-year period before the survey so that the rates are based on a sufficient number of cases in each category to ensure statistically reliable estimates.

Childhood mortality rates do not differ significantly when comparing urban and rural areas. For example, the under-five mortality rate is 132 deaths per 1,000 births in the urban areas, compared with 139 deaths per 1,000 births in rural areas. Among the provinces, under-five mortality ranges from 103 deaths per 1,000 births in Southern province to 159 deaths per 1,000 births in Northern province. The lowest infant mortality rates are in Central and Southern provinces (64 deaths per 1,000 births).

Table 8.3 Early childhood mortality rates by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristic, Zambia 2007

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Residence					
Urban	34	46	80	56	132
Rural	37	45	82	62	139
Province					
Central	33	31	64	57	118
Copperbelt	30	49	79	59	133
Eastern	44	38	82	75	151
Luapula	33	64	97	66	157
Lusaka	39	46	85	55	135
Northern	34	60	94	72	159
North-Western	28	36	65	46	108
Southern	37	27	64	42	103
Western	48	49	97	47	139
Mother's education					
No education	39	46	86	64	144
Primary	38	46	84	67	146
Secondary	26	42	69	38	105
More than secondary	45	40	85	26	109
Wealth quintile					
Lowest	30	39	69	59	124
Second	42	51	94	60	148
Middle	42	47	90	72	155
Fourth	37	42	79	67	140
Highest	28	46	74	39	110

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

As expected, children of better educated women have lower mortality rates. Under-five mortality is higher among children of mothers with no education or primary school education than among children whose mothers have at least a secondary education. However, there are exceptions. Neonatal mortality is highest among children whose mothers have more than a secondary education (45 deaths per 1,000 births), and lowest among those with secondary education (26 death per 1,000 births).

8.4 BIODEMOGRAPHIC DIFFERENTIALS IN EARLY CHILDHOOD MORTALITY

The relationship between early childhood mortality and various demographic characteristics has an important role in child survival. Table 8.4 presents early childhood mortality rates by demographic characteristics (i.e., sex of child, mother's age at birth, birth order, previous birth interval, and birth size).

Childhood mortality data show differentials between female and male children. Table 8.4 shows that for all childhood mortality indicators, Male children are more likely to die than female children. For example, approximately 151 male children per 1,000 births are likely to die before their fifth birthday, compared with 124 per 1,000 female children. Infant mortality for males and females is 66 and 55 deaths per 1,000 births, respectively.

The mother's age at birth is a key child survival determinant. The data show that the lower the mother's age, the higher the likelihood that her child will die before age five. For example, the infant mortality rate for children born to mothers who were less than age 20 at the time of the survey is 100 per 1,000 live births, compared with 78 for children whose mothers were age 20-29.

Table 8.4 Early childhood mortality rates by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Zambia 2007

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Child's sex					
Male	41	50	91	66	151
Female	32	41	73	55	124
Mother's age at birth					
<20	47	53	100	72	165
20-29	33	46	78	57	131
30-39	36	36	72	58	126
40-49	33	58	91	36	123
Birth order					
1	45	59	105	61	159
2-3	33	42	75	63	133
4-6	33	39	72	57	124
7+	38	45	83	60	138
Previous birth interval[2]					
<2 years	62	67	129	87	204
2 years	26	39	65	59	120
3 years	24	26	50	48	96
4+ years	32	35	67	46	110
Birth size[3]					
Small/very small	82	47	130	na	na
Average or larger	27	33	61	na	na
Don't know/missing	110	114	225	na	na

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

Childhood mortality rates are higher among first-borns than other children. For example, the infant mortality rate for first-born children at the time of the survey was 105 per 1,000 live births, compared with 75 for children who are second- or third-order.

Studies have shown that a longer birth interval has a positive effect on a child's chances of survival. Using the infant mortality rates as an example, children with a previous birth interval of less than two years are more than twice as likely to die compared with children with a three-year birth interval (129 and 50 deaths per 1,000 births, respectively).

Another important indicator of childhood survival is the child's weight at birth. Mothers were asked their infants' weight at birth. For women who could not recall or refer to the exact weight from the child's records, mothers were asked to state whether their child was very large, larger than average, average, smaller than average, or small at birth. These descriptions have been found to be good proxies for the child's weight. As expected, smaller babies have higher mortality rates than babies who are reported to be average or larger than average. Children described as small or very small at birth are more than three times as likely to die within the first month as children reported to be average or larger.

8.5 PERINATAL MORTALITY

Pregnancy losses occurring after seven completed months of gestation (stillbirths) plus deaths among live births within the first seven days of life (early neonatal deaths) together constitute perinatal deaths. The distinction between a stillbirth and an early neonatal death may be a fine one, and often depends on observing and then remembering sometimes faint signs of life after delivery. The causes of stillbirths and early neonatal deaths are closely linked, and examining just one or the other can understate the true level of mortality around delivery. For this reason, deaths around delivery are combined into the perinatal mortality rate. Information on stillbirths is available for the five years preceding the survey and was collected using the calendar in the Women's Questionnaire. The perinatal mortality rate is derived by dividing the number of perinatal deaths by the total number of pregnancies reaching seven months of gestation.

Table 8.5 shows the number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey. The perinatal mortality rate for Zambia as a whole is 38 deaths per 1,000 pregnancies. It appears that perinatal mortality tends to decrease with increasing length of birth intervals. Perinatal mortality is higher among children of mothers younger than age 20, urban children, and children living in Copperbelt and Eastern provinces. Mothers with a secondary education are the least likely to experience a perinatal death (24 deaths per 1,000 pregnancies); however, mothers with more than secondary education are the most likely to experience a perinatal death (67 deaths per 1,000 pregnancies).

Table 8.5 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Zambia 2007

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7+ months duration
Mother's age at birth				
<20	24	33	51	1,126
20-29	42	77	34	3,503
30-39	21	39	37	1,633
40-49	3	8	42	263
Previous pregnancy interval in months[4]				
First pregnancy	27	46	59	1,242
<15	2	13	59	267
15-26	15	29	33	1,327
27-38	24	26	25	1,959
39+	23	42	38	1,732
Residence				
Urban	30	48	41	1,912
Rural	61	108	37	4,614
Province				
Central	3	16	29	635
Copperbelt	19	20	44	900
Eastern	15	31	44	1,037
Luapula	6	7	23	583
Lusaka	10	21	41	745
Northern	15	28	41	1,057
North-Western	3	8	26	405
Southern	12	12	35	696
Western	8	13	45	469
Mother's education				
No education	10	21	35	880
Primary	68	106	42	4,157
Secondary	11	21	24	1,331
More than secondary	2	9	67	159
Wealth quintile				
Lowest	21	34	36	1,545
Second	19	40	40	1,464
Middle	18	30	36	1,370
Fourth	17	33	40	1,244
Highest	15	20	38	903
Total	91	156	38	6,526

[1] Stillbirths are foetal deaths in pregnancies lasting seven or more months.
[2] Early neonatal deaths are deaths at age 0-6 days among live-born children.
[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1,000.
[4] Categories correspond to birth intervals of <24 mos., 24-35 mos., 36-47 mos., and 48+ mos.

8.6 HIGH-RISK FERTILITY BEHAVIOUR

Typically, the chances of dying in early childhood are much higher when children are born to mothers who are too young or too old, when children are born with less than a two-year birth interval, and when they are high-birth order children. Very young mothers may experience difficult pregnancies and deliveries because of their physical immaturity. Older women may also experience age-related problems during pregnancy and delivery. In this analysis, a mother is considered to be "too young" if she is less than 18 years and "too old" if she is older than 34 years at the time of delivery. A "short birth interval" is a birth occurring within 24 months of a previous birth.

Table 8.6 shows the distribution of children born in the five years preceding the survey by risk category. First births, which make up 14 percent of births, are considered "unavoidable" and are shown as a separate risk category. The data show that the majority of births in Zambia occur in the avoidable high-risk category, implying that most of them could actually be avoided. Fifty-eight percent of births occurring in the five years preceding the survey are in the avoidable high-risk category 39 percent are in the single high-risk category, and 18 percent in the multiple high-risk category, while 29 percent are not in any high-risk category.

Table 8.6 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Zambia 2007

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women[1]
	Percentage of births	Risk ratio	
Not in any high-risk category	28.5	1.00	18.1[a]
Unavoidable risk category			
First-order births between ages 18 and 34 years	13.8	1.03	4.2
Single high-risk category			
Mother's age <18	6.4	1.65	0.6
Mother's age >34	0.4	3.42	3.0
Birth interval <24 months	5.1	1.71	9.6
Birth order >3	27.5	0.89	19.4
Subtotal	39.3	1.14	32.7
Multiple high-risk category			
Age <18 and birth interval <24 months[2]	0.4	1.87	0.3
Age >34 and birth interval <24 months	0.0	0.00	0.0
Age >34 and birth order >3	11.3	0.88	22.5
Age >34 and birth interval <24 months and birth order >3	1.5	2.30	6.0
Birth interval <24 months and birth order >3	5.3	1.37	16.3
Subtotal	18.4	1.15	45.0
In any avoidable high-risk category	57.7	1.15	77.7
Total	100.0	na	100.0
Number of births/women	6,435	na	4,402

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category.
na = Not applicable
[1] Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.
[2] Includes the category age <18 and birth order >3
[a] Includes sterilised women

The risk ratio represents the increased risk of dying among births in various high-risk categories relative to births with no high-risk characteristics. In general, the relative risks for single and multiple high-risk categories are similar (1.14 and 1.15, respectively). However, the highest risk is associated with mothers in the single high-risk category, age greater than 34 years (3.42), followed by mothers in the multiple high-risk category who are older than 34 years, with birth intervals less than 24 months, and birth order greater than 3 (2.30).

The last column in Table 8.6 shows the distribution of currently married women by the risk category into which a birth conceived at the time of the survey would fall. This column is based on assumptions that do not take into account family planning, postpartum infecundity, and prolonged abstinence. The data show that 18 percent of women are not in any elevated mortality risk category; however, 78 percent of currently married women have the potential for having a high-risk birth, with 33 and 45 percent in the single and multiple high-risk categories, respectively.

8.7 WOMEN'S STATUS AND EARLY CHILDHOOD MORTALITY

Disparities in childhood mortality are also related to women's status and their ability to influence decisions within in the household. Data in Table 8.7 show childhood mortality rates tabulated using three women's status indices: the number of household decisions in which a women participates; the number of reasons given for refusing to have sexual intercourse with her husband; and the number of reasons for which a woman thinks a man is justified in beating his wife. (Refer to Chapter 16 for women's status indices.)

Table 8.7 shows that for at least one indicator of women's empowerment, there is a measurable effect on infant mortality. For example, infant mortality among children whose mothers have no say in any of the specified decisions is higher (93 deaths per 1,000 births) than among children of mothers who participate in 1-2 and 3-4 decisions (78 deaths per 1,000 births and 80 deaths per 1,000 births, respectively). There are no clear patterns in the relationship between childhood mortality and the other two women's status indices. However, infant and under-five mortality rates are highest among children of mothers who gave 3-4 reasons for which a husband is justified in beating his wife (70 and 144 deaths per 1,000 births, respectively) .

Table 8.7 Early childhood mortality rates by women's status

Infant, child, and under-five mortality rates for the 10-year period preceding the survey, by indicators of women's status, Zambia 2007

Empowerment indicator	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Number of decisions in which women participate			
0	93	88	172
1-2	78	60	133
3-4	80	52	128
Number of reasons given for refusing to have sexual intercourse with husband			
0	81	51	129
1-2	79	65	139
3	83	49	128
Number of reasons for which wife beating is justified			
0	83	55	133
1-2	80	54	130
3-4	80	70	144
5	77	57	129

[1] Restricted to currently married women. See Table 16.5.1 for the list of decisions.
[3] See Table 16.6.1 for the list of reasons.
[2] See Table 16.7.1 for the list of reasons.

MATERNAL HEALTH 9

Linda Nyangu Chonya and Josephine Chewe-Banda

This chapter presents findings from several areas of importance to maternal health including information on antenatal, delivery, and postpartum care and problems in accessing health care. The health care that a mother receives during pregnancy, at the time of delivery, and soon after delivery is important for the survival and well-being of both the mother and her child. The 2007 ZDHS obtained information on the extent to which women in Zambia receive care during pregnancy, during delivery, and in the period after the baby is born. These findings are important to policymakers and programme implementers in designing appropriate strategies and interventions to improve maternal and child health care services.

9.1 ANTENATAL CARE

The major objective of antenatal care is to achieve the optimal health outcome for the mother and the baby. Specifically, the following should be accomplished by a skilled health worker: 1) early detection of complications and prompt treatment (i.e., detection and treatment of sexually transmitted infections); 2) prevention of diseases through immunization and micronutrient supplementation; 3) birth preparedness and complication readiness; and 4) health promotion and disease prevention by providing health messages and counselling to pregnant women.

In the 2007 ZDHS, women who had given birth in the five years preceding the survey were asked a number of questions about maternal care. For the last live birth in that period, mothers were asked whether they had obtained antenatal care during the pregnancy. For women with two or more live births during the five-year period, data refer to the most recent birth. Table 9.1 presents information on the type of provider from whom antenatal care services were received for the most recent birth among women who had a live birth in the five years preceding the survey. For women who reported more than one source for antenatal services, only the provider with the highest qualifications is presented in the table. It should be noted that the strict definition of skilled health worker according to the World Health Organization (WHO) is "an accredited health professional—such as a midwife, doctor, or nurse—who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postpartum period, and in the identification, management, and referral of complications in women and newborns." (WHO, 2008) WHO further states that traditional birth attendants (TBA), trained or untrained, are excluded from the category skilled health workers. In this context, the term TBA refers to traditional, independent (of the health system), non-formally trained and community-based providers of care during pregnancy, childbirth, and the postnatal period.

Table 9.1 shows that 94 percent of women received antenatal care (ANC) from a skilled provider (doctor, clinical officer, nurse, or midwife) during their last pregnancy. The majority (87 percent) of women received ANC services from a nurse or midwife, while 5 percent received ANC services from a clinical officer, and 2 percent from a doctor. Three percent of women received ANC services from a traditional birth attendant, and 2 percent did not receive ANC services at all.

The child's birth order is inversely associated with the use of antenatal care. Children of higher birth order are less likely to receive care from a skilled professional. Table 9.1 indicates that 97 percent of women with one child received antenatal care from a skilled health worker, compared with 92 percent of women with six or more children who received antenatal care from a skilled health worker.

Among women who reside in urban areas, ANC services obtained from a skilled health worker is almost universal (99 percent), compared with nine in ten (91 percent) women who reside in rural areas. At the provincial level, more variation is observed, especially by the type of health provider from whom

women received ANC services. More than 90 percent of women in all provinces except for North-Western (85 percent) and Western (84 percent) obtained ANC services from a skilled health worker. North-Western and Western provinces also have the highest proportions of women who did not receive any ANC services (5 percent for both).

Mother's education is directly associated with increased access to a skilled health worker for ANC services. Almost all (99 percent) of women with more than a secondary education receive ANC from a skilled health worker, compared with less than nine in ten (88 percent) women with no education. What is most pronounced is that women with a more than secondary education are much more likely to receive ANC services from a doctor (14 percent) than their counterparts with little or no education (1 to 2 percent). Similarly, women in the higher wealth quintiles are more likely than women in the lower wealth quintiles to visit a skilled health provider or a doctor for ANC services.

Table 9.1 Antenatal care

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth, and the percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, Zambia 2007

Background characteristic	Doctor	Clinical officer	Nurse/ midwife	Traditional birth attendant	Other	No one	Missing	Total	Percentage receiving antenatal care from a skilled provider	Number of women
Mother's age at birth										
<20	2.0	4.7	87.6	2.5	1.7	1.4	0.0	100.0	94.4	641
20-34	1.7	5.0	87.4	2.5	1.2	2.1	0.1	100.0	94.1	2,838
35-49	1.8	2.5	87.1	3.9	1.5	3.1	0.0	100.0	91.5	657
Birth order										
1	3.4	5.3	87.8	1.7	0.8	1.0	0.0	100.0	96.5	773
2-3	1.4	4.1	89.0	2.4	1.2	1.9	0.1	100.0	94.4	1,351
4-5	1.4	5.1	86.2	2.7	2.2	2.3	0.1	100.0	92.6	1,022
6+	1.6	4.0	86.2	4.0	1.0	3.3	0.0	100.0	91.7	989
Residence										
Urban	3.5	1.7	93.8	0.1	0.0	1.0	0.0	100.0	99.0	1,347
Rural	1.0	5.9	84.3	4.0	2.0	2.7	0.1	100.0	91.2	2,789
Province										
Central	0.7	7.6	83.3	5.2	0.3	2.6	0.3	100.0	91.6	405
Copperbelt	5.4	0.7	90.0	2.2	0.1	1.6	0.0	100.0	96.1	606
Eastern	0.0	2.4	95.9	0.3	0.0	1.3	0.2	100.0	98.3	629
Luapula	0.3	8.2	84.6	1.8	2.2	2.8	0.0	100.0	93.2	346
Lusaka	2.8	2.4	94.5	0.2	0.0	0.1	0.0	100.0	99.7	520
Northern	1.1	7.8	82.2	3.2	3.0	2.7	0.0	100.0	91.2	629
North-Western	3.0	9.8	72.2	6.9	3.3	4.9	0.0	100.0	84.9	243
Southern	1.9	2.4	90.4	3.8	0.0	1.6	0.0	100.0	94.7	446
Western	0.3	4.1	79.7	5.0	6.1	4.7	0.1	100.0	84.1	312
Mother's education										
No education	0.9	6.7	80.4	4.1	2.6	5.2	0.0	100.0	88.0	538
Primary	1.3	4.6	87.3	3.1	1.4	2.1	0.1	100.0	93.3	2,523
Secondary	1.9	3.2	92.2	1.2	0.5	0.9	0.0	100.0	97.3	948
More than secondary	13.7	3.0	82.5	0.8	0.0	0.0	0.0	100.0	99.2	126
Wealth quintile										
Lowest	0.5	5.3	84.2	4.1	2.7	3.2	0.1	100.0	89.9	921
Second	1.2	7.3	81.0	4.9	2.1	3.3	0.2	100.0	89.6	864
Middle	0.9	5.5	86.5	3.2	1.5	2.3	0.0	100.0	93.0	837
Fourth	2.2	2.3	94.5	0.6	0.0	0.3	0.0	100.0	99.0	850
Highest	5.0	1.5	92.2	0.0	0.0	1.3	0.0	100.0	98.7	663
Total	1.8	4.5	87.4	2.7	1.3	2.1	0.1	100.0	93.7	4,136

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation. Skilled providers include doctors, clinical officers, and nurse/midwives.

9.2 NUMBER OF ANC VISITS AND TIMING OF FIRST VISIT

In Zambia, the traditional approach to the provision of antenatal care recommends at least 12 ANC visits. The first visit should take place during the first trimester, and visits should continue on a monthly basis through the 28th week of pregnancy, and every two weeks thereafter up to the 36th week, and then every week until delivery. The assumption is that more visits result in better care for the pregnant woman. However, the newest WHO approach to promoting safe pregnancies recommends that a woman without complications have at least four ANC visits (instead of 12). This is an updated approach called Focused Antenatal Care (FANC), which emphasizes quality of care during the visits over the quantity of visits. Another key FANC strategy is for each visit to be conducted by a skilled health provider (Villar et al., 2001). Zambia has included some of the key FANC approaches in the National Health Strategic Plan (MOH, 2005).

Early detection of problems in pregnancy leads to more timely treatment and referrals in the case of complications. This is of particular importance in Zambia, which is a large and sparsely populated country where physical barriers are a challenge to the health care delivery system. Women who do not receive antenatal care during pregnancy are at higher risk for obstetric emergencies and adverse outcomes.

Table 9.2 presents information on the number of antenatal visits and the timing of the first antenatal visit for the most recent birth in the five years preceding the survey. In Zambia, ANC provisions are transitioning from the traditional to the FANC approach. Scheduling of visits for FANC are a minimum of four visits, especially for pregnancies progressing normally. The schedule of the visits is as follows: the first visit should occur by the end of 16 weeks of pregnancy; the second visit is between 24 and 28 weeks of pregnancy; the third visit is scheduled at 32 weeks; and the fourth visit is at 36 weeks. However, women with common discomforts, special needs, or conditions beyond the scope of basic care (or other problems) may require additional visits.

Table 9.2 Number of antenatal care visits and timing of first visit

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, and by the timing of the first visit, and among women with ANC, median months pregnant at first visit, according to residence, Zambia 2007

Number and timing of ANC visits	Residence		Total
	Urban	Rural	
Number of ANC visits			
None	1.0	2.7	2.1
1	2.2	2.4	2.3
2-3	36.2	32.9	34.0
4+	58.6	61.2	60.3
Don't know/missing	2.1	0.9	1.3
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	1.0	2.7	2.1
<4	21.3	18.1	19.2
4-5	51.6	54.3	53.4
6-7	23.8	22.9	23.2
8+	1.9	1.6	1.7
Don't know/missing	0.4	0.4	0.4
Total	100.0	100.0	100.0
Number of women	1,347	2,789	4,136
Median months pregnant at first visit (for those with ANC)	5.1	5.1	5.1
Number of women with ANC	1,333	2,711	4,044

In the 2007 ZDHS, 97 percent of women who had a live birth in the five years preceding the survey had at least one antenatal care visit. Sixty percent of women reported visiting antenatal clinics at least four times during pregnancy, and 34 percent reported two to three antenatal visits during their last pregnancy. Table 9.2 shows that only about one-fifth (19 percent) of women had their first antenatal visit in the first trimester of pregnancy. However, about three-fourths (73 percent) of women have their first ANC visit before six months of pregnancy, and more than half (53 percent) of women attend their first antenatal visit between their fourth and fifth month of pregnancy. The median number of months of pregnancy at the first ANC visit is five months. A quarter of women continue to delay the initiation of antenatal care until after their sixth month of pregnancy, thus missing out on potential benefits of early antenatal care services. Differentials do not vary much by urban and rural residence.

Although the proportion of women with no antenatal care has decreased from 6 percent in the 1992 ZDHS to 2 percent in the 2007 ZDHS, the median gestational age at the first visit has only decreased from six to five months in the same fifteen-year period. This calls for programme interventions that will encourage women to attend clinics in the first trimester of pregnancy, which is critical to the health of both the mother and child and especially so in preventing the transmission of mother-to-child HIV infections.

9.3 Components of Antenatal Care

Observing the content of antenatal care is essential for assessing the quality of antenatal care services. Pregnancy complications are a primary source of maternal and child morbidity and mortality. Focused antenatal care hinges on the principle that every pregnancy is at risk for complications. Therefore, apart from receiving basic care, every pregnant woman should be monitored for complications. For that reason, ensuring that pregnant women receive information on the symptoms of complications or danger signs of pregnancy and screening them for complications should be routinely included in all antenatal care visits. To assess ANC services, the 2007 ZDHS respondents were asked a number of questions about the care they received during pregnancy for their most recent live birth.

Table 9.3 presents information on the percentage of women who took iron tablets or syrup, were informed of the symptoms of pregnancy complications, and received selected routine services during ANC visits for their most recent birth in the last five years. The socio-economic characteristics that most influence access to ANC services and the quality of those services are associated with urban residence, higher education, and higher wealth status. Women in urban areas receive a higher percentage of the specified components of antenatal care than women in rural areas. At the provincial level, ANC coverage varies for several components. Looking at the specific ANC components, 90 percent of women took iron supplements during pregnancy. Mothers age 20 or younger are somewhat more likely to take iron supplements, compared with their older counterparts. Women with six or more children are somewhat less likely to take iron supplements (88 percent), compared with women with five or less children (91 to 92 percent). There is little variation by urban-rural residence. However, by province, the percentage of women who took iron supplements ranges from 85 percent in Eastern province to 96 percent in Southern province. The percentage of women who took iron supplements increases with level of education and wealth quintiles.

The administration of intestinal anti-parasitic drugs is less common than the administration of iron supplementation during antenatal care. Thirty-six percent of women took drugs to combat intestinal parasites during their last pregnancy. Differentials vary by mother's age, birth order, residence, province, education, and wealth quintile. Women in urban areas (50 percent) are almost twice as likely as women in rural areas (29 percent) to have taken drugs to prevent intestinal parasites during their last pregnancy. Women from Northern province (24 percent) are the least likely to have taken drugs against intestinal parasites, while women in Lusaka (55 percent) are the most likely to do so. More than half of women with more than a secondary education (52 percent) and women who are in the highest wealth quintile (55 percent) have taken drugs to prevent intestinal parasites.

Table 9.3 Components of antenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup, and the percentage who took drugs for intestinal parasites during the pregnancy for the most recent birth, and among women receiving antenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, Zambia 2007

Background characteristic	Among women with a live birth in the last five years, the percentage who during the pregnancy of their last birth:			Among women who received antenatal care for their most recent birth in the last five years, the percentage who received selected ANC services:						
	Took iron tablets or syrup	Took intestinal parasite drugs	Number of women with a live birth in the past five years	Informed of signs of pregnancy complications	Weighed	Height measured	Blood pressure measured	Urine sample taken	Blood sample taken	Number of women with ANC for their most recent birth
Mother's age at birth										
<20	92.4	38.0	641	69.2	90.2	28.3	78.3	19.9	61.9	631
20-34	90.5	36.6	2,838	74.2	90.7	27.4	81.2	23.2	59.4	2,776
35-49	88.2	31.5	657	73.4	90.1	27.9	79.1	25.0	54.5	637
Birth order										
1	91.8	40.2	773	72.8	90.4	32.2	82.0	27.1	67.1	766
2-3	91.0	38.6	1,351	72.5	91.7	29.0	82.1	22.3	62.1	1,325
4-5	91.2	35.5	1,022	74.7	90.3	25.4	79.8	21.1	55.3	997
6+	87.9	29.8	989	73.4	89.3	24.2	77.3	22.5	52.1	957
Residence										
Urban	90.7	50.4	1,347	81.8	96.8	46.9	96.0	38.5	89.7	1,333
Rural	90.3	29.1	2,789	69.1	87.5	18.1	72.7	15.3	43.9	2,711
Province										
Central	90.0	30.0	405	54.1	84.0	15.4	72.8	21.5	56.7	393
Copperbelt	91.6	48.7	606	78.7	96.5	52.7	95.3	38.8	86.9	597
Eastern	85.1	31.7	629	90.1	92.6	15.5	69.7	17.1	51.6	620
Luapula	91.1	36.9	346	80.7	93.1	19.3	71.9	13.1	39.3	336
Lusaka	89.0	54.5	520	84.0	94.9	44.3	97.6	37.3	90.1	519
Northern	89.6	24.3	629	67.9	82.1	24.1	66.5	13.8	27.7	612
North-Western	92.6	29.5	243	72.3	93.3	19.4	91.1	16.6	47.2	231
Southern	95.5	32.3	446	45.2	85.8	23.9	73.9	20.3	57.0	439
Western	94.1	30.2	312	79.2	95.0	17.5	92.2	19.0	66.3	297
Mother's education										
No education	86.9	26.8	538	69.6	87.6	15.9	67.0	13.2	42.0	510
Primary	90.4	33.2	2,523	71.3	89.4	23.9	79.0	19.1	54.3	2,468
Secondary	92.1	46.6	948	78.5	94.5	39.7	88.9	32.9	75.7	940
More than secondary	93.5	52.0	126	88.3	95.8	55.8	98.6	64.4	95.4	126
Wealth quintile										
Lowest	88.9	28.7	921	70.9	87.4	14.3	70.2	12.3	38.1	890
Second	89.6	26.3	864	67.1	87.4	16.2	71.5	14.2	41.9	834
Middle	91.6	30.4	837	69.8	87.8	23.4	76.0	18.4	48.2	818
Fourth	91.1	44.3	850	76.7	94.4	36.9	90.5	28.1	81.8	847
Highest	91.5	55.3	663	84.6	97.3	53.4	98.0	47.6	93.3	654
Total	90.4	36.0	4,136	73.3	90.6	27.6	80.4	23.0	59.0	4,044

Three in four women who received antenatal care during their last pregnancy were informed of the symptoms of pregnancy complications. Table 9.3 shows little variation by mother's age or birth order. However, women in urban areas are more likely to receive such information than those in rural areas (82 percent compared with 69 percent).

While the majority of women were weighed (91 percent) and had their blood pressure measured (80 percent), height measurement and urine testing were the ANC components least likely to be offered (28 and 23 percent, respectively). Height measurement and urine testing are more common among women with more than a secondary education (56 and 64 percent, respectively) and women in the highest wealth quintile (53 and 48 percent, respectively).

Blood testing is of particular importance in the screening for maternal syphilis, HIV, and anaemia. More than half of women (59 percent) had a blood sample taken. Women living in urbanized provinces such as Copperbelt (87 percent) and Lusaka (90 percent) were most likely to have had a blood sample taken as a component of ANC services.

9.4 TETANUS TOXOID INJECTIONS

Neonatal tetanus is a leading cause of neonatal death in developing countries where a high proportion of deliveries are conducted at home or in places where hygienic conditions may be poor. Tetanus toxoid (TT) injections are given to women during pregnancy to prevent deaths from maternal and neonatal tetanus, which can result when sterile procedures are not followed in cutting the umbilical cord after delivery. In the 2007 ZDHS, information was collected on the number of TT doses the mother received during pregnancy for her most recent birth in the five years preceding the survey. If the mother did not receive at least two TT injections during the pregnancy, additional questions were asked about the number and timing of TT injections that she may have received prior to that pregnancy. If a pregnant woman has received no previous TT injections, she needs two doses of TT during pregnancy in order to be fully protected. However, if a woman was immunized before she became pregnant, she may require one or no TT injections during her pregnancy, depending on the number of injections she has received in the past, and the timing of the last injection. Five lifetime tetanus toxoid doses are required to provide protection from neonatal tetanus.

Table 9.4 shows the percentage of women with a live birth during the five years preceding the survey who reported receiving TT injections during pregnancy for the last live birth. The table also considers whether the last birth was fully protected against neonatal tetanus. An infant is considered fully protected if any of the following criteria are met: 1) the mother had two tetanus toxoid injections during the pregnancy; 2) the mother had two lifetime injections, with the last injection received within three years of the last birth; 3) the mother had three lifetime injections, with the last injection received within five years of the last birth; 4) the mother had four lifetime injections, with the last injection received within 10 years of the last birth; or 5) the mother had at least five lifetime injections.

Thirty percent of women received two or more TT injections during pregnancy. Women younger than 20 were about twice as likely to have received two or more TT injections as their older counterparts age 35-49 (43 and 22 percent, respectively). Similarly, lower order births are twice as likely as higher order to have received two or more TT injections (41 percent for first order births and 19 percent for sixth or higher order births). Northern province has the highest proportion of women who received two or more injections during pregnancy (42 percent), and Southern province has the lowest proportion (22 percent). There is little variation by level of education in the proportion of women who received two or more TT injections. Women in the lowest wealth quintile (34 percent) were most likely to receive TT injections than those in the higher wealth quintiles.

Overall, 81 percent of women's last births were protected against neonatal tetanus. Women younger than 20 were least likely to have been protected (74 percent), compared with older women (82 to 83 percent). Eastern province has the highest proportion of women protected against neonatal tetanus (91 percent), while Lusaka has the lowest proportion (69 percent). Uneducated women are least likely to have their last birth protected against tetanus compared with women with some level of education. Women in the lowest wealth quintile (85 percent) are more likely to have their last birth protected against neonatal tetanus than those in the higher wealth quintiles.

Table 9.4 Tetanus toxoid injections

Among mothers age 15-49 with a live birth in the five years preceding the survey, the number of tetanus toxoid (TT) injections during the pregnancy for the last live birth and the percentage whose last live birth was protected against neonatal tetanus, according to background characteristics, Zambia 2007

Background characteristic	Injections during most recent live birth				Total	Percentage whose last birth was protected against neonatal tetanus[1]	Number of mothers
	None	One	Two or more	Don't know/ missing			
Mother's age at birth							
<20	10.1	46.2	42.9	0.8	100.0	74.0	641
20-34	17.8	52.2	29.3	0.6	100.0	82.8	2,838
35-49	37.9	39.3	22.4	0.4	100.0	82.1	657
Birth order							
1	8.8	48.9	40.9	1.4	100.0	73.1	773
2-3	12.0	51.4	36.0	0.6	100.0	82.8	1,351
4-5	19.2	55.1	25.2	0.5	100.0	83.9	1,022
6+	39.9	40.4	19.4	0.3	100.0	83.1	989
Residence							
Urban	14.1	56.8	28.0	1.0	100.0	80.2	1,347
Rural	22.6	45.6	31.4	0.4	100.0	81.9	2,789
Province							
Central	25.5	42.5	30.5	1.5	100.0	81.4	405
Copperbelt	17.0	58.9	23.7	0.4	100.0	89.5	606
Eastern	24.8	39.2	35.7	0.4	100.0	91.2	629
Luapula	21.1	54.2	24.6	0.1	100.0	74.3	346
Lusaka	12.5	56.3	29.0	2.2	100.0	68.5	520
Northern	15.3	42.6	42.0	0.1	100.0	80.6	629
North-Western	25.9	40.5	33.6	0.0	100.0	80.4	243
Southern	21.3	56.8	21.5	0.4	100.0	74.9	446
Western	21.4	51.7	26.7	0.3	100.0	86.2	312
Mother's education							
No education	28.2	42.3	29.4	0.1	100.0	77.2	538
Primary	20.6	47.8	30.9	0.6	100.0	81.3	2,523
Secondary	14.1	55.9	29.5	0.4	100.0	83.5	948
More than secondary	12.2	56.8	26.6	4.4	100.0	83.4	126
Wealth quintile							
Lowest	25.4	40.2	33.8	0.6	100.0	84.6	921
Second	23.3	45.3	31.0	0.5	100.0	79.5	864
Middle	20.2	50.6	29.1	0.1	100.0	80.9	837
Fourth	14.1	55.8	29.5	0.7	100.0	81.7	850
Highest	14.6	56.8	27.0	1.6	100.0	79.3	663
Total	19.8	49.2	30.3	0.6	100.0	81.3	4,136

[1] Includes mothers with two injections during the pregnancy for their last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within ten years of the last live birth), or five or more injections prior to the last birth.

9.5 PLACE OF DELIVERY

Increasing the number of births delivered in health facilities is an important factor in reducing deaths arising from the complications of pregnancy. The expectation is that if a complication arises during delivery, a skilled health worker can manage the complication and/or refer the mother to the next level. Table 9.5 shows the percent distribution of all live births in the five years preceding the survey by place of delivery, and the percentage of births delivered in a health facility, according to background characteristics.

Half of all births (52 percent) occur at home. Looking at the type of facility, 43 percent of deliveries occur in public sector facilities and 5 percent occur in private sector facilities. Younger women and women having their first baby are more likely to deliver in health institutions (55 and 65 percent, respectively); however, this proportion declines sharply with an increase in birth order. Women in urban areas are about three times more likely to deliver in public sector facilities than their rural counterparts (79 and 28 percent, respectively).

Lusaka has the highest proportion of deliveries in public sector facilities (76 percent), while Northern province has the lowest (26 percent). Women with higher education have a much higher probability of delivering in a health facility than uneducated women or those with a lower education level. Women with more than a secondary education (99 percent) are almost four times more likely to deliver in a health facility compared with women with no education (25 percent). The proportion of births occurring in a health facility increases steadily with an increase in wealth, from 28 percent of births in the lowest wealth quintile to 92 percent among those in the highest quintile. Similarly, a quarter of the births (24 percent) to mothers in the lowest wealth quintile are in a public health facility; the proportion rises steadily with increasing wealth quintile, reaching 84 percent among births to women in the highest wealth quintile. Women who received no ANC services are the most likely to have delivered at home (96 percent).

Table 9.5 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Zambia 2007

Background characteristic	Health facility: Public sector	Health facility: Private sector	Home	Other	Missing	Total	Any health facility	Number of births
Mother's age at birth								
<20	50.5	4.7	44.3	0.4	0.1	100.0	55.2	1,102
20-34	43.2	4.9	51.2	0.3	0.4	100.0	48.1	4,485
35-49	29.7	6.1	63.5	0.6	0.0	100.0	35.8	849
Birth order								
1	59.2	5.3	35.3	0.2	0.1	100.0	64.5	1,270
2-3	43.9	5.1	50.2	0.4	0.4	100.0	49.0	2,232
4-5	37.4	5.0	56.8	0.4	0.5	100.0	42.4	1,509
6+	31.6	4.8	63.1	0.5	0.1	100.0	36.3	1,425
Antenatal care visits[1]								
None	2.0	2.0	96.0	0.0	0.0	100.0	4.0	89
1-3	43.9	3.2	52.2	0.7	0.0	100.0	47.1	1,500
4+	47.8	6.2	45.7	0.2	0.1	100.0	54.0	2,494
Don't know/missing	(61.1)	(1.3)	(35.5)	(0.0)	(2.2)	(100.0)	(62.3)	(53)
Residence								
Urban	79.0	4.6	15.7	0.3	0.3	100.0	83.7	1,883
Rural	27.6	5.2	66.5	0.4	0.3	100.0	32.8	4,553
Province								
Central	30.4	2.6	66.1	0.3	0.6	100.0	33.0	632
Copperbelt	64.1	11.6	23.4	0.2	0.7	100.0	75.7	880
Eastern	38.4	6.3	54.2	0.8	0.3	100.0	44.8	1,022
Luapula	34.0	1.5	64.3	0.2	0.0	100.0	35.5	577
Lusaka	76.3	1.8	21.6	0.2	0.1	100.0	78.1	736
Northern	25.6	5.5	68.4	0.2	0.3	100.0	31.0	1,042
North-Western	35.6	6.4	57.6	0.2	0.2	100.0	42.0	402
Southern	37.5	0.1	62.0	0.3	0.1	100.0	37.6	683
Western	37.5	7.7	53.9	0.7	0.2	100.0	45.2	461
Mother's education								
No education	20.6	4.5	73.5	0.7	0.6	100.0	25.2	870
Primary	38.3	4.7	56.6	0.2	0.2	100.0	43.0	4,089
Secondary	66.1	4.9	27.9	0.6	0.5	100.0	71.0	1,320
More than secondary	80.2	19.0	0.8	0.0	0.0	100.0	99.2	157
Wealth quintile								
Lowest	23.5	4.9	71.0	0.3	0.3	100.0	28.4	1,524
Second	24.6	4.8	69.4	0.7	0.5	100.0	29.4	1,445
Middle	33.2	4.6	61.8	0.3	0.0	100.0	37.8	1,351
Fourth	68.2	3.8	27.5	0.4	0.1	100.0	72.0	1,227
Highest	84.0	7.9	7.5	0.0	0.6	100.0	91.9	889
Total	42.7	5.0	51.7	0.4	0.3	100.0	47.7	6,435

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes only the most recent birth in the five years preceding the survey

9.6 ASSISTANCE DURING DELIVERY

In addition to place of birth, assistance during childbirth is an important variable that influences the birth outcome and the health of the mother and infant. The skills and performance of the birth attendant determine whether or not he or she can manage complications and observe hygienic practices. Table 9.6 shows the percent distribution of live births in the five years preceding the survey by person providing assistance and the percentage of births attended by a skilled health worker, according to background characteristics. Note that in Zambia, a clinical officer is considered a skilled health worker. Table 9.6 also presents data on the prevalence of births by caesarean section (C-section).

The table shows that almost half (47 percent) of the births are assisted by a skilled health worker (doctor, clinical officer, nurse, or midwife); 3 percent by a doctor; 1 percent by a clinical officer; and 42 percent by a nurse or midwife. The percentage of deliveries assisted by a skilled health worker has increased from 43 percent in the 2001-2002 ZDHS to the current level of 47 percent. In the absence of a nurse or midwife, a relative is the next most common person assisting a delivery (25 percent). Twenty-three percent of births are assisted by traditional birth attendants and 5 percent of births were assisted by no one.

Births to younger women (54 percent) and first-order births (63 percent) are more likely to receive assistance during childbirth from a skilled provider than births to other women. Older women (35-49 years) are much more likely to deliver without any assistance (13 percent), compared with those younger than 20 (1 percent). Almost all women (97 percent) who give birth at a health facility are assisted by a skilled provider.

One of the most striking differentials in assistance during childbirth is by urban-rural residence. About eight in ten births to urban women are attended by a skilled provider, compared with three in ten births to women in rural areas. Women in urban areas are more likely (75 percent) to be assisted by a nurse or midwife, while a traditional birth attendant is more likely (31 percent) to assist women in rural areas. Three out of four births in the urbanized provinces (i.e., Lusaka and Copperbelt), are assisted by a skilled provider. Births in Luapula and Northern provinces are more likely to be assisted by a traditional birth attendant (45 and 41 percent, respectively) than births in other provinces. A mother's level of education and wealth status have a positive association with the likelihood that she will be attended by a skilled provider during delivery.

Table 9.6 also shows that 3 percent of the births were delivered by C-section. Caesarean births are more common among first births (5 percent), births to women in urban areas (6 percent), and births to women with higher education (16 percent). Higher proportions of the births are delivered by C-section in Copperbelt and Lusaka provinces (7 and 6 percent, respectively) than in other provinces (1 to 3 percent). Only 1 percent of births to women in the lowest three wealth quintiles occur by C-section, compared with 9 percent of births to women in the highest wealth quintile.

Table 9.6 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, percentage of birth assisted by a skilled provider and percentage delivered by caesarean-section, according to background characteristics, Zambia 2007

Background characteristic	Person providing assistance during delivery								Percentage delivered by a skilled provider[1]	Percentage delivered by C-section	Number of births
	Doctor	Clinical officer	Nurse/ midwife	Traditional birth attendant	Relative/ other	No one	Don't know/ missing	Total			
Mother's age at birth											
<20	4.1	1.8	47.8	19.7	25.8	0.7	0.2	100.0	53.6	3.8	1,102
20-34	3.4	1.1	42.4	23.3	25.3	4.2	0.4	100.0	46.8	2.9	4,485
35-49	2.4	0.9	32.0	28.1	23.9	12.7	0.0	100.0	35.3	2.1	849
Birth order											
1	6.7	2.0	54.1	16.6	19.8	0.6	0.2	100.0	62.8	5.2	1,270
2-3	3.0	1.2	43.4	22.5	27.2	2.3	0.5	100.0	47.5	3.4	2,232
4-5	2.6	0.5	38.5	25.6	27.2	5.4	0.3	100.0	41.6	1.6	1,509
6+	1.8	1.0	32.6	28.2	24.8	11.6	0.1	100.0	35.4	1.6	1,425
Place of delivery											
Health facility	7.0	2.4	87.3	2.1	1.0	0.2	0.0	100.0	96.6	6.2	3,069
Elsewhere	0.0	0.0	0.6	42.9	47.5	8.8	0.1	100.0	0.7	0.0	3,348
Missing	*	*	*	*	*	*	*	*	*	*	18
Residence											
Urban	7.7	0.8	74.5	5.2	9.4	2.1	0.3	100.0	83.0	6.2	1,883
Rural	1.5	1.3	28.5	30.8	31.7	5.8	0.3	100.0	31.3	1.6	4,553
Province											
Central	1.9	1.8	29.8	13.1	44.1	8.8	0.6	100.0	33.5	1.2	632
Copperbelt	9.3	0.8	65.2	11.7	10.6	1.8	0.6	100.0	75.3	6.9	880
Eastern	1.8	0.2	40.8	26.1	23.2	7.5	0.3	100.0	42.9	1.8	1,022
Luapula	0.7	2.0	31.2	44.7	20.4	1.0	0.0	100.0	33.9	3.1	577
Lusaka	6.5	0.4	70.7	5.6	12.3	4.5	0.1	100.0	77.5	6.4	736
Northern	2.2	1.8	25.4	40.9	25.4	3.9	0.4	100.0	29.4	1.6	1,042
North-Western	2.2	1.4	36.9	38.1	18.4	2.8	0.2	100.0	40.5	0.8	402
Southern	1.8	0.7	33.7	15.4	41.8	6.2	0.3	100.0	36.2	2.0	683
Western	1.4	2.4	38.3	13.9	38.9	4.7	0.4	100.0	42.1	1.1	461
Mother's education											
No education	1.0	0.8	21.6	29.3	35.9	10.8	0.7	100.0	23.4	0.8	870
Primary	2.3	1.2	38.4	26.5	26.9	4.5	0.2	100.0	41.8	2.0	4,089
Secondary	5.9	1.3	62.6	12.3	15.7	1.7	0.5	100.0	69.8	5.7	1,320
More than secondary	23.3	1.7	72.9	0.7	0.2	1.0	0.4	100.0	97.8	16.2	157
Wealth quintile											
Lowest	1.0	1.1	24.8	29.3	35.8	7.6	0.4	100.0	26.9	1.2	1,524
Second	1.4	1.6	24.7	35.0	31.1	5.7	0.5	100.0	27.7	1.2	1,445
Middle	1.4	1.0	34.0	30.9	27.9	4.6	0.1	100.0	36.5	1.4	1,351
Fourth	4.8	0.9	65.7	8.4	17.3	2.7	0.2	100.0	71.4	4.6	1,227
Highest	11.6	1.0	78.7	3.3	4.0	1.0	0.5	100.0	91.3	9.0	889
Total	3.3	1.2	41.9	23.3	25.2	4.7	0.3	100.0	46.5	3.0	6,435

Notes: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Skilled provider includes doctor, clinical officer and nurse/midwife.

9.7 DELIVERY CHARACTERISTICS

Table 9.7 shows the percent distribution of live births in the five years preceding the survey by birth weight and by mother's estimate of baby's size at birth, according to background characteristics.

The table shows that half of the births were not weighed. The percentage of unweighted births is higher among older mothers (age 35-49), higher order births, births in rural areas, births to mothers with no education, and births to mothers in the two lowest wealth quintiles. Looking at provinces, the proportion of births that were not weighed ranges from a low of 18 percent in Lusaka to a high of 68 percent in Northern province. Overall, 4 percent of births with a reported birth weight in Zambia are less than the normal weight of 2.5 kg, while 43 percent are 2.5 kg or more. Low birth weight is higher among births to younger mothers, first order births, and births in urban areas. compared with other births.

Interestingly, the prevalence of low birth weight increases with mother's level of education and wealth quintile.

The majority of births (87 percent) are reported by mothers as average or larger in size. There are no major variations by background characteristics. On the other hand, 2 percent of births are reported by mothers as very small and another 10 percent as smaller than average. The variation in the proportion of small size births by background characteristics shows a pattern similar to that observed for reported low weight births.

Table 9.7 Delivery characteristics

Percent distribution of live births in the five years preceding the survey by birth weight and by mother's estimate of baby's size at birth, according to background characteristics, Zambia 2007

Background characteristic	Percent distribution of births with a reported birth weight					Percent distribution of all live births by size of child at birth					
	Not weighed	Less than 2.5 kg	2.5 kg or more	Don't know/ missing	Total	Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Number of births
Mother's age at birth											
<20	44.3	8.0	45.5	2.2	100.0	2.3	12.8	83.6	1.3	100.0	1,102
20-34	49.3	3.9	44.3	2.6	100.0	1.6	9.0	87.8	1.6	100.0	4,485
35-49	59.7	2.7	35.8	1.8	100.0	1.3	7.9	89.4	1.4	100.0	849
Birth order											
1	35.7	8.5	53.2	2.5	100.0	2.1	12.9	83.7	1.3	100.0	1,270
2-3	48.4	3.9	45.0	2.7	100.0	1.4	9.3	87.9	1.4	100.0	2,232
4-5	54.9	3.0	40.2	1.9	100.0	1.8	7.4	88.9	1.9	100.0	1,509
6+	59.1	3.2	35.5	2.3	100.0	1.6	9.0	88.0	1.4	100.0	1,425
Residence											
Urban	13.5	7.7	75.7	3.1	100.0	1.5	10.0	87.6	0.8	100.0	1,883
Rural	64.8	3.1	30.0	2.1	100.0	1.7	9.3	87.2	1.8	100.0	4,553
Province											
Central	65.6	2.5	29.3	2.6	100.0	0.7	6.3	92.4	0.6	100.0	632
Copperbelt	18.7	6.8	71.4	3.1	100.0	1.0	10.8	87.3	0.9	100.0	880
Eastern	56.1	4.1	37.5	2.3	100.0	3.3	8.4	86.8	1.5	100.0	1,022
Luapula	65.0	1.9	31.9	1.2	100.0	0.6	7.9	91.3	0.2	100.0	577
Lusaka	17.5	7.7	69.9	5.0	100.0	1.2	11.4	87.0	0.4	100.0	736
Northern	68.3	3.3	26.5	1.9	100.0	2.0	7.2	85.0	5.7	100.0	1,042
North-Western	37.8	6.8	53.5	1.9	100.0	2.3	11.8	85.1	0.8	100.0	402
Southern	64.2	3.2	31.2	1.4	100.0	1.3	11.1	87.3	0.3	100.0	683
Western	53.0	3.8	41.9	1.3	100.0	1.9	13.7	84.2	0.2	100.0	461
Mother's education											
No education	71.4	3.3	22.1	3.3	100.0	1.2	9.4	86.6	2.8	100.0	870
Primary	54.5	4.0	38.8	2.7	100.0	1.8	9.6	87.2	1.4	100.0	4,089
Secondary	26.7	5.7	66.7	0.9	100.0	1.7	8.8	88.8	0.7	100.0	1,320
More than secondary	0.8	12.7	85.3	1.1	100.0	0.4	15.1	82.3	2.3	100.0	157
Wealth quintile											
Lowest	70.3	2.9	25.0	1.9	100.0	2.0	9.1	87.5	1.5	100.0	1,524
Second	66.6	3.4	28.0	2.1	100.0	1.6	9.7	86.0	2.6	100.0	1,445
Middle	61.0	3.1	33.4	2.6	100.0	1.8	8.8	88.1	1.2	100.0	1,351
Fourth	23.7	6.8	66.6	2.9	100.0	1.5	10.3	87.1	1.0	100.0	1,227
Highest	6.5	7.4	83.2	2.9	100.0	1.2	9.8	88.2	0.8	100.0	889
Total	49.8	4.4	43.4	2.4	100.0	1.7	9.5	87.3	1.5	100.0	6,435

9.8 POSTNATAL CARE

A large proportion of maternal and neonatal deaths occur during the first 24 hours after delivery. Thus, prompt postnatal care is important for both the mother and the child to treat complications arising from the delivery, as well as to provide the mother with important information on how to care for herself and her child. It is recommended that all women receive a check on their health within three days of delivery. Subsequent visits are recommended at six days and six weeks. In Zambia, because of logistical considerations such as distance, it is recommended that women who have delivered should be seen within

six days. To assess the extent of utilization of postnatal care, 2007 ZDHS respondents with a live birth during the five years prior to the survey were asked questions about any postnatal care they may have received related to the last birth. If they reported receiving care, they also were asked about the timing of the first check-up and the type of health provider performing the postnatal check-up. This information is presented according to background characteristics in Tables 9.8 and 9.9.

Table 9.8 shows that more than half (51 percent) of the women did not receive any postnatal care; however, 39 percent received a postnatal check-up within two days of delivery. Nine percent of the women had a check-up 3 to 41 days after delivery. Young mothers and mothers who gave birth to their first child (41 and 49 percent, respectively) are more likely to go for postnatal care within the first two days after giving birth, compared with older women age 35-49 and women with sixth or higher order births (31 and 30 percent, respectively).

Table 9.8 Timing of first postnatal check-up

Among women age 15-49 with a birth in the five years preceding the survey, the percent distribution of the timing of the mother's first postnatal check-up for the last live birth, according to background characteristics, Zambia 2007

Background characteristic	Timing of mother's first postnatal check-up					No postnatal check-up[1]	Total	Number of women
	Less than 4 hours	4-23 hours	2 days	3-41 days	Don't know/ missing			
Mother's age at birth								
<20	24.5	11.5	5.0	6.8	1.6	50.7	100.0	641
20-34	26.4	9.7	4.0	9.0	1.5	49.4	100.0	2,838
35-49	18.9	8.4	3.3	12.8	1.6	55.0	100.0	657
Birth order								
1	30.0	13.6	5.0	5.7	1.8	43.9	100.0	773
2-3	28.5	9.5	4.1	9.0	1.9	47.0	100.0	1,351
4-5	22.7	8.9	3.9	8.9	1.2	54.3	100.0	1,022
6+	18.3	8.1	3.3	12.7	1.1	56.5	100.0	989
Residence								
Urban	44.1	16.5	2.8	4.4	3.0	29.1	100.0	1,347
Rural	15.7	6.5	4.6	11.6	0.8	60.8	100.0	2,789
Province								
Central	18.0	8.4	3.9	11.0	0.6	58.0	100.0	405
Copperbelt	41.0	23.4	3.6	3.5	2.3	26.2	100.0	606
Eastern	11.9	8.4	8.8	20.3	0.7	50.0	100.0	629
Luapula	25.2	4.3	1.9	14.0	0.2	54.4	100.0	346
Lusaka	45.4	9.9	3.1	5.7	2.9	33.0	100.0	520
Northern	21.4	5.6	3.2	7.8	1.4	60.7	100.0	629
North-Western	17.9	6.6	3.4	5.5	3.0	63.6	100.0	243
Southern	11.6	4.6	2.9	3.4	1.5	76.0	100.0	446
Western	26.0	12.1	2.8	10.8	1.2	47.0	100.0	312
Education								
No education	9.9	5.3	4.7	14.1	0.8	65.2	100.0	538
Primary	22.3	8.4	4.2	9.8	1.3	54.0	100.0	2,523
Secondary	35.8	14.2	3.0	5.6	2.4	39.0	100.0	948
More than secondary	58.8	22.4	5.5	5.3	2.8	5.1	100.0	126
Wealth quintile								
Lowest	14.2	5.2	4.5	12.3	1.0	62.8	100.0	921
Second	14.2	5.6	5.7	13.2	0.4	60.8	100.0	864
Middle	16.6	8.7	3.2	10.2	1.1	60.2	100.0	837
Fourth	34.1	14.5	3.5	5.7	2.4	39.8	100.0	850
Highest	52.5	16.8	2.8	3.1	3.2	21.6	100.0	663
Total	24.9	9.8	4.0	9.2	1.5	50.5	100.0	4,136

[1] Includes women who received a check-up after 41 days

Women in rural areas are more likely to not have a postnatal check-up than women in urban areas (29 and 61 percent, respectively). More than six in ten (63 percent) women in urban areas seek postnatal care within the first two days after delivery, compared with less than three in ten (27 percent) women in rural areas.

The highest percentage of women seeking postnatal care within the first two days after delivery is women living in Copperbelt (68 percent) and Lusaka (58 percent). The lowest percentage of women utilizing postnatal care services is in Southern province, where only 19 percent received postnatal care within two days of delivery and only 24 percent received postnatal care in the first 41 days. As with other health services surrounding childbirth, better educated and wealthier mothers are more likely to go for a postnatal check-up within the first two days after delivery.

Table 9.9 presents information on the type of health provider performing the postnatal check-up during a mother's first postnatal visit. This information is important because the skills of a provider determine the ability to diagnose problems and to recommend appropriate treatment or referral. Thirty-eight percent of women received a postnatal check-up from a nurse or midwife, 5 percent from a doctor, 4 percent from a traditional birth attendant, and 2 percent from a clinical officer.

Table 9.9 Type of provider of first postnatal check-up

Among women age 15-49 who gave birth in the five years preceding the survey, the percent distribution by type of provider at mother's first postnatal health check for the last live birth, according to background characteristics, Zambia 2007

Background characteristic	Health provider at mother's first postnatal check-up							Number of women
	Doctor	Clinical officer	Nurse/ midwife	Traditional birth attendant	Other	No postnatal check-up[1]	Total	
Mother's age at birth								
<20	5.7	2.0	37.5	3.2	0.9	50.7	100.0	641
20-34	5.1	1.8	38.6	4.2	0.9	49.4	100.0	2,838
35-49	4.3	1.3	32.9	5.5	0.8	55.0	100.0	657
Birth order								
1	8.2	2.2	42.0	3.0	0.6	43.9	100.0	773
2-3	6.4	1.8	39.1	4.5	1.1	47.0	100.0	1,351
4-5	2.8	1.7	36.0	4.3	0.9	54.3	100.0	1,022
6+	3.0	1.5	33.5	4.8	0.7	56.5	100.0	989
Residence								
Urban	11.0	0.9	57.8	1.0	0.0	29.1	100.0	1,347
Rural	2.2	2.2	27.8	5.8	1.3	60.8	100.0	2,789
Province								
Central	4.6	2.4	28.3	6.1	0.6	58.0	100.0	405
Copperbelt	14.8	0.3	53.6	4.2	0.9	26.2	100.0	606
Eastern	2.8	1.5	44.0	0.6	1.0	50.0	100.0	629
Luapula	1.1	4.6	36.4	3.0	0.4	54.4	100.0	346
Lusaka	6.4	1.4	58.2	0.4	0.5	33.0	100.0	520
Northern	2.1	2.0	21.6	12.7	0.7	60.7	100.0	629
North-Western	2.9	1.3	28.8	2.3	0.9	63.6	100.0	243
Southern	3.1	0.7	17.7	2.3	0.0	76.0	100.0	446
Western	3.5	3.3	39.1	3.8	3.3	47.0	100.0	312
Education								
No education	2.0	1.9	25.9	3.8	1.3	65.2	100.0	538
Primary	3.6	1.9	34.3	5.3	0.8	54.0	100.0	2,523
Secondary	7.1	1.6	49.0	2.4	0.9	39.0	100.0	948
More than secondary	30.4	0.0	64.4	0.0	0.0	5.1	100.0	126
Wealth quintile								
Lowest	1.0	2.3	25.9	6.8	1.2	62.8	100.0	921
Second	2.1	2.4	27.4	6.1	1.2	60.8	100.0	864
Middle	2.8	2.0	29.2	4.5	1.3	60.2	100.0	837
Fourth	7.5	1.5	48.7	2.0	0.3	39.8	100.0	850
Highest	14.1	0.3	63.0	0.6	0.1	21.6	100.0	663
Total	5.0	1.8	37.5	4.2	0.8	50.5	100.0	4,136

[1] Includes women who received a check-up after 41 days

As expected, young women, women with first-order births, urban women, better educated women, and women in the highest wealth quintile are more likely to get postnatal care from a skilled provider. At the provincial level, young women in Copperbelt (69 percent) and Lusaka (66 percent) are more likely to receive postnatal care from a skilled provider than other women. Almost all women with more than a secondary education (95 percent) received postnatal check-ups from a skilled provider, as did more than three in four women in the highest wealth quintile (77 percent).

9.9 Problems in Accessing Health Care

Many factors can prevent women from getting medical advice or treatment for themselves when they are sick. Information on such factors is particularly important in understanding and addressing the barriers women may face in seeking care during pregnancy and at the time of delivery.

In the 2007 ZDHS, women were asked whether each of the following factors would be a big problem or not in seeking medical care: getting permission to go for treatment, getting money for treatment, the distance to a health facility, having to take transportation, not wanting to go alone, concerns that there may not be a female health provider or any health provider, and concerns that there may be no drugs available. Table 9.10 presents information on the extent to which women reported that each of these factors was a serious problem for them in accessing health care.

Seventy-four percent of women reported that at least one of the concerns was a problem when it came to accessing health care. More than half (54 percent) of women reported that they were concerned that there were no drugs available at the health facility. The majority of women reporting this concern are of high parity (58 percent), married or living together with a man (56 percent), residing in rural areas (59 percent), have no education (59 percent), or are in the middle wealth quintile (62 percent). About two in five women reported that transportation (42 percent) and distance to the health facility (41 percent) are big problems, while one in three women reported that getting money for treatment (34 percent) is a big problem. Getting permission to go for treatment is less likely to be reported as a hindrance to seeking health care (4 percent).

Table 9.10 Problems in accessing health care

Percentage of women age 15-49 who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, Zambia 2007

Background characteristic	Problems in accessing health care								At least one problem accessing health care	Number of women
	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Having to take transport	Not wanting to go alone	Concern no female provider available	Concern no provider available	Concern no drugs available		
Age										
15-19	4.1	30.9	34.3	35.2	26.7	17.5	25.6	49.2	70.2	1,574
20-34	4.2	32.3	41.2	42.5	24.3	16.4	25.6	54.7	74.4	3,789
35-49	4.1	38.6	45.6	48.4	27.3	18.4	24.7	54.8	74.7	1,783
Number of living children										
0	3.5	28.4	31.6	32.5	24.8	15.4	23.7	49.9	68.4	1,855
1-2	4.4	31.8	39.3	39.9	22.8	15.9	24.3	50.8	71.3	2,150
3-4	4.3	36.0	45.9	48.6	27.1	17.1	26.5	57.2	77.6	1,642
5+	4.5	39.7	48.7	51.2	29.0	21.2	27.7	57.8	78.6	1,499
Marital status										
Never married	3.7	28.7	29.7	31.1	24.5	15.2	22.6	47.2	66.9	1,856
Married or living together	4.6	33.1	45.5	46.5	25.9	18.2	26.9	56.4	76.2	4,402
Divorced/separated/ widowed	3.2	46.1	40.6	45.2	26.4	15.8	23.6	52.4	74.1	888
Employed past 12 months										
Not employed	4.4	29.4	36.3	38.2	20.8	15.0	25.6	55.0	73.8	3,255
Employed for cash	3.9	34.8	39.0	39.8	24.0	16.7	21.1	51.3	69.5	2,591
Employed not for cash	4.1	41.5	55.4	57.7	40.7	23.4	33.2	54.2	80.8	1,299
Residence										
Urban	3.4	24.9	18.4	22.0	14.4	9.5	16.0	45.6	61.6	3,009
Rural	4.7	39.9	57.0	57.2	33.7	22.7	32.1	59.3	82.2	4,137
Province										
Central	5.7	42.2	52.6	52.7	8.5	8.5	8.4	46.9	77.5	659
Copperbelt	2.4	22.6	22.9	22.8	17.7	10.1	12.7	34.0	56.6	1,264
Eastern	1.2	39.8	46.9	44.2	17.7	13.2	26.3	53.1	76.6	971
Luapula	1.6	12.6	36.6	41.8	35.1	25.0	50.5	82.9	90.3	530
Lusaka	4.1	30.0	24.8	30.9	17.9	11.5	15.2	51.4	68.9	1,172
Northern	9.7	45.5	65.2	67.0	38.6	25.5	30.9	73.6	89.6	966
North-Western	6.5	41.5	51.2	49.9	37.9	32.0	49.9	59.3	78.7	365
Southern	5.2	41.3	40.9	44.0	35.7	28.1	47.6	65.0	75.0	727
Western	1.2	27.9	45.2	46.7	42.6	15.8	13.9	25.7	61.0	492
Education										
No education	4.7	47.8	59.5	62.1	34.3	23.2	32.1	59.1	85.1	744
Primary	4.6	37.5	46.7	48.8	29.5	19.2	27.1	55.9	76.9	3,891
Secondary	3.4	24.6	27.7	28.8	18.3	12.8	20.9	49.0	66.9	2,140
More than secondary	2.3	14.9	16.8	13.0	8.5	8.7	19.6	42.8	52.6	371
Wealth quintile										
Lowest	3.7	44.6	65.4	64.5	36.9	21.9	28.5	57.2	83.6	1,240
Second	4.4	40.9	57.3	58.9	35.3	23.7	34.6	60.9	83.5	1,283
Middle	6.6	36.7	51.7	52.6	31.2	23.5	33.9	61.8	82.6	1,280
Fourth	4.0	31.5	23.5	28.8	16.5	12.2	19.1	46.3	65.3	1,567
Highest	2.7	20.2	19.0	19.6	14.6	8.8	15.9	46.0	60.1	1,776
Total	4.2	33.6	40.8	42.4	25.6	17.1	25.4	53.5	73.5	7,146

CHILD HEALTH 10

Penelope Kalesha and Nchimunya Nkombo

This chapter presents findings on several areas of importance to child survival. Information is presented on birth weight, child vaccination, and treatment practices among children suffering from three common childhood diseases: acute respiratory infection (ARI), fever, and diarrhoea.

Many early childhood deaths can be prevented by immunizing children against preventable diseases and by ensuring that children receive prompt and appropriate treatment when they become ill. Information is provided on the ARI prevalence and treatment with antibiotics, and fever prevalence and treatment with antimalarial drugs. The treatment of diarrhoeal disease with oral rehydration therapy (including increased fluids) aids in assessing programmes that recommend such treatment. Because appropriate sanitary practices help prevent and reduce the severity of diarrhoeal disease, information is also provided on the manner of disposing children's faecal matter.

10.1 CHILD'S SIZE AT BIRTH

Birth weight is an important indicator for assessing the risk of succumbing to childhood illnesses and the likelihood of survival. Children whose birth weight is less than 2.5 kilograms, or children reported to be "very small" or "smaller than average," are considered to have a higher than average risk of early childhood death. For births in the five years preceding the survey, birth weight is recorded in the questionnaire from either a written record or the mother's recall. Because birth weight may not be known for many babies, the mother's estimate of the baby's size at birth is also obtained. Even though the mother's estimate is subjective, it can be a useful proxy for the child's weight.

Table 10.1 shows that birth weight information is recorded for 48 percent of the births in the five-year period before the survey. Among the babies for whom birth weight information was obtained in the survey, 9 percent had a low birth weight (less than 2.5 kg). Mothers younger than age 20 are about twice as likely to have low birth weight babies (15 percent), compared with mothers age 20-34 (8 percent) and mothers age 35-49 (7 percent). First-born children are more likely to have lower birth weights (14 percent), compared with higher-order birth, 7 to 8 percent of which are low birth weight.

Among the provinces, Luapula has the lowest percentage of low birth weight babies (6 percent) and Northern and North-Western provinces have the highest (11 percent). Mothers with no education and those with more than a secondary education have the highest percentage of low birth weight babies (13 percent).

Table 10.1 includes information on the mother's assessment of the baby's size at birth. Two percent of births were reported as very small, and 10 percent were reported as smaller than average. Fifteen percent of births to women under age 20 and first-order births were described as small or smaller than average. The proportion of very small babies across provinces ranges from 1 to 3 percent.

Table 10.1 Children's weight and size at birth

Percent distribution of live births in the five years preceding the survey with a reported birth weight by birth weight, percentage of all births with a reported birth weight, and percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics, Zambia 2007

Background characteristic	Percent distribution of births with a reported birth weight[1]				Percentage of all births with a reported birth weight	Percent distribution of all live births by size of child at birth					
	Less than 2.5 kg	2.5 kg or more	Total	Number of births		Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Number of births
Mother's age at birth											
<20	15.0	85.0	100.0	590	53.5	2.3	12.8	83.6	1.3	100.0	1,102
20-34	8.0	92.0	100.0	2,160	48.2	1.6	9.0	87.8	1.6	100.0	4,485
35-49	7.1	92.9	100.0	327	38.6	1.3	7.9	89.4	1.4	100.0	849
Birth order											
1	13.8	86.2	100.0	784	61.7	2.1	12.9	83.7	1.3	100.0	1,270
2-3	7.9	92.1	100.0	1,091	48.9	1.4	9.3	87.9	1.4	100.0	2,232
4-5	7.0	93.0	100.0	652	43.2	1.8	7.4	88.9	1.9	100.0	1,509
6+	8.2	91.8	100.0	550	38.6	1.6	9.0	88.0	1.4	100.0	1,425
Mother's smoking status											
Smokes cigarettes/ tobacco	0.0	100.0	100.0	25	24.9	0.8	7.0	91.3	0.8	100.0	99
Does not smoke	9.4	90.6	100.0	3,050	48.2	1.7	9.6	87.3	1.5	100.0	6,327
Residence											
Urban	9.2	90.8	100.0	1,570	83.4	1.5	10.0	87.6	0.8	100.0	1,883
Rural	9.4	90.6	100.0	1,508	33.1	1.7	9.3	87.2	1.8	100.0	4,553
Province											
Central	8.0	92.0	100.0	201	31.8	0.7	6.3	92.4	0.6	100.0	632
Copperbelt	8.7	91.3	100.0	688	78.2	1.0	10.8	87.3	0.9	100.0	880
Eastern	9.8	90.2	100.0	424	41.5	3.3	8.4	86.8	1.5	100.0	1,022
Luapula	5.6	94.4	100.0	195	33.8	0.6	7.9	91.3	0.2	100.0	577
Lusaka	9.9	90.1	100.0	570	77.5	1.2	11.4	87.0	0.4	100.0	736
Northern	11.0	89.0	100.0	310	29.8	2.0	7.2	85.0	5.7	100.0	1,042
North-Western	11.3	88.7	100.0	243	60.3	2.3	11.8	85.1	0.8	100.0	402
Southern	9.4	90.6	100.0	235	34.4	1.3	11.1	87.3	0.3	100.0	683
Western	8.4	91.6	100.0	211	45.7	1.9	13.7	84.2	0.2	100.0	461
Mother's education											
No education	13.0	87.0	100.0	221	25.3	1.2	9.4	86.6	2.8	100.0	870
Primary	9.3	90.7	100.0	1,748	42.8	1.8	9.6	87.2	1.4	100.0	4,089
Secondary	7.8	92.2	100.0	955	72.4	1.7	8.8	88.8	0.7	100.0	1,320
More than secondary	13.0	87.0	100.0	154	98.0	0.4	15.1	82.3	2.3	100.0	157
Wealth quintile											
Lowest	10.5	89.5	100.0	425	27.9	2.0	9.1	87.5	1.5	100.0	1,524
Second	11.0	89.0	100.0	453	31.4	1.6	9.7	86.0	2.6	100.0	1,445
Middle	8.4	91.6	100.0	493	36.5	1.8	8.8	88.1	1.2	100.0	1,351
Fourth	9.3	90.7	100.0	901	73.4	1.5	10.3	87.1	1.0	100.0	1,227
Highest	8.2	91.8	100.0	806	90.7	1.2	9.8	88.2	0.8	100.0	889
Total	9.3	90.7	100.0	3,078	47.8	1.7	9.5	87.3	1.5	100.0	6,435

Note: The total number of women includes 10 cases where information on the mother's smoking status was missing.
[1] Based on either a written record or the mother's recall

10.2 VACCINATION COVERAGE

Universal immunization against vaccine-preventable diseases is crucial to reducing infant and child mortality. The Government of Zambia has adapted the WHO guidelines for vaccinating children through the Expanded Programme on Immunization. Children are considered fully immunized when they have received a vaccination against tuberculosis (BCG), three doses each of the diphtheria, pertussis, tetanus/hepatitis B/*Haemophilis influenza* type b (DPT-HepB-Hib), and polio vaccines, and a measles vaccination by the age of 12 months. The BCG vaccination should be given at birth or at the first clinical contact. The DPT-HepB-Hib and polio immunizations require three doses of the vaccines at approximately 6, 10, and 14 weeks of age; and measles should be given at or soon after reaching 9 months of age. During the five years prior to the survey, the immunization programme introduced new vaccines in combination form. In 2004 the DPT-Hib vaccine was introduced in a phased manner and in 2006 DPT-HepB-Hib was introduced. This resulted in birth cohorts receiving different vaccine combinations (DPT, DPT-Hib, DPT-HepB-Hib), as the availability of these vaccines changed over time. However, in the 2007 ZDHS, there were instances of children receiving the DPT-Hib vaccine.

The 2007 ZDHS collected information on vaccination coverage for all living children born in the five years preceding the survey. Information on vaccination coverage was collected in two ways: from child vaccination cards shown to the interviewer and from mothers' verbal reports. If the cards were available, the interviewer copied the vaccination dates directly onto the questionnaire: BCG; polio 0-4, DPT 1-3, DPT-Hep B-Hib 1-3, and measles vaccines. When there was no vaccination card for the child or if a vaccination had not been recorded on the card, the respondent was asked whether the vaccine had been given to her child; the resulting information is from mother's recall.

Table 10.2 shows the percentage of children age 12-23 months who have received the various vaccinations by source of information, that is, from the vaccination card or mother's recall. The 12-23 month age group represents the youngest cohort of children who have reached the age by which they should be fully vaccinated. Sixty-eight percent of children age 12-23 months were fully vaccinated at the time of the survey; 92 percent had received the BCG vaccination, 80 percent received DPT 1-3 or DPT-HepB-Hib 1-3, 77 percent received polio 1-3, and 85 percent received the measles vaccine. Six percent of children age 12-23 months did not receive any vaccinations. Table 10.2 also shows vaccination coverage for children who have reached 12 months of age. The rates for each vaccination by the time the child reached 12 months of age are slightly lower than those observed for the 12-23 month age group.

Table 10.2 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, Zambia 2007

		DPT/DPT-HepB-Hib			Polio						All basic	No	Number
Source of information	BCG	1	2	3	0	1	2	3	4	Measles	vaccina-tions	vaccina-tions	of children
Vaccinated at any time before survey													
Vaccination card	75.9	76.1	73.3	66.9	22.2	77.0	74.4	67.9	19.0	69.8	59.4	0.1	992
Mother's report	16.4	16.3	15.5	12.8	7.0	16.5	15.0	9.2	1.0	15.1	8.2	5.4	281
Either source	92.3	92.3	88.7	79.7	29.2	93.5	89.3	77.0	19.9	84.9	67.6	5.5	1,272
Vaccinated by 12 months of age	90.3	91.4	86.6	77.3	29.2	92.3	87.3	74.2	16.4	68.8	55.0	6.5	1,272

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, three doses of either DPT or DPT-HepB-Hib, and three doses of polio vaccine (excluding polio 0 and polio 4)
[3] 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.

Table 10.3 presents information on vaccine coverage among children age 12-23 months (from the vaccination cards or mothers' reports, by background characteristics. A vaccination card was seen for 78 percent of children. There are minor differences in coverage by sex and birth order for all vaccinations. Vaccination coverage is higher in urban areas than in rural areas. For example, 95 percent of urban children received a BCG vaccination, compared with 91 percent of rural children; 89 percent of urban children received all three DPT/DPT-HepB-Hib vaccinations, compared with 76 percent of their rural counterparts. Similarly, polio 3 and measles coverage is higher among children in urban areas (81 and 89 percent, respectively) than those in rural areas (76 and 84 percent, respectively). Children in rural areas are twice as likely as those in urban areas to have not received any vaccinations (3 and 6 percent, respectively).

There are provincial variations in coverage for all vaccinations. Overall, BCG coverage is above 90 percent for all provinces except Luapula (84 percent) and Northern (82 percent). Polio 3 coverage is 78 percent or higher in all provinces except Luapula (71 percent), Northern (69 percent) and North-Western (59 percent) provinces. Measles coverage is above 75 percent in all provinces except Northern (71 percent).

Table 10.3 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen by the interviewer, by background characteristics, Zambia 2007

Background characteristic	BCG	DPT/DPT-HepB-Hib			Polio[1]					Measles	All basic vaccinations[2]	No vaccinations	Percentage with a vaccination card seen	Number of children
		1	2	3	0	1	2	3	4					
Sex														
Male	92.0	92.2	89.1	80.5	30.2	93.6	89.7	77.5	21.5	84.9	68.0	5.9	78.7	628
Female	92.6	92.4	88.4	78.9	28.3	93.3	89.0	76.6	18.4	84.9	67.2	5.1	77.2	644
Birth order														
1	92.2	93.2	89.0	81.7	38.7	91.8	87.6	77.0	19.9	85.4	70.3	6.8	71.6	215
2-3	93.5	93.6	90.6	82.4	28.6	95.4	91.8	78.7	21.2	88.2	70.1	4.1	78.1	460
4-5	89.7	90.2	87.3	77.8	24.7	91.4	87.0	74.6	19.6	81.3	64.5	7.1	80.7	324
6+	93.2	91.8	87.2	76.0	28.2	94.0	89.4	77.1	18.1	83.2	64.8	5.1	79.5	273
Residence														
Urban	94.7	94.9	93.1	89.4	57.5	96.2	93.5	80.9	17.1	88.5	71.2	3.3	78.5	347
Rural	91.4	91.3	87.1	76.1	18.6	92.4	87.8	75.6	21.0	83.6	66.2	6.3	77.8	925
Province														
Central	93.0	96.1	91.8	83.6	20.8	94.4	90.4	78.1	26.5	91.6	71.7	3.1	84.4	137
Copperbelt	94.8	93.2	90.6	86.5	56.8	94.8	90.6	81.2	21.4	87.0	73.4	4.7	82.3	169
Eastern	98.0	97.5	96.1	88.4	22.9	98.9	97.5	83.9	17.3	89.0	71.9	1.1	83.5	187
Luapula	84.1	79.7	76.9	68.4	12.5	82.8	80.1	71.4	10.7	75.8	61.3	15.0	64.7	103
Lusaka	94.1	97.0	95.8	91.9	58.9	98.3	96.6	79.7	18.6	91.9	70.3	1.7	76.7	123
Northern	81.9	81.8	77.4	63.0	13.0	84.5	78.1	69.1	9.6	71.1	55.0	14.1	74.9	229
North-Western	93.7	92.2	77.5	60.5	24.5	95.0	79.9	58.5	19.0	78.0	51.5	3.9	77.8	84
Southern	97.8	99.3	97.1	87.9	21.6	97.7	95.8	81.3	25.5	92.0	74.4	0.7	77.6	145
Western	97.4	97.4	94.8	86.3	39.6	98.3	95.6	86.1	42.4	93.1	80.0	1.7	73.9	94
Mother's education														
No education	89.6	87.4	82.0	69.7	22.9	91.7	85.7	70.8	21.5	82.4	59.9	7.8	76.0	174
Primary	92.1	92.6	88.6	78.8	25.9	93.2	88.6	77.4	19.5	83.7	66.8	5.5	78.5	828
Secondary	94.1	94.1	93.0	88.0	42.0	94.9	93.2	80.3	20.6	89.2	74.8	4.5	78.4	247
More than secondary	(100.0)	(100.0)	(100.0)	(100.0)	(57.8)	(100.0)	(100.0)	(77.0)	(17.8)	(100.0)	(77.0)	(0.0)	(68.3)	24
Wealth quintile														
Lowest	94.8	92.8	88.6	77.4	19.5	94.7	90.8	78.7	21.9	87.6	71.2	4.7	80.1	309
Second	88.5	91.2	85.2	73.0	15.6	91.1	84.6	72.2	21.9	79.6	61.2	7.5	79.1	293
Middle	88.9	89.2	86.6	76.3	20.2	91.5	87.7	75.3	17.2	81.6	64.1	8.1	74.0	285
Fourth	94.9	94.2	92.1	85.6	42.2	94.4	90.3	77.9	21.1	85.2	67.5	2.7	76.9	212
Highest	96.4	96.3	94.4	93.7	68.7	97.3	96.3	84.1	16.2	94.1	77.8	2.7	79.8	173
Total	92.3	92.3	88.7	79.7	29.2	93.5	89.3	77.0	19.9	84.9	67.6	5.5	77.9	1,272

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, three doses of either DPT or DPT-HepB-Hib, and three doses of polio vaccine (excluding polio 0 and polio 4)

The proportion of children who received all basic vaccinations increases with mother's level of education; 60 percent of children whose mothers have no education are fully immunized, compared with 75 percent of children of mothers with secondary education, and 77 percent of children of mothers with more than a secondary education. Children in the lowest and highest wealth quintiles are most likely to be fully vaccinated (71 and 78 percent, respectively).

10.2.1 Trends in Vaccination Coverage

One way of measuring trends in vaccination coverage is to compare coverage among children of different ages in the 2007 ZDHS. Table 10.4 shows the percentage of children who received vaccinations during the first year of life, by current age. The data shows trends in vaccination coverage over the past four years.

There were notable improvements in vaccination coverage over the past four years. The percentage of children who received no vaccinations by 12 months of age has declined over the past four years, from 15 percent among children age 48-59 months to 7 percent among children age 12-23 months. The percentage fully immunized by age 12 months has increased from 41 to 55 percent for the same age groups. Vaccination cards were seen for 78 percent of children age 12-23 months, compared with only 56 percent of children age 48-59 months. This difference may be because vaccination cards for older children have been discarded or lost.

Eighty-eight percent of children age 12-59 months received a BCG vaccination, while 75 percent received the third dose of DPT or DPT-HepB-Hib. Sixty-seven percent of children received polio 3 and 66 percent received the measles vaccine. Overall, 49 percent of the children age 12-59 months received all basic vaccinations.

Table 10.4 Vaccinations in first year of life

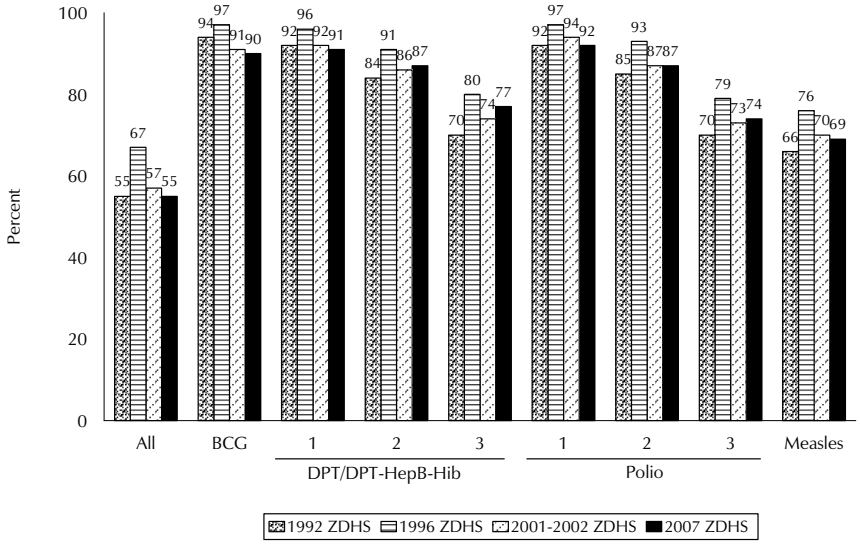
Percentage of children age 12-59 months at the time of the survey who received specific vaccines by 12 months of age, and percentage with a vaccination card seen by the interviewer, by current age of child, Zambia 2007

		DPT/DPT-HepB-Hib			Polio[1]						All basic vaccinations[2]	No vaccinations	Percentage with a vaccination card seen	Number of children
Age in months	BCG	1	2	3	0	1	2	3	4	Measles				
12-23	90.3	91.4	86.6	77.3	29.2	92.3	87.3	74.2	16.4	68.8	55.0	6.5	77.9	1,272
24-35	89.8	90.6	87.6	78.2	31.2	91.9	85.8	68.5	11.8	66.8	50.8	7.0	71.1	1,152
36-47	85.5	87.0	83.8	75.4	30.7	87.7	84.4	65.3	9.3	63.7	46.2	11.3	62.1	1,076
48-59	82.6	82.9	77.6	67.2	29.6	84.1	77.5	53.9	7.0	59.6	40.8	14.7	56.4	1,072
Total	87.5	88.4	84.5	75.3	30.2	89.5	84.4	66.6	11.6	65.5	49.1	9.4	67.4	4,573

Note: Information was obtained from the vaccination card or if there was no written record, from the mother. 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 vaccinations.
[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, three doses of DPT or DPT-HepB-Hib, and three doses of polio vaccine (excluding Polio 0 and Polio 4)

Figure 10.1 presents data from the 1992, 1996, 2001-2002, and 2007 ZDHS surveys showing trends in vaccination coverage during the first year of life for children age 12-23 months. The percentage of children age 12-23 months who were fully vaccinated by 12 months of age reached its highest level (67 percent) in 1996. Over the past 15 years, about half of children age 12-23 months were fully vaccinated by 12 months of age.

Figure 10.1 **Trends in Vaccination Coverage Among Children Age 12-23 Months**



10.3 ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI) is among the leading causes of childhood morbidity and mortality throughout the world. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by ARI. In the 2007 ZDHS, ARI prevalence was estimated by asking mothers whether their children under age five had been ill with a cough accompanied by short, rapid breathing in the two weeks preceding the survey. These symptoms are compatible with ARI. It should be noted that the morbidity data collected are subjective in the sense that they are based on the mother's perception of illness without validation by medical personnel.

Table 10.5 shows the prevalence of ARI symptoms among children under five years during the two-week period preceding the interview, and the actions mothers took in response to their children's illness. Overall, 5 percent of children had ARI symptoms in the two weeks preceding the survey, although the prevalence varies by age. Children age 6-11 months are most likely to show ARI symptoms (8 percent), compared with children in other age groups. The prevalence of cough and rapid breathing is higher among male children (6 percent) than female children (4 percent).

Among children with ARI symptoms, advice or treatment was sought from a health facility or a health provider for 68 percent. There are differences in the proportions of children with ARI symptoms taken to a health facility by age of child. Children age 12-23 months are more likely to be taken to a health facility (78 percent) than other children. Forty-seven percent of children received antibiotics. The proportion of children who received antibiotics is higher in urban areas (63 percent) than rural areas (39 percent).

Table 10.5 Prevalence and treatment of symptoms of ARI

Among children under age five, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and among children with symptoms of ARI, the percentage for whom advice or treatment was sought from a health facility or provider and percentage who received antibiotics as treatment, according to background characteristics, Zambia 2007

Background characteristic	Children under age five		Children under age five with symptoms of ARI		
	Percentage with symptoms of ARI[1]	Number of children	Percentage for whom advice or treatment was sought from a health facility or health provider[2]	Percentage who received antibiotics	Number of children
Age in months					
<6	5.0	641	(59.4)	(48.6)	32
6-11	8.2	647	(71.6)	(52.0)	53
12-23	5.2	1,272	78.2	56.0	66
24-35	5.8	1,152	73.1	41.0	67
36-47	4.0	1,076	(56.7)	(36.2)	44
48-59	3.9	1,072	(59.1)	(43.0)	42
Sex					
Male	6.0	2,886	67.9	42.6	173
Female	4.4	2,975	68.6	51.8	131
Mother's smoking status					
Smokes cigarettes/tobacco	0.0	93	na	na	0
Does not smoke	5.3	5,759	68.2	46.6	304
Cooking fuel					
Electricity or gas	5.7	645	(54.5)	(57.3)	37
Coal/lignite	*	11	*	*	2
Charcoal	5.6	1,385	69.8	49.4	77
Wood/straw[3]	4.9	3,819	70.0	42.9	189
Residence					
Urban	5.6	1,697	67.0	63.4	95
Rural	5.0	4,164	68.8	38.9	209
Province					
Central	5.7	584	(75.4)	(33.2)	33
Copperbelt	6.1	813	(64.3)	(51.8)	49
Eastern	4.0	916	(77.1)	(53.2)	36
Luapula	2.6	531	*	*	14
Lusaka	7.3	660	(66.7)	(51.6)	48
Northern	6.7	932	(59.0)	(33.0)	62
North-Western	6.0	374	(66.1)	(48.7)	23
Southern	4.9	629	(87.8)	(68.9)	31
Western	1.7	422	*	*	7
Mother's education					
No education	5.1	796	(65.9)	(44.6)	41
Primary	5.5	3,713	(66.6)	(45.7)	205
Secondary	4.3	1,217	76.7	49.5	53
More than secondary	3.7	136	*	*	5
Wealth quintile					
Lowest	4.6	1,398	77.9	37.1	64
Second	6.5	1,321	64.1	36.3	86
Middle	4.3	1,233	64.3	49.3	54
Fourth	4.8	1,100	78.4	59.0	53
Highest	6.0	808	(56.1)	(60.5)	49
Total	5.2	5,861	68.2	46.6	304

Note: Total includes 9 cases for which information on the mother's smoking status was missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na=Not applicable
[1] Symptoms of ARI (cough accompanied by short, rapid breathing which that is chest-related) is considered a proxy for pneumonia.
[2] Excludes pharmacy, shop, and traditional practitioner
[3] Includes grass, shrubs, crop residues

10.4 FEVER

Fever is a symptom of malaria, but it also frequently accompanies other childhood illnesses. Malaria and other illnesses that cause fever contribute to high levels of malnutrition, morbidity, and mortality. While fever can occur year-round, malaria is more prevalent after the end of the rainy season. For this reason, temporal factors must be taken into account when interpreting fever as an indicator of malaria prevalence. Because malaria is a major contributory cause of death in infancy and childhood in many developing countries, the presumptive treatment of fever with antimalarial medication is advocated in many countries where malaria is endemic. Information relating to the prevention and treatment of malaria is discussed in greater detail in Chapter 12.

Table 10.6 shows the percentage of children under five with fever during the two weeks preceding the survey and the percentage receiving various treatments, by background characteristics. Eighteen percent of children under five were reported to have had fever in the two weeks preceding the survey. The prevalence of fever varies by age of child. Children age 6-11 months and 12-23 months are more commonly sick with fever (26 and 23 percent, respectively) than other children. Slightly more children were reported to have fever in rural areas, compared with urban areas (19 and 16 percent, respectively).

There are regional variations in the prevalence of fever. In three provinces (Central, Copperbelt, and Northern) more than 20 percent of children had fever in the two weeks preceding the survey. Children of mothers with more than secondary education (10 percent) have the lowest prevalence of fever, compared with children of mothers with no education or mothers with other levels of education (17 to 19 percent). The proportion of children with fever is lowest among children in households that are in the highest wealth quintile (13 percent), compared with the other wealth quintiles (17 to 19 percent).

More than six in ten children (63 percent) with fever were taken to a health facility or health provider for treatment. Children living in Southern province (81 percent) are more likely to be to be treated in a health facility or by a health provider, compared with children in other provinces. Treatment-seeking behaviour is directly related to mother's level of education, but there is no clear pattern by wealth quintile. Thirty-eight percent of children with fever received antimalarial drugs, while 27 percent received antibiotics.

Table 10.6 Prevalence and treatment of fever

Among children under age five, the percentage who had a fever in the two weeks preceding the survey; and among children with fever, the percentage of children for whom treatment was sought from a health facility or provider, the percentage who took antimalarial drugs and the percentage who took antibiotic drugs, by background characteristics, Zambia 2007

Background characteristic	Children under age five		Children under age five with fever			
	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought from a health facility or health provider[1]	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children
Age in months						
<6	11.5	641	63.6	28.7	31.4	74
6-11	25.9	647	69.7	37.4	33.3	167
12-23	22.8	1,272	65.8	43.0	29.1	290
24-35	20.8	1,152	62.3	35.6	23.7	240
36-47	14.7	1,076	57.2	43.7	23.8	159
48-59	10.7	1,072	54.0	33.0	24.3	115
Sex						
Male	19.1	2,886	61.6	37.6	27.4	552
Female	16.6	2,975	64.2	39.2	27.3	492
Residence						
Urban	16.3	1,697	65.8	40.3	36.6	276
Rural	18.5	4,164	61.8	37.7	24.0	768
Province						
Central	26.0	584	60.6	29.8	32.3	152
Copperbelt	21.3	813	57.1	34.7	29.1	173
Eastern	14.4	916	73.1	49.5	28.8	132
Luapula	9.9	531	54.0	31.0	31.4	52
Lusaka	13.0	660	69.7	35.9	42.8	86
Northern	24.5	932	52.2	40.5	16.3	228
North-Western	15.0	374	66.9	38.1	23.0	56
Southern	15.0	629	80.9	40.8	34.1	94
Western	16.8	422	67.6	43.8	18.3	71
Mother's education						
No education	17.1	796	56.1	39.7	18.0	136
Primary	18.6	3,713	62.6	37.7	26.7	692
Secondary	16.7	1,217	67.9	38.5	33.8	203
More than secondary	10.3	136	69.6	*	*	14
Wealth quintile						
Lowest	17.2	1,398	60.7	35.3	22.5	240
Second	19.0	1,321	62.3	42.6	21.1	251
Middle	19.2	1,233	59.1	36.6	29.0	237
Fourth	19.2	1,100	69.6	38.3	31.7	212
Highest	13.0	808	63.9	39.6	41.2	105
Total	17.8	5,861	62.8	38.4	27.4	1,044

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Excludes pharmacy, shop, and traditional practitioner

Table 10.7 shows the percentage of children with fever who received specific antimalarial drugs, and the percentage for whom the drug was available at home when the child became ill. As mentioned above, 38 percent of children with fever received an antimalarial drug. Among children who took an antimalarial drug, 11 percent had the drug available at home when the child became ill with a fever. Almost one-quarter of children took SP/Fansidar (23 percent) and over one-tenth (11 percent) took Coartem.

Table 10.7 Availability at home of antimalarial drugs taken by children

Among children under age five with fever in the two weeks preceding the survey, the percentage who took specific antimalarial drugs and, among children who took specific drugs, the percentage for whom the drug was at home when the child became ill with fever, Zambia 2007

Drug	Percentage who took specific antimalarial drugs[1]	Percentage for whom drug was at home when child became ill with fever	Number of children who took a specific antimalarial drug
SP/Fansidar	23.3	10.3	243
Chloroquine	*	*	5
Amodiaquine	*	*	1
Quinine	(3.6)	(10.2)	38
Coartem	11.1	11.2	116
Arinate	*	*	1
Other antimalarial	*	*	2
Any antimalarial drugs	38.4	10.6	401

Notes: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] 1,034 children had fever in the two weeks preceding the survey.

10.5 PREVALENCE OF DIARRHOEA

Dehydration caused by severe diarrhoea is a major cause of morbidity and mortality among young children. A simple and effective response to dehydration is a prompt increase in fluid intake. Exposure to diarrhoea-causing agents is frequently related to the use of contaminated water and to unhygienic practices in food preparation and disposal of excreta. In interpreting the 2007 ZDHS findings, it should be borne in mind that diarrhoea prevalence is subject to seasonal variability.

The 2007 ZDHS obtained information on the prevalence of diarrhoea among young children by asking mothers whether their children under age five had diarrhoea during the two weeks preceding the interview. When a child is identified as having had diarrhoea, information is collected on treatment and feeding practices during the diarrhoeal episode. The mother is also asked whether there was blood in the child's stools. Diarrhoea with blood in the stools is indicative of cholera or other diseases that need to be treated differently from diarrhoea in which there is no blood in the stool. Mothers of children who were ill with any form of diarrhoea in the past two weeks were asked about what actions they had taken to treat the diarrhoea and about feeding practices during the diarrhoeal episode. Other information included the respondent's knowledge of oral rehydration salts (ORS) packets or pre-packaged liquids for treatment of diarrhoea (oral rehydration therapy), and disposal of children's stools.

Table 10.8 shows that 16 percent of the children under five had a diarrhoeal episode in the two weeks preceding the survey, and 2 percent had blood in their stools. The occurrence of diarrhoea varies by child's age. Young children age 6-23 months are more prone to diarrhoea than children in the other age groups. Contrary to what would be expected, diarrhoea is more prevalent among children whose households have an improved drinking water source: 18 percent compared with 14 percent in households using unimproved sources. The proportion of children with diarrhoea is slightly higher in urban areas than rural areas (17 and 15 percent, respectively). There are also variations in the prevalence of diarrhoea by province. Children living in Central province are more susceptible to episodes of diarrhoea (19 percent) than children living in the other regions, while children living in Luapula are less susceptible (10 percent). The lowest proportion of children with diarrhoea is in Luapula (10 percent). Mother's education and wealth do not show a pattern regarding the prevalence of diarrhoea.

Table 10.8 Prevalence of diarrhoea

Percentage of children under age five who had diarrhoea in the two weeks preceding the survey, by background characteristics, Zambia 2007

Background characteristic	Diarrhoea in the two weeks preceding the survey: All diarrhoea	Diarrhoea with blood	Number of children
Age in months			
<6	7.2	0.6	641
6-11	28.2	1.9	647
12-23	24.9	3.5	1,272
24-35	17.4	3.1	1,152
36-47	9.2	1.2	1,076
48-59	6.2	0.7	1,072
Sex			
Male	15.7	2.0	2,886
Female	15.3	2.0	2,975
Source of drinking water[1]			
Improved	17.8	1.5	2,122
Not improved	14.2	2.3	3,739
Toilet facility[2]			
Improved, not shared	14.6	1.9	1,052
Non-improved or shared	15.8	2.0	4,799
Residence			
Urban	17.2	1.2	1,697
Rural	14.9	2.3	4,164
Province			
Central	18.9	2.6	584
Copperbelt	18.3	0.8	813
Eastern	11.4	1.9	916
Luapula	10.4	0.9	531
Lusaka	14.6	0.7	660
Northern	18.0	4.3	932
North-Western	16.2	1.5	374
Southern	17.3	2.9	629
Western	13.8	1.3	422
Mother's education			
No education	14.3	2.7	796
Primary	15.4	2.2	3,713
Secondary	17.1	1.2	1,217
More than secondary	13.1	0.0	136
Wealth quintile			
Lowest	14.3	2.9	1,398
Second	16.6	2.2	1,321
Middle	13.6	1.9	1,233
Fourth	17.8	1.7	1,100
Highest	15.7	0.5	808
Total	15.5	2.0	5,861

Note: Total includes 10 cases for which information on type of toilet facility is missing.
[1] See Table 2.6 for definition of categories.
[2] See Table 2.9 for definition of categories.

10.6 DIARRHOEA TREATMENT

In the 2007 ZDHS, in the cases where mothers reported that their children had had diarrhoea in the past two weeks, the mothers were are asked what they did to treat the illness. Table 10.9 shows the percentage of children with diarrhoea who received specific treatments, by background characteristics. About six in ten children with diarrhoea were taken to a health care facility or provider where advice or treatment was sought. By age, the largest proportion of children receiving treatment or advice was children age 6-11 months (64 percent). Slightly more children with bloody diarrhoea received treatment or advice: 61 percent compared with 58 percent with non-bloody diarrhoea.

Table 10.9 Diarrhoea treatment

Among children under age five who had diarrhoea in the two weeks preceding the survey, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage given oral rehydration therapy (ORT), the percentage given increased fluids, the percentage given ORT or increased fluids, and the percentage who were given other treatments, by background characteristics, Zambia 2007

Background characteristic	Percentage of children with diarrhoea for whom advice or treatment was sought from a health facility or health provider[1]	Oral rehydration therapy (ORT)					Other treatments					
		ORS packets or pre-packaged liquid	Recommended home fluids (RHF)	Either ORS or RHF	Increased fluids	ORT or increased fluids	Antibiotic drugs	Anti-motility drugs	Intravenous solution	Home remedy/ other	No treatment	Number of children
Age in months												
<6	(51.9)	(40.2)	(11.4)	(40.2)	(22.3)	(53.5)	(20.4)	(0.0)	(0.0)	(27.8)	(29.6)	46
6-11	64.4	66.8	10.7	74.2	29.4	79.5	23.4	3.3	0.0	22.2	11.9	183
12-23	59.5	60.9	7.8	68.0	38.0	75.1	17.7	3.1	0.3	25.8	14.9	316
24-35	57.9	60.0	10.6	65.5	35.8	73.3	22.4	4.4	0.0	24.0	17.8	200
36-47	56.8	54.8	12.7	63.8	35.1	72.4	19.8	1.8	0.0	25.0	20.0	99
48-59	50.9	57.3	11.7	67.2	28.7	75.8	21.1	0.0	0.0	25.7	12.4	67
Sex												
Male	58.6	60.1	11.5	67.1	35.4	75.1	22.6	3.2	0.0	28.0	14.0	454
Female	59.0	59.7	8.5	66.6	32.6	73.5	18.4	2.6	0.2	21.4	18.0	456
Type of diarrhoea												
Non bloody	58.4	60.6	9.3	66.9	32.2	73.8	20.2	2.9	0.0	24.9	16.6	785
Bloody	61.3	55.9	15.0	66.8	46.5	79.0	23.7	3.1	0.0	24.7	11.6	117
Residence												
Urban	56.4	59.3	10.6	66.0	33.7	75.7	28.8	3.4	0.0	19.8	16.6	291
Rural	59.9	60.2	9.7	67.2	34.1	73.6	16.6	2.7	0.1	27.0	15.7	619
Province												
Central	59.3	57.6	9.1	62.5	52.6	71.4	21.7	1.1	0.0	30.3	15.7	111
Copperbelt	51.5	65.1	8.3	68.6	31.4	75.1	20.1	3.6	0.0	20.1	21.9	149
Eastern	74.9	74.2	7.8	78.0	31.3	81.6	24.2	6.3	0.0	18.9	11.3	104
Luapula	48.6	47.2	15.6	62.2	15.6	62.8	15.2	0.0	0.0	26.4	16.7	55
Lusaka	48.7	55.7	15.3	68.2	18.9	74.5	23.5	4.4	0.0	22.1	16.7	96
Northern	50.7	51.7	15.9	64.9	45.1	77.3	25.6	1.3	0.0	25.5	11.5	168
North-Western	66.6	63.9	8.5	68.6	34.5	75.6	15.0	3.3	0.0	23.2	12.8	61
Southern	71.4	62.3	2.7	64.4	39.5	74.9	18.1	4.4	0.0	34.4	12.5	109
Western	65.8	59.6	4.2	60.5	9.3	63.3	8.3	0.4	1.4	19.8	31.6	58
Mother's education												
No education	52.6	50.4	15.4	61.6	28.9	65.9	15.3	2.9	0.0	22.4	20.3	114
Primary	60.7	61.7	9.2	67.7	33.5	76.4	19.6	3.1	0.1	27.9	13.2	571
Secondary	58.1	61.7	8.9	69.1	38.4	74.5	24.6	2.6	0.0	17.0	19.7	209
More than secondary	*	*	*	*	*	*	*	*	*	*	*	18
Wealth quintile												
Lowest	61.2	61.1	8.0	67.3	30.6	71.2	17.4	3.9	0.4	32.4	18.1	200
Second	60.4	60.8	9.5	68.2	31.9	74.0	17.1	0.5	0.0	24.4	15.4	220
Middle	55.1	53.7	11.6	62.5	41.4	74.7	17.6	3.3	0.0	22.9	15.1	168
Fourth	58.5	62.6	9.0	67.6	36.3	74.5	25.3	4.0	0.0	18.0	17.0	196
Highest	57.6	60.5	13.4	67.9	29.5	78.6	27.7	3.3	0.0	25.6	13.7	127
Total	58.8	59.9	10.0	66.8	34.0	74.3	20.5	2.9	0.1	24.7	16.0	911

Note: ORT includes solution prepared from oral rehydration salt (ORS), pre-packaged ORS packet, and recommended home fluids (RHF). Total includes 7 cases for which type of diarrhoea is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Excludes pharmacy, shop, and traditional practitioner

Distribution of diarrhoea treatment by residence shows that treatment and advice are sought more often for children in rural areas (60 percent) than children in urban areas (56 percent). Seeking treatment for diarrhoea from a health provider is highest in Eastern province (75 percent) and lowest in Luapula and Lusaka provinces (49 percent each).

Table 10.9 includes information on oral rehydration therapy. Seventy-four percent of children with diarrhoea were treated with oral rehydration therapy (ORT) or increased fluids. Sixty percent were treated with ORS, a solution prepared from a packet of oral rehydration salts; 10 percent were given recommended home fluids, and 34 percent received increased fluids. Twenty-one percent of children were given antibiotic drugs and 25 percent received home remedies or other treatments. About one in six children with diarrhoea (16 percent) did not receive any treatment at all.

Children age 6-11 months (80 percent), children who had diarrhoea with blood (79 percent), and children living in Eastern province (82 percent) were most likely to receive some kind of ORT.

10.7 FEEDING PRACTICES

When a child has diarrhoea, mothers are encouraged to continue feeding their child the same amount of food as normal and to increase the child's fluid intake. These practices help to reduce dehydration and minimize the adverse consequences of diarrhoea on the child's nutritional status. In the 2007 ZDHS, mothers were asked whether they gave the child with diarrhoea less, the same amount, or more fluids and food than usual when their child had diarrhoea. Table 10.10 shows the percent distribution of children under five who had diarrhoea in the two weeks preceding the survey by feeding practices, according to background characteristics.

Table 10.10 Feeding practices during diarrhoea

Percent distribution of children under age five who had diarrhoea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhoea episode, and the percentage of children who continued feeding and were given ORT and/or increased fluids during the episode of diarrhoea, by background characteristics, Zambia 2007

	Amount of liquids offered							Amount of food offered										
Background characteristic	More	Same as usual	Some-what less	Much less	None	Don't know/ missing	Total	More	Same as usual	Some-what less	Much less	Stopped food	Never gave food	Don't know/ missing	Total	Percentage given increased fluids and continued feeding[1, 2]	Percentage who continued feeding and were given ORT and/or increased fluids[3]	Number of children with diarrhoea
Age in months																		
<6	(22.3)	(45.1)	(23.5)	(3.4)	(5.7)	(0.0)	100.0	(6.7)	(37.6)	(7.7)	(1.5)	(2.7)	(43.8)	(0.0)	100.0	(12.1)	(31.2)	46
6-11	29.4	31.6	23.5	12.6	2.9	0.0	100.0	11.7	31.0	24.9	22.3	9.0	0.7	0.4	100.0	17.9	53.7	183
12-23	38.0	30.5	21.5	7.6	1.7	0.8	100.0	15.3	35.5	26.5	13.0	7.3	1.5	1.0	100.0	27.5	57.7	316
24-35	35.8	37.1	18.1	8.7	0.1	0.1	100.0	13.1	40.4	25.6	16.3	3.3	0.4	0.9	100.0	26.6	56.8	200
36-47	35.1	42.3	13.4	8.9	0.0	0.3	100.0	14.4	44.8	27.1	12.5	0.9	0.0	0.3	100.0	30.1	60.5	99
48-59	28.7	40.0	23.3	4.8	0.0	3.2	100.0	13.5	42.0	25.3	15.9	0.0	0.0	3.2	100.0	23.7	63.8	67
Sex																		
Male	35.4	34.9	17.3	9.2	2.3	1.1	100.0	14.5	37.7	22.3	15.4	6.1	3.0	1.1	100.0	25.3	55.4	454
Female	32.6	34.9	23.7	8.0	0.7	0.1	100.0	12.4	36.9	27.7	14.9	4.5	2.9	0.7	100.0	23.9	56.8	456
Type of diarrhoea																		
Non bloody	32.2	37.0	20.2	8.6	1.6	0.5	100.0	12.8	38.1	24.4	15.6	5.1	3.1	0.8	100.0	22.8	55.2	785
Bloody	46.5	22.1	21.3	9.0	1.2	0.0	100.0	18.1	31.6	28.4	12.9	7.1	1.9	0.0	100.0	36.7	62.7	117
Residence																		
Urban	33.7	34.3	21.4	7.1	2.4	1.1	100.0	11.9	34.9	28.7	15.3	5.5	1.8	1.8	100.0	26.4	59.0	291
Rural	34.1	35.2	20.1	9.2	1.1	0.3	100.0	14.1	38.4	23.3	15.1	5.2	3.5	0.5	100.0	23.8	54.8	619
Province																		
Central	52.6	39.0	6.3	1.1	0.0	1.1	100.0	7.9	66.9	8.7	12.7	2.8	0.0	1.1	100.0	40.3	55.9	111
Copperbelt	31.4	34.3	27.8	5.3	1.2	0.0	100.0	8.9	31.4	38.5	14.2	4.7	2.4	0.0	100.0	25.4	59.8	149
Eastern	31.3	27.3	32.6	8.9	0.0	0.0	100.0	25.6	34.9	30.0	8.7	0.8	0.0	0.0	100.0	28.0	73.3	104
Luapula	15.6	44.4	23.6	14.6	0.0	1.7	100.0	0.7	43.8	39.2	12.9	0.0	1.7	1.7	100.0	13.9	53.4	55
Lusaka	18.9	46.7	17.3	10.7	4.8	1.6	100.0	12.9	45.1	16.9	18.7	1.6	1.6	3.2	100.0	17.3	59.0	96
Northern	45.1	30.0	12.6	10.0	1.8	0.4	100.0	25.1	29.5	16.2	18.7	4.6	5.0	0.8	100.0	31.5	57.2	168
North-Western	34.5	38.0	18.3	6.6	1.1	1.4	100.0	18.8	40.2	20.2	13.1	3.6	1.6	2.5	100.0	25.9	62.0	61
Southern	39.5	22.5	20.9	15.5	1.5	0.0	100.0	6.7	16.4	24.5	25.1	20.1	7.3	0.0	100.0	13.7	30.9	109
Western	9.3	47.5	33.8	6.1	3.3	0.0	100.0	0.0	39.5	44.1	3.3	7.0	6.1	0.0	100.0	7.9	52.0	58
Mother's education																		
No education	28.9	35.7	23.9	9.5	2.0	0.0	100.0	11.5	44.1	26.5	13.1	2.4	2.3	0.0	100.0	19.8	50.5	114
Primary	33.5	33.9	20.7	9.8	1.3	0.6	100.0	14.0	34.5	25.1	16.9	5.4	3.1	1.0	100.0	24.8	57.5	571
Secondary	38.4	37.6	16.0	5.4	1.8	0.8	100.0	13.0	41.0	23.0	11.6	7.1	3.2	1.1	100.0	26.7	56.4	209
More than secondary	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18
Wealth quintile																		
Lowest	30.6	37.1	22.8	8.3	1.2	0.0	100.0	20.2	32.8	23.0	14.7	4.0	5.4	0.0	100.0	21.8	53.2	200
Second	31.9	35.0	19.7	11.0	1.9	0.4	100.0	11.8	43.2	21.8	13.2	6.2	3.4	0.4	100.0	23.4	56.9	220
Middle	41.4	30.1	17.7	8.9	0.8	1.2	100.0	9.8	34.4	26.3	18.7	7.2	1.5	2.0	100.0	25.5	51.1	168
Fourth	36.3	34.0	18.1	9.2	1.3	1.1	100.0	11.7	36.6	26.1	17.3	4.9	1.5	1.9	100.0	27.8	56.7	196
Highest	29.5	38.9	25.7	3.5	2.4	0.0	100.0	13.0	38.9	30.3	11.1	4.1	2.6	0.0	100.0	25.1	65.2	127
Total	34.0	34.9	20.5	8.6	1.5	0.6	100.0	13.4	37.3	25.0	15.1	5.3	3.0	0.9	100.0	24.6	56.1	911

Note: Total includes 7 cases for which type of diarrhoea is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Equivalent to the UNICEF/WHO indicator "Home management of diarrhoea." MICS Indicator 34

[2] Continue feeding practices includes children who were given more, same as usual, or somewhat less food during the diarrhoea episode

[3] Equivalent to UNICEF MICS Indicator 35

Thirty-five percent of children with diarrhoea were given the same amount of liquids as usual, and 34 percent were given more. It is of concern that 21 percent of the children were given somewhat less than usual, and 9 percent were given much less to drink during the diarrhoea episode. Thirty-seven percent of children were given the same amount of food as usual, 25 percent were given less, 15 percent were given much less food, and 13 percent were given more food.

10.8 KNOWLEDGE OF ORS PACKETS

To ascertain respondent's knowledge of ORS in Zambia, women are asked whether they knew about ORS packets. Table 10.11 presents information on the percentage of mothers with a birth in the five years preceding the survey who had heard about ORS packets. Knowledge of ORS packets or pre-packaged liquids is very widespread among recent mothers. Overall, 95 percent of the women know about the packets. Knowledge is slightly higher in urban areas (96 percent), compared with rural areas (94 percent). Among the provinces, knowledge is highest among women in Lusaka (99 percent), Eastern and Southern provinces (98 percent each), and lowest in the Northern province (88 percent).

Table 10.11 Knowledge of ORS packets or pre-packaged liquids

Percentage of mothers age 15-49 who gave birth in the five years preceding the survey who know about ORS packets or ORS pre-packaged liquids for treatment of diarrhoea by background characteristics, Zambia 2007

Background characteristic	Percentage of women who know about ORS packets or ORS pre-packaged liquids	Number of women
Age		
15-19	90.1	342
20-24	93.6	1,031
25-34	95.6	1,913
35-49	95.2	849
Residence		
Urban	96.4	1,347
Rural	93.7	2,789
Province		
Central	92.0	405
Copperbelt	94.6	606
Eastern	98.2	629
Luapula	97.0	346
Lusaka	98.5	520
Northern	88.0	629
North-Western	90.8	243
Southern	98.1	446
Western	92.7	312
Education		
No education	92.0	538
Primary	94.3	2,523
Secondary	96.5	948
More than secondary	96.0	126
Wealth quintile		
Lowest	93.3	921
Second	93.1	864
Middle	93.7	837
Fourth	96.9	850
Highest	96.5	663
Total	94.6	4,136

ORS = Oral rehydration salts

10.9 STOOL DISPOSAL

If human faeces are left uncontained, disease may spread by direct contact or by animal contact with the faeces. Hence, the proper disposal of children's stools is extremely important in preventing the spread of disease. Table 10.12 show stool disposal for children under five by background characteristics. Seventy-four percent of children's stools are disposed of safely: 52 percent are disposed of in a toilet or latrine, 13 percent of children under five use a toilet or latrine, and 9 percent of children's stools are buried. Twenty percent of children's stools are left uncontained: 8 percent are put or rinsed into a drain or ditch, another 7 percent are thrown into the garbage, and 5 percent are left in the open.

Safe disposal generally increases with increasing age of the child. Safe disposal is higher in urban areas (92 percent), compared with rural areas (66 percent). Eastern province (47 percent) has the lowest proportion of safe disposal of children's stools, while Lusaka has the highest proportion (94 percent). The results also show that mother's education has a positive association with safe stool disposal. Safe stool disposal is lowest among mothers with no education (58 percent) and highest among mothers with more than a secondary education (97 percent). Safe stool disposal is also associated with increasing wealth quintile.

Table 10.12 Disposal of children's stools

Percent distribution of youngest children under age five living with the mother by the manner of disposal of the child's last faecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Zambia 2007

Background characteristic	Manner of disposal of children's stools								Total	Percentage of children whose stools are disposed of safely	Number of mothers
	Child used toilet or latrine	Put/ rinsed into toilet or latrine	Buried	Put/ rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Missing			
Age in months											
<6	2.4	45.4	3.0	18.5	13.9	2.4	14.1	0.3	100.0	50.8	632
6-11	0.7	62.5	7.5	9.3	9.2	1.9	8.8	0.0	100.0	70.7	637
12-23	4.0	60.4	12.3	6.9	6.5	4.8	4.7	0.4	100.0	76.7	1,203
24-35	20.1	52.7	11.0	2.9	4.1	7.0	1.6	0.6	100.0	83.8	757
36-47	41.0	36.4	8.3	2.4	2.9	7.1	2.1	0.0	100.0	85.6	385
48-59	53.3	26.2	4.8	1.1	1.8	8.9	3.7	0.3	100.0	84.3	254
Toilet facility											
Improved, not shared[1]	23.3	63.0	1.5	5.9	2.0	1.0	3.0	0.3	100.0	87.9	732
Non-improved or shared	10.9	49.5	10.6	8.0	8.2	5.7	6.7	0.3	100.0	71.0	3,130
Residence											
Urban	19.8	70.7	1.2	4.9	1.5	0.1	1.3	0.4	100.0	91.8	1,208
Rural	10.3	43.7	12.3	8.8	9.5	7.0	8.1	0.2	100.0	66.3	2,661
Province											
Central	13.8	43.5	16.1	12.9	9.0	2.7	1.5	0.5	100.0	73.4	385
Copperbelt	19.0	66.5	2.3	5.9	3.0	0.3	2.3	0.6	100.0	87.8	566
Eastern	7.0	29.3	10.8	5.5	15.4	16.3	15.5	0.2	100.0	47.1	598
Luapula	4.6	83.8	1.8	3.8	2.5	0.0	3.6	0.0	100.0	90.2	326
Lusaka	19.0	72.4	2.5	2.5	2.0	1.1	0.5	0.0	100.0	93.9	464
Northern	17.7	57.7	2.9	15.2	2.7	0.0	3.8	0.0	100.0	78.3	596
North-Western	21.0	52.3	4.6	7.1	3.1	0.6	10.8	0.4	100.0	77.9	231
Southern	7.7	36.1	8.5	9.4	10.1	16.0	11.5	0.7	100.0	52.4	416
Western	7.5	25.8	42.2	2.7	15.8	2.0	3.7	0.3	100.0	75.5	288
Education											
No education	9.5	36.3	12.4	8.0	14.2	10.0	9.4	0.2	100.0	58.2	514
Primary	11.4	51.7	9.5	8.6	7.0	4.9	6.6	0.3	100.0	72.6	2,385
Secondary	18.5	61.3	5.8	5.2	3.5	2.4	2.9	0.4	100.0	85.6	867
More than secondary	31.9	64.5	0.9	1.6	0.7	0.0	0.4	0.0	100.0	97.3	103
Wealth quintile											
Lowest	6.9	32.0	16.8	8.1	14.2	10.4	11.1	0.4	100.0	55.7	881
Second	10.9	42.2	13.4	10.9	8.5	5.1	8.9	0.0	100.0	66.5	839
Middle	11.0	55.5	7.7	8.6	6.2	6.1	4.9	0.0	100.0	74.2	788
Fourth	16.4	69.4	2.3	5.6	2.8	0.8	2.0	0.6	100.0	88.1	766
Highest	24.9	69.4	0.5	3.2	0.6	0.0	0.8	0.4	100.0	94.9	594
Total	13.3	52.1	8.8	7.6	7.0	4.9	6.0	0.3	100.0	74.3	3,869

Total includes 7 cases for which toilet facility is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Non-shared facilities that are of the types: flush or pour flush into a piped sewer system/septic tank/pit latrine; ventilated, improved pit (VIP) latrine; pit latrine with a slab; and a composting toilet.

NUTRITION OF CHILDREN AND ADULTS 11

Lubinda Mukata

This chapter assesses the current nutritional status of young children in Zambia. It presents information on a number of aspects of feeding practices that are important in ensuring adequate nutrition for infants and young children, including early initiation of breastfeeding, exclusive breastfeeding during the first six months of life, continued breastfeeding for up to two years of age and beyond, timely introduction of complementary feeding at six months of age, frequency of feeding solid/semi-solid foods, and diet diversity. The chapter also provides a summary indicator describing the quality of infant and young child (age 6-23 months) feeding practices (IYCF). In addition, the chapter describes the current nutritional status of women in the reproductive ages. It presents data relating to the diversity of food groups consumed by mothers who gave birth in the last three years, providing important information on maternal eating patterns. The chapter also considers consumption of vitamin A-rich and iron-rich foods, and micronutrient supplementation for iron and vitamin A. The section also covers anthropometric assessment of the nutritional status of children under five years and women age 15-49.

11.1 NUTRITIONAL STATUS OF CHILDREN

Anthropometric data on height and weight collected in the 2007 ZDHS permit the measurement and evaluation of the nutritional status of young children in Zambia. This evaluation allows identification of subgroups of the child population that are at increased risk of faltered growth, disease, impaired mental development, and death.

11.1.1 Measurement of Nutritional Status among Young Children

The 2007 ZDHS collected data on the nutritional status of children by measuring the height and weight of all children under age six, regardless of whether their mother was interviewed in the survey. Data were collected with the aim of calculating three indices—namely, height-for-age, weight-for-height, and weight-for-age. Weight measurements were obtained using lightweight, bathroom-type scales with a digital screen designed and manufactured under the guidance of UNICEF. Height measurements were carried out using a measuring board produced by Shorr Productions. Children younger than 24 months were measured lying down on the board (recumbent length) , while standing height was measured for older children.

For the 2007 ZDHS, the nutritional status of children is calculated using new growth standards published by WHO in 2006. These new growth standards were generated using data collected in the WHO Multicentre Growth Reference Study (WHO, 2006). The study, whose sample included 8,440 children in six countries, was designed to provide a description of how children should grow under optimal conditions. The WHO Child Growth Standards can therefore be used to assess children all over the world, regardless of ethnicity, social and economic influences, and feeding practices. Each of the three nutritional status indicators described below is expressed in standard deviation units from the median of the Multicentre Growth Reference Study sample.

Each of these indices—height-for-age, weight-for-height, and weight-for-age—provides different information about growth and body composition, which is used to assess nutritional status. The height-for-age index is an indicator of linear growth retardation and cumulative growth deficits. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) are considered short for their age (stunted) and are chronically malnourished. Children who are below minus three standard deviations (-3 SD) are considered severely stunted. Stunting reflects failure to receive adequate nutrition over a long period and is also affected by recurrent and chronic illness. Height-for-

age, therefore, represents the long-term effects of malnutrition in a population and is not sensitive to recent, short-term changes in dietary intake.

The weight-for-height index measures body mass in relation to body height or length and describes current nutritional status. Children whose Z-scores are below minus two standard deviations (-2 SD) are considered thin (wasted) and are acutely malnourished. Wasting represents the failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of inadequate food intake or a recent episode of illness causing loss of weight and the onset of malnutrition. Children whose weight-for-height is below minus three standard deviations (-3 SD) are considered severely wasted.

Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both acute and chronic malnutrition. Children whose weight-for-age is below minus two standard deviations (-2 SD) from the median of the reference population are classified as underweight. Children whose weight-for-age is below minus three standard deviations (-3 SD) from the median of the reference population are considered severely underweight.

11.1.2 Results of Data Collection

Although data were collected for all children under age six, the analysis is limited to children under age five. Height and weight measurements were obtained for 93 percent of the 6,453 children under age five who were present in ZDHS households at the time of the survey. The following analysis focuses on the children for whom complete and plausible anthropometric and age data were collected. Table 11.1 and Figure 11.1 show the percentage of children under five years classified as malnourished according to the three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age.

Height-for-age

The table indicates that 45 percent of children under five are stunted and 21 percent are severely stunted. Stunting is apparent even among children less than 6 months of age (18 percent). As shown in Figure 11.1, stunting increases with the age of the child through the first two years of life before declining steadily in the third and fourth year. The increase is especially rapid during the first two years of life, as evidenced in the rise from 26 percent among children age 6-8 months to 59 percent among children age 18-23 months. Male children (48 percent) are more likely to be stunted than female children (42 percent).

Size at birth is an important indicator of the nutritional status of children. Children who were reported to be of average size or larger at birth are less likely to be stunted than children who were reported to be small or very small at birth. The data shows that 44 percent of children who are average or larger at birth are stunted compared with 63 percent of children who are very small at birth. Stunting is slightly higher among children who are less than 24 months apart than among first born children or those with a larger birth interval. More rural children are stunted (48 percent) than urban children (39 percent). Provincial variation in nutritional status of children is substantial, with stunting being highest in Luapula province (56 percent) and lowest in Western and Southern provinces (36 percent each).

Education and wealth are both inversely related to stunting levels. Stunting decreases with increasing levels of mother's education. For example, data show that children born to mothers with primary level education are more likely to be stunted (49 percent) than children born to mothers with more than secondary education (21 percent).

Weight-for-height

Five percent of children under five are wasted. Wasting varies greatly by age and peaks among children age 9-11 months (12 percent). Boys are slightly more likely to be wasted than girls (6 percent compared with 5 percent). Children reported to be very small at birth are more likely to be wasted (9 percent) than those reported to be of average size or larger (5 percent). Wasting among children born to thin mothers (BMI <18.5) is higher than for children born to normal mothers (BMI 18.5-24.9) and overweight/obese mothers (BMI ≥25). There is slight difference in wasting between urban (4 percent) and rural children (6 percent). At the provincial level, Western, North-Western, Northern, Luapula, and Central provinces reported wasting levels that are above the national average (5 percent). Education is inversely related to wasting. For example, children whose mothers have never attended school have the highest levels of wasting (7 percent), while children whose mothers have secondary and tertiary education have the lowest levels of wasting (5 percent). Children born to mothers in highest wealth quintile are also less likely to be wasted (4 percent) than those in the lowest wealth quintile (6 percent). It must be noted that 8 percent of children in Zambia are overweight, with the Z-scores above two standard deviations (+2 SD).

Weight-for-age

The prevalence of underweight children nationally is 15 percent, and the prevalence of severely underweight children is 3 percent. Table 11.1 shows that the percentage of children underweight doubles from 7 percent among children under age 6 months to 15 percent among children age 9-11 months. This may be explained by the fact that weaning foods are typically introduced to children in the latter group, thus increasing exposure to infections. This, coupled with inappropriate and/or inadequate feeding practices may be contributing to faltering nutritional status among children in these age groups. As with the other two nutritional indicators, male children are more likely to be underweight (17 percent) than female children (13 percent), and smaller size at birth is associated with lower weight-for-age. Children born to thin or underweight mothers (BMI <18.5) are more likely to be underweight than those born to normal mothers with a BMI 18.5-24.9 (23 percent versus 15 percent). The proportion of underweight children is higher in rural areas than in urban areas. At the provincial level, children in Lusaka are the least likely (10 percent) to be underweight, while children in the North-Western province are the most likely (20 percent). The proportion of underweight children decreases with increases in mother's level of education. Similarly, undernutrition is higher among children in the lowest three wealth quintiles than the highest two.

The nutritional status of children in the 2007 ZDHS according to the NCHS/CDC/WHO reference population, which was used in previous ZDHS reports, is shown in Appendix Table D.1.

Table 11.1 Nutritional status of children

Percentage of children under-five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Zambia 2007

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	
Age in months												
<6	8.7	18.0	-0.4	4.4	7.7	17.2	0.5	1.6	6.6	3.5	-0.1	488
6-8	11.2	26.0	-0.8	2.4	7.9	15.7	0.2	3.0	9.9	2.4	-0.4	290
9-11	15.4	32.6	-1.0	4.8	11.8	9.4	-0.1	3.5	14.5	1.4	-0.7	306
12-17	19.2	42.8	-1.6	2.3	7.9	7.0	-0.1	2.8	15.3	0.9	-0.9	590
18-23	33.0	58.9	-2.2	0.8	4.5	6.6	0.1	4.1	18.3	1.7	-1.0	619
24-35	25.5	53.2	-2.0	2.0	4.7	6.2	0.3	3.4	16.3	0.9	-0.9	1,121
36-47	21.1	50.9	-1.9	1.2	2.3	6.4	0.3	2.0	14.4	0.2	-0.9	1,098
48-59	20.0	46.5	-1.9	1.3	3.9	5.6	0.2	3.1	15.3	0.1	-1.1	1,090
Sex												
Male	23.6	48.4	-1.8	1.9	5.6	7.8	0.2	3.2	16.7	0.9	-0.9	2,765
Female	18.4	42.4	-1.6	2.1	4.8	8.0	0.2	2.6	12.6	1.1	-0.8	2,836
Birth interval in months[2]												
First birth[3]	20.2	44.8	-1.7	2.0	5.4	7.5	0.2	2.5	12.8	0.7	-0.8	944
<24	26.3	49.7	-2.0	1.8	4.6	9.5	0.3	4.6	16.4	0.4	-0.9	600
24-47	21.2	45.0	-1.7	2.1	5.8	8.0	0.2	2.9	14.1	0.9	-0.8	2,690
48+	18.9	44.3	-1.5	2.1	4.6	8.6	0.2	2.2	15.1	2.1	-0.7	905
Size at birth												
Very small	43.6	63.2	-2.4	4.4	9.2	5.5	-0.3	11.8	35.2	0.0	-1.5	73
Small	26.8	51.4	-1.9	2.4	6.7	7.1	-0.0	4.1	21.5	0.8	-1.1	471
Average or larger	20.2	44.4	-1.7	2.0	5.2	8.3	0.2	2.6	13.2	1.1	-0.8	4,535
Mother's interview status												
Interviewed	21.2	45.4	-1.7	2.1	5.4	8.2	0.2	2.9	14.3	1.0	-0.8	5,140
Not interviewed but in household	18.6	45.9	-1.8	1.4	5.8	2.5	-0.1	4.9	19.3	0.0	-1.1	129
Not interviewed, and not in the household[4]	18.0	45.2	-1.7	1.4	2.4	5.5	0.3	1.7	17.7	1.1	-0.8	333
Mother's nutritional status[5]												
Thin (BMI <8.5)	31.1	52.9	-2.0	2.0	8.5	5.3	-0.1	5.6	22.6	0.7	-1.2	399
Normal (BMI 18.5-24.9)	21.1	45.7	-1.7	2.2	5.5	8.3	0.2	2.9	14.6	0.9	-0.8	3,910
Overweight/obese (BMI ≥25)	17.0	40.0	-1.4	1.2	3.5	8.6	0.4	1.2	8.7	2.0	-0.5	872
Missing	19.9	50.0	-1.8	1.8	5.8	2.5	-0.1	8.1	22.9	0.0	-1.1	80
Residence												
Urban	16.6	39.0	-1.5	1.6	4.4	6.7	0.2	2.5	12.8	1.4	-0.7	1,598
Rural	22.7	47.9	-1.8	2.1	5.5	8.4	0.2	3.0	15.3	0.9	-0.9	4,004
Province												
Central	25.0	52.7	-1.8	2.8	5.9	10.0	0.3	2.4	15.2	1.0	-0.8	546
Copperbelt	20.1	43.8	-1.7	0.6	2.3	5.7	0.2	1.8	14.9	0.8	-0.8	760
Eastern	23.9	49.5	-1.9	1.0	3.6	11.7	0.5	2.1	12.7	1.0	-0.7	853
Luapula	32.0	56.3	-2.1	3.1	5.4	15.8	0.4	3.1	17.7	1.2	-0.9	492
Lusaka	14.7	37.2	-1.4	1.2	4.4	6.9	0.3	2.6	9.7	1.5	-0.6	625
Northern	21.9	49.3	-1.7	2.2	6.0	5.5	0.0	4.2	17.3	1.3	-1.0	920
North-Western	21.1	43.6	-1.7	2.5	7.6	4.0	-0.1	5.3	19.6	0.6	-1.0	369
Southern	15.1	36.2	-1.6	1.3	4.8	5.4	0.1	2.9	12.8	0.8	-0.8	615
Western	13.9	36.3	-1.3	5.4	10.6	5.9	-0.1	1.9	13.0	0.7	-0.8	421
Mother's education[6]												
No education	20.8	44.6	-1.6	2.9	6.7	7.0	0.1	4.5	17.3	1.3	-0.9	724
Primary	23.7	48.6	-1.8	2.0	5.2	8.7	0.2	3.1	15.4	0.9	-0.9	3,353
Secondary	15.4	38.6	-1.4	1.6	4.9	7.2	0.2	1.7	10.3	0.8	-0.7	1,067
More than secondary	3.8	21.0	-0.9	0.6	4.9	4.3	0.3	0.0	5.9	3.0	-0.3	123
Wealth quintile												
Lowest	21.9	48.0	-1.8	2.7	6.4	9.6	0.2	2.4	15.7	0.6	-0.9	1,340
Second	25.2	50.9	-1.9	2.2	5.5	7.3	0.1	3.6	15.5	0.7	-1.0	1,266
Middle	23.1	47.4	-1.8	1.7	4.9	9.1	0.2	3.3	16.1	1.5	-0.9	1,204
Fourth	17.2	42.1	-1.6	1.9	4.4	6.1	0.2	3.4	13.2	0.9	-0.8	1,009
Highest	14.0	33.2	-1.2	1.1	4.0	6.3	0.2	1.2	10.7	1.7	-0.5	783
Total	21.0	45.4	-1.7	2.0	5.2	7.9	0.2	2.9	14.6	1.0	-0.8	5,602

Notes: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used NCHS/CDC/WHO standards. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. Total includes 60 cases with information missing on size at birth, 1 case with information missing on mother's interview status and 2 cases with information missing on mother's education.

[1] Includes children who are below -3 standard deviations (SD) from the International Reference Population median

[2] Excludes children whose mothers were not interviewed

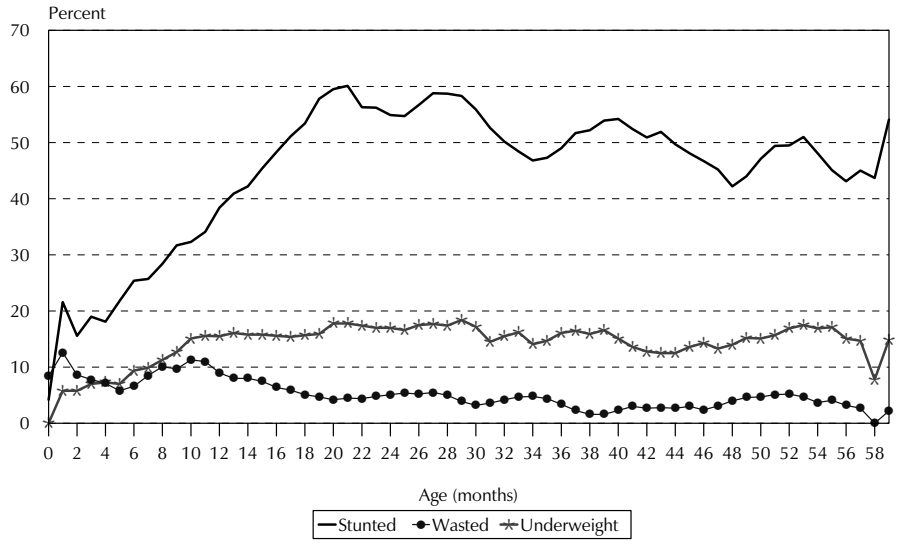
[3] First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval

[4] Includes children whose mothers are deceased

[5] Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10

[6] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire

Figure 11.1 Nutritional Status of Children by Age



Note: *Stunting* reflects chronic malnutrition; *wasting* reflects acute malnutrition; *underweight* reflects chronic or acute malnutrition or a combination of both. Plotted values are smoothed by a five-month moving average.

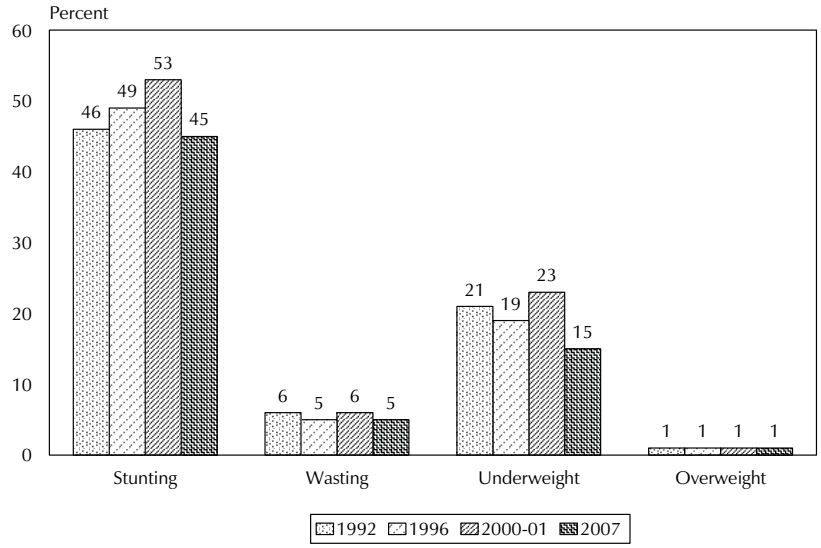
ZDHS 2007

11.1.3 Trends in Malnutrition

Figure 11.2 presents trends in the nutritional status of children in Zambia using anthropometric data from ZDHS surveys undertaken between 1992 and 2007. For this purpose, the anthropometric measures for earlier surveys were recalculated using new WHO growth standards. The results are also limited to the population of children living with their mothers because the earlier DHS surveys did not collect anthropometric measures for all children under age five.

There was no consistent trend in the nutritional indices for children under age five over the past three ZHDS surveys (1992, 1996, and 2000-01). Wasting and overweight remained at roughly the same levels throughout. However, the results of the 2007 ZDHS show notable improvement in nutritional status of children as measured by both the height-for-age and weight-for-age indices from the 2001-2002 and 2007 ZDHS surveys.

Figure 11.2 Trends in Nutritional Status of children under Five Years



11.2 INITIATION OF BREASTFEEDING

Early initiation of breastfeeding is encouraged for a number of reasons. Mothers benefit from early suckling because it stimulates breast milk production and facilitates the release of oxytocin, which helps the contraction of the uterus and reduces postpartum blood loss. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from diseases. Early initiation of breastfeeding also fosters bonding between mother and child.

Table 11.2 shows the percentage of all children born in the five years before the survey by breastfeeding status and the timing of initial breastfeeding, by background characteristics. It also considers the prevalence of the practice of prelacteal feeding, i.e., the giving of other liquids to a child during the period after birth before the mother's milk is flowing freely. This practice is discouraged because it limits the frequency of suckling by the infant and exposes the baby to the risk of infection.

According to the results, nearly all (98 percent) of children born in the five years preceding the survey were breastfed; this occurred regardless of background characteristic. More than half (57 percent) of infants were put to the breast within one hour of birth and 93 percent started breastfeeding within the first day. These proportions are higher than the 2001-2002 levels, when 51 percent of children were breastfed within the first hour and 90 percent of children were breastfed within one day of birth.

Although breastfeeding is widely practiced across all subgroups of women, the timing of initial breastfeeding varies by background characteristics. The results show that the proportion of children breastfed within one hour of delivery is slightly higher in urban areas (59 percent) than in rural areas (56 percent). With respect to provinces, Southern province has the highest proportion (66 percent) of children breastfed within one hour of birth, while the North-Western province has the lowest proportion (43 percent). Children born to mothers with secondary or higher education are more likely to be breastfed within one hour of birth than those born to mothers with no education or with primary education.

Assistance at delivery and place of delivery seem to be associated with the timing of initial breastfeeding. Children born to mothers who were assisted by someone during delivery are more likely to be breastfed within one hour of birth than those who were not assisted. Children whose mothers were assisted at birth by a health professional are most likely to be breastfed within one hour of birth (59 percent), while children whose mothers were not assisted by anyone are the least likely (50 percent). The proportion of children breastfed within one hour of birth is somewhat higher for children born at a health facility (59 percent) than for those born at home (54 percent).

Prelacteal feeding is not widely practiced in Zambia. Among children born in the five years preceding the survey, only 9 percent of last-born children received a prelacteal feed. There are no marked differences in the proportions of children who received a prelacteal feed by sex of the child, residence, assistance at delivery, and place of delivery. Prelacteal feeding is most widely practiced in North-Western (22 percent) and Western provinces (16 percent). Children whose mothers have more than secondary education are more likely to receive prelacteal feeds than children whose mothers have less or no education; likewise, children born to mothers in the highest wealth quintile are more likely to receive a prelacteal feed than children in the lowest wealth quintile.

Table 11.2 Initial breastfeeding

Among children born in the five years preceding the survey, percentage who were ever breastfed, and for last-born children, the percentage who started breastfeeding within one hour and within one day of birth and the percentage who received a prelacteal feed, by background characteristics, Zambia 2007

Background characteristic	Breastfeeding among children born in past five years		Among last-born children ever breastfed:			
	Percentage ever breastfed	Number of children born in past five years	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Percentage who received a prelacteal feed[2]	Number of last-born children ever breastfed
Sex						
Male	97.4	3,204	55.9	92.7	8.7	2,027
Female	97.8	3,231	57.0	93.5	8.8	2,028
Residence						
Urban	97.0	1,883	58.7	94.1	9.2	1,310
Rural	97.8	4,553	55.5	92.6	8.6	2,745
Province						
Central	98.4	632	56.2	94.4	6.5	401
Copperbelt	97.3	880	49.0	92.4	11.3	591
Eastern	98.3	1,022	64.7	94.4	6.6	620
Luapula	98.5	577	62.7	92.5	4.2	342
Lusaka	96.2	736	59.8	94.7	8.4	502
Northern	97.8	1,042	52.1	95.1	7.9	619
North-Western	98.3	402	42.6	88.1	22.2	241
Southern	97.6	683	66.1	97.0	3.0	434
Western	95.6	461	48.4	82.1	16.2	307
Mother's education						
No education	97.4	870	57.0	92.1	10.4	531
Primary	97.8	4,089	55.3	93.3	8.2	2,487
Secondary	97.5	1,320	59.0	93.4	8.7	920
More than secondary	93.0	157	59.9	91.1	13.9	119
Assistance at delivery						
Health professional	96.7	2,990	59.0	93.6	8.9	1,970
Traditional birth attendant	98.6	1,501	55.1	93.3	7.7	930
Other	98.0	1,621	54.2	91.9	9.4	951
No one	98.6	303	49.8	92.8	9.3	203
Place of delivery						
Health facility	96.8	3,069	59.2	94.0	9.0	2,030
At home	98.3	3,325	54.0	92.3	8.6	2,006
Other	*	23	*	*	*	16
Wealth quintile						
Lowest	98.6	1,524	55.9	92.2	8.9	914
Second	97.5	1,445	55.5	92.9	9.1	851
Middle	97.7	1,351	56.6	93.4	7.7	821
Fourth	97.5	1,227	57.5	94.8	6.5	832
Highest	96.1	889	57.1	91.9	12.5	637
Total	97.6	6,435	56.5	93.1	8.8	4,056

Note: Table is based on births in the past five years, whether the children are living or dead at the time of interview. Total for children born in the past five years includes 21 cases with information missing on assistance at delivery and 18 cases with information missing on place of delivery. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Includes children who started breastfeeding within one hour of birth

[2] Children given something other than breast milk during the first three days of life

[3] Doctor, nurse/midwife, or auxiliary midwife

11.3 BREASTFEEDING STATUS BY AGE

UNICEF and WHO recommend that children be exclusively breastfed during the first six months of life and that children be given solid or semi-solid complementary food in addition to continued breastfeeding from 6 months until age 24 months (or more) when the child is fully weaned. Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all the nutrients necessary for children in the first few months of life. In addition, the mother's antibodies in

breast milk provide immunity to disease. Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and increases their risk of infection. Second, it decreases infants' intake of breast milk and therefore suckling, which reduces breast milk production. Third, in low-resource settings, supplementary food is often nutritionally inferior.

Table 11.3 shows the percent distribution of youngest children under three years of age living with the mother by breastfeeding status and percentage of all children under three years who use a bottle with a nipple, according to age in months. The survey results indicate that exclusive breast-feeding for the first six months is widely practiced in Zambia. Only about six in ten (61 percent) infants below six months of age are exclusively breastfed. Among children under six months, younger children are more likely to be exclusively breastfed. Eighty-six percent of infants below two months are exclusively breastfed, compared with 35 percent of infants age 4-5 months.

The results show that there has been substantial improvement in compliance with the WHO/UNICEF recommendations. This is evidenced by the increase in the proportion of children under the age of six months that are exclusively breastfed from 40 percent in the 2001-2002 ZDHS to 61 percent in the 2007 ZDHS.

Regulations regarding breast milk substitutes in Zambia discourage the use of bottles with nipples. The use of a bottle with a nipple, regardless of the contents (breast milk, formula, or any other liquid), requires hygienic handling to avoid contamination that may cause infection in the infant. Table 11.3 shows that only 3 percent of infants age 0-5 months are fed with a bottle with a nipple.

Table 11.3 Breastfeeding status by age

Percent distribution of youngest children under three years who are living with their mother by breastfeeding status and the percentage currently breastfeeding; and the percentage of all children under three years using a bottle with a nipple, according to age in months, Zambia 2007

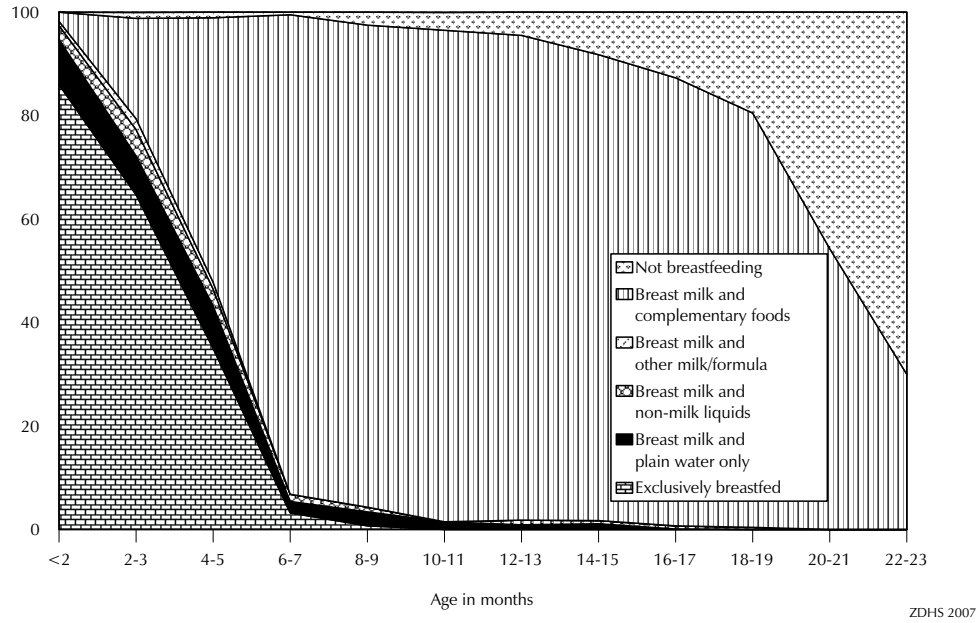
	Percent distribution of youngest children under three living with their mother by breastfeeding status										
		Breastfeeding and consuming									
Age in months	Not breast-feeding	Exclusively breastfed	Plain water only	Non-milk liquids/ juice	Other milk	Comple-mentary foods	Total	Percentage currently breast-feeding	Number of youngest child under three years	Percentage using a bottle with a nipple[1]	Number of children
0-1	0.0	86.0	8.7	2.7	0.8	1.8	100.0	100.0	201	2.5	203
2-3	1.1	64.7	7.5	5.1	2.1	19.4	100.0	98.9	206	2.5	210
4-5	1.1	35.0	8.2	3.3	1.3	51.1	100.0	98.9	226	5.0	228
6-8	0.5	2.6	1.6	1.6	0.0	93.7	100.0	99.5	315	2.9	319
9-11	3.8	0.0	2.7	0.0	0.0	93.5	100.0	96.2	322	3.4	329
12-17	8.2	0.0	0.8	0.7	0.0	90.3	100.0	91.8	610	3.3	628
18-23	45.3	0.0	0.0	0.1	0.0	54.5	100.0	54.7	593	2.4	644
24-35	90.8	0.0	0.0	0.0	0.0	9.2	100.0	9.2	757	1.6	1,152
0-3	0.6	75.3	8.1	3.9	1.4	10.7	100.0	99.4	406	2.5	412
0-5	0.8	60.9	8.1	3.7	1.4	25.2	100.0	99.2	632	3.4	641
6-9	1.6	1.9	2.5	1.2	0.0	92.9	100.0	98.4	435	2.5	442
12-15	6.2	0.0	1.0	0.8	0.0	92.0	100.0	93.8	422	3.2	433
12-23	26.5	0.0	0.4	0.4	0.0	72.7	100.0	73.5	1,203	2.9	1,272
20-23	58.3	0.0	0.0	0.0	0.0	41.7	100.0	41.7	395	3.0	438

Note: Breastfeeding status refers to a 24-hour period (yesterday and the past night). Children who are classified as *breastfeeding and consuming plain water only* consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus, children who receive breast milk and non-milk liquids and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

[1] Based on all children under three years

Figure 11.3 shows the shift in infant feeding practices by child's age. Nineteen percent of children age 2-3 months compared with 51 percent of children age 4-5 months are given complementary foods (semi-solid and solids) in addition to breast milk.

Figure 11.3 Infant Feeding Practices by Age



11.4 Duration and Frequency of Breastfeeding

Table 11.4 shows the median duration of breastfeeding by selected background characteristics. The estimates of median and mean durations of breastfeeding are based on current status data, that is, the proportion of children in the three years preceding the survey who were being breastfed at the time of the survey. Table 11.4 shows that the median duration of any breastfeeding in Zambia is 20.3 months (the mean duration is 19.9). The median duration does not vary much by sex of the child. Rural children are breastfed for a longer duration (about 21 months) than urban children (about 19 months). Children in households in the highest wealth quintile are breastfed for the shortest duration (about 18 months) while other children are breastfed for 20-21 months. The median duration of exclusive breastfeeding at the national level is about 3 months.

Table 11.4 also shows the median duration of predominant breastfeeding, which is defined as exclusive breastfeeding or breastfeeding in combination with plain water, water-based liquids, or juices. The median length of predominant breastfeeding in Zambia is 4 months. There is little variation by background characteristics.

It is important for an infant to breastfeed frequently as this improves milk production. Almost all breastfeeding children less than six months of age (96 percent) were breastfed at least six times during the 24 hours preceding the survey, which meets the WHO/UNICEF recommendations for optimal breastfeeding. The mean number of day-time feeds is 7, while the mean number of night-time feeds is about 5. These results are comparable to those of the 2001-2002 ZDHS.

Table 11.4 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, percentage of breastfeeding children under six months living with the mother who were breastfed six or more times in the 24 hours preceding the survey, and mean number of feeds (day/night), by background characteristics, Zambia 2007

Background characteristic	Median duration (months) of breastfeeding among children born in the past three years[1]			Frequency of breastfeeding among children under six months of age[2]			
	Any breast-feeding	Exclusive breast-feeding	Predominant breast-feeding[3]	Percentage breastfed 6+ times in past 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
Sex							
Male	20.1	3.1	4.0	94.5	7.2	5.4	313
Female	20.4	3.0	3.7	96.5	6.8	4.9	304
Residence							
Urban	18.8	3.4	3.7	92.7	6.2	4.7	180
Rural	20.8	2.9	3.9	96.6	7.4	5.4	436
Province							
Central	19.6	4.4	4.7	93.9	7.6	5.5	69
Copperbelt	19.9	3.5	3.9	91.6	6.1	4.9	94
Eastern	21.0	2.4	2.9	98.2	7.3	4.5	94
Luapula	19.7	(2.1)	3.0	91.6	7.5	4.9	57
Lusaka	18.6	3.9	4.0	95.5	5.7	4.4	67
Northern	21.3	(1.6)	3.7	98.5	6.8	6.0	93
North-Western	20.7	2.5	3.2	95.3	8.0	5.5	35
Southern	20.2	3.8	4.4	97.0	6.7	5.2	70
Western	21.5	3.0	4.8	97.1	9.2	6.3	37
Mother's education							
No education	21.6	2.5	3.7	94.9	7.2	5.5	91
Primary	20.3	2.9	3.7	96.4	7.2	5.4	372
Secondary	19.9	3.6	4.0	94.2	6.6	4.6	136
More than secondary	*	*	*	*	*	*	18
Wealth quintile							
Lowest	20.8	2.8	3.9	97.1	7.7	5.5	142
Second	20.8	2.3	3.6	95.7	7.6	5.2	146
Middle	20.8	3.2	3.9	96.4	7.2	5.6	132
Fourth	19.8	3.4	3.7	96.3	6.4	5.1	105
Highest	17.7	3.6	3.9	90.2	5.3	4.0	92
Total	20.3	3.1	3.8	95.5	7.0	5.2	617
Mean for all children	19.9	4.0	4.9	na	na	na	na

Note: Median and mean durations are based on current status. Includes children living and deceased at the time of the survey. An asterisk indicates that a figure is based on fewer than 25 unweighted and has been suppressed.
na = Not applicable
[1] Excludes children without a valid answer on the number of times breastfed
[2] It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding
[3] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only

11.5 TYPES OF COMPLEMENTARY FOODS

UNICEF and WHO recommend the introduction of solid food to infants around the age of 6 months because by that age breast milk alone is no longer sufficient to maintain a child's optimal growth. In the transition to eating the family diet, children from the age of 6 months should be fed small quantities of solid and semisolid foods throughout the day. During this transition period (ages 6-23 months), the prevalence of malnutrition increases substantially in many countries because of increased infections and poor feeding practices.

Table 11.5 provides information on the types of food given on the day and night preceding the survey to youngest children under three years of age living with their mother, according to their breastfeeding status. The data show that, among all breastfeeding children under three years, very few

(2 percent) consume infant formula. However, a higher proportion (9 percent) receive other milk. Between 6 and 23 months, children consume foods made from grains more often than any other food group. Among breastfeeding children in this age group, 79 percent ate foods made from grains, and 68 percent ate fruits and vegetables rich in vitamin A during the day and night preceding the interview. It is also worth noting that overall, a relatively small proportion of breastfeeding children under three years consume cheese, yogurt, and other milk products (4 percent).

Comparing dietary intake of children by their breastfeeding status shows that, as may be expected, a higher proportion of non-breastfeeding children are consuming solid and semi-solid foods (99 percent) than breastfeeding children (77 percent). More non-breastfeeding children than breastfeeding children are consuming milk other than breast milk (15 percent compared with 9 percent). However, the percentage of non-breastfeeding children consuming milk other than breast milk is still quite low, considering that they are not benefiting from breast milk.

Table 11.5 Foods and liquids consumed by children in the day and night preceding the interview

Percentage of youngest children under age three living with the mother who consumed specific foods and liquids in the day and night preceding the interview, according to breastfeeding status and age, Zambia 2007

	Liquids			Solid or semi-solid foods											
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Forti-fied baby foods	Food made from grains[3]	Fruits and vege-tables rich in vitamin A[4]	Other fruits and vege-tables	Food made from roots and tubers	Food made from legumes and nuts	Meat, fish, poultry, and eggs	Cheese, yogurt, other milk product	Any solid or semi-solid food	Food made with oil, fat, and butter	Sugary foods	Number of children
BREASTFEEDING CHILDREN															
0-1	0.0	0.8	3.2	0.0	1.8	1.1	0.4	0.4	0.5	1.1	0.0	1.8	0.4	0.0	201
2-3	2.5	2.8	10.9	4.7	18.4	1.8	1.3	1.3	1.3	3.1	0.5	19.6	1.5	0.5	203
4-5	2.5	4.6	21.0	8.6	48.7	6.2	3.0	1.1	6.7	4.7	1.2	51.7	2.2	5.0	223
6-8	5.3	11.6	42.6	11.5	84.7	41.5	20.7	14.5	27.5	42.4	4.8	94.2	25.3	14.7	313
9-11	2.5	12.7	47.8	5.3	78.9	65.1	25.7	20.7	36.6	63.2	4.8	97.2	34.1	18.1	310
12-17	0.8	11.3	57.2	2.9	77.3	76.5	30.1	29.4	46.4	66.6	5.0	98.2	35.3	23.9	560
18-23	1.1	10.0	55.5	0.7	76.2	79.7	29.3	33.8	46.4	67.9	5.1	99.8	33.6	24.2	324
24-35	1.4	6.2	62.1	0.4	71.7	64.9	32.9	34.3	43.6	65.3	6.3	100.0	36.8	22.6	70
6-23	2.1	11.4	51.8	4.7	79.0	67.6	27.1	25.5	40.5	61.1	4.9	97.5	32.6	20.8	1,508
Total	2.0	8.8	40.8	4.5	63.1	49.1	20.0	18.8	29.9	44.7	3.7	77.0	23.9	15.5	2,205
NON-BREASTFEEDING CHILDREN															
12-17	(7.4)	(23.5)	(55.5)	(9.6)	(80.8)	(73.6)	(44.1)	(29.2)	(33.4)	(65.5)	(12.1)	(95.3)	(46.2)	(36.1)	50
18-23	2.6	13.8	60.0	2.7	71.3	77.6	31.2	28.3	40.3	70.9	6.0	98.8	32.2	24.3	269
24-35	2.2	14.3	70.2	1.2	75.6	81.5	38.3	29.1	43.9	72.3	5.8	98.7	42.0	30.3	687
6-23	4.5	16.6	59.1	4.9	73.9	76.7	33.0	27.5	39.2	68.7	6.6	98.3	33.9	25.5	333
Total	3.4	15.4	66.4	2.6	74.9	79.6	36.4	28.4	42.2	70.8	6.0	98.5	39.2	28.6	1,025

Note: Breastfeeding status and food consumed refer to a 24-hour period (yesterday and the past night). Figure in parentheses are based on 25-49 unweighted cases. Nineteen non-breastfeeding children under the age of 12 months are included in the total, but not shown separately.

[1] Other milk includes fresh, tinned, and powdered cow or other animal milk

[2] Doesn't include plain water

[3] Includes fortified baby food

[4] Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mangoes, and papayas

11.6 INFANT AND YOUNG CHILD FEEDING (IYCF) PRACTICES

Appropriate Infant and Young Child Feeding (IYCF) practices include timely initiation of feeding solid/semi-solid foods from age 6 months, feeding small amounts and increasing the amount of foods and the frequency of feeding as the child gets older, while maintaining breastfeeding. For the average, healthy breastfed child, solid/semi-solid foods should be provided 2-3 times per day at age 6-8 months and 3-4 times per day from age 9 to 23 months, with an additional snack being offered 1-2 times per day, as desired. The minimum feeding frequencies are based upon the energy needs from complementary foods according to age-specific total daily energy requirements plus 2 SD (to meet the needs of almost all children), minus the average energy intake from breast milk for children in developing countries. Infants with low breast milk intake would need to be fed more frequently. However, feeding frequencies greater than necessary may lead to the displacement of breast milk (PAHO/WHO, 2003).

Although it is internationally recommended that infants should be breastfed for up to two years, some infants are not breastfed and therefore do not receive the benefits of breastfeeding, while others stop breastfeeding before age two. Guidelines have been developed for this group of children who may not be breastfed because of the mother's known HIV-positive status, or the mother having died, or some other reason (WHO, 2005). It is recommended that the non-breastfed child be fed solid/semi-solid foods 4-5 times per day from age 6 to 23 months, with an additional snack being offered 1-2 times per day, as desired.

Appropriate nutrition includes feeding children a variety of foods to ensure that nutrient requirements are met. Studies have shown that plant-based complementary foods by themselves are insufficient to meet the needs for certain micronutrients (WHO/UNICEF, 1998). Therefore, it has been advised that meat, poultry, fish or eggs should be eaten daily, or as often as possible. Vegetarian diets may not meet children's nutrient requirements unless supplements or fortified products are used. Vitamin A-rich fruits and vegetables should be consumed daily. Children's diets should also include adequate fat content. Fat is important in the diets of infants and young children because it provides essential fatty acids, facilitates absorption of fat-soluble vitamins (such as vitamin-A) and enhances dietary energy, density, and palatability. Tea and coffee contain compounds that inhibit iron absorption and are not recommended for children. Sugary drinks and excessive juice consumption should be avoided because other than energy, they contribute little to the diet and as a result decrease the child's appetite for more nutritious foods (PAHO/WHO, 2003).

The nutritional requirements of children age 6-23 months can be summarized as follows:

- Breastfed children age 6-23 months should receive animal-source foods and vitamin A-rich fruits and vegetables daily (PAHO/WHO, 2003). Because first foods almost universally include a grain- or tuber-based staple, it is unlikely that young children who eat two or fewer food groups will receive both an animal-source food and a vitamin A-rich fruit or vegetable. Therefore, three food groups are considered the minimum appropriate number of food groups for breastfed infants (Arimond and Ruel, 2004).

- Breastfed infants age 6-8 months should be fed meals of complementary foods two or three times per day, with one or two snacks as desired; breastfed children age 9-23 months should be fed meals three or four times per day, with one or two snacks (PAHO/WHO, 2003). Table 11.6 shows the percentage of breastfed children who were fed at least the minimum number of times per day for their age (i.e., at least twice for infants age 6-8 months and at least three times for children age 9-23 months).

- Non-breastfed children age 6-23 months should receive milk products to ensure that their calcium needs are met. In addition, they need animal-source foods and vitamin A-rich fruits and vegetables. Therefore, four food groups are considered the minimum appropriate number of food groups for non-breastfed young children.

- Non-breastfed children age 6-23 months should be fed meals four or five times per day, with one or two snacks as desired (WHO, 2005). Table 11.6 shows the percentage of non-breastfed children age 6-23 months who were fed at least the minimum four times per day.

Table 11.6 presents summary indicators for three IYCF practices that take into account the percentage of children for whom feeding practices met minimum standards with respect to food diversity (i.e., the number of food groups consumed) and feeding frequency (i.e., the number of times the child was fed), and the consumption of breast milk or other milk or milk products.

According to the results presented in the Table 11.6 and Figure 11.4, only 37 percent of youngest children age 6-23 months living with their mother are fed in accordance with IYCF practices. The proportion fed according to the guidelines is much higher among breastfed children (44 percent) than those who are not breastfed (8 percent). Nearly nine in ten children (86 percent) received breast milk or milk products during the 24-hour period before the survey, and 66 percent of children were fed according to minimum standards with respect to food diversity (3+ food groups for breastfed children and 4+ food groups for non-breastfed children).

Among breastfed children age 6-23 months, 69 percent receive foods from at least three food groups, while 56 percent are fed the minimum number of times or more. Among non-breasted children age 6-23 months, only 21 percent receive milk or milk products, 53 percent are fed foods from at least four food groups, and 22 percent are fed four or more times per day. A substantial proportion of non-breastfed children (more than nine in ten) are not fed in accordance with the three IYCF practices.

Looking at the variation in the proportion of children fed according to the IYCF diversity standards by background characteristics, the results indicate that male and female children are equally likely to be fed according to IYCF practices. Urban children (44 percent) are more likely than rural children (35 percent) to be fed according to IYCF practices. At the provincial level, the lowest proportion of children age 6-23 months fed according to the minimum standards is in Western (24 percent) while the highest is in Central (52 percent).

The table also shows that compliance with IYCF practices increases with mother's level of education. The proportion of children age 6-23 months who are fed according to the minimum diversity standards generally increases with the mother's level of education. Forty-eight percent of children whose mothers attended secondary school are fed according to the IYCF practices, compared with 32 percent of children whose mothers have no education. The proportion of children fed according to IYCF practices increases from 30-36 percent in the lowest three wealth quintiles to 44-45 percent in the two highest quintiles. Interestingly, a larger proportion of children in the lowest wealth quintile (36 percent) are fed according to IYCF practices than in the second wealth quintile (30 percent).

Table 11.6 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based on the number of food groups consumed and the number of times they were fed during the day and night preceding the survey, by breastfeeding status and background characteristics, Zambia 2007

	Among breastfed children 6-23 months, percentage fed:				Among non-breastfed children 6-23 months, percentage fed:					Among all children 6-23 months, percentage fed:				
Background characteristic	3+ food groups[1]	Minimum times or more[2]	Both 3+ food groups and minimum times or more	Number of breastfed children 6-23 months	Milk or milk products[3]	4+ food groups	4 times or more	With 3 IYCF practices[4]	Number of non-breastfed children 6-23 months	Breast milk or milk products[3]	3+ or 4+ food groups[5]	Minimum times or more[6]	With all 3 IYCF practices	Number of all children 6-23 months
Age in months														
6-8	50.6	72.6	45.5	313	*	*	*	*	2	100.0	50.7	72.3	45.4	315
9-11	68.6	43.5	35.3	310	*	*	*	*	12	97.7	67.8	43.1	35.0	322
12-17	75.3	53.2	45.8	560	(30.9)	(62.7)	(14.7)	(12.1)	50	94.3	74.2	50.0	43.0	610
18-23	74.4	54.3	46.4	324	17.5	50.8	22.5	6.4	269	62.6	63.7	39.9	28.3	593
Sex														
Male	69.8	55.7	44.5	739	20.8	53.9	22.0	7.2	168	85.3	66.9	49.5	37.6	907
Female	67.4	55.2	43.0	768	20.5	51.0	21.3	9.0	165	86.0	64.5	49.2	37.0	933
Residence														
Urban	76.8	65.8	53.4	392	37.2	71.2	29.2	15.4	123	85.0	75.5	57.0	44.3	515
Rural	65.7	51.8	40.3	1,116	11.0	41.5	17.3	3.7	210	85.9	61.9	46.4	34.5	1,325
Province														
Central	71.6	76.5	64.3	142	(10.0)	(43.1)	(38.1)	(5.0)	37	81.2	65.6	68.5	51.9	179
Copperbelt	72.7	64.5	49.8	204	(32.1)	(67.9)	(30.4)	(12.5)	49	86.8	71.8	57.8	42.5	253
Eastern	75.0	62.4	51.6	231	(14.4)	(54.9)	(11.3)	(7.2)	42	86.8	71.9	54.5	44.7	273
Luapula	59.8	43.2	31.3	132	(10.8)	(40.1)	(13.4)	(4.6)	37	80.4	55.5	36.6	25.4	169
Lusaka	75.1	59.4	46.0	141	(40.9)	(78.8)	(24.6)	(17.4)	51	84.4	76.1	50.2	38.5	191
Northern	62.7	52.9	40.6	274	(9.0)	(42.5)	(28.7)	(7.2)	39	88.8	60.2	49.9	36.5	313
North-Western	73.5	33.9	30.2	91	(12.9)	(44.1)	(1.5)	(0.0)	19	84.7	68.3	28.2	24.9	110
Southern	68.0	49.2	41.0	166	(25.6)	(36.1)	(17.5)	(4.0)	41	85.1	61.6	42.9	33.6	207
Western	58.9	42.4	26.9	128	(11.0)	(43.1)	(12.6)	(4.6)	17	89.6	57.1	38.9	24.3	145
Mother's education														
No education	57.9	48.3	35.4	224	(15.3)	(44.3)	(15.5)	(5.2)	29	90.2	56.3	44.5	31.9	253
Primary	68.1	52.4	40.8	968	16.2	46.4	19.3	6.7	209	85.1	64.3	46.5	34.8	1,177
Secondary	76.8	69.8	57.8	299	31.3	66.6	26.1	11.4	77	86.0	74.7	60.9	48.3	375
More than secondary	*	*	*	17	*	*	*	*	18	(66.7)	(83.3)	(55.3)	(41.0)	35
Wealth quintile														
Lowest	64.2	53.6	42.1	378	13.0	47.1	12.3	3.6	66	87.1	61.6	47.4	36.4	444
Second	62.3	46.7	35.0	363	1.7	31.2	17.4	0.0	62	85.7	57.7	42.4	29.9	425
Middle	70.0	54.3	43.3	324	11.3	39.9	14.9	2.1	71	84.1	64.6	47.2	35.9	395
Fourth	77.5	62.9	51.5	271	29.5	65.7	20.2	8.9	58	87.6	75.4	55.4	44.0	329
Highest	74.8	68.8	54.1	171	44.9	76.2	40.9	23.5	76	83.1	75.2	60.2	44.7	247
Total	68.6	55.5	43.7	1,508	20.7	52.5	21.7	8.1	333	85.7	65.7	49.4	37.3	1,840

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

[1] Food groups: a. infant formula, milk other than breast milk, cheese or yogurt or other milk products; b. foods made from grains, roots, and tubers, including porridge, fortified baby food from grains; c. vitamin A-rich fruits and vegetables; d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); g. legumes and nuts; h. foods made with oil, fat, butter.

[2] At least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months

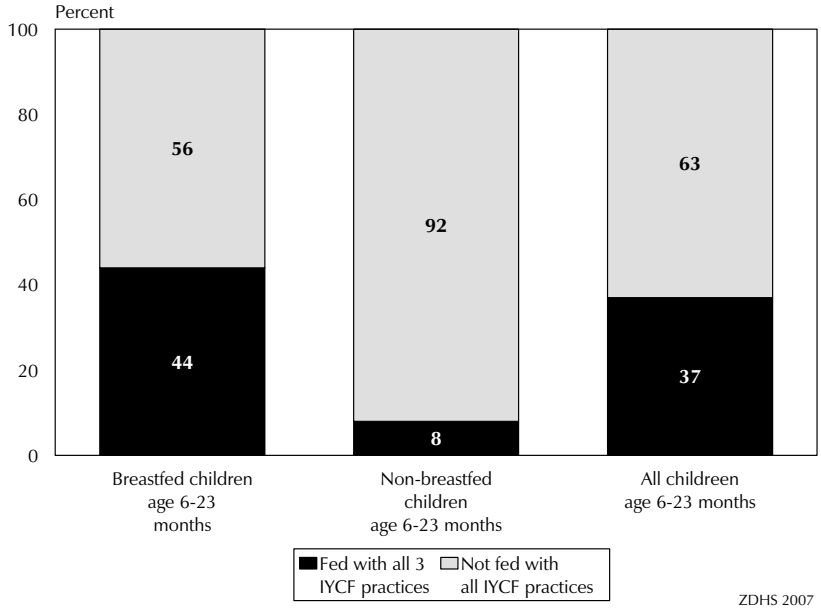
[3] Includes commercial infant formula, fresh, tinned and powdered animal milk, and cheese, yogurt and other milk products

[4] Non-breastfed children ages 6-23 months are considered to be fed with a minimum standard of three Infant and Young Child Feeding practices if they receive other milk or milk products and are fed at least the minimum number of times per day with at least the minimum number of food groups.

[5] 3+ food groups for breastfed children and 4+ food groups for non-breastfed children

[6] Fed solid or semi-solid food at least twice a day for infants 6-8 months, 3+ times for other breastfed children, and 4+ times for non-breastfed children

Figure 11.4 **Infant and Young Child Feeding (IYCF) Practices**



11.7 MICRONUTRIENT INTAKE AMONG CHILDREN

Table 11.7 summarizes information collected in the 2007 ZDHS on the intake of vitamin A and iron, and on receipt of de-worming medications among youngest children under three years.

Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency (VAD) can cause eye damage. VAD can also increase severity of infections such as measles and diarrhoeal diseases in children and slow recovery from illness. Vitamin A is found in breast milk, other milks, liver, eggs, fish, butter, red palm oil, mangoes, papayas, carrots, pumpkins, and dark green leafy vegetables. The liver can store an adequate amount of the vitamin for four to six months. Periodic dosing (usually every six months) of vitamin A supplements is one method of ensuring that children at risk do not develop VAD.

Table 11.7 shows that 87 percent of youngest children age 6-35 months living with the mother consumed foods rich in vitamin A in the 24 hours preceding the interview. The proportion of children who consumed foods rich in vitamin A increases with age, from 58 percent among children age 6-8 months to 94 percent among children age 24-35 months. Not surprisingly, non-breastfeeding children (93 percent) are more likely to consume foods rich in vitamin A than breastfeeding children (83 percent). Urban children (88 percent) are slightly more likely to consume foods rich in vitamin A than rural children (86 percent). With regard to provinces, children living in Southern province (81 percent) are least likely to consume foods rich in vitamin A, while children in Luapula are the most likely (92 percent). Mother's level of education is directly related to the consumption of foods rich in vitamin A. Children whose mothers have more than secondary education (93 percent) are more likely to consume foods rich in vitamin A than children whose mothers have no education (85 percent).

Table 11.7 Micronutrient intake among children

Among youngest children age 6-35 months living with their mother, the percentages who consumed vitamin A-rich and iron-rich foods in the day and night preceding the survey, and among all children age 6-59 months, the percentage given vitamin A supplements in the six months preceding the survey and the percentage who were given de-worming medication in the six months preceding the survey, by background characteristics, Zambia 2007

	Youngest children age 6-35 months living with the mother			All children age 6-59 months		
Background characteristic	Percentage consumed foods rich in vitamin A in past 24 hours[1]	Percentage consumed foods rich in iron in past 24 hours[2]	Number of children	Percentage given vitamin A supplements in past 6 months	Percentage given de-worming medication in past 6 months[3]	Number of children
Age in months						
6-8	58.0	42.5	315	35.2	8.8	319
9-11	81.9	62.1	322	63.0	23.3	329
12-17	90.2	66.5	610	67.8	49.0	628
18-23	92.6	69.3	593	66.3	65.3	644
24-35	93.8	71.6	757	60.4	68.8	1,152
36-47	na	na	na	59.9	71.5	1,076
48-59	na	na	na	56.1	68.9	1,072
Sex						
Male	86.8	65.7	1,286	60.5	59.3	2,561
Female	86.9	64.6	1,311	58.9	60.8	2,659
Breastfeeding status						
Breastfeeding	82.7	61.3	1,577	60.1	38.8	1,609
Not breastfeeding	93.4	71.3	1,012	59.7	69.8	3,574
Missing	*	*	7	(35.1)	(37.6)	37
Residence						
Urban	88.0	77.0	772	59.8	64.6	1,509
Rural	86.4	60.2	1,825	59.6	58.2	3,711
Province						
Central	83.8	67.8	250	55.1	58.6	515
Copperbelt	86.1	74.5	362	62.9	70.6	711
Eastern	89.7	45.5	393	61.4	64.0	812
Luapula	92.2	79.9	224	64.5	56.3	474
Lusaka	90.1	74.0	300	58.7	63.7	591
Northern	84.4	63.6	427	47.8	45.6	835
North-Western	90.9	71.9	158	57.9	62.2	339
Southern	80.9	53.6	282	66.6	59.1	559
Western	86.1	68.2	201	68.8	64.1	385
Mother's education						
No education	84.5	52.3	344	53.5	52.0	704
Primary	87.5	64.2	1,644	58.8	59.4	3,326
Secondary	85.8	73.8	553	66.2	65.9	1,073
More than secondary	92.6	87.7	56	61.6	72.8	118
Mother's age at birth						
15-19	77.5	57.7	236	55.8	42.9	286
20-29	86.8	66.1	1,377	58.3	59.4	2,805
30-39	89.7	68.7	796	63.4	63.7	1,718
40-49	86.9	52.8	188	55.6	61.3	411
Wealth quintile						
Lowest	85.8	55.3	613	60.8	59.3	1,245
Second	86.0	59.7	569	58.3	54.3	1,174
Middle	88.9	65.3	550	59.0	58.5	1,097
Fourth	88.4	76.0	500	56.8	61.6	994
Highest	84.8	75.3	363	65.0	71.0	710
Total	86.8	65.2	2,597	59.7	60.0	5,220

Note: Figure in parentheses are based on 25-49 unweighted cases; an asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Information on vitamin A, iron supplements, and de-worming medication is based on mother's recall.
na = Not applicable
[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A
[2] Includes meat, (including organ meat)
[3] De-worming for intestinal parasites is commonly done for helminthes and for schistosomiasis.

The 2007 ZDHS collected data on vitamin A supplementation. As shown in Table 11.7, 60 percent of children age 6-59 months received vitamin A supplements in the six months preceding the survey. The proportion of children receiving vitamin A supplements peaks at 68 percent among children age 12-17 months before falling to about 56 percent among children age 48-59 months. Differences by other characteristics are not large, although children from Northern province are less likely to receive vitamin A supplements (48 percent) than other children. Mother's educational level is directly related to children receiving vitamin A supplements. The proportion of children receiving vitamin A supplements increases from 54 percent among children whose mothers have no education to 66 percent among children whose mothers attended secondary school, and then declines to 62 percent among children whose mothers have more than secondary education.

Data were collected on children's intake of iron. Iron is essential for cognitive development. Low iron intake can also contribute to anaemia. Iron requirements are greatest between age 6-11 months, when growth is rapid. As the results in Table 11.7 indicate, 65 percent of youngest children age 6-35 months who live with their mother consumed foods that are rich in iron in the 24 hours preceding the interview. The proportion of children who are fed foods rich in iron increases with age, from 43 percent among children age 6-8 months to 72 percent among children age 24-35 months. As expected, breastfeeding children (61 percent) are less likely to consume iron-rich foods than those that are not breastfeeding (71 percent).

Differences by other characteristics in the intake of iron-rich foods are not large, although urban children (77 percent) are significantly more likely than rural children (60 percent) to receive iron-rich foods. In addition, children in Eastern province are less likely to consume foods rich in iron than children in other provinces. The proportion of children who are fed foods rich in iron increases with level of education, from 52 percent among children whose mothers have no education to 88 percent among children whose mothers have more than secondary education. Similarly, the proportion of children who are fed foods rich in iron increases by wealth status, from 55 percent among children living in households in the lowest wealth quintile to 75 percent among children in households in the highest wealth quintile.

Finally, infection with helminths or intestinal worms has been shown to have an adverse impact on the physical development of children and is associated with high levels of iron deficiency anaemia and other nutritional deficiencies (Awasthi et al., 2003). Regular treatment with de-worming medications is a simple, cost-effective measure to address these infections. Table 11.7 shows that 60 percent of children age 6-59 months received de-worming medication in the six months prior to the survey. The proportion of children who received the de-worming medication increases with children's age, from 9 percent among children age 6-8 months to 72 percent among children age 36-47 months before declining slightly to 69 percent among children age 48-59 moths.

The proportion of children who received de-worming medication is much higher among non-breastfeeding children (70 percent) than among those who are breastfeeding (39 percent). The proportion of children receiving medication is higher among urban children (65 percent) than rural children (58 percent). By province, the proportion of children who received de-worming medication is highest in Copperbelt (71 percent) and lowest in Northern province (46 percent). The likelihood that a child has received de-worming medication is positively associated with mother's level of education and household wealth quintile.

11.8 NUTRITIONAL STATUS OF WOMEN

Anthropometric data on height and weight were collected for 92 percent of the 7,795 women age 15-49 interviewed in the survey. In this report, two indicators of nutritional status based on these data are presented: the percentage of women with very short stature (less than 145 cm) and the body mass index (BMI).

The body mass index (BMI), or the Quetelet index, is used to measure thinness and obesity. BMI is defined as weight in kilograms divided by height in metres squared (kg/m^2). A cut-off point of 18.5 is used to define thinness or acute undernutrition and a BMI of 25.0 or above usually indicates overweight or obesity. The height of a woman is associated with past socio-economic status and nutrition during childhood and adolescence. Low pre-pregnancy BMI and short stature are risk factors for poor birth outcomes and obstetric complications. In developing countries, maternal underweight is the leading risk factor for preventable deaths and diseases (WHO, 2002).

Table 11.8 presents the mean BMI and the proportion of women falling into high-risk categories, according to background characteristics. Respondents for whom there was no information on height and/or weight and for whom a BMI could not be estimated are excluded from this analysis. The data analysis on BMI is based on 6,085 women, while the height analysis is based on 7,026 women age 15-49 years.

Table 11.8 Nutritional status of women

Among women age 15-49, the percentage with height under 145 cm, mean body mass index (BMI), and the percentage with specific BMI levels, by background characteristics, Zambia 2007

	Height		Body Mass Index[1]								
Background characteristic	Percentage below 145 cm	Number of women	Mean Body Mass Index (BMI)	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17 (moderately and severely thin)	≥25.0 (total overweight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	Number of women
Age											
15-19	5.1	1,537	21.2	77.2	14.6	10.4	4.3	8.2	7.0	1.1	1,389
20-29	2.6	2,692	22.3	75.4	8.4	6.5	1.9	16.2	12.8	3.4	2,205
30-39	1.2	1,773	23.2	66.3	8.1	5.7	2.4	25.6	18.5	7.2	1,493
40-49	1.1	1,024	24.0	60.9	7.3	5.5	1.9	31.8	18.4	13.3	998
Residence											
Urban	1.7	2,957	23.7	62.8	7.5	5.3	2.2	29.6	19.9	9.7	2,673
Rural	3.3	4,069	21.6	77.7	11.2	8.3	2.9	11.1	9.0	2.1	3,411
Province											
Central	2.0	644	22.2	74.6	9.3	6.7	2.7	16.1	13.4	2.7	563
Copperbelt	1.7	1,240	23.5	67.3	7.4	5.1	2.3	25.3	14.8	10.5	1,109
Eastern	3.0	960	22.2	79.0	6.6	5.2	1.4	14.4	12.2	2.2	829
Luapula	4.5	522	21.5	76.9	13.4	9.2	4.2	9.7	7.5	2.2	421
Lusaka	1.8	1,147	23.9	58.6	7.8	5.8	2.0	33.6	23.4	10.2	1,025
Northern	4.9	943	21.6	75.3	13.1	9.6	3.5	11.6	9.4	2.2	797
North-Western	2.3	362	21.5	73.3	14.0	10.4	3.6	12.7	10.9	1.7	305
Southern	1.2	719	22.7	70.1	8.2	6.1	2.1	21.7	15.7	6.0	621
Western	2.5	489	21.1	79.0	14.3	10.9	3.4	6.7	5.0	1.7	416
Education											
No education	3.2	732	21.6	78.2	11.6	8.5	3.2	10.1	7.9	2.2	628
Primary	3.3	3,813	22.2	72.7	10.7	7.9	2.7	16.7	12.2	4.5	3,221
Secondary	1.3	2,114	22.9	70.6	7.7	5.5	2.2	21.7	15.5	6.2	1,900
More than secondary	1.0	367	25.4	47.6	5.9	4.3	1.7	46.5	29.8	16.7	336
Wealth quintile											
Lowest	4.1	1,229	21.3	81.7	10.6	8.0	2.7	7.7	6.8	0.9	1,022
Second	3.2	1,253	21.4	78.2	12.7	9.8	2.9	9.1	8.4	0.7	1,058
Middle	3.0	1,258	21.7	77.1	11.5	8.5	3.0	11.4	9.0	2.4	1,043
Fourth	1.9	1,534	22.9	68.9	8.3	5.5	2.8	22.8	16.9	5.9	1,349
Highest	1.4	1,752	24.3	58.1	6.7	4.9	1.8	35.2	22.2	13.0	1,613
Total	2.6	7,026	22.5	71.2	9.6	7.0	2.6	19.2	13.8	5.4	6,085

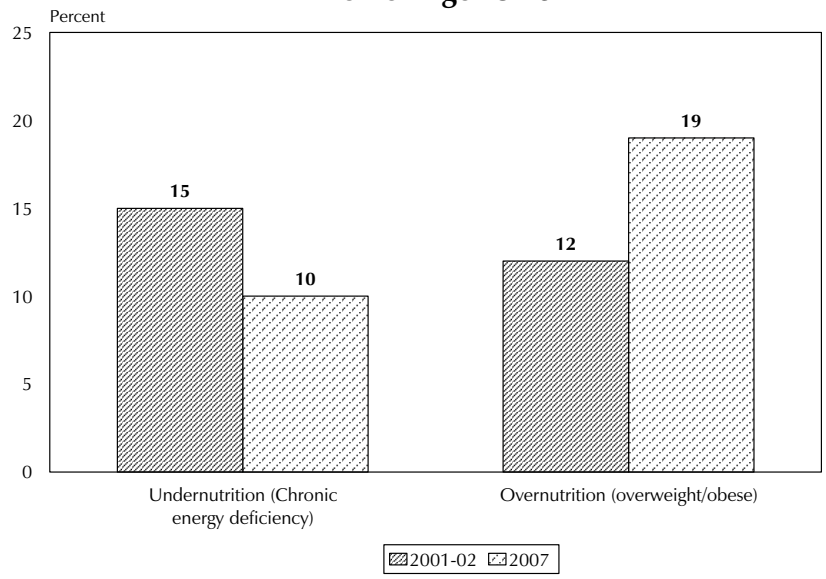
Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in metres (kg/m^2).
[1] Excludes pregnant women and women with a birth in the preceding 2 months

Table 11.8 shows that more than seven in ten women (71 percent) have a normal BMI, one in ten women are undernourished or thin, and about one in five (19 percent) are overweight or obese. There are large differentials across background characteristics in the percentage of women assessed as undernourished (BMI < 18.5) and overweight or obese (BMI ≥25). Women in age group 15-19 are more likely to be undernourished than women in older age groups. Women in rural areas (11 percent) are more likely to be underweight than those in urban areas (8 percent), while women in the North-Western and in Western provinces are more likely to be underweight than those in other provinces (14 percent each), and women in Copperbelt and Eastern provinces are least likely to be underweight (7 percent each). Women with no education are more likely to be undernourished (12 percent) than those with more than secondary education (6 percent). The likelihood that a woman will be undernourished decreases as household wealth quintile increases.

The results also show that being overweight or obese increases with age. The proportion of women who are overweight or obese is higher among those age 40-49 years (32 percent) than among those age 15-19 years (8 percent). The proportion of overweight or obese women is much higher in urban areas (30 percent) than in rural areas (11 percent). Lusaka province has the highest proportion of women who are overweight or obese (34 percent) while Western province has the lowest proportion (7 percent). The table also shows that level of education influences women's nutritional status. The proportion of women who are overweight or obese increases with educational attainment and wealth status. For example, women with more than secondary education are more than twice as likely to be overweight or obese (47 percent) as women with secondary education (22 percent).

Figure 11.5 shows trends in women's nutritional status from the 2001-2002 ZDHS to the 2007 ZDHS. The proportion of women who are underweight has decreased from 15 to 10 percent while the proportion of women who are overweight or obese has increased from 12 to 19 percent.

Figure 11.5 **Trends in Nutritional Status among Women Age 15-49**



11.9 FOODS CONSUMED BY MOTHERS

The quality and quantity of food that mothers consume influences their health and that of their children, especially the health of breastfeeding children. The 2007 ZDHS included questions on the types of foods consumed by mothers with children under age three during the day and night preceding the interview.

Table 11.9 shows that most mothers in Zambia consume vitamin A-rich fruits and vegetables (81 percent). Sixty-nine percent consume meat, fish, shellfish, poultry or eggs, 43 percent eat foods made from legumes, and 37 percent consume foods made with oil, fat, or butter. Thirty-five percent eat foods made from grains, 31 percent eat foods from roots/tubers, and 18 percent consume some type of sugary food. Tea and coffee (32 percent) are the most commonly consumed beverages. Only 12 percent of women reported drinking milk.

Table 11.9 Foods consumed by mothers in the day and night preceding the interview

Among mothers age 15-49 with children under age three years living with them, the percentage who consumed specific types of foods in the day and night preceding the interview, by background characteristics, Zambia 2007

	Liquids			Solid or semi-solid foods										
Background characteristic	Milk	Tea/ coffee	Other liquids	Foods made from grains[1]	Foods made from roots/ tubers	Foods made from legumes	Meat/ fish/ shellfish/ poultry/ eggs	Cheese/ yogurt	Vitamin A-rich fruits/ vege-tables[1]	Other fruits/ vege-tables	Other solid or semi-solid food	Foods made with oil/ fat/ butter	Sugary foods	Number of women
Age														
15-19	10.1	38.2	43.5	38.8	27.7	32.8	67.0	5.3	75.4	32.1	80.0	33.5	18.6	307
20-29	12.8	32.8	49.9	38.3	30.0	43.9	70.0	5.6	79.9	32.4	77.6	38.2	18.1	1,725
30-39	10.5	30.5	47.0	32.0	33.2	43.6	70.8	4.9	82.8	31.6	79.7	35.3	17.7	986
40-49	9.9	19.8	51.0	22.2	26.8	47.4	56.0	1.8	83.3	30.7	76.9	33.5	9.7	212
Residence														
Urban	24.9	72.7	56.0	66.2	26.2	33.9	83.0	7.6	85.7	38.0	79.9	57.7	31.2	957
Rural	6.1	14.5	45.3	22.4	32.4	46.8	63.1	4.1	78.4	29.5	77.8	27.6	11.7	2,272
Province														
Central	15.2	31.8	58.6	46.0	25.9	43.0	74.8	7.8	77.9	21.8	66.8	42.9	8.1	317
Copperbelt	25.6	63.9	52.6	63.5	24.9	40.0	82.4	6.9	85.3	21.6	77.1	63.1	39.0	461
Eastern	10.1	25.5	68.1	25.2	31.1	53.3	48.6	1.6	91.5	45.4	95.4	40.0	18.8	496
Luapula	4.4	14.7	34.1	15.4	29.0	40.7	82.7	0.1	77.6	16.9	96.4	25.0	9.3	281
Lusaka	21.8	71.2	60.9	60.4	29.1	26.1	78.7	4.8	85.7	52.1	89.1	53.1	25.6	369
Northern	6.5	14.9	40.8	24.0	45.3	62.1	66.7	0.8	78.4	23.7	60.3	11.9	10.3	522
North-Western	4.7	14.6	30.4	24.9	35.6	20.0	76.2	2.0	88.7	33.4	57.6	37.0	4.9	193
Southern	3.7	22.1	51.3	29.6	8.9	42.2	54.1	16.0	67.8	45.2	67.4	22.1	14.2	352
Western	4.8	6.5	10.9	14.6	45.9	33.7	67.7	7.6	64.9	22.4	95.9	32.7	13.6	238
Education														
No education	5.3	11.4	44.2	17.0	29.0	44.3	55.9	2.8	75.8	27.7	79.6	24.0	9.2	436
Primary	8.1	26.0	46.0	30.2	33.0	43.9	67.3	3.8	80.9	30.7	77.8	33.2	15.6	2,025
Secondary	21.4	54.7	55.4	56.8	24.5	40.9	79.6	8.9	81.8	37.1	78.8	50.0	26.1	694
More than secondary	53.8	93.2	74.9	83.6	28.2	29.7	93.5	19.9	87.4	45.2	83.5	76.1	37.5	75
Wealth quintile														
Lowest	6.4	10.5	47.2	18.4	31.4	49.9	56.9	4.3	78.9	30.9	81.8	26.2	10.7	762
Second	3.4	8.8	41.5	18.0	36.7	45.6	63.1	1.6	79.2	26.8	78.0	22.4	9.3	716
Middle	6.3	18.0	43.0	26.4	31.7	44.6	67.0	5.1	78.1	29.5	72.2	31.4	11.5	684
Fourth	17.6	61.6	53.7	55.2	26.8	37.2	81.7	7.2	83.8	35.4	76.8	48.9	28.8	606
Highest	33.3	83.7	62.6	77.5	22.6	32.5	84.5	9.2	84.7	41.4	84.6	67.2	35.4	460
Total	11.7	31.7	48.5	35.4	30.5	43.0	69.0	5.1	80.6	32.0	78.4	36.6	17.5	3,229

Note: Foods consumed in the past 24 hours (yesterday and the past night).
[1] Includes [list fruits and vegetables included in the questionnaire such as pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, green leafy vegetables, mangoes, papayas, and other locally grown fruits and vegetables that are rich in vitamin A]

11.10 MICRONUTRIENT INTAKE AMONG MOTHERS

Adequate micronutrient intake by women has important benefits for both women and their children. Table 11.10 includes a number of measures that are useful in assessing the extent to which women are receiving adequate intake of vitamin A and iron. The table presents measures the extent to which mothers of young children are consuming foods rich in vitamin A and iron. The results indicate that 94 percent of mothers with children under three years eat foods rich in vitamin A, and 69 percent eat iron-rich foods.

Mothers in urban areas (97 percent) are more likely to consume foods rich in vitamin A than those in rural areas (93 percent). At the provincial level, mothers in Southern province are least likely to consume foods rich in vitamin A (85 percent), while those in Copperbelt and North-Western provinces are the most likely (98 percent each). Consumption of vitamin A-rich foods is positively associated with mother's level of education.

Consumption of iron-rich foods is substantially higher among mothers in urban areas (83 percent) than those in rural areas (63 percent). Mothers in Eastern province are least likely to consume foods that are rich in iron (49 percent), while women in Copperbelt are the most likely (82 percent). Consumption of iron-rich foods is more common among women with higher education and women in households in the highest wealth quintile.

Breastfeeding children benefit from micronutrient supplementation that mothers receive; especially vitamin A. Table 11.10 includes several measures of vitamin A and iron supplementation among mothers with young children and shows the proportion of mothers reporting night blindness during pregnancy, a condition associated with vitamin A deficiency (VAD).

The survey results indicate that 45 percent of women with children born in the five years preceding the survey received a dose of vitamin A in the first two months after the birth of the last child. Postpartum vitamin A supplementation is highest among urban women (54 percent), those with secondary education (53 percent), and those in the fourth wealth quintile (54 percent). By province, the proportion of women who received postpartum vitamin A supplementation ranges from 32 percent in Northern province to 56 percent in Lusaka.

Seven percent of women said that they had experienced night blindness during pregnancy for the last birth. After adjusting for women who also reported vision problems during daylight, 2 percent of women were estimated to have suffered night blindness during pregnancy.

Table 11.10 also shows the percent distribution of women who gave birth during the five years preceding the survey by the number of days they took iron tablets or syrup during the pregnancy for the last child. According to the results, 44 percent of women took iron supplements for 90 days or more, 27 percent took the iron tablets for less than 60 days, and 10 percent did not take any iron supplements at all. The percentage of women who did not take any iron supplements during the pregnancy for the last birth ranged from 4 percent in Southern province to 15 percent in Eastern province.

Table 11.10 Micronutrient intake among mothers

Among women age 15-49 with children under three years living with them, the percentages who consumed vitamin A-rich and iron-rich foods in the 24 hours preceding the survey; among women age 15-49 with children under five years, the percentage who received a vitamin A dose in the first two months after the birth of the last child; among mothers age 15-49. percentage who during the pregnancy for the last child born in the five years preceding the survey, suffered from night blindness, the percentage who took iron tablets or syrup for specific numbers of days, and the percentage who took de-worming medication, by background characteristics, Zambia 2007

Background characteristic	Women with children under three years living with them			Women with children under five years									
	Percentage consumed vitamin-A rich foods[1]	Percentage consumed iron-rich foods[2]	Number of women	Percentage who received vitamin A dose post-partum[3]	Percentage who had night blindness during pregnancy for last birth		Number of days iron tablets or syrup taken during pregnancy for last birth					Percentage of women who took de-worming medication during pregnancy for last birth	Number of women
					Reported	Adjusted[4]	None	<60	60-89	90+	Don't know/ missing		
Age													
15-19	91.3	67.0	307	42.9	8.3	2.6	6.6	28.8	16.0	42.4	6.2	37.3	342
20-29	94.4	70.0	1,725	45.0	7.3	2.3	8.5	28.9	13.5	42.9	6.1	37.7	2,137
30-39	95.1	70.8	986	45.9	7.5	1.7	10.7	24.1	13.9	45.2	6.1	36.0	1,301
40-49	95.0	56.0	212	40.8	5.9	0.5	13.4	21.1	15.2	43.3	7.0	25.0	355
Residence													
Urban	97.3	83.0	957	54.2	8.6	2.5	9.3	30.0	13.8	36.6	10.3	50.4	1,347
Rural	93.1	63.1	2,272	40.1	6.7	1.7	9.6	25.1	14.1	47.0	4.2	29.1	2,789
Province													
Central	95.3	74.8	317	35.9	2.3	0.6	9.7	43.8	13.5	16.9	16.1	30.0	405
Copperbelt	97.5	82.4	461	49.7	9.9	5.2	8.4	35.3	9.7	31.1	15.4	48.7	606
Eastern	95.4	48.6	496	46.5	1.2	0.1	14.7	35.8	14.3	34.2	0.8	31.7	629
Luapula	97.1	82.7	281	51.8	10.4	0.6	8.9	28.1	13.2	49.7	0.0	36.9	346
Lusaka	97.1	78.7	369	55.8	11.6	0.3	10.9	27.3	15.4	40.2	6.3	54.5	520
Northern	92.5	66.7	522	31.7	12.8	4.3	10.4	16.3	18.2	53.9	1.2	24.3	629
North-Western	97.8	76.2	193	33.8	2.8	0.3	7.2	24.9	14.9	42.7	10.3	29.5	243
Southern	85.0	54.1	352	44.9	7.5	3.0	4.3	9.9	13.5	70.1	2.2	32.3	446
Western	92.5	67.7	238	50.9	2.4	1.0	5.9	13.6	12.5	62.4	5.6	30.2	312
Education													
No education	91.9	55.9	436	34.3	7.9	1.8	13.1	24.7	16.3	42.5	3.5	26.8	538
Primary	94.3	67.3	2,025	43.8	7.2	1.7	9.5	27.6	13.8	43.6	5.5	33.2	2,523
Secondary	95.5	79.6	694	53.1	7.9	3.1	7.8	26.5	13.8	43.5	8.4	46.6	948
More than secondary	98.6	93.5	75	44.3	3.0	0.0	6.5	19.1	10.0	50.1	14.3	52.0	126
Wealth quintile													
Lowest	93.0	56.9	762	39.2	6.4	2.0	11.0	24.0	15.5	46.4	3.0	28.7	921
Second	94.0	63.1	716	38.9	6.6	1.7	10.2	24.0	14.9	46.0	4.9	26.3	864
Middle	92.5	67.0	684	41.1	7.5	1.6	8.4	27.0	13.7	47.2	3.7	30.4	837
Fourth	96.2	81.7	606	53.7	7.7	2.5	8.9	34.0	11.9	37.6	7.6	44.3	850
Highest	97.5	84.5	460	53.1	8.8	2.0	8.4	24.4	13.9	39.9	13.4	55.3	663
Total	94.4	69.0	3,229	44.7	7.3	2.0	9.5	26.7	14.0	43.6	6.2	36.0	4,136

[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A
[2] Includes meat (and organ meat), fish, poultry, eggs
[3] In the first two months after delivery
[4] Women who reported night blindness but did not report difficulty with vision during the day
[5] De-worming for intestinal parasites is commonly done for helminthes and for schistosomiasis

MALARIA 12

Pascalina Chanda and Richard Banda

12.1 INTRODUCTION

Malaria is endemic in Zambia with seasonal and geographical variations. In 2007, 4.3 million cases of malaria (confirmed and unconfirmed) were reported countrywide with 6,149 deaths (MOH, 2008). The annual malaria incidence was estimated at 358 cases per 1,000 population in 2007, a drop from 412 cases per 1,000 population in 2006 (MOH, 2008). Northern and Eastern provinces had the highest annual incidence of malaria, while the disease was lowest in Lusaka province. Malaria accounts for up to 40 percent of all infant mortality and 20 percent of all maternal mortality in Zambia (MOH, 2008). Malaria poses a severe social and economic burden on communities living in endemic areas.

The Government of the Republic of Zambia has identified the eradication of malaria and other major diseases as a priority to attain the Millennium Development Goals targets for reducing maternal and child mortality rates in Zambia (MOFNP, 2006). The country is also implementing specific short- and medium-term programmes under the National Malaria Control Action Plan (NMCAP) aimed at scaling up malaria control and prevention strategies. These measures include a target to reduce malaria incidence by 75 percent by 2010 (MOH, 2007).

The primary NMCAP objectives are the following:

- To ensure that at least 80 percent of all pregnant women have access to the package of interventions to reduce the burden of malaria in pregnancy by December 2008. The package of interventions includes three courses of intermittent preventive treatment (IPT), insecticide-treated net (ITN) use, and efforts to reduce anaemia.

- To ensure that at least 85 percent of people in 36 malaria endemic districts sleep in housing units that have been sprayed with insecticides through the indoor residual spraying (IRS) programme by December 2008.

- To ensure that at least 80 percent of malaria patients in all malaria endemic districts receive prompt and effective treatment according to national guidelines on malaria case management.

Zambia collected detailed information on malaria in the 2001-2002 ZDHS and 2007 ZDHS. The 2007 ZDHS information also covers bednet ownership and use (specifically, among children under age five and pregnant women) and the type of bednets used (i.e., whether they were pre-treated, home-treated, or factory-treated ITNs). The ZDHS surveys collected information on fever prevalence and treatment in children under age five, and the type of malaria drugs used to treat fever that occurred in the two weeks preceding the interview. Information on access to IPT and use of antimalarial drugs to prevent malaria among pregnant women was also collected.

12.2 MOSQUITO NETS

The use of insecticide-treated nets is currently considered the most cost-effective method of malaria prevention in high endemic areas. While children under age five are primarily targeted for this method, other vulnerable groups (e.g., pregnant women, internally displaced persons, etc.) are encouraged to acquire and use ITNs. Between 2003 and 2006, over 4 million nets were distributed countrywide through channels such as the Community-Based Malaria Prevention and Control Programme (CBMPCP), the School Health Programme (SHP), Malaria in Pregnancy (MIP), and other malaria control initiatives

and programmes (MOH, 2008). In 2007 alone, 3.5 million long-lasting ITNs were distributed, representing a significant achievement in the fight against malaria (MOH, 2008).

12.2.1 Ownership of Mosquito Nets

All households in the 2007 ZDHS were asked whether they own mosquito nets and, if so, how many. Table 12.1 shows the percentage of households with at least one mosquito net, with at least one ever-treated net, and with at least one ITN, by background characteristics. Ownership of ITNs among surveyed households measures access to effective personal protection from malaria parasite-carrying mosquitoes carrying malaria parasites.

Table 12.1 Ownership of mosquito nets

Percentage of households with at least one and more than one mosquito net (treated or untreated), ever-treated mosquito net, and insecticide-treated net (ITN), and the average number of nets per household, by background characteristics, Zambia 2007

	Any type of mosquito net			Ever-treated mosquito net[1]			Insecticide-treated mosquito net (ITN)[2]			
Background characteristic	Percentage with at least one	Percentage with more than one	Average number of nets per household	Percentage with at least one	Percentage with more than one	Average number of ever-treated nets per household	Percentage with at least one	Percentage with more than one	Average number of ITNs per household	Number of household
Residence										
Urban	64.3	33.2	1.2	60.7	31.2	1.1	52.6	26.0	0.9	2,479
Rural	64.4	29.5	1.0	63.1	28.9	1.0	53.7	24.4	0.9	4,685
Province										
Central	62.6	30.8	1.1	61.4	30.1	1.0	55.8	25.9	0.9	666
Copperbelt	65.9	32.9	1.2	62.8	31.6	1.1	54.9	26.1	1.0	1,108
Eastern	59.3	28.6	1.0	58.9	28.5	1.0	50.2	23.5	0.8	1,107
Luapula	85.0	45.7	1.5	83.8	44.7	1.5	81.2	43.9	1.4	592
Lusaka	61.5	30.0	1.1	56.1	26.7	0.9	50.4	24.2	0.8	998
Northern	55.8	25.6	0.9	55.3	25.1	0.9	47.9	22.4	0.8	1,040
North-Western	68.6	29.2	1.1	67.5	29.2	1.1	54.1	20.0	0.8	399
Southern	52.5	24.1	0.9	50.1	23.2	0.8	40.0	16.7	0.6	681
Western	83.6	35.4	1.3	80.7	34.2	1.3	54.7	23.4	0.9	574
Wealth quintile										
Lowest	59.8	24.7	0.9	58.7	24.4	0.9	47.7	20.4	0.7	1,332
Second	62.6	27.4	1.0	61.7	26.9	1.0	53.3	23.7	0.8	1,560
Middle	65.7	29.0	1.0	64.2	28.1	1.0	55.0	23.8	0.9	1,502
Fourth	61.6	28.5	1.0	58.3	27.4	1.0	51.0	21.9	0.8	1,486
Highest	72.9	45.9	1.5	69.0	43.3	1.4	59.8	35.7	1.2	1,284
Total	64.4	30.8	1.1	62.3	29.7	1.1	53.3	24.9	0.9	7,164

[1] An ever-treated net is a pre-treated net or a non-pretreated net that has subsequently been soaked with insecticide at any time.
[2] An insecticide-treated net (ITN) is: 1) a factory-treated net that does not require any further treatment; 2) a pre-treated net obtained within the past 12 months; or 3) a net that has been soaked with insecticide within the past 12 months.

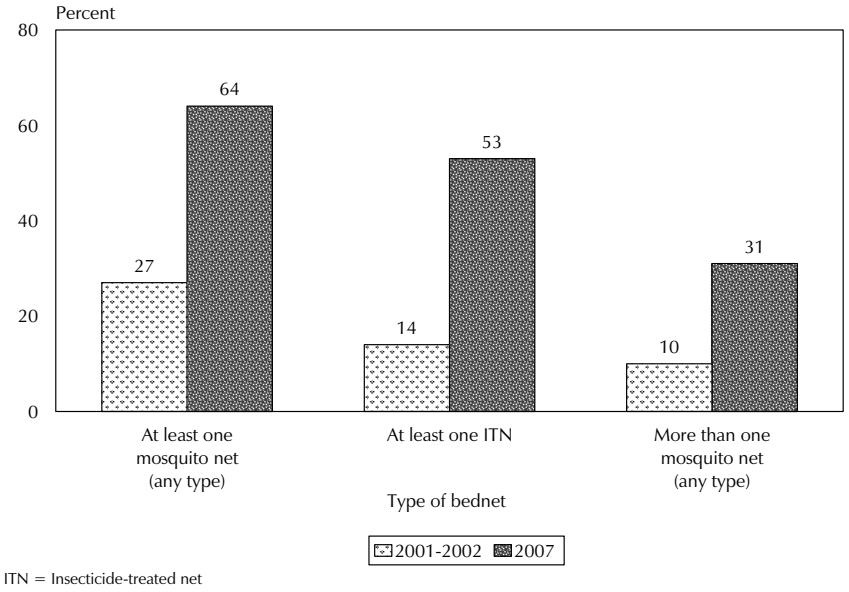
The data show that 64 percent of households in Zambia own a mosquito net (treated or untreated) and 31 percent of households own more than one mosquito net. Over 60 percent of households own at least one ever-treated mosquito net and 30 percent have more than one ever-treated mosquito net. More than half (53 percent) of households own at least one ITN and 25 percent own more than one ITN.

By residence, there is almost no difference in the percentage of households using the different types of mosquito nets; however, net ownership does vary by province. Luapula (85 percent) and Western (84 percent) have the highest percentage of households with at least one net (any type), while Southern (53 percent) has the lowest percentage. Similarly, Luapula has the highest percentage of households with an ITN (81 percent), while Southern has the lowest percentage (40 percent).

Nationwide, each household owns an average of one mosquito net. The average number of nets owned by each household in all the provinces is one, except for Luapula, where the average number of nets per household is 1.5. By wealth quintile, all households own an average of one net except for households in the highest wealth quintile, which own 1.5 nets.

Figure 12.1 shows the large increase in bednet ownership between the 2001-2002 and 2007 ZDHS surveys. Ownership of any type of net increased from 27 percent in 2001-2002 to 64 percent in 2007, while ownership of an ITN increased from 14 to 53 percent over the same period. Ownership of more than one net also increased in the period between the two surveys.

Figure 12.1 **Trends in Ownership of Bednets by Type, Zambia 2001-2002 and 2007**



ITN = Insecticide-treated net

12.2.2 Use of Mosquito Nets by Children under Age Five

The use of mosquito nets by vulnerable groups in high endemic communities is one of the major malaria control and prevention strategies espoused by the Abuja Declaration and the Plan of Action (Roll Back Malaria [RBM], 2000). Table 12.2 shows that one-third of children under age five slept under a mosquito net the night before the survey in both urban and rural areas. Among provinces, Luapula (59 percent) had the highest percentage of children sleeping under a net the night before the survey while Southern (21 percent) had the lowest percentage. More children in households in the highest wealth quintile (38 percent) slept under a net, compared with children in households in the lowest wealth quintile (24 percent).

Similarly, more than a quarter of children under age five slept under an ITN the night before the survey (30 percent in urban areas and 28 percent in rural areas). Luapula had the highest percentage of children under age five sleeping under an ITN (56 percent), while Southern had the lowest percentage (16 percent). Children in households in the highest wealth quintiles (33 percent) were more likely than children in households in the lowest wealth quintiles (19 percent) to sleep under an ITN.

Table 12.2 Use of mosquito nets by children

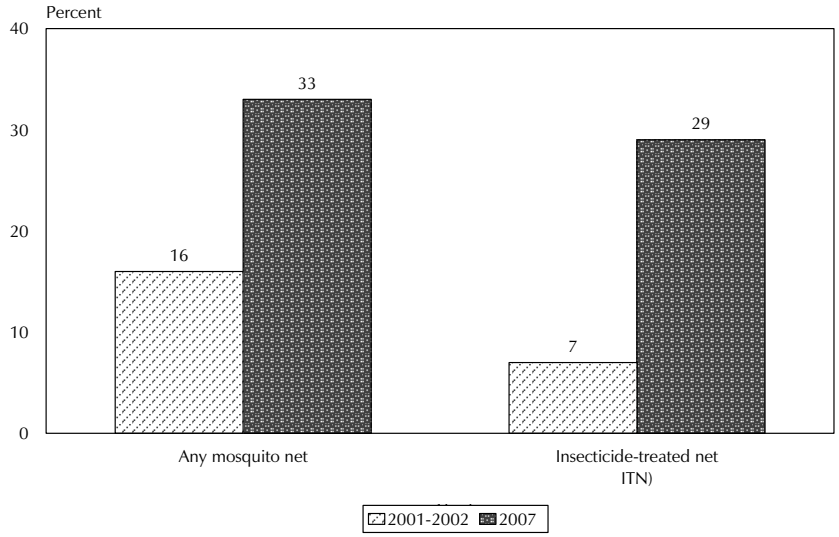
Percentage of children under five years of age who slept under a mosquito net (treated or untreated), an ever-treated mosquito net, and an insecticide-treated net (ITN) the night before the survey, by background characteristics, Zambia 2007

Background characteristic	Percentage who slept under any net the past night	Percentage who slept under an ever-treated net the past night[1]	Percentage who slept under an ITN the past night[2]	Number of children
Age in years				
<1	40.6	39.4	34.7	1,344
1	37.7	36.7	32.6	1,318
2	32.6	32.1	27.9	1,212
3	28.8	27.9	24.7	1,187
4	26.2	25.8	21.5	1,185
Sex				
Male	34.1	33.5	29.5	3,085
Female	32.9	31.8	27.6	3,162
Residence				
Urban	35.0	33.5	30.1	1,774
Rural	32.8	32.3	27.9	4,473
Province				
Central	30.3	30.3	27.9	628
Copperbelt	37.0	35.3	33.1	854
Eastern	26.0	25.8	20.9	983
Luapula	58.8	57.5	56.3	564
Lusaka	27.2	25.2	23.4	686
Northern	33.5	33.2	28.2	998
North-Western	36.4	35.8	28.8	407
Southern	21.0	20.7	16.6	675
Western	40.9	39.5	28.8	452
Wealth quintile				
Lowest	23.7	23.4	19.4	1,487
Second	36.0	35.4	31.5	1,417
Middle	37.7	37.0	32.2	1,345
Fourth	34.8	33.7	29.2	1,143
Highest	37.8	35.9	32.9	855
Total	33.4	32.6	28.5	6,247

[1] An ever-treated net is a pretreated net or a non-pretreated net that has subsequently been soaked with insecticide at any time.
[2] An insecticide-treated net (ITN) is: 1) a factory-treated net that does not require any further treatment; 2) a pretreated net obtained within the past 12 months; or 3) a net that has been soaked with insecticide within the past 12 months.

Figure 12.2 shows trends in the percentage of children under age five who slept under a mosquito net the night before the survey by type of net. The results show a substantial increase in the percentage of children sleeping under any type of mosquito net between the two surveys. As with household mosquito net ownership, use by children under age five does not vary by rural-urban residence; however, provincial variations exist and patterns closely follow household net ownership.

Figure 12.2 **Trends in Percentage of Children Under Five Who Slept Under a Bednet on the Night before the Survey by Type of Net, Zambia 2001-2002 and 2007**



12.2.3 Use of Mosquito Nets by Women Age 15-49, Including Pregnant Women

Use of mosquito nets by pregnant women is an important strategy to prevent malaria morbidity and to reduce the negative effects on pregnancy and pregnancy outcomes. The 2007 ZDHS collected information on the use of mosquito nets by women age 15-49, including women who were pregnant at the time of the survey. The results for all women and for pregnant women are presented in Table 12.3 by background characteristics. Figure 12.3 shows trends in the use of mosquito nets by all women and by pregnant women between the 2001-2002 and 2007 ZDHS surveys.

The data indicate that one-third (34 percent) of women slept under a mosquito net the night before the survey (32 percent in urban areas and 36 percent in rural areas), while two in five pregnant women (39 percent) slept under a net the night before the survey (35 percent in urban areas and 40 percent in rural areas). The percentage of women who slept under an ITN was higher for pregnant women (33 percent) than the percentage for all women (28 percent). Among the provinces, Luapula had the highest percentage of women who slept under a mosquito net (68 percent of all women and 73 percent of pregnant women), while Southern had the lowest percentage (20 percent of all women and 20 percent of pregnant women).

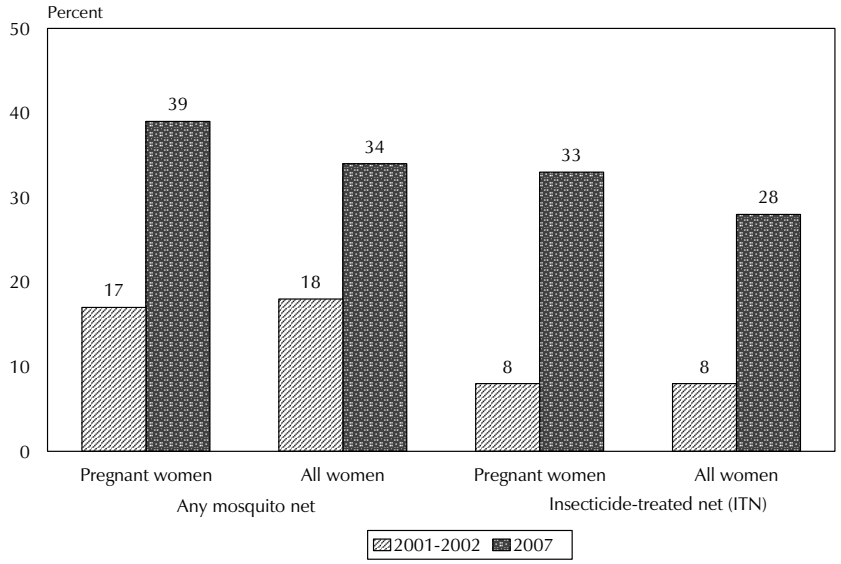
Table 12.3 Use of mosquito nets by pregnant women

Percentage of all women age 15-49 and pregnant women age 15-49 who slept under a mosquito net (treated or untreated), an ever-treated mosquito net, and an insecticide-treated net[2] (ITN) the night before the survey, by background characteristics, Zambia 2007

Background characteristic	Percentage of all women age 15-49 who: Slept under any net the past night	Slept under an ever-treated net the past night[1]	Slept under an ITN the past night[2]	Number of women	Percentage of pregnant women age 15-49 who: Slept under any net the past night	Slept under an ever-treated net the past night[1]	Slept under an ITN the past night[2]	Number of women
Residence								
Urban	31.7	30.2	26.0	3,112	34.8	31.9	28.7	236
Rural	35.5	34.9	29.8	4,279	40.1	39.9	34.4	537
Province								
Central	30.1	30.1	28.3	681	26.6	26.6	24.8	67
Copperbelt	33.7	32.6	28.3	1,307	37.9	36.2	34.5	100
Eastern	29.8	29.7	24.9	1,005	27.7	27.7	24.8	107
Luapula	68.4	66.7	64.6	549	72.9	72.5	70.9	81
Lusaka	22.5	20.6	18.4	1,212	27.7	23.2	21.7	101
Northern	36.1	35.4	29.3	1,000	41.9	41.9	37.5	124
North-Western	38.9	38.6	29.6	378	53.2	53.2	36.9	51
Southern	20.0	19.5	16.1	752	20.0	18.6	12.5	78
Western	49.9	48.0	33.0	509	46.9	46.5	31.7	64
Education								
No education	32.4	31.2	24.6	800	42.9	40.0	31.0	104
Primary	34.6	34.0	29.1	4,014	39.3	39.0	34.5	462
Secondary	33.7	32.3	28.3	2,274	36.5	34.8	31.3	189
More than secondary	30.3	28.8	25.3	301	(12.0)	(10.6)	(10.6)	19
Wealth quintile								
Lowest	27.5	27.0	21.9	1,287	34.4	34.4	28.2	171
Second	38.4	38.0	32.9	1,328	39.6	39.6	35.3	158
Middle	39.9	39.0	33.9	1,320	45.0	44.8	39.2	178
Fourth	32.3	31.2	27.0	1,608	32.9	30.2	26.6	151
Highest	32.2	30.7	26.2	1,848	40.1	37.0	33.7	115
Total	33.9	33.0	28.2	7,390	38.5	37.4	32.7	773

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] An ever-treated net is a pretreated net or a non-pretreated net which has subsequently been soaked with insecticide at any time.
[2] An insecticide-treated net (ITN) is: 1) a factory-treated net that does not require any further treatment; 2) a pretreated net obtained within the past 12 months; or 3) a net that has been soaked with insecticide within the past 12 months.

Figure 12.3 Trends in Use of Bednets among Women Age 15-49 by Type of Bednet, Zambia 2001-2002 and 2007



12.3 Prophylactic Use of Antimalarial Drugs and Use of Intermittent Preventive Treatment in Pregnant Women

In Zambia, the current drug policy regarding Intermittent Preventive Treatment (IPT) for pregnant women involves the use of sulphadoxine-pyrimethamine (SP). Fansidar is the brand of SP drug predominantly used in Zambia. IPT is offered as a package through focused antenatal care (FANC). The package includes a course of SP/Fansidar, an ITN, and iron supplementation. The 2007 ZDHS results show consistently high use of antenatal care by pregnant women in Zambia (CSO, 2003). For this reason, antenatal care services are used as a conduit for malaria prevention among pregnant women. Women with geographical access barriers receive IPT through traditional birth attendants or during health centre outreach activities.

Table 12.4 presents information on malaria prevention for pregnant women through prophylactic antimalarial drug use and IPT. Survey results show that 87 percent of women took an antimalarial drug during the pregnancy for their last live birth in the two years preceding the survey (93 percent in urban areas and 85 percent in rural areas).

Table 12.4 Prophylactic use of antimalarial drugs and use of Intermittent Preventive Treatment (IPT) by women during pregnancy

Percentage of women age 15-49 with a live birth in the two years preceding the survey who took any antimalarial drugs for prevention, who took SP/Fansidar, and percentage who received Intermittent Preventive Treatment (IPT) during the pregnancy for their last live birth in the two years preceding the survey, by background characteristics, Zambia 2007

Background characteristic	Percentage who took any antimalarial drug	SP/Fansidar		Intermittent Preventive Treatment[1]		Number of women
		Percentage who took any SP/Fansidar	Percentage who took 2+ doses	Percentage who received any SP/Fansidar during an ANC visit	Percentage who received 2+ doses, at least one during an ANC visit	
Residence						
Urban	93.2	92.5	72.7	91.1	71.5	761
Rural	84.8	84.5	62.9	78.8	58.8	1,869
Province						
Central	76.3	75.8	54.7	71.4	51.6	263
Copperbelt	93.3	92.1	79.5	87.8	75.9	369
Eastern	90.2	90.2	66.0	89.5	65.6	407
Luapula	89.8	89.4	73.9	84.5	69.2	243
Lusaka	88.5	87.6	61.4	87.6	61.4	279
Northern	83.5	83.5	63.0	77.6	59.4	430
North-Western	89.9	89.9	68.3	79.7	60.2	153
Southern	87.1	86.5	57.4	80.9	53.8	295
Western	85.3	85.1	66.6	76.5	60.1	192
Education						
No education	78.5	77.9	59.0	70.8	54.7	361
Primary	86.7	86.3	64.3	81.7	60.8	1,653
Secondary	93.4	93.0	71.7	90.7	69.9	558
More than secondary	94.8	94.8	89.1	93.0	87.3	59
Wealth quintile						
Lowest	81.1	80.9	56.7	75.9	53.0	622
Second	84.3	84.1	64.4	76.7	58.9	597
Middle	87.9	87.4	65.7	82.6	62.6	564
Fourth	92.8	91.9	68.9	90.4	67.6	484
Highest	93.8	93.4	79.1	91.8	77.7	364
Total	87.2	86.8	65.7	82.4	62.5	2,631

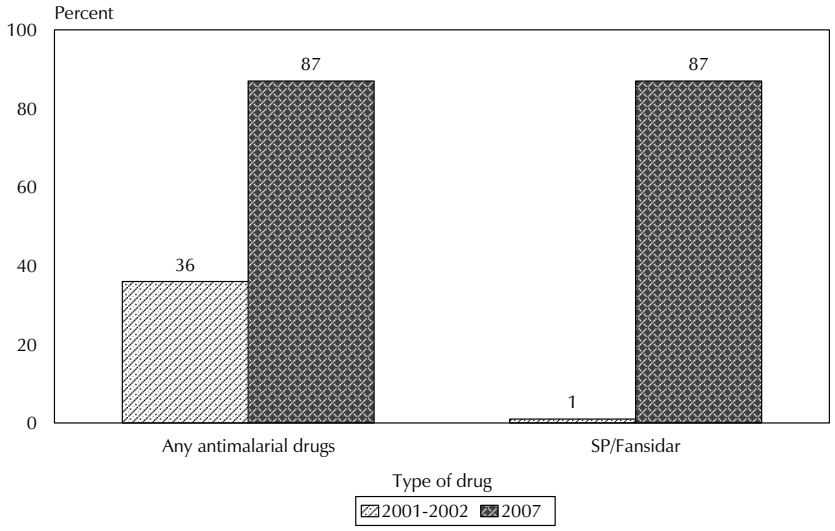
[1] Intermittent Preventive Treatment (IPT) is preventive treatment with a dose of sulfodoxine-pyrimethamine (SP/Fansidar) given to pregnant women at ANC visits.

The survey also collected information on the number of doses of SP/Fansidar taken by pregnant women. Overall, 87 percent of pregnant women received at least one dose of SP/Fansidar to prevent malaria during pregnancy and 66 percent of pregnant women received two or more doses of SP/Fansidar. However, when IPT uptake was assessed using ANC facilities as the delivery point, 82 percent of women reported receiving at least one dose of SP/Fansidar for malaria prevention during an ANC visit, while 63 percent reported receiving the recommended two doses of SP/Fansidar. These findings are in line with those from the 2006 Malaria Indicator Survey (MIS), which reported that 62 percent of pregnant women received more than two IPT doses at ANC facilities (NMCC, 2006).

More pregnant women received SP/Fansidar as IPT during an ANC visit in urban areas than in rural areas (91 percent compared with 79 percent). Among the provinces, the percentage of pregnant women who received SP/Fansidar as IPT during an ANC visit ranged from 90 percent in Eastern to 71 percent in Central province.

Figure 12.4 shows a large increase in the use of antimalarials during pregnancy between the 2001-2002 and 2007 ZDHS surveys (from 36 to 87 percent) and, more specifically, an increase in uptake of the recommended SP/Fansidar (from 1 to 87 percent). Zambia has met the target set in the Abuja Declaration of ensuring that at least 60 percent of all pregnant women at risk of malaria, especially those in their first pregnancy, have access to chemoprophylaxis or intermittent preventive treatment (RBM, 2000).

Figure 12.4 **Trends in Percentage of Women Who Took Antimalarial Drugs as Preventive Treatment During Pregnancy, Zambia 2001-2002 and 2007**



12.4 Prevalence and Prompt Treatment of Fever in Children under Age Five

In 2004, Zambia changed its malaria drug treatment policy for treating children with uncomplicated malaria from monotherapies to artemisinin-based combination therapy (ACT). The combination of artemether and lumafantrine, under the brand name Coartem, is the ACT drug predominantly used in Zambia. Quinine is still the recommended drug for severe or complicated malaria (NMCC, 2008). Zambia is strengthening its national capacity to diagnose and confirm malaria cases with laboratory microscopy or rapid diagnostic tests (RDTs). This is critical to ensure rational drug use to impede the emergence of drug resistance to ACTs. With the scale-up of malaria control activities, there is an anticipated reduction in the proportion of fevers due to malaria. Thus, confirmation of malaria infection will become more important to improve malaria case management and reduce antimalarial drug over-prescription.

The prevalence of fever measures the proportion of febrile children in the population. Because fever is the main symptom of malaria, the proportion of febrile children in the population is a proxy for assessing malaria prevalence. Any reduction in the malaria disease burden should lead to a reduction in the overall prevalence of fever. In the 2007 ZDHS, mothers were asked whether their children under age five had fever in the two weeks preceding the survey. If fever was reported, the mother was asked whether treatment was sought at a health facility; whether the child was given any medication; and if so, how soon the medication was taken after the fever started.

Table 12.5 shows the percentage of children under age five with fever in the two weeks preceding the survey and, among children with fever , the percentage who took antimalarial drugs on the same day or next day following the onset of fever, by background characteristics.

Table 12.5 Prevalence and prompt treatment of fever

Percentage of children under age five with fever in the two weeks preceding the survey, and among children with fever, the percentage who took antimalarial drugs and the percentage who took the drugs the same or next day following the onset of fever, by background characteristics, Zambia 2007

	Children under five		Children under five with fever		
Background characteristic	Percentage with fever in the two weeks preceding the survey	Number of children	Percentage who received antimalarial drugs	Percentage who received antimalarial drugs same or next day	Number of children
Age (in months)					
<12	18.7	1,288	34.7	19.7	241
12-23	22.8	1,272	43.0	22.9	290
24-35	20.8	1,152	35.6	14.7	240
36-47	14.7	1,076	43.7	26.8	159
48-59	10.7	1,072	33.0	19.4	115
Residence					
Urban	16.3	1,697	40.3	24.0	276
Rural	18.5	4,164	37.7	19.3	768
Province					
Central	26.0	584	29.8	16.9	152
Copperbelt	21.3	813	34.7	19.4	173
Eastern	14.4	916	49.5	27.0	132
Luapula	9.9	531	31.0	11.3	52
Lusaka	13.0	660	35.9	22.5	86
Northern	24.5	932	40.5	18.1	228
North-Western	15.0	374	38.1	20.5	56
Southern	15.0	629	40.8	32.2	94
Western	16.8	422	43.8	15.6	71
Mother's education					
No education	17.1	796	39.7	18.7	136
Primary	18.6	3,713	37.7	19.1	692
Secondary	16.7	1,217	38.5	25.7	203
More than secondary	10.3	136	*	*	14
Wealth quintile					
Lowest	17.2	1,398	35.3	18.5	240
Second	19.0	1,321	42.6	18.2	251
Middle	19.2	1,233	36.6	18.2	237
Fourth	19.2	1,100	38.3	25.6	212
Highest	13.0	808	39.6	25.7	105
Total	17.8	5,861	38.4	20.5	1,044

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

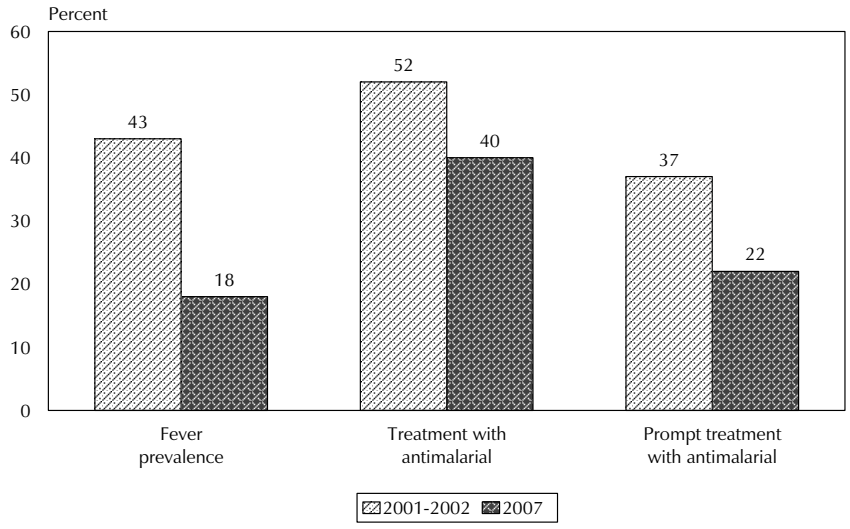
Eighteen percent of children under age five had fever during the two weeks preceding the interview (16 percent in urban areas and 19 percent in rural areas). Luapula (10 percent) was the province with the lowest percentage of children under-five with fever, while Central (26 percent) was the highest.

Fever prevalence was highest among children age 1-3 and lowest among those age 4 and older. Among children with fever in the two weeks preceding the survey, 38 percent received antimalarial drugs. There is little difference in antimalarial treatment by residence; roughly two in five urban and rural children with fever received antimalarial drugs. Among the provinces, Eastern (50 percent) had the highest percentage of children with fever who took antimalarial drugs, while Central (30 percent) had the lowest.

Prompt treatment of fever is one indicator used to measure the quality of case management. One in five children with fever in the two weeks before the survey took antimalarial drugs on the same day or day after the onset of fever. Urban children are somewhat more likely to receive prompt treatment with antimalarials than rural children (24 percent compared with 19 percent). The percentage of children treated promptly for fever increases with the mother's level of education, from 19 percent among women with no education to 26 percent among women with secondary education. Likewise, prompt treatment of fever increases with wealth quintile.

Figure 12.5 compares the prevalence of fever and antimalarial treatment between the 2001-2002 ZDHS and the 2007 ZDHS. The 2007 ZDHS shows lower prevalence of fever among children under five than the 2001-2002 ZDHS (18 and 43 percent, respectively). These results are in line with findings from the 2006 and 2008 Malaria Indicator Surveys (MIS), which show a parasite prevalence reduction from 20 percent in 2006 to 15 percent in 2008 (NMCC, 2008).

Figure 12.5 **Trends in Prevalence and Treatment of Fever in Children Under Five Who Had Fever in the Two Weeks Preceding the Survey, Zambia 2001-2002 and 2007**



In the 2007 ZDHS, mothers with children under five who had fever in the two weeks preceding the survey and were treated with antimalarial drugs were asked about the type of drugs used to treat the fever. Table 12.6 shows the percentage of children under five with fever who took specific antimalarial drugs, and when the drugs were taken.

Twenty-three percent of children took SP/Fansidar, 11 percent took Coartem (ACT), 4 percent took quinine, and less than 1 percent took Chloroquine, Arinate, or Amodiaquine. Urban children were more likely than rural children to receive Coartem (15 and 10 percent, respectively), and less likely to receive quinine (2 and 4 percent, respectively).

Table 12.6 Type and timing of antimalarial drugs

Among children under age five with fever in the two weeks preceding the survey, percentage who received specific antimalarial drugs and percentage who received each drug the same or next day after developing the fever, by background characteristics, Zambia 2007

Background characteristic	Percentage of children who took drug: SP/ Fansidar	Chloro-quine	Amodia-quine	Quinine	Coartem	Arinate	Other anti-malarial	Percentage of children who took drug the same or next day: SP/ Fansidar	Chloro-quine	Amodia-quine	Quinine	Coartem	Arinate	Other anti-malarial	Number of children with fever
Age (in months)															
<12	24.4	0.0	0.0	3.0	7.3	0.0	0.0	13.6	0.0	0.0	1.5	4.7	0.0	0.0	241
12-23	25.9	0.2	0.2	2.6	14.5	0.2	0.0	13.9	0.0	0.0	1.7	7.6	0.2	0.0	290
24-35	21.7	1.4	0.0	4.0	9.0	0.0	0.0	8.4	0.9	0.0	0.8	4.6	0.0	0.0	240
36-47	24.5	0.8	0.0	6.5	11.9	0.0	0.0	11.3	0.8	0.0	5.4	9.3	0.0	0.0	159
48-59	16.0	0.0	0.6	3.0	13.4	0.0	1.3	8.1	0.0	0.6	1.3	8.1	0.0	1.3	115
Residence															
Urban	22.5	0.0	0.5	1.9	14.9	0.2	0.6	11.8	0.0	0.3	1.3	10.0	0.2	0.6	276
Rural	23.5	0.7	0.0	4.3	9.7	0.0	0.0	11.4	0.4	0.0	2.2	5.3	0.0	0.0	768
Province															
Central	25.0	0.0	0.5	1.5	2.8	0.0	0.0	13.6	0.0	0.5	0.8	2.0	0.0	0.0	152
Copperbelt	13.3	0.0	0.0	2.6	19.4	0.0	0.0	3.6	0.0	0.0	1.5	14.8	0.0	0.0	173
Eastern	30.3	2.0	0.0	4.9	12.3	0.0	0.0	15.8	1.0	0.0	2.0	8.2	0.0	0.0	132
Luapula	20.1	0.0	0.0	5.8	5.1	0.0	0.0	6.2	0.0	0.0	3.3	1.8	0.0	0.0	52
Lusaka	21.4	0.7	0.0	2.7	10.0	0.0	1.8	14.0	0.7	0.0	2.0	4.0	0.0	1.8	86
Northern	25.0	0.7	0.3	5.4	9.7	0.0	0.0	11.7	0.7	0.0	2.7	3.0	0.0	0.0	228
North-Western	19.1	1.2	0.0	10.7	9.4	0.0	0.0	11.6	0.0	0.0	6.0	2.9	0.0	0.0	56
Southern	21.4	0.0	0.0	0.7	18.7	0.7	0.0	16.8	0.0	0.0	0.7	14.7	0.7	0.0	94
Western	35.8	0.0	0.0	0.7	7.2	0.0	0.0	11.8	0.0	0.0	0.7	3.0	0.0	0.0	71
Mother's education															
No education	31.5	0.0	0.0	0.5	7.7	0.0	0.0	14.5	0.0	0.0	0.5	3.7	0.0	0.0	136
Primary	22.3	0.8	0.1	4.7	10.3	0.0	0.2	10.8	0.5	0.0	2.1	5.6	0.0	0.2	692
Secondary	19.4	0.0	0.0	2.6	16.5	0.3	0.0	11.1	0.0	0.0	2.6	12.1	0.3	0.0	203
More than secondary	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14
Wealth quintile															
Lowest	22.5	1.1	0.0	5.4	7.7	0.0	0.0	11.4	0.5	0.0	3.0	3.9	0.0	0.0	240
Second	26.9	0.8	0.0	3.0	11.9	0.0	0.0	10.2	0.8	0.0	1.3	5.9	0.0	0.0	251
Middle	22.7	0.3	0.0	4.6	9.4	0.0	0.0	11.6	0.0	0.0	2.1	4.4	0.0	0.0	237
Fourth	19.7	0.0	0.0	2.9	15.5	0.0	0.7	11.2	0.0	0.0	2.1	11.9	0.0	0.7	212
Highest	25.1	0.0	1.3	0.8	11.7	0.6	0.0	15.4	0.0	0.7	0.8	8.2	0.6	0.0	105
Total	23.3	0.5	0.1	3.6	11.1	0.1	0.1	11.5	0.3	0.1	2.0	6.5	0.1	0.1	1,044

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

A similar pattern was observed among children who took an antimalarial drug the same day or next day after the onset of fever. In urban areas, 10 percent of children received Coartem, and 1 percent received quinine the same or next day after the fever began, while in rural areas 5 percent of children received Coartem and 2 percent received quinine the same or next day.

Home treatment of fever with antimalarial drugs is common in Zambia because of the endemic nature of the disease. Households often stock up on antimalarial drugs especially during peak malaria seasons. The 2007 ZDHS collected information on the availability of antimalarial drugs in the home at the time the child with fever was treated with the drugs. This information is presented in Table 12.7.

Table 12.7 Availability at home of anti-malarial drugs taken by children with fever

Among children under age five who had fever in the two weeks preceding the survey and who took specific antimalarial drugs, the percentage for whom the drug was at home when the child became ill with fever, Zambia 2007

Drug	Percentage for whom the drug was at home when child became ill with fever	Number of children who took the specific anti-malarial drug
SP/ Fansidar	10.3	243
Quinine	(10.2)	38
Coartem	11.2	116
Any antimalarial drugs	10.6	401

Note: Figures in parentheses are based on 25-49 unweighted cases. Chloroquine, Amodiaquine, Arinate, and other antimalarials were taken by fewer than 25 unweighted cases and the figures have been suppressed.

For 11 percent of children who took any antimalarial drugs, these drugs were already in the home at the time the child fell ill with fever. Antimalarial drugs were already in the home for 10 percent of children who were given SP/Fansidar, for 10 percent who were given quinine, and for 11 percent who were given Coartem.

12.5 INDOOR RESIDUAL SPRAYING

The 2007 ZDHS asked households about indoor residual spraying (IRS). Each household was asked, "In the last 12 months, has your house been sprayed to kill mosquitoes?" Table 12.8 indicates that 16 percent of households were sprayed within the 12 months preceding the survey. Urban households and those in the two highest wealth quintiles were more likely to have been sprayed than rural households and households in other wealth quintiles. Household spraying is most common in Copperbelt (48 percent) and Lusaka (34 percent), and least common in Eastern, Luapula, Northern, and Western provinces (all less than 3 percent).

Households that had been sprayed in the 12 months preceding the survey were asked who performed the IRS. Three in five households were sprayed by the Ministry of Health. Fifteen percent were sprayed by the local council, 10 percent were sprayed by someone in the household, and 8 percent were sprayed by mining corporations.

Table 12.8 Dwelling sprayed against mosquitoes in the past 12 months

Percent distribution of households by whether the dwelling was sprayed for mosquitoes in the past 12 months and the percentage of dwellings sprayed by specific organizations and individuals, according to background characteristics, Zambia 2007

Background characteristic	Dwelling sprayed in the past 12 months			Total	Number of households	Organization or individual that sprayed the dwelling[1]						Number of households sprayed
	Yes	No	Missing			Ministry of Health	Council	Mines	Self	Other	Missing	
Residence												
Urban	39.0	60.8	0.2	100.0	2,479	60.7	15.6	8.7	9.2	7.5	0.1	966
Rural	3.2	96.6	0.2	100.0	4,685	59.0	10.3	5.7	13.8	11.6	1.4	152
Province												
Central	11.6	88.3	0.1	100.0	666	67.4	8.2	7.3	10.3	8.5	0.9	77
Copperbelt	48.2	51.5	0.2	100.0	1,108	52.9	19.6	13.3	5.0	11.4	0.0	534
Eastern	2.1	97.8	0.2	100.0	1,107	(46.8)	(0.0)	(0.0)	(47.3)	(0.0)	(5.9)	23
Luapula	0.3	99.7	0.0	100.0	592	*	*	*	*	*	*	2
Lusaka	33.7	65.9	0.3	100.0	998	71.5	15.2	0.0	9.1	4.6	0.0	337
Northern	2.4	97.3	0.3	100.0	1,040	(31.0)	(2.8)	(0.0)	(63.4)	(2.8)	(0.0)	25
North-Western	8.4	91.6	0.0	100.0	399	44.6	3.4	48.0	6.2	9.7	0.9	34
Southern	11.6	88.1	0.3	100.0	681	82.8	2.3	0.0	12.5	2.3	0.0	79
Western	1.2	98.5	0.3	100.0	574	*	*	*	*	*	*	7
Wealth quintile												
Lowest	0.6	99.2	0.2	100.0	1,332	*	*	*	*	*	*	8
Second	1.7	98.1	0.2	100.0	1,560	68.7	2.2	4.4	16.5	4.4	8.2	27
Middle	4.1	95.8	0.1	100.0	1,502	61.4	14.4	12.1	8.3	4.9	0.5	62
Fourth	28.1	71.7	0.2	100.0	1,486	63.5	16.5	6.1	5.9	9.4	0.2	418
Highest	47.0	52.6	0.4	100.0	1,284	58.1	14.5	9.6	11.9	7.6	0.0	603
Total	15.6	84.2	0.2	100.0	7,164	60.5	14.8	8.3	9.8	8.0	0.3	1,118

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Percentages do not sum to 100% because multiple responses were allowed.

HIV AND AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOUR 13

Jacob R.S. Malungo and Josephine Chewe-Banda

13.1 INTRODUCTION

Acquired Immune Deficiency Syndrome (AIDS), caused by a human immunodeficiency virus (HIV) that weakens the immune system, making the body susceptible to and unable to recover from other opportunistic diseases that lead to death through these secondary infections. In Zambia, the predominant mode of HIV transmission is through heterosexual contact, followed by perinatal transmission, in which the mother passes the virus to the child during pregnancy, delivery, or breastfeeding. Other modes of transmission are through infected blood and unsafe injections.

The Prevention of Mother-to-Child Transmission of HIV (PMTCT) programme is a priority in the fight against AIDS in children in Zambia. The programme seeks to prevent paediatric HIV infection through primary prevention of HIV in the childbearing population; prevention of unintended pregnancies; prevention of mother-to-child transmission of HIV through a single-dose Nevirapine regimen; and provision of care and follow-up psychosocial support.

The future course of Zambia's AIDS epidemic depends on a number of variables including the levels of AIDS-related knowledge in the general population; social stigmatisation; risk behaviour modification; access to high quality services for sexually transmitted infections (STI); provision and uptake of HIV counselling and testing; and access to care and antiretroviral therapy (ART), including prevention and treatment of opportunistic infections. The principal objective of this chapter is to establish the prevalence of relevant knowledge, perceptions and behaviours at the national level and within geographic and socio-economic sub-populations. In this way, the AIDS control programme in Zambia can target those groups most in need of information and most at risk of contracting HIV.

This chapter presents information on current levels of HIV and AIDS knowledge, attitudes, and related behaviours in the general adult population. The chapter then focuses on HIV and AIDS knowledge and patterns of sexual activity among young people, because young adults are the main target of many HIV-prevention efforts.

13.2 HIVAIDS KNOWLEDGE, TRANSMISSION, AND PREVENTION METHODS

13.2.1 Awareness of HIV and AIDS

The 2007 ZDHS respondents were asked whether they had heard of HIV or AIDS. Those who reported having heard of HIV or AIDS were asked a number of questions about whether and how the virus that causes AIDS can be avoided.

Table 13.1 shows the percentage of women and men age 15-49 who have heard of AIDS, by background characteristics. The results indicate that a general awareness of AIDS among men and women is universal (99 percent). The results also show that knowledge of AIDS is high among all sub-groups of men and women by background characteristics.

Table 13.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of HIV and AIDS, by background characteristics, Zambia 2007

Background characteristic	Women		Men	
	Has heard of AIDS	Number of women	Has heard of AIDS	Number of men
Age				
15-24	98.6	2,944	99.1	2,482
..15-19	98.3	1,574	98.9	1,416
..20-24	98.9	1,370	99.3	1,066
25-29	99.2	1,363	99.7	977
30-39	99.5	1,803	99.7	1,671
40-49	98.9	1,036	99.4	865
Marital status				
Never married	98.6	1,856	99.3	2,553
..Ever had sex	99.4	904	99.7	1,585
..Never had sex	97.8	952	98.5	969
Married/living together	99.0	4,402	99.4	3,168
Divorced/separated/sidowed	99.5	888	100.0	274
Residence				
Urban	99.7	3,009	99.7	2,601
Rural	98.4	4,137	99.2	3,395
Province				
Central	96.0	659	99.5	559
Copperbelt	99.8	1,264	99.5	1,140
Eastern	98.8	971	99.2	795
Luapula	98.6	530	99.9	387
Lusaka	100.0	1,172	99.6	1,072
Northern	98.6	966	98.5	805
North-Western	99.9	365	99.7	303
Southern	98.9	727	99.5	621
Western	99.3	492	99.5	315
Education				
No education	97.2	744	97.8	267
Primary	98.8	3,891	99.2	2,775
Secondary	99.6	2,140	99.7	2,512
More than secondary	100.0	371	99.6	441
Wealth quintile				
Lowest	97.8	1,240	98.6	1,114
Second	98.5	1,283	99.4	869
Middle	98.7	1,280	99.5	1,097
Fourth	99.6	1,567	99.5	1,381
Highest	99.8	1,776	99.8	1,534
Total 15-49	99.0	7,146	99.4	5,995
Men 50-59	na	na	99.9	505
Total men 15-59	na	na	99.4	6,500

na = Not applicable

13.2.2 Knowledge of HIV Prevention

HIV among adults is mainly transmitted through heterosexual contact between an HIV-positive partner and an HIV-negative partner. Zambia's HIV-prevention programme has sought to reduce sexual transmission of the virus by programmatically promoting three behaviour change models—sexual abstinence, mutually faithful monogamy among uninfected couples, and condom use for people not practicing abstinence. In the 2007 ZDHS, men and women were asked if it is possible to reduce the risk of acquiring HIV through consistently using condoms, limiting sexual intercourse to one uninfected partner who has no other sex partners, and abstaining from sexual intercourse.

Table 13.2 shows that 73 percent of women and 74 percent of men age 15-49 agree that using a condom every time a person has sexual intercourse can reduce the risk of contracting HIV. The table shows that 90 percent of women and 89 percent of men agree that limiting sexual intercourse to one uninfected partner is a way to reduce the risk of contracting HIV. Sixty-nine percent of women and men know that both using condoms consistently and limiting sexual intercourse to one uninfected partner who has no other partners can reduce HIV risk. The table also indicates that both women and men agree that abstaining from sexual intercourse is an effective way to reduce the risk of contracting HIV (85 percent each).

Table 13.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting being infected with HIV by using condoms every time they have sexual intercourse, by having one sex partner who is not infected and has no other partners, and by abstaining from sexual intercourse, by background characteristics, Zambia 2007

Background characteristic	Percentage of women who say HIV can be prevented by:				Number of women	Percentage of men who say HIV can be prevented by:				Number of men
	Using condoms[1]	Limiting sexual intercourse to one HIV-negative partner[2]	Using condoms and limiting sexual intercourse to one HIV-negative partner[1,2]	Abstaining from sexual intercourse		Using condoms[1]	Limiting sexual intercourse to one HIV-negative partner[2]	Using condoms and limiting sexual intercourse to one HIV-negative partner[1,2]	Abstaining from sexual intercourse	
Age										
15-24	71.0	86.6	65.4	82.5	2,944	74.1	86.3	67.2	83.6	2,482
15-19	66.5	83.0	60.2	80.2	1,574	73.0	84.9	65.2	82.2	1,416
20-24	76.3	90.7	71.3	85.3	1,370	75.6	88.1	69.9	85.4	1,066
25-29	76.0	90.8	71.8	85.3	1,363	72.7	89.4	68.9	86.1	977
30-39	75.5	92.6	72.3	88.0	1,803	75.9	90.2	72.3	85.9	1,671
40-49	71.7	91.8	69.2	85.7	1,036	72.0	91.3	68.7	88.2	865
Marital status										
Never married	67.9	84.4	61.9	80.8	1,856	74.0	86.8	67.2	84.4	2,553
Ever had sex	77.1	90.5	72.3	83.8	904	77.2	88.6	70.7	85.6	1,585
Never had sex	59.3	78.6	52.0	77.9	952	68.9	84.0	61.6	82.5	969
Married/living together	75.3	91.8	71.9	86.2	4,402	74.0	89.8	70.4	86.0	3,168
Divorced/separated/ widowed	73.7	90.3	68.8	86.9	888	75.7	90.8	71.7	85.9	274
Residence										
Urban	73.1	89.9	68.2	84.0	3,009	76.3	91.5	71.7	86.9	2,601
Rural	73.3	89.6	69.4	85.6	4,137	72.4	86.4	67.1	84.1	3,395
Province										
Central	71.9	90.6	69.5	88.8	659	78.7	93.6	74.7	90.8	559
Copperbelt	72.9	89.7	69.0	79.8	1,264	78.3	93.0	74.1	89.2	1,140
Eastern	79.1	94.9	78.1	93.8	971	61.4	75.9	54.8	78.6	795
Luapula	69.8	91.6	66.2	79.3	530	79.1	96.0	77.2	93.3	387
Lusaka	69.1	89.1	63.4	85.2	1,172	73.3	90.8	69.0	84.6	1,072
Northern	66.4	79.0	56.2	78.8	966	70.9	83.7	62.3	77.6	805
North-Western	74.7	91.4	71.6	83.7	365	83.2	92.9	80.3	85.5	303
Southern	75.9	91.0	71.9	84.9	727	74.7	91.4	70.4	89.7	621
Western	85.7	95.4	84.5	93.5	492	77.3	82.0	71.6	82.0	315
Education										
No education	66.9	87.8	63.6	83.4	744	67.4	84.3	61.7	82.4	267
Primary	72.6	88.9	68.3	84.4	3,891	71.4	86.4	66.0	83.8	2,775
Secondary	75.0	90.6	70.1	85.2	2,140	75.9	90.4	71.0	86.3	2,512
More than secondary	81.8	96.6	79.0	91.1	371	84.4	95.2	82.2	91.4	441
Wealth quintile										
Lowest	74.7	89.7	71.0	88.4	1,240	68.2	82.6	62.9	80.1	1,114
Second	71.6	88.5	68.0	84.4	1,283	72.4	86.8	66.7	84.4	869
Middle	72.7	89.1	68.1	83.3	1,280	74.4	88.9	68.8	86.3	1,097
Fourth	72.2	89.0	67.6	83.4	1,567	74.3	90.0	69.3	86.2	1,381
Highest	74.5	91.5	69.9	85.3	1,776	78.9	92.4	75.0	88.1	1,534
Total 15-49	73.2	89.7	68.9	84.9	7,146	74.1	88.6	69.1	85.3	5,995
Men 50-59	na	na	na	na	na	69.7	90.6	66.9	85.2	505
Total men 15-59	na	na	na	na	na	73.7	88.8	68.9	85.3	6,500

na = Not applicable
[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

Table 13.2 shows differences in levels of knowledge of these prevention methods by background characteristics. Youth age 15-19 generally have lower levels of knowledge than those in older age groups, and never-married respondents who have not yet had sex are also less likely to know about HIV prevention methods than those who have married or initiated sexual intercourse. There is considerable variation in knowledge levels by province; for example, 86 percent of women in Western province recognize that using condoms is a way to reduce the risk of contracting HIV, compared with 66 percent of women in Northern. Women and men with higher education are more likely than those with less education to be aware of the various methods.

13.2.3 Rejection of Misconceptions about HIV and AIDS

As part of the effort to assess HIV and AIDS knowledge, the 2007 ZDHS obtained information on common misconceptions about HIV transmission. Respondents were asked whether they think it is possible for a healthy-looking person to have HIV and whether they believe HIV is transmitted through mosquito bites, supernatural means, or from sharing food with a person who has AIDS.

Tables 13.3.1 and 13.3.2 show the proportion of women and men who know that a healthy-looking person can have HIV and who reject common misconceptions about HIV transmission. Eighty-three percent of women and 87 percent of men agree that a healthy-looking person can have HIV. This represents an increase in the levels observed in the 2001-2002 ZDHS (77 percent of women and 79 percent of men, respectively). With respect to misconceptions about methods of HIV transmission, 66 percent of women and 67 percent of men believe HIV cannot be transmitted by mosquitoes. Seventy-nine percent of women and 84 percent of men believe HIV cannot be transmitted by supernatural means. Eighty-three percent of women and 85 percent of men believe a person cannot contract HIV by sharing food with a person who has AIDS.

Two composite measures of HIV and AIDS knowledge are included in Tables 13.3.1 and 13.3.2. The first measure indicates that around half of women and men (49 and 53 percent, respectively) know that the two most common misconceptions about HIV and AIDS (i.e., HIV can be transmitted by supernatural means or by mosquito bites) are incorrect and also are aware that a healthy-looking person can have HIV. The second measure shows that 36 percent of women and 39 percent of men have what can be considered comprehensive knowledge about HIV and AIDS—1) they know that both condom use and limiting sex partners to one uninfected partner are HIV-prevention methods; 2) they are aware that a healthy-looking person can have HIV, and 3) they reject the two most common local misconceptions, that HIV and AIDS can be transmitted through supernatural means or through mosquito bites. Respondents in urban areas are more likely than those in rural areas to have comprehensive knowledge. Among women, the level of comprehensive knowledge is highest in Lusaka (43 percent), while among males it is highest in Copperbelt (53 percent). The proportion with comprehensive knowledge about HIV and AIDS rises with level of education and wealth quintile among both women and men.

Table 13.3.1 Comprehensive knowledge about HIV and AIDS: women

Percentage of women age 15-49 who say that a healthy-looking person can have HIV and who, in response to prompted questions, correctly reject local misconceptions about HIV transmission and prevention, and the percentage with comprehensive knowledge about HIV, by background characteristics, Zambia 2007

Background characteristic	Percentage of women who say that: A healthy-looking person can have HIV	HIV cannot be transmitted by mosquito bites	HIV cannot be transmitted by super-natural means	A person cannot contract HIV by sharing food with a person who has HIV	Percentage who say that a healthy-looking person can have HIV and who reject the two most common local misconceptions[1]	Percentage with a comprehensive knowledge about HIV[2]	Number of women
Age							
15-24	80.5	66.1	80.4	81.8	49.4	34.0	2,944
15-19	78.8	67.7	80.8	82.2	49.5	32.3	1,574
20-24	82.5	64.3	79.8	81.3	49.2	36.0	1,370
25-29	85.6	66.8	80.1	85.2	51.4	37.7	1,363
30-39	84.4	66.9	76.8	84.1	48.9	37.7	1,803
40-49	81.5	64.4	74.8	81.2	48.1	35.5	1,036
Marital status							
Never married	81.3	73.6	82.6	84.5	55.9	37.5	1,856
Ever had sex	84.6	73.1	82.5	86.0	57.8	43.5	904
Never had sex	78.2	73.9	82.7	83.0	54.1	31.9	952
Married/living together	82.4	62.8	77.1	82.2	46.3	35.1	4,402
Divorced/separated/ sidowed	86.6	67.3	77.7	83.3	51.4	36.1	888
Residence							
Urban	89.2	77.0	86.0	89.7	63.5	44.5	3,009
Rural	77.8	58.3	73.2	78.0	39.2	29.6	4,137
Province							
Central	86.5	56.3	65.7	79.5	41.4	32.0	659
Copperbelt	86.0	73.9	84.6	87.3	58.4	41.7	1,264
Eastern	83.9	55.5	77.7	79.8	42.6	34.0	971
Luapula	70.7	62.0	76.5	78.8	42.9	33.4	530
Lusaka	91.4	77.4	87.2	91.0	66.3	43.2	1,172
Northern	69.1	69.0	87.1	83.0	45.4	27.5	966
North-Western	82.9	53.9	53.7	75.5	28.6	22.0	365
Southern	87.2	63.7	82.2	82.7	51.3	40.7	727
Western	77.7	65.5	60.3	73.6	38.4	34.4	492
Education							
No education	69.5	48.0	63.5	68.6	27.3	19.8	744
Primary	79.1	58.7	75.3	79.3	40.4	29.2	3,891
Secondary	90.9	81.4	87.5	92.2	67.6	48.3	2,140
More than secondary	97.6	93.2	91.5	96.6	84.2	66.1	371
Wealth quintile							
Lowest	73.4	56.3	70.7	74.9	35.7	27.4	1,240
Second	76.9	56.7	70.6	75.1	36.6	26.9	1,283
Middle	80.2	58.3	75.1	80.9	39.5	29.4	1,280
Fourth	84.9	69.0	83.7	85.7	53.4	37.2	1,567
Highest	93.0	83.1	87.9	93.3	71.9	51.7	1,776
Total 15-49	82.6	66.2	78.6	82.9	49.4	35.9	7,146

[1] Two most common local misconceptions: HIV can be transmitted by: 1) mosquito bites 2) supernatural means

[2] Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chances of contracting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission and prevention.

Table 13.3.2 Comprehensive knowledge about HIV and AIDS: men

Percentage of men age 15-49 who say that a healthy-looking person can have HIV and who, in response to prompted questions, correctly reject local misconceptions about HIV transmission and prevention, and the percentage with comprehensive knowledge about HIV by background characteristics, Zambia 2007

Background characteristic	Percentage of men who say that: A healthy-looking person can have HIV	HIV cannot be transmitted by mosquito bites	HIV cannot be transmitted by super-natural means	A person cannot contract HIV by sharing food with a person who has HIV	Percentage who say that a healthy-looking person can have HIV and who reject the two most common local misconceptions[1]	Percentage with a compre-hensive knowledge about HIV[2]	Number of men
Age							
15-24	84.2	66.8	85.0	84.2	52.3	36.9	2,482
15-19	82.3	66.9	85.0	83.9	51.2	35.0	1,416
20-24	86.7	66.7	85.1	84.5	53.8	39.5	1,066
25-29	88.3	67.3	84.4	87.5	54.4	39.5	977
30-39	88.7	67.6	83.1	85.9	53.3	40.7	1,671
40-49	89.7	67.6	81.5	85.8	55.0	39.8	865
Marital status							
Never married	85.3	71.0	85.3	86.3	55.9	39.6	2,553
Ever had sex	87.8	71.3	85.3	88.0	56.6	41.9	1,585
Never had sex	81.1	70.4	85.3	83.5	54.6	35.9	969
Married/living together	87.9	64.4	82.8	84.5	51.2	38.1	3,168
Divorced/separated/ sidowed	90.7	65.0	83.8	87.4	53.8	39.8	274
Residence							
Urban	91.9	76.7	88.0	89.5	65.2	49.2	2,601
Rural	83.1	60.0	80.7	82.3	44.2	30.9	3,395
Province							
Central	92.3	64.5	81.0	83.5	52.5	40.1	559
Copperbelt	91.7	79.5	88.9	90.6	68.7	52.8	1,140
Eastern	88.4	60.7	84.6	85.3	48.9	28.5	795
Luapula	73.9	62.4	89.5	85.4	42.4	33.6	387
Lusaka	92.6	72.7	85.5	87.0	60.9	45.4	1,072
Northern	76.2	70.6	89.4	87.1	52.2	34.0	805
North-Western	88.1	61.4	68.9	78.7	41.2	34.7	303
Southern	89.1	54.5	77.3	80.2	42.4	31.5	621
Western	74.8	53.6	69.8	77.2	34.2	26.7	315
Education							
No education	73.6	46.0	70.5	71.2	27.6	19.2	267
Primary	82.0	55.0	79.8	79.3	39.0	25.9	2,775
Secondary	91.9	78.5	88.5	91.7	66.6	49.5	2,512
More than secondary	97.7	92.8	91.0	96.5	83.9	71.1	441
Wealth quintile							
Lowest	81.9	53.2	76.8	79.9	38.1	24.5	1,114
Second	79.7	61.7	81.3	81.2	43.1	28.6	869
Middle	83.6	59.7	82.4	83.5	44.0	32.2	1,097
Fourth	89.9	71.2	86.0	86.7	58.2	42.3	1,381
Highest	94.3	82.3	89.6	92.1	72.4	56.5	1,534
Total 15-49	86.9	67.2	83.9	85.4	53.3	38.8	5,995
Men 50-59	86.7	64.9	79.4	81.9	49.2	35.5	505
Total men 15-59	86.9	67.1	83.5	85.1	53.0	38.6	6,500

[1] Two most common local misconceptions: HIV can be transmitted by: 1) mosquito bites 2) supernatural means
[2] Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chances of contracting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission and prevention.

13.3 KNOWLEDGE ABOUT MOTHER-TO-CHILD TRANSMISSION

Increasing the level of knowledge about HIV transmission from mother to child and reducing the risk of transmission by using antiretrovirals prior before delivery is critical to reducing mother-to-child transmission (MTCT). To assess MTCT knowledge, respondents were asked if HIV can be transmitted from a mother to a child through breastfeeding and whether a mother with HIV can reduce the risk of transmission to the baby by taking certain drugs during pregnancy.

Table 13.4 shows that 85 percent of women and 75 percent of men recognize that HIV can be transmitted through breastfeeding. This is an increase from the 2001-2002 ZDHS in which 71 percent of women and 65 percent of and men reported that HIV can be transmitted by breastfeeding. Although knowledge about mother-to-child transmission has increased, knowledge about how this risk can be reduced is still limited; 68 percent of women and 56 percent of men know that the risk of MTCT can be reduced by taking special drugs. Sixty-three percent of women and 46 percent of men are aware that both HIV can be transmitted through breastfeeding and that the risk of MTCT can be reduced by taking special drugs. Table 13.4 also shows that MTCT knowledge increases with level of education and wealth quintile, and that it is higher in urban areas than in rural areas.

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

Percentage of women and men who know that HIV can be transmitted from mother to child by breastfeeding and percentage who know that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by the mother taking special drugs during pregnancy, by background characteristics, Zambia 2007

	Percentage of women who know that:				Percentage of men who know that:			
Background characteristic	HIV can be transmitted by breast-feeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and the risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breast-feeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and the risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Age								
15-24	81.4	61.5	56.2	2,944	69.9	48.3	38.6	2,482
15-19	77.6	54.3	48.8	1,574	65.9	42.6	33.1	1,416
20-24	85.7	69.8	64.8	1,370	75.1	55.8	45.9	1,066
25-29	86.2	72.6	66.7	1,363	76.8	58.1	47.2	977
30-39	88.9	74.5	70.0	1,803	77.1	62.7	53.0	1,671
40-49	85.9	69.9	64.5	1,036	81.1	64.9	54.6	865
Marital status								
Never married	78.0	56.7	50.4	1,856	69.3	48.2	38.1	2,553
Ever had sex	83.3	65.6	59.6	904	72.7	51.9	42.0	1,585
Never had sex	72.9	48.2	41.7	952	63.8	42.3	31.7	969
Married/living together	87.2	72.2	67.0	4,402	78.2	62.1	52.1	3,168
Divorced/separated/ sidowed	87.8	71.8	68.8	888	83.1	64.2	56.4	274
Currently pregnant								
Pregnant	87.6	72.7	69.0	762	na	na	na	na
Not pregnant or not sure	84.5	67.6	62.2	6,384	na	na	na	na
Residence								
Urban	87.7	77.1	70.8	3,009	72.9	57.5	46.1	2,601
Rural	82.8	61.6	57.2	4,137	76.0	55.3	46.5	3,395
Province								
Central	78.2	59.4	55.2	659	68.7	58.5	45.3	559
Copperbelt	88.4	72.4	65.5	1,264	73.0	53.0	42.5	1,140
Eastern	93.0	68.6	67.2	971	78.3	55.7	49.6	795
Luapula	86.3	55.0	51.2	530	84.5	56.0	49.7	387
Lusaka	87.5	80.6	74.7	1,172	71.7	57.9	45.4	1,072
Northern	78.8	63.8	56.5	966	74.3	59.7	48.2	805
North-Western	82.1	56.6	51.7	365	80.4	50.1	43.0	303
Southern	80.5	73.2	65.4	727	74.9	61.1	50.4	621
Western	80.9	61.8	59.4	492	74.8	48.5	43.3	315
Education								
No education	80.5	52.7	50.2	744	74.7	46.4	39.8	267
Primary	84.0	66.3	61.5	3,891	74.0	51.5	43.2	2,775
Secondary	86.9	73.6	67.0	2,140	75.2	58.7	47.5	2,512
More than secondary	90.8	86.0	80.0	371	76.0	78.6	62.9	441
Wealth quintile								
Lowest	82.5	57.3	54.2	1,240	74.1	52.6	44.5	1,114
Second	81.5	59.6	55.6	1,283	76.7	56.8	47.1	869
Middle	82.9	65.3	58.9	1,280	77.5	53.9	45.4	1,097
Fourth	85.8	75.0	69.0	1,567	74.4	57.3	46.9	1,381
Highest	89.5	77.8	71.7	1,776	72.1	59.5	47.4	1,534
Total 15-49	84.9	68.1	62.9	7,146	74.6	56.3	46.3	5,995
Men 50-59	na	na	na	na	81.7	66.5	56.3	505
Total men 15-59	na	na	na	na	75.2	57.1	47.1	6,500

na = Not applicable

13.4 ATTITUDES TOWARDS PEOPLE LIVING WITH AIDS

HIV and AIDS have generated fear, anxiety, and prejudice against people living with HIV/AIDS. Being HIV positive also creates widespread stigma and discrimination in a population, and can adversely affect both people's willingness to be tested for HIV and adherence to antiretroviral therapy. Reducing stigma and discrimination is therefore an important element in prevention, management, and control of the HIV epidemic.

In the 2007 ZDHS, women and men who had heard of HIV and AIDS were asked a number of questions to assess the level of stigma associated with HIV and AIDS. Tables 13.5.1 and 13.5.2 present these results for women and men, respectively.

Table 13.5.1 Accepting attitudes towards people living with HIV/AIDS: Women

Among women age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes towards people with HIV/AIDS, by background characteristics, Zambia 2007

Background characteristic	Percentage of women who: Are willing to care for a family member with HIV or AIDS in respondent's home	Would buy fresh vegetables from a shopkeeper who has HIV	Say that a female teacher with HIV who is not sick should be allowed to continue teaching	Would not want to keep secret that a family member is HIV positive	Percentage expressing accepting attitudes on all four indicators	Number of women who have heard of HIV or AIDS
Age						
15-24	93.8	65.6	78.0	48.2	26.7	2,903
15-19	92.8	64.3	76.8	48.8	26.5	1,548
20-24	95.0	67.1	79.3	47.5	26.9	1,355
25-29	96.1	67.4	80.5	45.5	26.0	1,352
30-39	96.2	67.4	78.7	46.5	25.3	1,794
40-49	96.3	66.7	74.9	47.9	25.7	1,024
Marital status						
Never married	93.5	68.6	81.0	49.0	29.8	1,829
Ever had sex	94.9	68.5	82.8	49.2	29.2	898
Never had sex	92.1	68.7	79.3	48.9	30.4	931
Married/living together	95.4	65.5	76.7	47.0	24.7	4,360
Divorced/separated/sidowed	97.8	67.7	79.7	44.7	24.8	883
Residence						
Urban	97.3	77.2	87.3	45.6	32.6	3,000
Rural	93.7	58.7	71.5	48.4	21.2	4,072
Province						
Central	91.8	68.9	84.7	36.2	23.0	633
Copperbelt	97.2	76.2	82.7	37.9	24.7	1,261
Eastern	99.0	65.8	70.9	51.4	25.7	960
Luapula	91.3	66.1	76.0	60.9	36.6	523
Lusaka	98.3	75.4	87.1	54.3	38.7	1,172
Northern	90.7	62.8	72.2	43.2	18.2	953
North-Western	89.2	41.7	67.7	64.7	20.4	365
Southern	96.2	71.4	76.2	47.3	27.0	719
Western	96.0	38.4	75.9	40.5	10.5	488
Education						
No education	93.4	48.3	61.3	51.0	16.3	723
Primary	94.2	59.9	73.2	46.0	20.9	3,846
Secondary	97.1	79.5	89.4	46.4	33.7	2,132
More than secondary	98.9	96.5	99.2	57.5	55.3	371
Wealth quintile						
Lowest	93.4	51.2	65.1	49.4	17.7	1,212
Second	93.1	55.7	71.3	47.6	19.1	1,263
Middle	93.4	64.0	74.3	46.3	22.4	1,263
Fourth	96.3	70.7	82.6	42.6	25.3	1,561
Highest	98.4	83.0	91.1	50.2	40.0	1,773
Total 15-49	95.2	66.6	78.2	47.2	26.0	7,072

Table 13.5.2 Accepting attitudes towards those living with HIV/AIDS: men

Among men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes towards people with HIV/AIDS, by background characteristics, Zambia 2007

Background characteristic	Percentage of men who: Are willing to care for a family member with HIV in respondent's home	Would buy fresh vegetables from a shopkeeper who has HIV	Say that a female teacher with HIV who is not sick should be allowed to continue teaching	Would not want to keep secret that a family member is HIV positive	Percentage expressing accepting attitudes on all four indicators	Number of men who have heard of HIV or AIDS
Age						
15-24	93.5	70.1	77.6	52.5	29.3	2,460
15-19	92.6	68.8	77.2	52.2	27.2	1,400
20-24	94.6	71.8	78.2	52.8	32.1	1,059
25-29	96.0	75.0	81.7	54.8	35.4	974
30-39	96.9	74.9	81.7	58.1	36.3	1,666
40-49	95.9	72.2	77.3	57.6	34.1	860
Marital status						
Never married	94.2	72.5	80.1	52.9	31.9	2,534
Ever had sex	95.6	73.3	80.0	53.9	32.8	1,580
Never had sex	91.8	71.3	80.2	51.2	30.4	954
Married/living together	95.9	72.4	78.6	57.2	33.8	3,150
Divorced/separated/sidowed	96.2	74.0	81.7	53.0	33.3	274
Residence						
Urban	96.8	80.5	86.5	55.4	39.2	2,592
Rural	94.0	66.4	74.0	55.0	28.2	3,367
Province						
Central	93.5	74.4	74.6	60.6	35.9	556
Copperbelt	96.4	80.1	84.8	48.9	34.4	1,134
Eastern	97.4	68.8	78.2	61.0	36.5	788
Luapula	93.2	71.9	73.2	47.0	19.3	386
Lusaka	97.0	78.6	86.1	60.3	42.5	1,067
Northern	92.0	72.0	76.5	42.1	22.0	793
North-Western	88.9	55.1	72.4	75.4	33.1	302
Southern	95.7	68.3	76.5	56.3	29.8	618
Western	97.8	58.1	76.1	57.6	31.6	313
Education						
No education	93.1	53.6	72.3	59.7	29.2	262
Primary	93.5	61.3	70.4	55.1	24.7	2,753
Secondary	96.8	83.0	87.0	53.9	38.6	2,505
More than secondary	97.9	94.4	96.5	60.6	54.9	439
Wealth quintile						
Lowest	93.9	60.4	69.9	55.6	25.8	1,098
Second	92.5	66.8	72.2	54.7	27.6	863
Middle	94.1	66.2	75.4	56.4	27.5	1,091
Fourth	96.4	76.0	82.5	54.4	35.2	1,374
Highest	97.3	85.9	90.3	54.9	42.9	1,531
Total 15-49	95.2	72.5	79.4	55.2	33.0	5,959
Men 50-59	94.3	71.0	78.4	52.3	28.0	504
Total men 15-59	95.1	72.4	79.3	55.0	32.6	6,463

The willingness to care for a family member who is sick with HIV or AIDS in one's own household is almost universal. Both female (95 percent) and male (95 percent) respondents are willing to do so. The 2007 levels are an increase from 2001-2002 levels, when 92 percent of the women and 90 percent of the men were willing to take care of a family member with AIDS at home. About two-thirds (67 percent) of the women and slightly more than seven in ten (73 percent) men said that they would buy fresh vegetables from a shopkeeper who has HIV. In 2001-2002, only 39 percent of the females and 48 percent of the males would buy fresh vegetables from a shopkeeper with HIV. The majority of respondents also expressed accepting attitudes towards a female teacher with HIV; 78 percent of women and 79 percent of men said that she should be allowed to continue teaching.

Less than half of women (47 percent) and more than half of men (55 percent) indicated that they would not want to keep it a secret that a family member was infected with HIV. In 2001-2002, 61 percent of women and 70 percent of the men said that the HIV-positive status of a family member should not be kept as a secret. Overall, 26 percent of women and one-third (33 percent) of men expressed accepting attitudes regarding to all four situations, i.e., they would care for a family member with HIV or AIDS in their own home, they would buy fresh food from a shopkeeper with HIV, they would allow an HIV-positive teacher to continue teaching, and they would not want to keep secret the HIV-positive status of a family member.

Accepting attitudes were generally more common among respondents in urban areas than those in rural areas and among respondents in the highest wealth quintile. Accepting attitudes increase with level of education, except for not wanting to keep secret the HIV-positive status of a relative. For the combined four indicators, Lusaka had the most accepting attitudes: 39 percent for women and 43 percent for men.

13.5 Attitudes towards Negotiating Safer Sexual Relations with Husbands

The high levels of HIV transmission through sexual intercourse make negotiating safer sex indispensable. This is especially the case in marital unions, where women's status is compromised by societal expectations, thereby increasing their vulnerability to HIV transmission. Table 13.6 shows that 77 percent women and 86 percent of men in Zambia believe that if a husband has a sexually transmitted disease, his wife is justified in refusing to have sexual intercourse with him. Similar proportions of women and men believe it would be justified for women to ask their husband or partner to use a condom, (74 and 87 percent, respectively). Overall, 88 percent of the women and 94 percent of men believe that a wife is justified in taking some action to protect herself from HIV either by refusing to have sex or by requesting that her husband or partner use a condom.

People living in rural areas have less favourable attitudes towards a wife refusing to have sexual intercourse with her husband or asking him to use a condom if he has a sexually transmitted disease. Eighty-six percent of women in rural areas have a favourable attitude, compared with 91 percent in urban areas. Among men, the comparable figures are 93 percent in rural areas and 96 percent in urban areas. The lowest proportions agreeing that a wife can negotiate safer sex with her husband are observed among women and men who have no education (83 and 89 percent, respectively).

Table 13.6 Attitudes towards negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that, if a husband has a sexually transmitted disease (STD), his wife is justified in refusing to have sexual intercourse with him or in asking that he use a condom, by background characteristics, Zambia 2007

Background characteristic	Percentage of women who believe that a wife is justified in taking specific actions if her husband has an STD				Percentage of men who believe that a wife is justified in taking specific actions if her husband has an STD			
	Refusing to have sexual intercourse	Asking that they use a condom	Refusing sexual intercourse or asking that they use a condom	Number of women	Refusing to have sexual intercourse	Asking that they use a condom	Refusing sexual intercourse or asking that they use a condom	Number of men
Age								
15-24	71.3	71.9	83.8	2,944	81.9	86.4	92.5	2,482
15-19	66.5	67.6	79.0	1,574	80.2	85.5	91.6	1,416
20-24	76.7	76.8	89.4	1,370	84.1	87.7	93.6	1,066
25-29	80.0	78.2	91.6	1,363	86.4	86.6	94.2	977
30-39	80.7	76.1	91.5	1,803	88.8	89.6	96.2	1,671
40-49	81.0	70.5	89.6	1,036	91.7	86.2	96.8	865
Marital status								
Never married	69.6	70.8	81.2	1,856	83.0	87.1	93.2	2,553
Ever had sex	76.5	80.4	89.4	904	84.8	90.1	95.1	1,585
Never had sex	63.0	61.7	73.4	952	80.1	82.3	90.0	969
Married/living together	79.0	74.3	90.3	4,402	87.8	87.1	95.1	3,168
Divorced/separated/ sidowed	80.5	79.1	91.4	888	92.4	91.6	97.8	274
Residence								
Urban	80.0	79.0	91.3	3,009	88.7	90.9	96.3	2,601
Rural	74.4	70.3	85.7	4,137	83.8	84.6	92.9	3,395
Province								
Central	74.1	71.9	82.5	659	92.7	91.0	95.3	559
Copperbelt	81.3	75.5	90.7	1,264	88.9	90.9	95.6	1,140
Eastern	82.8	63.0	88.3	971	78.7	81.3	91.7	795
Luapula	58.3	63.9	72.7	530	92.3	87.7	95.6	387
Lusaka	79.2	83.7	94.1	1,172	88.7	91.0	96.7	1,072
Northern	79.5	69.5	88.5	966	86.9	81.7	93.2	805
North-Western	78.9	70.1	89.2	365	77.1	78.7	88.6	303
Southern	58.3	77.8	84.7	727	73.5	85.3	92.6	621
Western	90.8	88.5	94.0	492	95.2	96.5	98.4	315
Education								
No education	72.8	63.8	83.4	744	79.9	78.3	89.3	267
Primary	75.1	71.3	86.6	3,891	82.9	84.0	93.0	2,775
Secondary	78.9	79.4	90.7	2,140	88.7	90.4	95.7	2,512
More than secondary	88.8	91.1	98.3	371	92.9	96.4	98.8	441
Total 15-49	76.7	74.0	88.1	7,146	86.0	87.3	94.4	5,995
Men 50-59	na	na	na	0	91.4	84.7	96.4	505
Total men 15-59	na	na	na	0	86.4	87.1	94.6	6,500

na = Not applicable

13.6 ATTITUDES TOWARDS CONDOM EDUCATION FOR YOUTH

Condom use is one of the most effective strategies for combating the spread of HIV. However, educating youth about condoms is sometimes controversial, with some people believing it promotes early sexual initiation. To gauge attitudes towards condom education for youth, the 2007 ZDHS asked respondents if they thought that young people age 12-14 should be taught about using a condom to avoid HIV infection. Because the table focuses on adult opinions, results are tabulated for respondents age 18-49.

Table 13.7 shows that more than half of women (56 percent) and more than two-thirds of men (68 percent) support teaching young people age 12-14 about condoms for HIV prevention. Support is highest among those living in Western province (79 percent among women and 95 percent among men) and those with more than a secondary education (61 percent among women and 72 percent among men).

Table 13.7 Adult support of education about condom use to prevent HIV infection

Percentage of women and men age 18-49 who agree that youth age 12-14 should be taught about using a condom to avoid HIV, by background characteristics, Zambia 2007

Background characteristic	Women		Men	
	Percentage who agree	Number of women	Percentage who agree	Number of men
Age				
18-24	59.1	1,957	68.6	1,596
18-19	55.4	587	64.4	530
20-24	60.7	1,370	70.7	1,066
25-29	59.5	1,363	70.3	977
30-39	51.4	1,803	67.4	1,671
40-49	52.0	1,036	63.5	865
Marital status				
Never married	59.9	965	68.6	1,668
Married or living together	53.7	4,314	66.2	3,167
Divorced/separated/widowed	61.3	879	78.5	274
Residence				
Urban	54.9	2,533	66.6	2,191
Rural	56.3	3,626	68.4	2,918
Province				
Central	40.4	567	76.7	477
Copperbelt	53.8	1,064	72.3	955
Eastern	38.6	860	48.6	698
Luapula	69.0	464	67.9	330
Lusaka	52.1	993	56.6	916
Northern	58.3	842	72.0	691
North-Western	72.7	309	79.7	253
Southern	64.9	633	69.7	509
Western	78.7	428	94.6	278
Education				
No education	49.5	712	59.4	260
Primary	55.3	3,374	66.4	2,281
Secondary	58.2	1,703	69.1	2,128
More than secondary	60.8	370	71.9	441
Wealth quintile				
Lowest	53.7	1,100	65.8	982
Second	60.3	1,126	70.8	749
Middle	57.1	1,119	69.3	926
Fourth	53.2	1,318	65.3	1,198
Highest	55.2	1,496	68.2	1,254
Total 18-49	55.8	6,159	67.7	5,109
Men 50-59	na	na	63.5	505
Total men 18-59	na	na	67.3	5,614

na = Not applicable

13.7 HIGHER-RISK SEX

Given that most HIV in Zambia is transmitted through heterosexual contact, information on multiple sexual partners and higher-risk sexual behaviour is important in designing and monitoring intervention programmes to control the spread of the epidemic. The 2007 ZDHS included questions on respondents' sexual partners during their lifetime and during the past 12 months. For male respondents, an additional question was asked on whether they paid for sex at any time during the 12 months preceding the interview. Information was also collected for both women and men on use of condoms at last sexual intercourse with each of the respondent's most recent partners (within the past 12 months). These questions are sensitive, and it is recognized that some respondents may have been reluctant to provide accurate information on recent sexual behaviour.

Tables 13.8.1 and 13.8.2 show the percentage of all women and men who had two or more partners and who had higher-risk intercourse in the 12 months preceding the survey. Higher-risk intercourse is defined as sexual intercourse with a non-marital, non-cohabiting partner. The tables also show these same indicators for respondents who had sexual intercourse in the 12 months preceding the survey. Data are presented on the percentage of respondents who used a condom at last intercourse among those who had two or more partners in the past 12 months, and the percentage of respondents who used a condom during the last higher-risk intercourse among those who had higher-risk intercourse. In addition, Tables 13.8.1 and 13.8.2 provide information on the mean number of lifetime sexual partners among those who ever had sexual intercourse.

Table 13.8.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women

Among all women age 15-49, the percentage who had sexual intercourse with more than one sexual partner, and the percentage who had higher-risk sexual intercourse in the past 12 months; among women age 15-49 who had sexual intercourse in the past 12 months, the percentage who had sexual intercourse with more than one sexual partner and the percentage who had higher-risk sexual intercourse in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and among those having higher-risk sexual intercourse in the past 12 months, the percentage reporting that a condom was used at last intercourse with that person; and the mean number of sexual partners during lifetime for women who ever had sexual intercourse, by background characteristics, Zambia 2007

	All women			Women who had sexual intercourse in the past 12 months			Women who had 2+ partners in the past 12 months		Women who had higher-risk intercourse in the past 12 months[1]		Women who ever had sexual intercourse	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Number of women	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Number of women	Percentage who reported using a condom during last sexual intercourse	Number of women	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of women	Mean number of sexual partners in lifetime	Number of women
Age												
15-24	1.5	18.1	2,944	2.5	30.7	1,735	(41.5)	43	38.0	532	1.7	2,023
15-19	1.9	20.0	1,574	5.0	52.2	601	(47.0)	30	36.0	314	1.5	754
20-24	1.0	15.9	1,370	1.1	19.2	1,134	*	13	40.8	218	1.9	1,269
25-29	1.1	11.0	1,363	1.2	12.5	1,205	*	14	44.4	150	2.0	1,332
30-39	1.2	8.2	1,803	1.4	9.6	1,543	*	22	32.8	148	2.1	1,791
40-49	0.6	6.5	1,036	0.8	8.1	819	*	7	27.1	67	2.2	1,026
Marital status												
Never married	2.0	30.8	1,856	6.5	99.2	576	(41.5)	38	40.7	571	1.9	898
Married or living together	0.5	0.7	4,402	0.5	0.7	4,295	*	24	(42.2)	29	1.9	4,388
Divorced/separated/ widowed	2.8	33.4	888	5.7	68.5	432	(34.9)	25	30.5	297	2.6	884
Residence												
Urban	1.4	15.7	3,009	2.1	23.4	2,019	(39.5)	43	47.6	473	2.1	2,435
Rural	1.0	10.3	4,137	1.3	12.9	3,283	(26.6)	42	25.9	424	1.9	3,735
Province												
Central	1.1	8.3	659	1.4	10.9	502	*	7	33.3	55	1.9	570
Copperbelt	1.7	13.2	1,264	2.5	19.6	854	*	21	42.1	167	1.9	1,016
Eastern	0.9	8.8	971	1.2	10.8	783	*	9	36.7	86	1.8	876
Luapula	1.0	6.9	530	1.3	9.0	405	*	5	27.0	37	1.9	466
Lusaka	1.0	15.0	1,172	1.5	21.9	799	*	12	49.6	175	2.1	971
Northern	0.1	4.9	966	0.1	6.8	700	*	1	(32.6)	47	1.4	837
North-Western	2.6	19.1	365	3.1	23.1	302	*	9	24.3	70	2.6	334
Southern	0.7	16.8	727	0.8	21.3	576	*	5	35.5	122	2.1	646
Western	3.2	28.1	492	4.1	36.2	382	(29.1)	16	30.8	138	2.7	455
Education												
No education	0.9	7.3	744	1.0	8.5	623	*	6	13.6	55	1.9	717
Primary	1.2	10.0	3,891	1.5	12.7	3,076	(32.5)	45	30.3	389	1.9	3,497
Secondary	1.5	17.4	2,140	2.4	27.9	1,338	(41.1)	32	44.0	373	2.1	1,621
More than secondary	0.5	21.6	371	0.7	30.2	265	*	2	57.2	80	2.2	335
Wealth quintile												
Lowest	0.8	8.2	1,240	0.9	10.0	1,015	*	10	23.8	102	1.9	1,136
Second	1.5	11.2	1,283	1.9	14.4	1,002	*	19	20.0	144	2.0	1,165
Middle	1.1	10.3	1,280	1.4	12.8	1,019	*	14	29.6	132	2.0	1,158
Fourth	1.6	15.5	1,567	2.1	20.8	1,173	(39.6)	24	39.6	244	1.9	1,350
Highest	1.1	15.5	1,776	1.7	25.3	1,092	*	19	53.2	276	2.1	1,362
Total 15-49	1.2	12.6	7,146	1.6	16.9	5,302	33.1	86	37.4	898	2.0	6,170

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Sexual intercourse with a non-marital, non-cohabiting partner

Table 13.8.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men

Among all men age 15-49, the percentage who had sexual intercourse with more than one partner, and the percentage who had higher-risk sexual intercourse in the past 12 months; among men age 15-49 who had sexual intercourse in the past 12 months, the percentage who had sexual intercourse with more than one sexual partner and the percentage who had higher-risk sexual intercourse in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and among those having higher-risk sexual intercourse in the past 12 months, the percentage reporting that a condom was used at last intercourse with that person; and the mean number of sexual partners during lifetime for men who ever had sexual intercourse, by background characteristics, Zambia 2007

	All men			Men who had sexual intercourse in the past 12 months			Men who had 2+ partners in the past 12 months		Men who had higher-risk intercourse in the past 12 months[1]		Men who ever had sexual intercourse	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Number of men	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of men	Mean number of sexual partners in lifetime	Number of men
Age												
15-24	8.8	35.6	2,482	19.3	78.4	1,127	43.1	218	47.6	884	3.9	1,528
15-19	4.5	28.5	1,416	15.2	96.1	419	49.8	64	42.1	403	3.1	629
20-24	14.4	45.1	1,066	21.8	68.0	708	40.3	154	52.3	481	4.4	898
25-29	20.1	36.6	977	22.4	40.7	877	30.7	197	55.0	357	5.7	932
30-39	19.0	19.6	1,671	20.4	21.1	1,555	20.2	317	51.1	328	6.3	1,610
40-49	15.2	12.3	865	16.2	13.1	813	17.8	131	49.4	107	7.5	826
Marital status												
Never married	8.0	41.4	2,553	19.3	99.7	1,061	53.6	205	48.5	1,058	4.3	1,556
Married or living together	19.2	14.9	3,168	19.4	15.1	3,126	18.2	607	56.1	472	6.1	3,079
Divorced/separated/ widowed	18.4	53.1	274	27.3	78.7	185	42.1	51	40.9	146	8.2	259
Residence												
Urban	12.6	30.7	2,601	19.4	47.0	1,697	36.1	328	54.9	797	6.0	2,002
Rural	15.7	25.9	3,395	20.0	32.8	2,675	23.0	534	45.5	879	5.4	2,893
Province												
Central	11.8	29.5	559	15.2	37.9	435	38.4	66	60.5	165	5.7	489
Copperbelt	9.0	25.6	1,140	14.6	41.6	701	29.3	103	43.4	292	5.5	872
Eastern	19.7	24.9	795	24.6	31.1	636	20.4	156	51.6	198	5.2	689
Luapula	8.1	17.9	387	10.1	22.5	308	15.3	31	31.1	69	5.5	323
Lusaka	17.1	35.0	1,072	24.9	51.0	735	41.0	183	63.2	375	6.5	815
Northern	7.4	16.0	805	10.1	21.8	590	26.2	59	35.1	129	3.0	644
North-Western	19.7	32.0	303	24.4	39.5	245	19.6	60	42.2	97	7.6	268
Southern	23.2	35.3	621	31.1	47.4	462	21.8	144	50.1	219	6.4	517
Western	19.2	42.3	315	23.4	51.5	258	26.1	60	41.3	133	7.0	277
Education												
No education	17.8	22.3	267	20.5	25.6	233	24.0	48	39.3	60	5.0	244
Primary	15.3	25.4	2,775	20.2	33.5	2,105	24.8	425	41.3	706	5.3	2,292
Secondary	13.2	31.3	2,512	19.8	47.1	1,668	30.6	331	55.0	786	6.0	1,963
More than secondary	13.6	28.3	441	16.3	34.1	366	39.5	60	72.7	125	5.9	396
Wealth quintile												
Lowest	17.7	24.0	1,114	21.6	29.2	915	16.9	197	42.8	267	5.2	972
Second	13.4	23.0	869	16.8	28.7	695	24.9	117	39.5	200	5.2	753
Middle	15.4	27.0	1,097	20.1	35.5	837	25.7	169	43.3	297	5.7	921
Fourth	15.6	34.0	1,381	21.7	47.2	994	35.4	216	53.0	469	6.7	1,140
Highest	10.7	28.9	1,534	17.7	47.6	930	36.1	165	60.3	443	5.1	1,109
Total 15-49	14.4	28.0	5,995	19.7	38.3	4,372	28.0	863	50.0	1,676	5.6	4,895
Men 50-59	11.1	7.0	505	12.3	7.7	458	14.2	56	(46.2)	35	9.6	489
Total men 15-59	14.1	26.3	6,500	19.0	35.4	4,829	27.2	919	49.9	1,711	6.0	5,383

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

[1] Sexual intercourse with a non-marital, non-cohabiting partner

A much larger proportion of men than women reported having more than one sexual partner. Fourteen percent of men reported having two or more partners in the 12 months preceding the survey compared with only 1 percent of women. The proportion engaging in higher-risk sex is also higher among men than women (28 percent compared with 13 percent).

Among respondents who had sexual intercourse in the 12 months preceding the survey, 20 percent of men and 2 percent of women had two or more partners, while 38 percent of men and 17 percent of women engaged in higher-risk sex during that period. On the other hand, men were more likely than women to report using a condom at last higher-risk intercourse (50 and 37 percent, respectively). On average, men have had six lifetime sexual partners, compared with two partners for women. It is interesting to note that the average number of lifetime sexual partners for men age 40-49 is eight, compared with only two partners for women in the same age group.

Among women who had sexual intercourse in the 12 months preceding the survey, the percentage with two or more sexual partners is highest among women age 15-19 (5 percent), women who have never married (7 percent), women in urban areas (2 percent), women in Western (4 percent) and North-Western (3 percent) provinces, and women with a secondary education (2 percent). Among men, the highest percentage with two or more sexual partners is reported among those age 25-29 years (22 percent); those who are divorced, separated, or widowed (27 percent); those who live in Southern province (31 percent); those with no education (21 percent); and those in the lowest and fourth wealth quintiles (22 percent).

Among women who had sexual intercourse in the 12 months preceding the survey, the percentage who engaged in higher-risk sex is highest among those age 15-19 (52 percent), those living in urban areas (23 percent), those in Western province (36 percent), those with more than a secondary education (30 percent), and those in the highest wealth quintile (25 percent).

Among men who had sexual intercourse in the 12 months preceding the survey, the percentage of respondents engaging in higher-risk sex is highest among those age 15-19 (96 percent), those living in the urban areas (47 percent), those in Lusaka and Western provinces (51 and 52 percent, respectively), those with secondary education (47 percent), and those in the highest two wealth quintiles (47 and 48 percent).

13.8 PAYMENT FOR SEX

Transactional sex involves exchanging sex for money, favours, or gifts. This type of sexual intercourse is associated with greater risk of contracting HIV and other STIs because of compromised power relations between men and women and the tendency to have multiple relationships to gain more dividends. Male respondents in the 2007 ZDHS who had sexual relations in the previous 12 months were asked if they paid anyone in exchange for sex during that time. Further, respondents who had engaged in paid sex were asked if they used a condom during the last paid sexual intercourse. Table 13.9 presents information on the extent to which men engaged in paid sex in the 12 months preceding the survey and on condom use during the last paid sexual intercourse in the period.

Five percent of men reported paying for sexual intercourse at least once during the 12 months preceding the survey. More than half (55 percent) of men who engaged in paid sex used a condom the last time they paid for sex. Paid sex was most common among men age 20-29 (6 percent); divorced, widowed, or separated men (12 percent); men in rural areas (5 percent); men in North-Western province (10 percent); and men in the fourth wealth quintile (6 percent).

Condom use by men who paid for sex is highest among men age 25-29 (63 percent), those who are married or living together (59 percent), men in urban areas (62 percent), those in Lusaka (75 percent), and those in the highest wealth quintile (72 percent).

A comparison of the 2001-2002 and 2007 ZDHS results suggests there has been a decline in payment for sex among men from 10 percent to 4 percent. Condom use among men who paid for sex increased from 45 percent in 2001-2003 to 55 percent in 2007.

Table 13.9 Payment for sexual intercourse and condom use at last paid sexual intercourse among men

Percentage of men age 15-49 reporting payment for sexual intercourse in the past 12 months, and among those, the percentage reporting that a condom was used the last time they paid for sexual intercourse, by background characteristics, Zambia 2007

Background characteristic	Payment for sexual intercourse in the past 12 months		Condom use at last paid sexual intercourse	
	Percentage who paid for sexual intercourse	Number of men	Percentage reporting condom use	Number of men who paid for sexual intercourse in the past 12 months
Age				
15-24	5.0	2,482	49.7	124
15-19	4.3	1,416	46.1	61
20-24	5.9	1,066	53.1	63
25-29	6.4	977	63.3	62
30-39	4.6	1,671	54.6	77
40-49	2.3	865	(65.8)	20
Marital status				
Never married	5.7	2,553	52.6	146
Married or living together	3.3	3,168	58.5	105
Divorced/separated/widowed	11.8	274	55.5	32
Residence				
Urban	4.3	2,601	62.0	113
Rural	5.0	3,395	50.6	170
Province				
Central	7.3	559	(55.7)	41
Copperbelt	2.8	1,140	*	32
Eastern	5.3	795	(45.8)	42
Luapula	1.3	387		5
Lusaka	6.1	1,072	74.6	66
Northern	2.2	805	*	18
North-Western	9.8	303	53.3	30
Southern	5.7	621	(57.2)	35
Western	4.8	315	(29.3)	15
Education				
No education	3.4	267	*	9
Primary	5.4	2,775	51.3	151
Secondary	4.6	2,512	59.8	116
More than secondary	1.7	441	*	8
Wealth quintile				
Lowest	5.2	1,114	47.5	58
Second	4.1	869	53.2	35
Middle	5.5	1,097	40.5	61
Fourth	6.2	1,381	63.2	86
Highest	2.8	1,534	71.5	43
Total 15-49	4.7	5,995	55.1	283
Men 50-59	1.2	505	*	6
Total men 15-59	4.4	6,500	55.0	289

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

13.9 COVERAGE OF HIV TESTING SERVICES

Knowing one's HIV status is conducive in helping individuals make specific decisions to reduce the risk of contracting and transmitting HIV by adopting safer sex practices. For those who are HIV positive, knowledge of their status allows them to take actions to protect their sexual partners, to access treatment, and to avoid re-infecting themselves.

To assess the awareness and coverage of HIV testing services, ZDHS respondents were asked whether they knew where to get an HIV test and whether they had ever been tested for HIV. If they said they had been tested for HIV, respondents were asked whether they had received the results of their last test. Tables 13.10.1 and 13.10.2 present the results for women and men, respectively.

More than eight in ten women and men know a place where they can get an HIV test (87 percent each). Younger (age 15-19) and older (age 40-49) female respondents, as well as younger males (age 15-19) are somewhat less likely to know a place where they can go to be tested for HIV. Women and men who had not yet initiated sexual activity were also less likely than their unmarried, sexually active counterparts or ever-married respondents to know a place to obtain an HIV test. Knowing where to get an HIV test is more common among respondents in urban areas than those in rural areas: 94 percent of women and 90 percent of men in urban areas compared with 82 percent of women and 85 percent of men in rural areas. Provincial patterns show that women and men in Western province are the least likely to know a place to get tested for HIV (76 percent for women and 79 percent for men). Awareness of a place to obtain an HIV test increases with level of education and wealth quintile.

Table 13.10.1 Coverage of prior HIV testing: women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Zambia 2007

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test: Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total	Percentage ever tested	Percentage who received results from last HIV test in the past 12 months	Number of women
Age								
15-24	82.9	30.3	3.6	66.1	100.0	33.9	17.0	2,944
15-19	78.4	20.6	2.4	77.0	100.0	23.0	12.8	1,574
20-24	88.1	41.5	4.9	53.6	100.0	46.4	21.9	1,370
25-29	91.0	42.6	4.9	52.4	100.0	47.6	22.5	1,363
30-39	90.0	39.6	4.9	55.5	100.0	44.5	19.4	1,803
40-49	85.6	32.3	3.3	64.3	100.0	35.7	16.0	1,036
Marital status								
Never married	81.8	24.1	2.2	73.7	100.0	26.3	14.0	1,856
Ever had sex	89.5	38.7	3.6	57.7	100.0	42.3	21.6	904
Never had sex	74.5	10.3	0.8	88.9	100.0	11.1	6.8	952
Married/living together	88.0	39.0	4.8	56.3	100.0	43.7	20.3	4,402
Divorced/separated/ widowed	89.9	40.5	5.2	54.3	100.0	45.7	19.1	888
Residence								
Urban	93.6	46.2	3.5	50.4	100.0	49.6	23.9	3,009
Rural	81.5	27.4	4.6	68.0	100.0	32.0	14.6	4,137
Province								
Central	79.4	31.8	4.9	63.4	100.0	36.6	16.1	659
Copperbelt	93.0	40.9	4.5	54.5	100.0	45.5	22.9	1,264
Eastern	88.7	33.8	4.7	61.6	100.0	38.4	20.4	971
Luapula	77.0	25.9	2.9	71.2	100.0	28.8	11.7	530
Lusaka	95.1	51.3	2.9	45.7	100.0	54.3	24.8	1,172
Northern	79.3	18.1	3.4	78.5	100.0	21.5	9.2	966
North-Western	80.2	26.9	2.9	70.2	100.0	29.8	13.3	365
Southern	92.9	36.5	6.2	57.3	100.0	42.7	21.1	727
Western	76.0	38.5	4.8	56.7	100.0	43.3	17.4	492
Education								
No education	72.5	26.6	4.7	68.7	100.0	31.3	14.1	744
Primary	83.3	32.0	4.4	63.5	100.0	36.5	16.1	3,891
Secondary	95.5	40.5	3.9	55.6	100.0	44.4	22.1	2,140
More than secondary	99.4	57.2	1.5	41.3	100.0	58.7	31.5	371
Wealth quintile								
Lowest	78.4	23.4	4.3	72.3	100.0	27.7	12.2	1,240
Second	78.8	25.8	4.5	69.7	100.0	30.3	13.4	1,283
Middle	84.5	31.2	4.6	64.3	100.0	35.7	16.2	1,280
Fourth	91.0	44.0	5.1	50.9	100.0	49.1	23.8	1,567
Highest	95.7	45.8	2.6	51.6	100.0	48.4	23.6	1,776
Total 15-49	86.6	35.3	4.1	60.6	100.0	39.4	18.5	7,146

[1] Includes don't know/missing

Tables 13.10.1 and 13.10.2 also show the coverage of HIV testing services and whether respondents received their results. A larger proportion of men (78 percent) than women (61 percent) had never been tested for HIV, and a larger proportion of women (35 percent) than men (20 percent) who had ever been tested received their results. Smaller proportions of respondents, 4 percent for women and 2 percent for men, had been tested at some time but did not receive the results.

Table 13.10.2 Coverage of prior HIV testing: men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Zambia 2007

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who received results from last HIV test in the past 12 months	Number of men
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age								
15-24	81.6	14.1	1.3	84.5	100.0	15.5	10.2	2,482
15-19	76.7	8.7	1.1	90.2	100.0	9.8	7.3	1,416
20-24	88.2	21.3	1.7	77.0	100.0	23.0	14.1	1,066
25-29	90.5	25.4	3.2	71.4	100.0	28.6	14.2	977
30-39	90.8	23.6	2.7	73.7	100.0	26.3	12.5	1,671
40-49	91.7	22.5	1.6	75.9	100.0	24.1	11.7	865
Marital status								
Never married	82.4	15.5	1.4	83.2	100.0	16.8	10.6	2,553
Ever had sex	86.7	20.5	1.7	77.8	100.0	22.2	13.4	1,585
Never had sex	75.3	7.3	0.8	91.9	100.0	8.1	6.0	969
Married/living together	90.6	22.9	2.5	74.6	100.0	25.4	12.5	3,168
Divorced/separated/ sidowed	89.7	24.1	3.5	72.4	100.0	27.6	13.2	274
Residence								
Urban	89.5	22.7	1.5	75.8	100.0	24.2	13.4	2,601
Rural	85.2	17.6	2.5	79.9	100.0	20.1	10.4	3,395
Province								
Central	92.2	22.0	1.6	76.3	100.0	23.7	15.0	559
Copperbelt	84.0	20.2	1.0	78.7	100.0	21.3	11.2	1,140
Eastern	90.5	16.6	3.3	80.1	100.0	19.9	9.2	795
Luapula	83.5	15.2	2.2	82.6	100.0	17.4	10.7	387
Lusaka	90.2	24.6	1.8	73.6	100.0	26.4	13.6	1,072
Northern	83.5	13.6	2.0	84.4	100.0	15.6	7.7	805
North-Western	84.8	20.0	2.7	77.3	100.0	22.7	12.6	303
Southern	90.2	22.9	2.2	74.9	100.0	25.1	14.1	621
Western	79.3	21.5	3.5	74.9	100.0	25.1	13.9	315
Education								
No education	70.8	13.7	2.5	83.7	100.0	16.3	7.3	267
Primary	82.7	14.5	2.0	83.5	100.0	16.5	8.6	2,775
Secondary	91.6	23.1	2.1	74.7	100.0	25.3	14.4	2,512
More than secondary	98.3	38.1	2.0	59.9	100.0	40.1	18.7	441
Wealth quintile								
Lowest	82.8	15.0	2.2	82.7	100.0	17.3	9.0	1,114
Second	85.3	14.3	3.5	82.2	100.0	17.8	8.6	869
Middle	85.7	19.9	2.6	77.4	100.0	22.6	12.4	1,097
Fourth	87.7	21.1	1.8	77.2	100.0	22.8	12.0	1,381
Highest	91.5	25.2	1.0	73.8	100.0	26.2	14.6	1,534
Total 15-49	87.1	19.8	2.1	78.1	100.0	21.9	11.7	5,995
Men 50-59	91.0	24.4	2.9	72.7	100.0	27.3	11.7	505
Total men 15-59	87.4	20.2	2.1	77.7	100.0	22.3	11.7	6,500

[1] Includes don't know/missing

Tables 13.10.1 and 13.10.2 show that 19 percent of women and 12 percent of men had received results from the last HIV test taken in the past 12 months. Urban residents were more likely than rural residents to have been tested and to have received their results. Among women, the percentage who were tested for HIV and received the result of the last test taken in the past 12 months

varied from 9 percent in Northern province to 25 percent in Lusaka. Among men, this percentage ranged from 8 percent in Northern province to 15 percent in Central province.

Table 13.11 presents information on HIV screening of pregnant women. This process is a key tool in reducing MTCT. Table 13.11 shows that 64 percent of women who gave birth during the two years prior to the 2007 ZDHS received HIV counselling, and 37 percent were offered, accepted, and received the results of an HIV test during antenatal care. Women most likely to be counselled, offered, and accepted the results of an HIV test were those age 15-19 (43 percent), women who live in urban areas (65 percent), women in Lusaka (76 percent), and women who have more than a secondary education (70 percent). Five percent of women who gave birth in the two years preceding the survey were offered and accepted an HIV test during antenatal care, but did not receive the results.

Table 13.11 Pregnant women counselled and tested for HIV

Among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV counselling during antenatal care for their most recent birth, and percentage who accepted an offer of HIV testing by whether they received their test results, according to background characteristics, Zambia 2007

Background characteristic	Percentage who received HIV counselling during antenatal care[1]	Percentage who were offered and accepted an HIV test during antenatal care and who[2]:		Percentage who were counselled, were offered and accepted an HIV test, and who received results[2]	Number of women who gave birth in the past two years[3]
		Received results	Did not receive results		
Age					
15-24	63.3	41.8	4.3	37.9	1,013
15-19	65.9	46.2	5.1	42.7	296
20-24	62.2	40.0	4.0	35.9	717
25-29	64.0	39.6	4.8	37.5	708
30-39	65.4	38.1	5.7	36.2	771
40-49	55.6	30.1	6.0	28.6	139
Residence					
Urban	84.0	68.9	5.3	64.8	761
Rural	55.4	27.5	4.8	25.3	1,869
Province					
Central	48.4	31.0	5.4	29.6	263
Copperbelt	74.0	58.2	6.2	52.0	369
Eastern	50.5	32.8	6.8	30.6	407
Luapula	71.4	29.0	3.7	28.4	243
Lusaka	91.1	80.0	4.2	75.9	279
Northern	59.2	17.0	3.4	15.1	430
North-Western	49.5	27.8	2.3	25.9	153
Southern	65.1	37.1	7.1	33.2	295
Western	62.2	47.3	3.1	46.9	192
Education					
No education	50.6	27.2	4.7	24.3	361
Primary	60.9	36.0	5.1	33.3	1,653
Secondary	78.0	54.4	4.8	51.5	558
More than secondary	85.4	73.5	3.0	70.4	59
Total 15-49	63.7	39.5	5.0	36.8	2,631

[1] In this context, counselled means that someone talked with the respondent about all three of the following topics: 1) babies getting HIV from their mother, 2) preventing HIV, and 3) getting tested for HIV.
[2] Only women who were offered the test are included here. Women who were either required or asked for the test are excluded from the numerator of this measure.
[3] Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years.

13.10 MALE CIRCUMCISION

Circumcision is practised in some parts of Zambia for traditional, health, and other reasons and often serves as a rite of passage to adulthood. Recently, male circumcision has been shown to be associated with lower STI transmission, including HIV (WHO and UNAIDS, 2007). To investigate this practice at a national level, men interviewed during the 2007 ZDHS were asked whether they were circumcised. The results are presented in Table 13.12.

Overall, 13 percent of men age 15-49 and 14 percent of men age 30-49 are circumcised. North-Western has the highest percentage of circumcised men (71 percent) and Eastern and Northern have the lowest percentage (3 percent each). Circumcision is higher among men with more than a secondary education (16 percent) than among men with less education.

Table 13.12 Male circumcision

Percentage of men age 15-49 who report having been circumcised, by background characteristics, Zambia 2007

Background characteristic	Percentage circumcised	Number of men
Age		
15-24	11.4	2,482
15-19	10.1	1,416
20-24	13.2	1,066
25-29	12.2	977
30-39	14.1	1,671
40-49	14.3	865
Residence		
Urban	13.1	2,601
Rural	12.4	3,395
Province		
Central	5.7	559
Copperbelt	14.4	1,140
Eastern	3.2	795
Luapula	9.9	387
Lusaka	10.2	1,072
Northern	3.3	805
North-Western	71.0	303
Southern	4.4	621
Western	40.2	315
Education		
No education	12.6	267
Primary	11.9	2,775
Secondary	13.1	2,512
More than secondary	15.8	441
Wealth quintile		
Lowest	11.1	1,114
Second	15.8	869
Middle	13.9	1,097
Fourth	12.4	1,381
Highest	11.7	1,534
Total 15-49	12.7	5,995
Men 50-59	14.0	505
Total men 15-59	12.8	6,500

13.11 SELF-REPORTING OF SEXUALLY TRANSMITTED INFECTIONS

In the 2007 ZDHS, respondents who had ever had sexual intercourse were asked if they had a disease they acquired through sexual contact in the past 12 months, or if they had either of two symptoms associated with STIs (a bad-smelling abnormal discharge from the vagina or penis, or a genital sore or ulcer). Table 13.13 presents the self-reported prevalence of STIs and STI symptoms in the population for both women and men.

Six percent of men and 5 percent of women reported having had an STI or having experienced STI symptoms during the 12 months preceding the survey. Among women, 3 percent had an STI, 2 percent had a bad-smelling abnormal discharge, and 3 percent had a genital sore or ulcer. Among men, 4 percent reported that they had an STI, 3 percent had a bad-smelling abnormal discharge, and 4 percent had a genital sore or ulcer.

Among both women and men, the prevalence of STIs and STI symptoms was highest among respondents who are divorced, separated or widowed than those who are married or never-married, but sexually active. Residents in urban areas are more likely to have had an STI or STI symptoms than those in rural areas. Among women, the prevalence of STIs or STI symptoms was in highest in Lusaka province (5 percent) while, among men, self-reported STI prevalence was highest in Central province (6 percent).

Table 13.13 Self-reported prevalence of sexually transmitted infections (STIs) and STIs symptoms

Among women and men age 15-49 who ever had sexual intercourse, the percentage who reported having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Zambia 2007

	Women					Men				
Background characteristic	STI	Bad-smelling, abnormal genital discharge	Genital sore/ ulcer	STI/genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	STI	Bad-smelling ,abnormal genital discharge	Genital sore/ ulcer	STI/genital discharge/ sore or ulcer	Number of rmen who ever had sexual intercourse
Age										
15-24	2.4	1.9	2.6	4.1	2,029	3.5	2.9	3.5	5.5	1,548
15-19	2.2	1.9	2.2	4.1	757	2.5	2.6	2.5	4.5	633
20-24	2.6	2.0	2.8	4.1	1,272	4.1	3.1	4.2	6.2	915
25-29	3.0	2.7	4.5	6.1	1,339	5.2	4.8	6.6	8.9	956
30-39	2.9	2.1	3.5	5.2	1,797	3.7	2.7	3.8	5.8	1,660
40-49	2.3	1.7	2.2	3.8	1,029	2.5	2.1	2.9	3.8	863
Marital status										
Never married	1.8	2.2	2.3	4.2	904	3.3	3.1	3.7	5.7	1,585
Married or living together	2.7	2.1	3.2	4.7	4,402	3.6	2.7	3.9	5.6	3,168
Divorced/separated/ widowed	3.4	2.2	4.1	6.1	888	7.3	6.5	8.5	12.0	274
Male circumcision										
Circumcised	na	na	na	na	na	4.3	3.9	4.8	7.0	691
Not circumcised	na	na	na	na	na	3.6	2.9	4.0	5.8	4,329
Residence										
Urban	3.3	2.6	3.6	5.7	2,447	4.0	3.6	4.6	6.6	2,076
Rural	2.2	1.8	3.0	4.2	3,747	3.5	2.7	3.7	5.5	2,951
Province										
Central	2.5	1.5	1.9	3.3	570	6.4	4.1	6.6	8.2	493
Copperbelt	2.1	0.4	3.1	3.5	1,023	2.7	3.3	4.6	5.3	897
Eastern	2.6	2.0	3.1	4.7	878	4.1	2.9	4.4	5.9	698
Luapula	3.7	2.7	4.1	7.1	466	0.9	2.3	2.4	3.6	331
Lusaka	4.6	4.4	3.9	7.6	973	5.0	3.9	5.4	8.1	867
Northern	1.4	2.2	2.9	3.9	840	2.6	2.4	2.7	5.7	656
North-Western	2.5	1.9	2.4	4.1	334	3.7	2.8	3.4	5.3	273
Southern	3.1	2.4	5.0	5.8	647	3.7	2.3	2.6	4.9	519
Western	0.9	1.2	1.3	2.4	463	3.1	2.3	2.0	3.9	292
Education										
No education	1.9	2.2	2.4	3.7	721	3.7	1.9	4.6	6.3	251
Primary	2.7	1.9	3.2	4.8	3,506	4.0	3.0	4.4	6.3	2,340
Secondary	3.0	2.3	3.9	5.4	1,629	3.9	3.6	4.1	6.0	2,021
More than secondary	2.0	3.6	1.0	4.1	338	0.8	1.3	2.2	3.5	415
Total 15-49	2.7	2.1	3.2	4.8	6,194	3.7	3.1	4.1	6.0	5,027
Men 50-59	na	na	na	na	0	1.9	1.8	2.6	3.2	503
Total men 15-59	na	na	na	na	0	3.5	2.9	4.0	5.7	5,530

Note: Total number of men includes 7 cases with information missing on circumcision
na = Not applicable

13.12 PREVALENCE OF MEDICAL INJECTIONS

Injection overuse in a health care setting can contribute to the transmission of blood-borne pathogens because it amplifies the effect of unsafe practices, such as reuse of injection equipment. As a consequence, the proportion of injections given with reused injection equipment is an important prevention indicator in an initiative to prevent and control the spread of HIV. To obtain data for this indicator, 2007 ZDHS respondents were asked if they received any injections from a health worker in the 12 months preceding the survey and, if so, whether their last injection was given with a syringe from a new, unopened package. It should be noted that medical injections can also be self-administered (e.g., insulin for diabetes). These injections were not included in the calculation.

Table 13.14 shows the reported prevalence of injections and safe injection practices. Women were about twice as likely as men to report receiving an injection from a health worker during the six months preceding the survey (28 and 13 percent, respectively). Looking at differentials, injection prevalence was highest among women age 20-24 (34 percent), urban residents (30 percent), women in Central province (33 percent), women with more than secondary education (36 percent), and women in the highest wealth quintile (33 percent). The highest rates among men were observed in the 15-19 age group (14 percent), among urban residents (14 percent), in Lusaka (16 percent), and among men with secondary education (14 percent). The likelihood of receiving at least one medical injection increases with wealth quintile among men.

Table 13.14 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the past 12 months, the average number of medical injections per person in the past 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, Zambia 2007

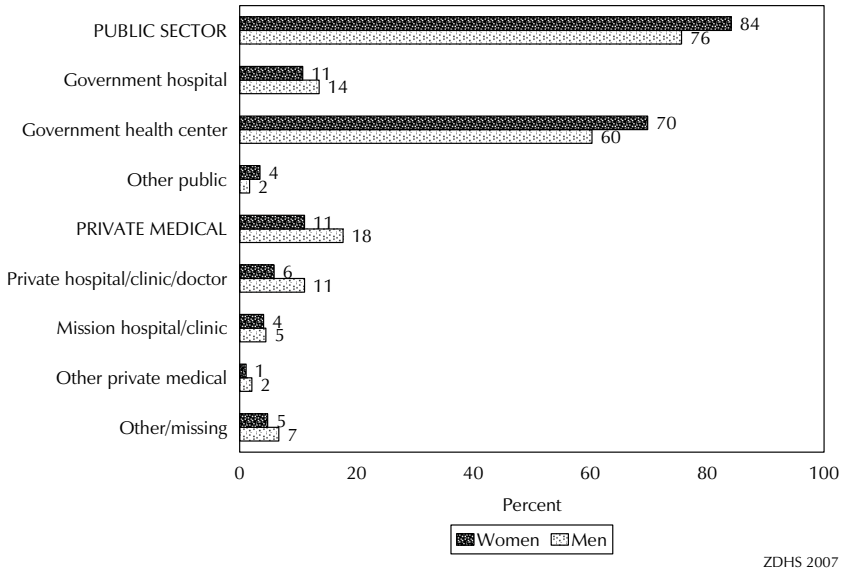
	Women					Men				
Background characteristic	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of women	For last injection, syringe and needle taken from a new, unopened package	Number of women receiving medical injections in the past 12 months	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of men	For last injection, syringe and needle taken from a new, unopened package	Number of men receiving medical injections in the past 12 months
Age										
15-24	30.0	0.8	2,944	96.6	884	13.0	0.4	2,482	98.1	323
15-19	26.9	0.7	1,574	96.4	424	14.1	0.4	1,416	97.1	199
20-24	33.6	0.9	1,370	96.7	460	11.6	0.4	1,066	99.7	124
25-29	30.8	1.1	1,363	96.8	419	13.1	0.5	977	97.2	128
30-39	26.7	1.1	1,803	97.9	482	13.8	0.8	1,671	96.4	231
40-49	20.4	0.9	1,036	96.1	212	12.5	0.7	865	96.4	108
Residence										
Urban	29.6	1.1	3,009	96.6	889	13.6	0.7	2,601	98.1	355
Rural	26.8	0.8	4,137	97.1	1,108	12.8	0.5	3,395	96.5	436
Province										
Central	32.5	1.1	659	96.7	214	13.8	0.4	559	98.5	77
Copperbelt	32.4	1.0	1,264	96.8	410	10.8	0.5	1,140	99.3	123
Eastern	30.0	1.0	971	98.6	292	14.2	0.7	795	96.7	113
Luapula	30.9	0.7	530	99.5	164	14.0	0.7	387	96.8	54
Lusaka	28.0	1.2	1,172	94.7	328	15.7	0.8	1,072	96.6	169
Northern	21.3	0.6	966	98.9	206	11.3	0.5	805	96.7	91
North-Western	22.3	0.7	365	95.2	82	13.5	0.6	303	98.4	41
Southern	28.9	1.0	727	94.8	210	14.6	0.5	621	96.5	91
Western	18.7	0.6	492	97.3	92	10.2	0.2	315	94.4	32
Education										
No education	19.7	0.6	744	97.4	146	7.8	0.2	267	(91.4)	21
Primary	26.6	0.9	3,891	96.8	1,037	13.2	0.5	2,775	97.7	365
Secondary	31.9	1.0	2,140	97.2	682	14.0	0.7	2,512	96.7	351
More than secondary	35.5	1.3	371	95.1	132	12.3	0.7	441	100.0	54
Wealth quintile										
Lowest	24.1	0.7	1,240	96.8	298	11.5	0.4	1,114	95.9	128
Second	25.0	0.7	1,283	97.5	321	12.6	0.4	869	94.7	109
Middle	27.6	0.9	1,280	97.7	353	13.4	0.4	1,097	97.4	147
Fourth	28.6	1.0	1,567	95.9	448	13.6	0.6	1,381	98.7	188
Highest	32.5	1.2	1,776	96.9	577	14.3	0.9	1,534	98.0	219
Total 15-49	27.9	0.9	7,146	96.9	1,997	13.2	0.6	5,995	97.2	791
Total men 15-59	na	na	na	na	na	13.2	0.6	6,500	97.2	858

Note : Medical injections are those given by a doctor, nurse, pharmacist, dentist or other health worker.
na = Not applicable

Generally, less than one medical injection per person was given in the past 12 months among both women and men. Ninety-seven percent of recent injections among both men and women were given with a syringe taken from an unopened package. In all subgroups, more than nine in ten syringes for both the women and men came from an unopened package.

Figure 13.1 shows the source for the last medical injection. Most respondents visited government health centres, followed by government hospitals. Eleven percent of women and 18 percent of men received their most recent injection from the private medical sector. Though uncommon (less than 1 percent), the nurse/health worker's office or home was cited as a source of the medical injection.

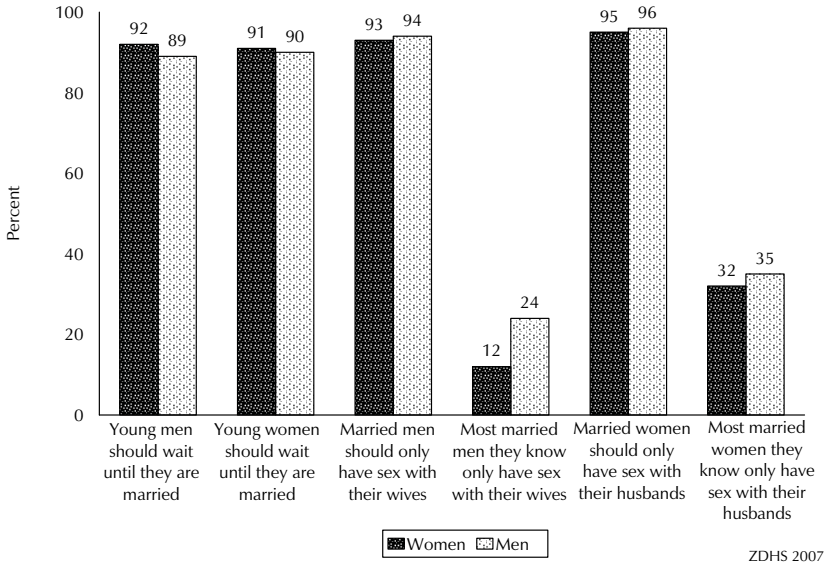
Figure 13.1 Source of Most Recent Medical Injection



13.13 Perceptions and Beliefs about Abstinence and Faithfulness

Both male and female respondents age 15-49 were asked questions on their perceptions and beliefs on abstinence and faithfulness. Figure 13.2 indicates that men and women are of the view that young people of both sexes should wait until they are married before they have sexual intercourse. It was also the view of more than nine in ten respondents that married women and men should only have sex with their spouses. However, only 12 percent of women and 24 percent of men think that most married men they know only have sex with their wives. About one in three respondents believe that women have sex only with their husbands.

Figure 13.2 **Perceptions and Beliefs about Abstinence and Faithfulness**



13.14 HIV/AIDS-RELATED KNOWLEDGE AND BEHAVIOUR AMONG YOUTH

This section addresses HIV/AIDS-related knowledge among Zambian youth age 15-24 and also assesses the extent to which Zambian youth are engaged in behaviours that may place them at risk of contracting HIV.

13.14.1 Knowledge about HIV/AIDS and Sources for Condoms

Knowledge of how HIV is transmitted is crucial to enabling people to avoid contracting HIV, especially for young people, who are often at greater risk because they may have shorter relationships with more partners or engage in other risky behaviours. Table 13.15 shows the level of comprehensive knowledge about HIV and AIDS among youth and the percentage of youth who know about a source for condoms. Comprehensive knowledge of HIV/AIDS is defined as knowing that condom use and having just one HIV-negative, faithful partner can reduce the chances of contracting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission—that HIV can be transmitted by mosquito bites and by supernatural means.

Table 13.15 shows that only 34 percent of young women and 37 percent of young men have comprehensive knowledge about HIV. The table also shows that comprehensive knowledge is higher among youths in urban areas than those in rural areas. Among young women, the level of comprehensive knowledge about HIV is highest in Lusaka (41 percent), and is lowest in North-Western (23 percent). Young men in Copperbelt have the highest level of comprehensive knowledge (51 percent), while those in Eastern have the lowest level of comprehensive knowledge (26 percent). Among both sexes, the proportion with comprehensive knowledge tends to increase with the level of education and wealth quintile.

Table 13.15 Comprehensive knowledge about HIV/AIDS and of a source of condoms among youth

Percentage of young women and young men age 15-24 with comprehensive knowledge about HIV/AIDS and percentage with knowledge of a source of condoms, by background characteristics, Zambia 2007

Background characteristic	Women age 15-24			Men age 15-24		
	Percentage with comprehensive knowledge of HIV/AIDS[1]	Percentage who know a condom source[2]	Number of women	Percentage with comprehensive knowledge of HIV/AIDS[1]	Percentage who know a condom source[2]	Number of men
Age						
15-19	32.3	66.5	1,574	35.0	83.0	1,416
15-17	30.8	61.3	987	33.8	78.4	886
18-19	34.8	75.2	587	36.9	90.7	530
20-24	36.0	85.9	1,370	39.5	94.3	1,066
20-22	36.6	84.9	825	38.6	94.1	674
23-24	34.9	87.5	545	41.2	94.8	392
Marital status						
Never married	36.5	67.6	1,629	37.9	87.0	2,155
Ever had sex	42.7	79.3	714	39.4	94.3	1,220
Never had sex	31.6	58.5	915	36.1	77.5	934
Ever married	30.9	85.3	1,315	30.4	93.4	328
Residence						
Urban	42.4	79.5	1,352	45.7	92.8	1,187
Rural	26.9	72.2	1,592	28.9	83.4	1,296
Province						
Central	32.9	62.3	274	39.6	90.3	221
Copperbelt	40.3	74.5	538	50.9	88.1	526
Eastern	29.8	80.3	359	25.5	88.7	306
Luapula	30.7	71.2	207	34.7	84.7	135
Lusaka	41.4	83.4	507	41.2	97.1	450
Northern	25.0	65.3	408	28.9	75.5	329
North-Western	23.0	78.0	155	35.7	88.6	122
Southern	37.5	85.5	306	29.2	85.9	270
Western	32.5	76.3	189	27.4	86.9	122
Education						
No education	21.2	69.6	192	22.2	88.2	59
Primary	23.7	69.5	1,443	24.2	81.5	1,112
Secondary	45.9	82.4	1,230	46.8	92.9	1,243
More than secondary	68.4	92.5	79	78.0	100.0	68
Wealth quintile						
Lowest	23.8	68.8	451	24.3	82.3	396
Second	25.6	71.6	493	24.7	81.1	304
Middle	26.4	73.2	511	29.5	83.7	450
Fourth	35.6	78.2	689	39.4	91.6	583
Highest	48.4	80.9	800	51.0	93.2	749
Total	34.0	75.5	2,944	36.9	87.9	2,482

[1] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one HIV-negative, faithful partner can reduce the chances of contracting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission or prevention. The components of comprehensive knowledge are presented in Tables 13.2, 13.3.1, and 13.3.2.
[2] Friends, family members, and home are not considered sources for condoms.

Although many youths lack comprehensive knowledge about HIV, knowledge of a source for condoms is relatively common. Seventy-six percent of young women and 88 percent of young men know a place where they can obtain a condom. Knowledge of a source for condoms is higher among young people than those in rural areas (80 and 72 percent, respectively, for young women; 93 and 83 percent, respectively, for young men). At the provincial level, knowledge of a source for condoms among young women is higher in Southern (86 percent), compared with young women in Central province (62 percent). Young men in Lusaka (97 percent) are most likely to know a condom source, while those in Northern province (76 percent) are least likely to know where to obtain a condom. Knowledge tends to increase with household wealth quintile for both young women and young men.

13.14.2 Age at First Sex

Age at first sex for both women and men is an important indicator of exposure to risk of pregnancy and STIs. Young people who initiate sex at an early age are typically at higher risk of becoming pregnant or contracting an STI than youths who initiate sex later and thus have a shorter duration of exposure to these risks. Consistent condom use can also reduce these risks.

Table 13.16 shows that some young people initiate sexual activity before age 15, with 14 percent of women and 16 percent of men age 15-24 reporting that they had sex before age 15. More than half of young women (59 percent) and men (51 percent) age 18-24 reported that they first had intercourse before age 18.

Table 13.16 Age at first sexual intercourse among youth

Percentage of young women and of young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and of young men age 18-24 who had sexual intercourse before age 18, by background characteristics, Zambia 2007

	Women age 15-24		Women age 18-24		Men age 15-24		Men age 18-24	
Background characteristic	Percentage who had sexual intercourse before age 15	Number of women	Percentage who had sexual intercourse before age 18	Number of women	Percentage who had sexual intercourse before age 15	Number of men	Percentage who had sexual intercourse before age 18	Number of men
Age								
15-19	12.3	1,574	na	na	16.2	1,416	na	na
15-17	13.7	987	na	na	16.9	886	na	na
18-19	10.0	587	55.4	587	15.1	530	52.1	530
20-24	14.8	1,370	59.8	1,370	15.7	1,066	50.6	1,066
20-22	15.0	825	59.7	825	18.1	674	50.9	674
23-24	14.5	545	60.0	545	11.5	392	50.0	392
Marital status								
Never married	9.2	1,629	37.7	738	16.3	2,155	50.2	1,270
Ever married	18.8	1,315	71.1	1,218	13.9	328	54.5	327
Knows condom source								
Yes	14.4	2,223	59.7	1,618	16.7	2,181	52.7	1,487
No	10.5	721	52.6	339	10.8	301	29.5	109
Residence								
Urban	9.5	1,352	46.3	876	14.8	1,187	46.7	777
Rural	16.8	1,592	68.3	1,081	17.1	1,296	55.2	819
Province								
Central	9.8	274	56.3	183	27.8	221	60.1	139
Copperbelt	10.8	538	46.1	338	13.0	526	40.0	341
Eastern	11.5	359	66.9	248	8.7	306	54.2	209
Luapula	9.5	207	59.7	140	9.6	135	62.0	79
Lusaka	9.6	507	48.4	328	12.5	450	47.8	294
Northern	14.1	408	54.6	284	12.9	329	37.0	215
North-Western	28.1	155	77.7	99	29.9	122	70.7	73
Southern	15.2	306	65.6	212	18.0	270	59.8	159
Western	28.6	189	85.0	125	36.0	122	76.5	86
Education								
No education	22.4	192	74.1	160	11.2	59	(58.5)	51
Primary	16.8	1,443	70.2	926	16.5	1,112	55.5	618
Secondary	8.7	1,230	45.5	792	16.2	1,243	48.5	859
More than secondary	4.4	79	18.3	78	8.4	68	37.5	68
Wealth quintile								
Lowest	19.2	451	70.7	311	16.7	396	56.0	265
Second	16.4	493	73.0	336	19.7	304	54.2	184
Middle	16.1	511	65.0	351	17.8	450	55.5	279
Fourth	13.3	689	60.0	439	15.9	583	53.7	400
Highest	6.8	800	36.0	520	13.1	749	42.2	469
Total	13.5	2,944	58.5	1,957	16.0	2,482	51.1	1,596

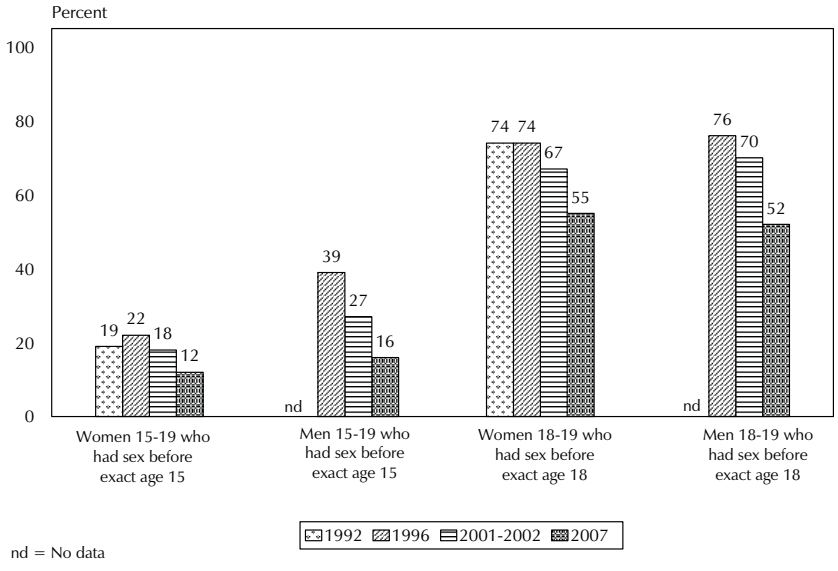
Note: Figures in parentheses are based on 25-49 unweighted cases.
na = Not available
[1] Friends, family members, and home are not considered sources for condoms.

As expected, the proportion of youth initiating sex early is higher among ever-married youth than among those who were not yet married at the time of the survey. Young women in rural areas are twice as likely to have initiated sex before age 15 and 18 as their urban counterparts; 19 percent for rural women versus 9 percent for urban women before age 15, and 71 percent for rural women versus 38 for urban women before age 18. Young men in rural areas are also more likely to have initiated sex before age 15 and 18; however, the difference is not as great for young women. This is due in part to younger age at marriage in rural areas. Analysis by province among women indicates that Western has the highest proportion of young women who began to have sex before age 15 and 18 (29 and 85 percent, respectively). Luapula, Lusaka, and Central have the lowest proportions of young women who initiated sex by age 15; about 10 percent each. Copperbelt has the lowest proportion of women age 18-24 who had sex by age 18 (46 percent). Similarly, among men the proportion initiating sexual intercourse by age 15 and 18 is highest in Western (36 and 77 percent, respectively). Eastern has the lowest proportion of men age 15-24 who initiated sex by age 15 (9 percent), while Northern has the lowest percentage of youths who had sex by age 18 (37 percent). The likelihood of early sexual debut generally declines with increasing level of education and wealth quintile for both young women and young men.

13.14.3 Trends in Age at First Sexual Intercourse

Figure 13.3 shows trends in the age at first sexual intercourse over the four ZDHS surveys. Men were not interviewed in the 1992 ZDHS; therefore, trend data for young men only goes back to the 1996 ZDHS. As the figure shows, there has been a substantial decline in the proportion of young women and young men who have had sex by age 15 and by age 18. This indicates that the age at first sex had been increasing in Zambia. Decreases in early sexual activity are especially notable between the 2000-2001 ZDHS and the 2007 ZDHS. For example, among women age 15-19, only 12 percent had sex by age 15 in the 2007 ZDHS, compared with 18 percent in the 2000-2001 ZDHS. The proportion of men age 15-19 who had sex before age 15 decreased from 27 percent to 16 percent over the same period.

Figure 13.3 **Trends in Age at First Sexual Intercourse**



13.14.4 Condom Use at First Sex

To assess the extent of condom use from the beginning of sexual exposure, sexually active youth were asked whether they had used condoms the first time they had sex. Table 13.17 shows that young women were more likely (24 percent) to have used a condom during the first sexual encounter than their young male counterparts (22 percent). Never-married young women were about twice as likely (38 percent) as ever-married young women (17 percent) to have used a condom when they first had sex. The difference in condom use between never-married and ever-married young men was considerably smaller (23 percent among never-married men and 15 percent among ever-married men). Young people in urban areas were much more likely than those in rural areas to have used a condom the first time they had sex, for both young women and men. At the provincial level, young women in Lusaka (40 percent) had the highest levels of condom use at first sex; the lowest levels are in Luapula and Eastern (12 percent each). Young men in Lusaka also had the highest level of condom use at first sex (31 percent), and Northern had the lowest (11 percent). The likelihood that a condom was used the first time a respondent had sex increases with level of education and household wealth quintile.

Table 13.17 Condom use at first sexual intercourse among youth

Among young women and young men age 15-24 who have ever had sexual intercourse, percentage who used a condom the first time they had sexual intercourse, by background characteristics, Zambia 2007

Background characteristic	Women age 15-24		Men age 15-24	
	Percentage who used a condom at first sexual intercourse	Number of women who have ever had sexual intercourse	Percentage who used a condom at first sexual intercourse	Number of men who have ever had sexual intercourse
Age				
15-19	27.6	757	20.3	633
15-17	28.5	355	18.4	308
18-19	26.7	402	22.0	325
20-24	22.0	1,272	22.6	915
20-22	23.3	738	24.9	546
23-24	20.3	533	19.2	369
Marital status				
Never married	37.5	714	23.4	1,220
Ever married	16.9	1,315	15.3	328
Knows condom source[1]				
Yes	26.2	1,688	22.7	1,457
No	13.6	341	4.7	91
Residence				
Urban	36.8	814	25.7	683
Rural	15.6	1,214	18.4	866
Province				
Central	17.7	188	23.1	159
Copperbelt	30.8	309	23.6	294
Eastern	22.0	268	25.6	213
Luapula	11.5	144	11.8	81
Lusaka	40.2	317	30.9	253
Northern	12.1	290	11.2	185
North-Western	14.3	125	18.2	93
Southern	30.5	227	19.9	169
Western	21.9	160	15.5	100
Education				
No education	11.0	171	(16.3)	49
Primary	16.0	1,067	16.8	686
Secondary	36.4	732	25.3	766
More than secondary	55.2	59	(38.4)	47
Wealth quintile				
Lowest	10.8	355	17.3	275
Second	9.9	380	14.9	202
Middle	21.1	396	17.5	299
Fourth	30.3	483	24.4	387
Highest	44.1	415	28.7	386
Total	24.1	2,029	21.6	1,548

[1] Friends, family members, and home are not considered sources for condoms.

13.14.5 Premarital Sex

The period between age at first sex and age at marriage is often a time of sexual experimentation. Table 13.18 presents information on the patterns of sexual activity among never-married youth age 15-24 in Zambia, including the percentage of never-married youth who have never had sexual intercourse, the percentage who engaged in sexual intercourse in the 12 months before the survey, and, among those who were sexually active in the past year, the percentage who used a condom at last sexual intercourse.

Table 13.18 Premarital sexual intercourse and condom use during premarital sexual intercourse among youth

Among never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among those who had premarital sexual intercourse in the past 12 months, the percentage who used a condom at the last sexual intercourse, by background characteristics, Zambia 2007

	Women age 15-24					Men age 15-24				
				Among women who had sexual intercourse in the past 12 months:					Among men who had sexual intercourse in the past 12 months:	
Background characteristic	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married women	Percentage who used condom at last sexual intercourse	Number of women	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married men	Percentage who used condom at last sexual intercourse	Number of men
Age										
15-19	64.5	23.9	1,268	36.0	303	56.0	28.7	1,399	41.7	402
15-17	71.0	19.6	891	33.2	175	65.3	21.5	885	35.1	190
18-19	49.0	34.0	377	39.8	128	40.0	41.3	513	47.6	212
20-24	27.2	45.7	361	44.4	165	20.0	53.9	756	52.9	407
20-22	31.8	42.2	273	41.1	115	23.2	51.9	552	47.3	287
23-24	12.7	56.6	88	52.0	50	11.4	59.2	204	66.2	120
Knows condom source[1]										
Yes	48.6	34.4	1,102	43.3	379	38.6	41.0	1,875	49.5	770
No	72.0	17.0	527	20.6	89	75.2	14.2	279	(5.9)	40
Residence										
Urban	59.3	26.0	906	51.8	236	46.4	32.1	1,087	56.2	348
Rural	52.3	32.1	723	25.9	232	40.3	43.2	1,068	40.7	461
Province										
Central	65.2	20.6	132	(26.0)	27	32.1	45.6	193	52.4	88
Copperbelt	64.5	22.3	355	(38.9)	79	48.2	28.1	482	48.5	136
Eastern	56.7	25.0	161	(38.2)	40	40.1	41.3	233	49.5	96
Luapula	59.0	20.3	107	(25.4)	22	45.9	40.6	118	28.1	48
Lusaka	59.8	26.7	317	62.0	85	48.3	33.0	406	66.1	134
Northern	64.2	18.8	185	(31.9)	35	53.5	31.0	268	27.6	83
North-Western	39.9	49.3	76	26.9	38	28.1	52.5	104	42.9	54
Southern	45.3	38.5	174	32.7	67	41.7	41.4	243	44.4	101
Western	23.4	62.1	122	37.0	75	20.5	64.4	108	44.1	70
Education										
No education	44.0	40.1	48	*	19	29.2	(61.8)	36	*	22
Primary	58.5	28.3	643	30.3	182	46.4	39.3	919	36.4	361
Secondary	56.6	26.9	879	45.1	237	42.0	35.4	1,135	*	401
More than secondary	34.2	51.3	59	(59.8)	30	32.8	38.5	65	93.9	25
Wealth quintile										
Lowest	52.5	32.0	183	26.1	59	39.0	46.3	312	36.6	144
Second	50.4	33.4	225	22.0	75	42.3	42.3	240	32.2	102
Middle	52.2	31.3	220	27.6	69	39.5	41.9	382	43.6	160
Fourth	53.7	32.0	383	39.0	123	39.2	40.9	501	50.0	205
Highest	62.4	23.1	617	58.7	143	50.5	27.6	719	63.2	199
Total	56.2	28.7	1,629	39.0	468	43.4	37.6	2,155	47.3	810

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Friends, family members, and home are not considered sources for condoms.

Never-married female youth are much more likely than never-married male youth to report that they have never had sexual intercourse (56 and 43 percent, respectively). Among both young women and men who have never married, abstinence is common in the 15-17 age groups.

Considering the pattern of recent sexual activity, 38 percent of never-married male youth reported that they had had intercourse during the 12 months preceding the survey, compared with 29 percent of never-married female youth. Among never-married sexually active youth, condom use at last sex was more common among males than females (47 and 39 percent, respectively).

Table 13.18 indicates that condom use is much more prevalent among youth in urban than rural in areas, for both young women and men. At the provincial level, condom use was highest in Lusaka for both young women and men (62 and 66 percent, respectively). Condom use increases with level of education and wealth quintile. For example, 63 percent of sexually active, never-married male youth in the highest wealth quintile used a condom the last time they had sex, compared with 37 percent of those in the lowest wealth quintile.

13.14.6 Higher-Risk Sex

The most common means of transmission of HIV in Zambia is through unprotected sex with an HIV-positive person. To prevent HIV transmission, it is important that young people practice safer sex. Tables 13.19.1 and 13.19.2 present data on the percentage of young people who had engaged in sexual intercourse during the 12-month period before the survey with at least one higher-risk partner (i.e., a non-marital, non-cohabiting partner), and the rate of condom use in these higher-risk sexual encounters.

Among sexually active youth, young men were much more likely than young women to report a higher-risk sexual encounter in the past 12 months (78 and 31 percent, respectively). This is due in part to the fact that young women are more likely than young men to be married or to be living with a partner. Among youth who were ever married, 5 percent of women reported having a higher-risk sexual encounter, compared with 24 percent of men. The increasing proportion of respondents who are married in each successive age group is a factor in the observed decline in the prevalence of higher-risk sex among young women and men in their early 20s, compared with those under age 20. Tables 13.19.1 and 13.19.2 show that higher-risk sex is most prevalent among young women and men in Western province (58 and 90 percent, respectively). The lowest proportion is reported in Northern province (15 percent for women and 62 percent for men). Among young men, Western province (0 percent) has the highest proportion of young men engaging in higher-risk sex, with the lowest proportion (62 percent) reported in Northern province.

Condom use during higher-risk sex varied between young women and men; 38 percent of women used a condom the last time they had sex with a higher-risk partner compared with 48 percent of young men. Condom use during higher-risk intercourse was more common among urban youth than rural youth, for both women and men, and the likelihood of a condom being used during higher-risk intercourse generally increased with level of education and wealth quintile, for both women and men.

Table 13.19.1 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: women

Among young women age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse in the past 12 months, and among those, the percentage reporting that a condom was used at last higher-risk intercourse, by background characteristics, Zambia 2007

	Women age 15-24 who had sexual intercourse in the past 12 months		Women age 15-24 who had higher-risk intercourse in the past 12 months	
Background characteristic	Percentage who had higher-risk intercourse in the past 12 months[1]	Number of women	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of women
Age				
15-19	52.2	601	36.0	314
15-17	66.7	270	34.1	180
18-19	40.5	331	38.6	134
20-24	19.2	1,134	40.8	218
20-22	20.9	650	39.0	136
23-24	16.9	484	43.7	82
Marital status				
Never married	99.2	468	39.0	464
Ever married	5.3	1,267	30.9	67
Knows condom source[2]				
Yes	29.6	1,460	42.3	432
No	36.2	275	18.9	100
Residence				
Urban	41.2	667	50.1	275
Rural	24.1	1,068	25.0	257
Province				
Central	19.8	167	(23.5)	33
Copperbelt	34.9	257	41.2	90
Eastern	19.8	236	35.5	47
Luapula	20.0	120	(22.9)	24
Lusaka	39.4	267	56.3	105
Northern	15.3	241	(31.8)	37
North-Western	38.7	114	25.1	44
Southern	37.2	195	33.4	73
Western	57.8	137	36.3	79
Education				
No education	15.1	156	(19.9)	24
Primary	22.9	949	29.1	218
Secondary	44.5	579	44.5	258
More than secondary	65.0	50	(58.3)	33
Wealth quintile				
Lowest	20.7	314	23.5	65
Second	24.7	336	21.0	83
Middle	22.6	348	28.5	79
Fourth	36.1	419	40.1	151
Highest	48.4	318	55.9	154
Total 15-24	30.7	1,735	38.0	532

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Sexual intercourse with a non-marital, non-cohabiting partner
[2] Friends, family members, and home are not considered sources for condoms.

Table 13.19.2 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: men

Among young men age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse in the past 12 months, and among those, the percentage reporting that a condom was used at last higher-risk intercourse, by background characteristics, Zambia 2007

Background characteristic	Men 15-24 who had sexual intercourse in the past 12 months		Men 15-24 who had higher-risk intercourse in the past 12 months	
	Percentage who had higher-risk intercourse in the past 12 months[1]	Number of men	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of men
Age				
15-19	96.1	419	42.1	403
15-17	99.0	191	35.4	189
18-19	93.7	228	48.0	214
20-24	68.0	708	52.3	481
20-22	79.2	401	46.5	318
23-24	53.2	307	63.4	163
Marital status				
Never married	99.6	810	47.4	807
Ever married	24.4	318	49.7	78
Knows condom source[2]				
Yes	78.8	1,068	49.8	841
No	72.1	59	(5.5)	43
Residence				
Urban	87.2	442	54.6	386
Rural	72.8	685	42.2	499
Province				
Central	80.5	116	55.7	94
Copperbelt	85.2	177	45.9	151
Eastern	65.8	169	51.0	111
Luapula	72.8	66	28.1	48
Lusaka	86.8	175	64.0	152
Northern	61.7	142	28.7	88
North-Western	79.2	72	41.9	57
Southern	85.8	128	45.5	110
Western	90.3	83	44.7	75
Education				
No education	(55.9)	46	*	25
Primary	73.5	549	37.8	403
Secondary	85.4	504	54.1	431
More than secondary	(86.5)	29	*	25
Wealth quintile				
Lowest	69.2	227	37.8	157
Second	67.9	165	35.2	112
Middle	75.5	226	44.3	171
Fourth	84.5	282	49.9	238
Highest	90.6	228	62.0	207
Total 15-24	78.4	1,127	47.6	884

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 cases and has been suppressed.
[1] Sexual intercourse with a non-marital, non-cohabiting partner
[2] Friends, family members, and home are not considered sources for condoms.

13.14.7 Age-mixing in Sexual Relationships

In many societies, young women have sexual relationships with men who are considerably older. This practice can contribute to the spread of HIV and other STIs. If a younger, HIV-negative uninfected partner has sex with an older, HIV-positive partner, HIV can be introduced into a younger, uninfected cohort. Also, negotiating for safer sex is more difficult when the age differences are large. To investigate age-mixing in the 2007 ZDHS, young women age 15-19 who had sex with a non-marital, non-cohabiting partner in the 12 months preceding the survey were asked whether the man was younger, about the same age, or older than they were. If older, they were asked if they thought he was less than ten years older or ten or more years older. The results in Table 13.20 show that, among women who had higher-risk in the 12 months preceding the survey, 5 percent of women age 15-19 had higher-risk sex with a man ten or more years older than themselves.

13.14.8 Drunkenness during Sexual Intercourse

Sexual intercourse when one or both partners are under the influence of alcohol is more likely to be unplanned, and couples are therefore less likely to use condoms. Respondents who had sex during the preceding 12 months were asked if they or their partners drank alcohol the last time they had sex and, if so, whether they or their partners were drunk. Table 13.21 shows the prevalence of sexual intercourse while drunk. Less than 1 percent of female youth and 5 percent of male youth reported that they themselves were drunk at least once when they had had intercourse during the 12 months preceding the survey. Eight percent of young women and 5 percent of young men reported that they or their partners were drunk when they had intercourse at some point during the 12 months preceding the survey.

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

Percentage of women age 15-19 who had higher-risk sexual intercourse in the past 12 months with a man who was 10 or more years older than themselves, by background characteristics, Zambia 2007

Background characteristic	Percentage of women who had higher-risk intercourse with a man 10+ years older[1]	Number of women who had higher-risk intercourse in the past 12 months[1]
Age		
15-17	3.8	180
18-19	5.4	134
Marital status		
Never married	4.4	302
Ever married	*	12
Knows condom source[2]		
Yes	5.8	243
No	0.0	71
Residence		
Urban	6.0	142
Rural	3.2	172
Province		
Central	(3.1)	23
Copperbelt	(10.9)	48
Eastern	(1.3)	30
Luapula	0.0	17
Lusaka	(3.0)	51
Northern	7.8	20
North-Western	5.2	32
Southern	(2.3)	45
Western	4.0	48
Education		
No education	*	12
Primary	3.5	147
Secondary	4.1	154
More than secondary	*	2
Wealth quintile		
Lowest	(1.9)	43
Second	3.8	49
Middle	7.9	57
Fourth	1.9	94
Highest	7.1	71
Total 15-19	4.5	314

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Sexual intercourse with a non-marital, non-cohabiting partner
[2] Friends, family members, and home are not considered sources for condoms.

Table 13.21 Drunkenness during sexual intercourse among youth

Among all young women and young men age 15-24, the percentage who had sexual intercourse in the past 12 months while being drunk and percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk, by background characteristics, Zambia 2007

Background characteristic	Women age 15-24			Men age 15-24		
	Percentage who had sexual intercourse in the past 12 months when drunk	Percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk	Number of women	Percentage who had sexual intercourse in the past 12 months when drunk	Percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk	Number of men
Age						
15-19	0.5	4.5	1,574	1.5	1.6	1,416
15-17	0.2	2.4	987	0.4	0.4	886
18-19	1.1	8.1	587	3.4	3.6	530
20-24	1.2	11.6	1,370	8.8	9.2	1,066
20-22	1.0	10.4	825	6.2	6.6	674
23-24	1.5	13.5	545	13.4	13.7	392
Marital status						
Never married	0.8	3.3	1,629	3.1	3.3	2,155
Ever married	0.9	13.5	1,315	14.9	15.2	328
Knows condom source[1]						
Yes	1.0	8.6	2,223	5.1	5.3	2,181
No	0.4	5.4	721	1.4	1.5	301
Residence						
Urban	1.2	8.1	1,352	6.7	6.9	1,187
Rural	0.5	7.6	1,592	2.8	3.0	1,296
Province						
Central	0.9	4.0	274	2.8	2.8	221
Copperbelt	1.0	9.0	538	8.1	8.1	526
Eastern	0.2	7.6	359	2.1	2.1	306
Luapula	0.5	7.6	207	0.7	1.4	135
Lusaka	1.7	9.9	507	6.4	6.7	450
Northern	0.2	9.9	408	4.5	4.5	329
North-Western	1.8	7.5	155	1.0	1.5	122
Southern	0.7	5.3	306	4.3	5.1	270
Western	0.6	4.9	189	2.5	2.5	122
Education						
No education	0.5	3.8	192	11.3	11.3	59
Primary	0.8	9.4	1,443	4.1	4.3	1,112
Secondary	0.8	6.7	1,230	4.7	4.9	1,243
More than secondary	4.2	7.1	79	7.6	7.6	68
Wealth quintile						
Lowest	0.3	7.0	451	2.8	3.0	396
Second	0.3	9.4	493	1.7	1.7	304
Middle	0.3	5.9	511	3.8	3.9	450
Fourth	1.1	9.6	689	7.3	7.6	583
Highest	1.6	7.0	800	5.3	5.5	749
Total 15-24	0.9	7.8	2,944	4.7	4.9	2,482

[1] Friends, family members, and home are not considered sources for condoms.

13.14.9 HIV Testing

Seeking an HIV test can be more difficult for youth than adults because many youth lack experience in accessing health services for themselves, and because barriers often exist for youth trying to obtain services. Table 13.22 presents data on the percentage of sexually active youths who were tested for HIV and received the results in the 12 months preceding the survey. Young women are slightly more likely than young men to have been tested for HIV and to have received the results of the test (23 and 13 percent, respectively). Young women and men age 23-24 are more likely to be tested for HIV and to receive the results than those age 15-17. Both young women and men in urban areas are more likely to have been tested for HIV and to have received the results of the test than their rural counterparts.

Among young women, Copperbelt has the highest proportion that have been tested for HIV and received the results of the test (33 percent), while Northern has the lowest proportion (10 percent). Among young men, Central has the highest proportion that have been tested for HIV and received the results of the test (19 percent), and the lowest proportion is in Eastern (9 percent). Testing for HIV and receiving results for both young women and men increases with level of education and wealth quintile.

Table 13.22 Recent HIV tests among youth

Among young women and young men age 15-24 who have had sexual intercourse in the past 12 months, the percentage who have had an HIV test in the past 12 months and received the results of the test, by background characteristics, Zambia 2007

	Women age 15-24 who have had sexual intercourse in the past 12 months		Men age 15-24 who have had sexual intercourse in the past 12 months	
Background characteristic	Percentage who have been tested for HIV and received results in the past 12 months	Number of women	Percentage who have been tested for HIV and received results in the past 12 months	Number of men
Age				
15-19	20.2	601	11.1	419
15-17	17.7	270	7.9	191
18-19	22.2	331	13.7	228
20-24	23.9	1,134	14.7	708
20-22	22.2	650	14.1	401
23-24	26.0	484	15.6	307
Marital status				
Never married	23.9	468	14.3	810
Ever married	22.1	1,267	11.1	318
Knows condom source[1]				
Yes	24.1	1,460	14.0	1,068
No	14.7	275	1.5	59
Residence				
Urban	32.1	667	15.2	442
Rural	16.6	1,068	12.2	685
Province				
Central	19.5	167	18.8	116
Copperbelt	33.2	257	13.8	177
Eastern	21.3	236	9.1	169
Luapula	17.0	120	12.4	66
Lusaka	31.8	267	15.2	175
Northern	9.5	241	10.5	142
North-Western	11.9	114	13.7	72
Southern	27.1	195	13.2	128
Western	20.9	137	15.4	83
Education				
No education	14.8	156	(9.4)	46
Primary	16.5	949	8.4	549
Secondary	31.6	579	19.2	504
More than secondary	56.4	50	(12.7)	29
Wealth quintile				
Lowest	12.8	314	8.4	227
Second	13.9	336	15.8	165
Middle	19.8	348	13.6	226
Fourth	29.9	419	11.7	282
Highest	34.8	318	18.3	228
Total 15-24	22.6	1,735	13.4	1,127

[1] Friends, family members, and home are not considered sources for condoms.

PREVALENCE OF HIV AND SYPHILIS 14

Margaret Tembo-Mwanamwenge and Webster Kasongo

Zambia derives much of the information on the national HIV prevalence estimates from the HIV sentinel surveillance. The Antenatal Clinic Sentinel Surveillance for HIV and Syphilis measures the prevalence of HIV using data collected from 22 selected sites. The sites include at least one site from the provincial headquarters and at least one rural site in each province. It is important to note that although these surveillance data do not provide estimates of HIV prevalence for the general population, they do provide results specific to women attending antenatal clinics. Therefore, it was decided to test a representative sample of women age 15-49 and men age 15-59. The first such exercise was conducted in the 2001-2002 ZDHS. In addition to HIV testing, syphilis testing was carried out because syphilis is an important biomarker for monitoring the prevalence of sexually transmitted infections (STIs), and STIs are a major risk factor in the heterosexual transmission of HIV in the Zambian population. Consent was sought separately for the HIV and syphilis tests. The 2007 ZDHS updates the national estimates for HIV and syphilis . Unlike the 2001-2002 ZDHS, the 2007 ZDHS links both HIV and syphilis test results to the sociodemographic characteristics of survey respondents.

HIV and syphilis specimen collection and testing methodologies used in the 2007 ZDHS are described in detail in Chapter 1. This chapter addresses the test results and provides information on the HIV and syphilis testing coverage rates among eligible survey respondents. Levels and differentials in HIV and syphilis prevalence among those who were tested are also presented in this chapter.

14.1 COVERAGE RATES FOR HIV TESTING

Table 14.1 shows the distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status. Three-fourths (75 percent) of all ZDHS respondents who were eligible for testing were interviewed and consented to HIV testing. Eighteen percent of respondents were interviewed but refused to be tested for HIV and did not provide a blood sample. Coverage rates were higher for women than for men (77 and 72 percent, respectively). The proportion who consented to the HIV test was higher in rural areas than urban areas for both women and men. Seventy-eight percent of women in rural areas consented to HIV testing compared with 76 percent in urban areas. Among men, 76 percent consented to testing in rural areas, compared with 68 percent in urban areas. Eastern province has the largest proportion (82 percent) of respondents who consented to HIV testing, while Copperbelt has the lowest (64 percent).

Table 14.1 Coverage of HIV testing by residence and province

Percent distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, according to residence and region unweighted), Zambia 2007

Background characteristic	Testing status: DBS tested[1] Interviewed	DBS tested[1] Not interviewed	Refused to provide blood Interviewed	Refused to provide blood Not interviewed	Absent at the time of blood collection Interviewed	Absent at the time of blood collection Not interviewed	Other/missing[2] Interviewed	Other/missing[2] Not interviewed	Total	Number
WOMEN										
Residence										
Urban	76.4	0.0	18.3	2.0	0.1	1.6	1.0	0.6	100.0	3,320
Rural	77.7	0.0	18.5	1.0	0.0	1.2	0.9	0.7	100.0	4,088
Province										
Central	70.5	0.0	22.6	1.7	0.1	1.4	2.4	1.1	100.0	702
Copperbelt	69.5	0.0	24.7	4.0	0.0	1.6	0.1	0.1	100.0	879
Eastern	84.6	0.0	12.6	0.4	0.0	0.3	0.9	1.1	100.0	958
Luapula	82.7	0.0	12.7	0.8	0.0	2.9	0.7	0.3	100.0	733
Lusaka	75.8	0.0	19.7	2.0	0.0	1.1	0.7	0.6	100.0	976
Northern	78.9	0.0	17.8	1.0	0.0	0.7	0.7	0.9	100.0	804
North-Western	70.7	0.0	24.3	1.8	0.0	1.8	0.6	0.8	100.0	717
Southern	78.3	0.0	17.1	0.7	0.0	2.1	0.9	0.8	100.0	853
Western	81.9	0.0	14.8	0.6	0.1	0.8	1.4	0.4	100.0	786
Total	77.1	0.0	18.4	1.5	0.0	1.4	0.9	0.7	100.0	7,408
MEN										
Residence										
Urban	67.8	0.0	18.9	3.8	0.1	6.5	1.0	1.9	100.0	3,225
Rural	75.8	0.1	16.7	1.4	0.1	3.7	1.0	1.3	100.0	3,921
Province										
Central	68.7	0.0	16.2	3.8	0.0	6.1	2.8	2.3	100.0	684
Copperbelt	59.7	0.0	25.2	4.9	0.2	8.4	0.6	1.0	100.0	947
Eastern	80.0	0.0	13.8	0.9	0.1	1.6	1.6	2.0	100.0	897
Luapula	73.9	0.0	14.1	1.4	0.2	8.7	0.8	0.8	100.0	629
Lusaka	72.6	0.1	18.3	3.1	0.1	4.1	0.5	1.2	100.0	1,052
Northern	73.3	0.0	17.3	2.7	0.0	4.3	0.4	2.0	100.0	786
North-Western	71.5	0.0	17.9	1.7	0.0	6.2	0.7	2.0	100.0	699
Southern	72.5	0.1	19.2	1.7	0.1	3.6	1.0	1.8	100.0	834
Western	80.6	0.0	13.8	1.1	0.0	2.6	1.1	0.8	100.0	618
Total	72.2	0.0	17.6	2.5	0.1	5.0	1.0	1.6	100.0	7,146
TOTAL										
Residence										
Urban	72.2	0.0	18.5	2.9	0.1	4.0	1.0	1.2	100.0	6,545
Rural	76.8	0.0	17.6	1.2	0.0	2.4	0.9	1.0	100.0	8,009
Province										
Central	69.6	0.0	19.5	2.7	0.1	3.8	2.6	1.7	100.0	1,386
Copperbelt	64.4	0.0	25.0	4.4	0.1	5.1	0.4	0.5	100.0	1,826
Eastern	82.4	0.0	13.2	0.6	0.1	0.9	1.2	1.6	100.0	1,855
Luapula	78.6	0.0	13.4	1.1	0.1	5.6	0.7	0.5	100.0	1,362
Lusaka	74.2	0.0	18.9	2.6	0.0	2.7	0.6	0.9	100.0	2,028
Northern	76.1	0.0	17.5	1.8	0.0	2.5	0.6	1.4	100.0	1,590
North-Western	71.1	0.0	21.1	1.8	0.0	4.0	0.6	1.4	100.0	1,416
Southern	75.5	0.1	18.1	1.2	0.1	2.8	0.9	1.3	100.0	1,687
Western	81.3	0.0	14.3	0.9	0.1	1.6	1.3	0.6	100.0	1,404
Total	74.7	0.0	18.0	2.0	0.1	3.2	1.0	1.1	100.0	14,554

[1] Includes all dried blood spot (DBS) samples tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

[2] Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non-corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table 14.2 shows HIV testing coverage rates for women age 15-49 and men age 15-59 by age, level of education, and wealth quintile. Among women, HIV testing coverage does not vary much by these background characteristics. However, women with a secondary education (80 percent) were most likely to consent to HIV testing, while women with no education (73 percent) were least likely to do so. Age differentials in HIV testing coverage were more pronounced among men than among women, with HIV coverage among men ranging from 70 percent for those age 25-29 to 77 percent for those age 55-59. Uneducated men and those with more than a secondary education have lower HIV testing coverage rates (68 and 69 percent, respectively) than men with a primary or secondary education (73 percent each). Additional tables describing the relationship between participation in the HIV testing and characteristics related to HIV risks are presented in Appendix A (see Tables A.3-A.6).

Table 14.2 Coverage of HIV testing by selected background characteristics

Percent distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, according to selected background characteristics (unweighted), Zambia 2007

Background characteristic	Testing status								Total	Number
	DBS tested[1]		Refused to provide blood		Absent at the time of blood collection		Other/missing[2]			
	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed		
WOMEN										
Age										
15-19	76.0	0.0	19.0	1.3	0.0	1.7	1.0	1.0	100.0	1,665
20-24	74.9	0.0	19.0	2.0	0.1	1.8	1.2	1.0	100.0	1,476
25-29	78.1	0.0	18.2	1.5	0.0	1.1	0.8	0.3	100.0	1,414
30-34	78.5	0.0	18.0	1.3	0.0	0.9	0.7	0.5	100.0	1,071
25-39	78.0	0.0	17.5	1.2	0.0	1.5	1.5	0.4	100.0	756
40-44	78.8	0.0	17.4	2.0	0.0	1.5	0.4	0.0	100.0	551
45-49	79.2	0.0	17.7	0.6	0.0	0.4	0.4	1.7	100.0	475
Education										
No education	72.9	0.0	20.5	2.8	0.0	0.8	0.8	2.3	100.0	787
Primary	76.7	0.0	19.6	1.0	0.0	1.3	0.9	0.4	100.0	3,909
Secondary	79.6	0.0	15.5	1.6	0.0	1.7	1.0	0.6	100.0	2,333
More than secondary	75.5	0.0	19.2	2.4	0.3	1.6	0.5	0.5	100.0	375
Wealth quintile										
Lowest	77.5	0.0	18.3	0.8	0.0	1.5	1.3	0.7	100.0	1,165
Second	77.1	0.0	19.5	0.9	0.0	1.1	0.5	0.8	100.0	1,281
Middle	77.2	0.0	18.7	1.3	0.0	1.3	1.0	0.5	100.0	1,454
Fourth	77.3	0.0	18.2	1.4	0.1	1.2	0.9	0.8	100.0	1,795
Highest	76.7	0.0	17.5	2.5	0.1	1.8	0.8	0.7	100.0	1,713
Total	77.1	0.0	18.4	1.5	0.0	1.4	0.9	0.7	100.0	7,408
MEN										
Age										
15-19	72.5	0.0	17.5	2.2	0.1	3.9	2.0	1.8	100.0	1,533
20-24	70.8	0.0	19.1	2.4	0.2	4.9	1.3	1.5	100.0	1,170
25-29	69.5	0.0	18.8	2.6	0.1	6.9	0.8	1.4	100.0	1,104
30-34	72.0	0.1	17.9	2.8	0.1	5.7	0.2	1.2	100.0	1,042
25-39	72.7	0.0	16.3	2.7	0.0	5.5	0.6	2.2	100.0	818
40-44	76.4	0.0	15.4	2.7	0.0	3.9	0.4	1.2	100.0	512
45-49	73.3	0.2	18.5	1.6	0.2	4.0	0.9	1.2	100.0	427
50-54	74.0	0.0	16.9	3.1	0.0	4.1	0.3	1.6	100.0	319
55-59	76.5	0.0	14.0	1.8	0.0	4.5	1.4	1.8	100.0	221
Education										
No education	68.1	0.3	18.4	1.8	0.0	5.6	0.6	5.3	100.0	342
Primary	73.1	0.0	18.4	2.2	0.1	3.9	1.1	1.3	100.0	3,228
Secondary	72.5	0.0	16.3	2.9	0.1	5.6	1.1	1.5	100.0	3,022
More than secondary	68.6	0.0	19.8	2.4	0.2	7.4	0.7	0.9	100.0	551
Wealth quintile										
Lowest	79.0	0.0	16.5	0.6	0.1	2.2	0.8	0.8	100.0	1,187
Second	73.4	0.1	17.3	1.2	0.0	4.7	1.1	2.2	100.0	1,049
Middle	73.5	0.1	17.9	1.8	0.1	4.3	1.1	1.2	100.0	1,420
Fourth	70.1	0.0	17.2	3.4	0.1	6.5	0.9	1.8	100.0	1,812
Highest	67.9	0.0	19.0	4.1	0.1	6.1	1.1	1.8	100.0	1,678
Total	72.2	0.0	17.6	2.5	0.1	5.0	1.0	1.6	100.0	7,146

[1] Includes all dried blood spot (DBS) samples tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non-corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

14.2 HIV PREVALENCE

14.2.1 HIV Prevalence by Age, Sex, and Residence

Table 14.3 shows that the adult HIV prevalence rate observed in the 2007 ZDHS is 14 percent. Among women age 15-49, the HIV prevalence rate is 16 percent, while among men age 15-49 and 15-59 the HIV prevalence rate is 12 percent.

Table 14.3 also shows HIV prevalence rates by age and residence. Overall, HIV prevalence in urban areas is twice as high as in rural areas (20 and 10 percent, respectively). Among women age 15-49, the HIV prevalence rate in urban areas is more than twice as high as in rural areas (23 and 11 percent, respectively). A similar pattern is seen for the men in the same age group; however, the difference is not as significant as the one observed for women. Men in urban areas have an HIV prevalence rate of 16 percent, compared with 9 percent in rural areas.

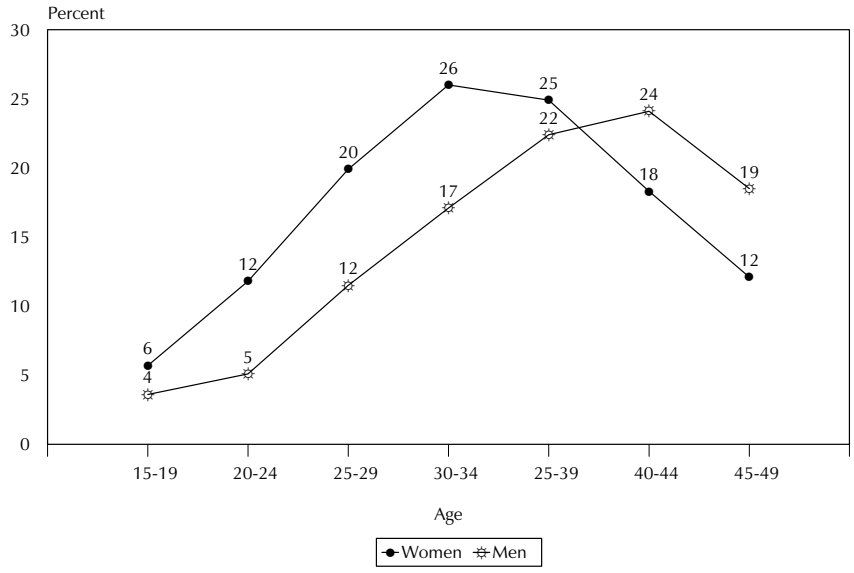
Table 14.3 HIV prevalence by age, sex, and urban-rural residence

HIV prevalence rates among de facto women age 15-49 and men age 15-59 by age, residence, and sex, Zambia 2007

	Urban		Rural		Total	
Age	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
			WOMEN			
15-19	5.5	593	5.9	609	5.7	1,202
20-24	18.7	438	6.5	584	11.8	1,023
25-29	28.8	459	13.1	599	19.9	1,058
30-34	42.5	326	15.1	493	26.0	819
25-39	39.9	196	17.4	390	24.9	586
40-44	29.5	168	11.5	278	18.3	445
45-49	16.0	136	9.9	233	12.1	369
Total 15-49	23.1	2,317	11.0	3,185	16.1	5,502
			MEN			
15-19	4.3	578	3.0	584	3.6	1,162
20-24	7.6	415	2.9	455	5.1	869
25-29	16.9	354	7.2	438	11.5	792
30-34	22.5	304	13.8	483	17.1	787
25-39	33.1	229	16.0	379	22.4	608
40-44	32.3	167	18.4	243	24.1	410
45-49	27.9	102	14.0	212	18.5	314
50-54	18.1	103	10.3	149	13.5	253
55-59	11.9	70	11.5	109	11.6	178
Total 15-49	15.9	2,148	9.4	2,795	12.3	4,942
Total 15-59	15.9	2,322	9.5	3,053	12.3	5,374
			TOTAL			
15-19	4.9	1,172	4.5	1,193	4.7	2,365
20-24	13.3	853	4.9	1,039	8.7	1,892
25-29	23.6	814	10.6	1,037	16.3	1,850
30-34	32.8	630	14.4	976	21.6	1,607
25-39	36.2	425	16.7	769	23.6	1,194
40-44	30.9	334	14.7	521	21.1	855
45-49	21.1	237	11.9	445	15.1	682
Total 15-49	19.7	4,464	10.3	5,980	14.3	10,444

Figure 14.1 illustrates the age pattern of HIV prevalence for women and men. Among women, HIV prevalence peaks at 26 percent in the 30-34 age group, which is four times the rate among women age 15-19 (6 percent) and more than twice the rate observed among women age 45-49 (12 percent). For men, the prevalence increases sharply from 4 percent among men age 15-19 to 24 percent among those age 40-44, and it drops thereafter.

Figure 14.1 HIV Prevalence by Sex and Age



ZDHS 2007

14.2.2 Trends in HIV Prevalence

Table 14.4 shows trends over time in HIV prevalence by age. In Zambia, adult HIV prevalence decreased slightly between the 2001-2002 ZDHS and the 2007 ZDHS, from 16 to 14 percent, respectively. HIV prevalence among women decreased from 18 to 16 percent over the same period, while among men it decreased from 13 to 12 percent. However, it is important to note that none of these decreases in HIV prevalence are statistically significant.

Table 14.4 Trends in HIV prevalence by age

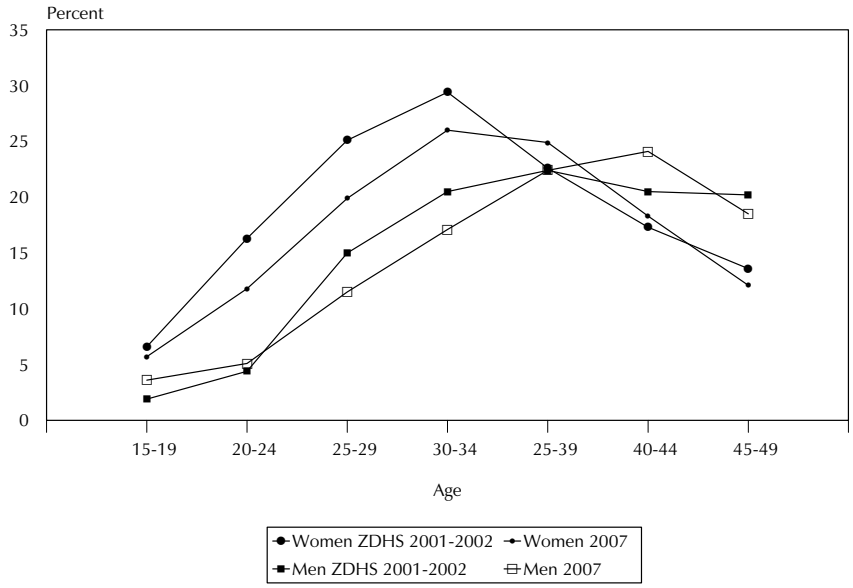
Among de facto women age 15-49 and men age 15-59 who were interviewed and tested, the percentage HIV positive, by age, Zambia 2001-2002 and 2007

	Women				Men				Total			
	ZDHS 2001-2002		ZDHS 2007		ZDHS 2001-2002		ZDHS 2007		ZDHS 2001-2002		ZDHS 2007	
Age	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
15-19	6.6	497	5.7	1,202	1.9	366	3.6	1,162	4.6	864	4.7	2,365
20-24	16.3	443	11.8	1,023	4.4	309	5.1	869	11.4	752	8.7	1,892
25-29	25.1	363	19.9	1,058	15.0	318	11.5	792	20.4	681	16.3	1,850
30-34	29.4	274	26.0	819	20.5	260	17.1	787	25.1	534	21.6	1,607
25-39	22.6	210	24.9	586	22.4	227	22.4	608	22.5	437	23.6	1,194
40-44	17.3	154	18.3	445	20.5	153	24.1	410	18.9	307	21.1	855
45-49	13.6	131	12.1	369	20.2	101	18.5	314	16.5	232	15.1	682
50-54	na	na	na	na	7.3	91	13.5	253	na	na	na	na
55-59	na	na	na	na	11.7	52	11.6	178	na	na	na	na
Total 15-49	17.8	2,073	16.1	5,502	12.9	1,734	12.3	4,942	15.6	3,807	14.3	10,444
Total men 15-59	na	na	na	na	12.6	1,877	12.3	5,374	na	na	na	na

na = Not applicable

Figure 14.2 shows the age pattern for HIV prevalence among women and men preceding the 2001-2002 ZDHS and 2007 ZDHS.

Figure 14.2 **HIV Prevalence by Sex and Age**
ZDHS 2001-2002 and 2007



14.2.3 HIV Prevalence by Socio-Economic Characteristics

Table 14.5 shows the variation in HIV prevalence by various socio-economic characteristics, including residence, province, religion, education, employment, and wealth quintile. Provincial differentials indicate that Northern and North-Western provinces have the lowest HIV prevalence (7 percent each), while Lusaka has the highest prevalence (21 percent). In addition to Lusaka, Central (18 percent), Copperbelt (17 percent), and Western and Southern provinces (15 percent each) have prevalence rates that are above the national average. In Luapula province, HIV prevalence among men (15 percent) is higher than that for women (12 percent), while in the rest of the provinces the opposite is the case. However, in Eastern and Northern provinces the difference in the HIV prevalence rates between men and women is not as large as in the other provinces.

A comparison of HIV prevalence by religion shows that HIV prevalence is highest among Protestants (15 percent), followed by Catholics (13 percent) and other religions (12 percent). Muslims (4 percent) have the lowest prevalence of HIV. The prevalence is higher for women than for men in all religions except among Muslims, for whom the opposite is the case. In this group, 2 percent of women are HIV positive, compared with 5 percent of men.

HIV prevalence increases with level of education. Overall, 10 percent of people with no education are HIV positive, compared with 14 percent of those with a primary education, 15 percent among people with a secondary education, and 19 percent among people who have more than secondary education. The same pattern is observed for both women and men.

Table 14.5 HIV prevalence by socio-economic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by socio-economic characteristics, Zambia 2007

Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Residence						
Urban	23.1	2,317	15.9	2,148	19.7	4,464
Rural	11.0	3,185	9.4	2,795	10.3	5,980
Province						
Central	22.0	507	12.6	458	17.5	965
Copperbelt	21.6	973	12.3	949	17.0	1,922
Eastern	11.0	748	9.5	654	10.3	1,402
Luapula	11.5	408	15.3	317	13.2	726
Lusaka	22.4	902	19.0	878	20.8	1,780
Northern	7.7	744	5.7	662	6.8	1,406
North-Western	9.1	281	4.5	251	6.9	532
Southern	15.8	560	13.2	513	14.5	1,073
Western	16.1	379	13.9	260	15.2	638
Religion						
Catholic	14.2	1,106	11.6	1,080	12.9	2,186
Protestant	16.7	4,290	12.5	3,715	14.8	8,005
Muslim	(1.9)	31	(5.1)	28	(3.5)	58
Other	15.9	69	8.9	107	11.7	176
Education						
No education	10.8	549	7.7	210	10.0	759
Primary	15.8	2,937	11.0	2,247	13.7	5,184
Secondary	17.4	1,726	13.2	2,121	15.1	3,846
More than secondary	21.3	290	17.6	365	19.3	655
Employment (past 12 months)						
Not employed	14.1	2,523	5.6	1,008	11.7	3,530
Employed	17.7	2,978	14.0	3,933	15.6	6,912
Wealth quintile						
Lowest	8.8	939	6.8	916	7.8	1,855
Second	9.6	987	9.6	714	9.6	1,701
Middle	13.3	973	10.7	886	12.1	1,858
Fourth	22.9	1,193	18.1	1,129	20.6	2,323
Highest	21.6	1,410	13.6	1,297	17.8	2,707
Total 15-49	16.1	5,502	12.3	4,942	14.3	10,444
50-59	na	na	12.7	432	12.7	432
Total men 15-59	na	na	12.3	5,374	12.3	5,374

Note: Total includes 19 cases with information missing on religion and 2 cases with information missing on employment. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

Employed respondents have a higher prevalence rate (16 percent) than those who are unemployed (12 percent). Employed men (14 percent) are more than twice as likely to be HIV positive as unemployed men (6 percent). Among women, there is less of a difference by employment status; 14 percent of unemployed women are HIV positive, compared with 18 percent of employed women.

HIV prevalence increases with increasing wealth quintile from 8 percent among respondents in the lowest wealth quintile to 21 percent among those in the fourth quintile. Thereafter, prevalence decreases to 18 percent.

14.2.4 HIV Prevalence by Demographic Characteristics

Table 14.6 shows HIV prevalence by various demographic characteristics. These include marital status, type of union, the number of times the respondent one slept away from home in the 12 months preceding the survey, pregnancy status and ANC attendance. By marital status, more than half (54 percent) of widowed respondents and three-tenths (30 percent) of divorced or separated respondents are HIV positive. Fifteen percent of the respondents who are married or living together as if married are HIV positive. Among respondents who have never married, those who have ever had sex are twice as likely to be HIV positive as those who have never had sex (8 and 4 percent, respectively). This suggests either that some women and men incorrectly reported that they were not sexually active or that there is some degree of non-sexual HIV transmission occurring (e.g., through blood transfusions or non-sterile injections, etc.). HIV prevalence is higher among men than among women for currently married and ever-married respondents, while it is lower among men than among women for those who have never married.

Table 14.6 HIV prevalence by demographic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by demographic characteristics, Zambia 2007

Demographic characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Marital status						
Never married	9.1	1,420	4.5	2,107	6.3	3,527
Ever had sex	14.6	705	5.0	1,349	8.3	2,054
Never had sex	3.7	715	3.5	758	3.6	1,474
Married/living together	14.7	3,375	16.1	2,607	15.3	5,982
Divorced or separated	28.8	466	33.1	176	30.0	642
Widowed	52.5	240	(63.1)	52	54.4	293
Type of union						
In polygynous union	13.5	496	19.0	203	15.1	698
Not in polygynous union	14.8	2,856	15.9	2,404	15.3	5,260
Not currently in union	18.3	2,127	7.9	2,335	12.9	4,462
Don't know/missing	(21.5)	24	na	na	(21.5)	24
Times slept away from home in past 12 months						
None	14.3	3,076	11.6	2,731	13.0	5,807
1-2	17.8	1,651	12.6	1,238	15.5	2,889
3-4	16.1	414	11.8	460	13.8	874
5+	25.0	278	15.6	502	19.0	780
Missing	18.4	83	*	11	17.6	93
Time away in past 12 months						
Away for more than one month	18.4	937	11.6	851	15.2	1,788
Away only for less than 1 month	18.7	1,374	14.0	1,339	16.4	2,714
Not away	14.3	3,135	11.6	2,731	13.1	5,867
Missing	10.3	55	*	20	12.0	76
Currently pregnant						
Pregnant	11.6	592	na	na	na	na
Not pregnant or not sure	16.6	4,910	na	na	na	na
ANC for last birth in the past 3 years						
ANC provided by the public sector	13.2	2,401	na	na	na	na
ANC provided by other than the public sector	13.5	199	na	na	na	na
No ANC/No birth in past 3 years	18.6	2,899	na	na	na	na
Male circumcision						
Circumcised	na	na	10.8	619	na	na
Not circumcised	na	na	12.5	4,324	na	na
Total 15-49	16.1	5,502	12.3	4,942	14.3	10,444
50-59	na	na	12.7	432	na	na
Total men 15-59	na	na	12.3	5,374	na	na

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

HIV prevalence does not vary by whether or not the union is polygynous; HIV prevalence is 15 percent for both groups. However, by gender, men in a polygynous union have a somewhat higher HIV prevalence rate than those in a non-polygynous union (19 and 16 percent, respectively). Among women the opposite is the case; women in a polygynous union are slightly less likely to be HIV positive than those in a non-polygynous union (14 and 15 percent, respectively). Thirteen percent of respondents who are not currently in union are HIV positive. HIV prevalence is significantly higher among women who are not currently in union (18 percent) than among men in the same category (8 percent).

HIV prevalence is highest among respondents who slept away from home five or more times in the past 12 months (19 percent); HIV prevalence in this group is 25 percent among women and 16 percent among men. Looking at the duration of time away from home over the past year, prevalence is higher among respondents who spent time away from home than among those who were not away at all in the past 12 months. Sixteen percent of respondents who were away from home less than one month and 15 percent of those who were away for more than one month are HIV positive, compared with 13 percent of respondents who were not away at all.

Women who were pregnant at the time of the survey were less likely to be HIV positive than women who were not pregnant or who were unsure of their pregnancy status (12 and 17 percent, respectively). HIV prevalence is higher among women who did not receive antenatal care for their last birth or who didn't have a birth in the past three years (19 percent), compared with those who received ANC care. Among women who received ANC, the prevalence does not differ much by whether the ANC services were from the public sector (13 percent) or private sector (14 percent).

14.2.5 HIV Prevalence by Sexual Risk Behaviour

Table 14.7 presents HIV prevalence rates among respondents who have ever had sexual intercourse by sexual behaviour indicators. In reviewing these results, it is important to remember that responses about sexual risk behaviours may be subject to reporting bias. Also, sexual behaviour in the 12 months preceding the survey may not adequately reflect lifetime sexual risk, nor is it possible to know the sequence of events, e.g., whether any reported condom use occurred before or after HIV transmission.

Eighteen percent of women whose sexual debut was at age 19 or younger are HIV positive, compared with 21 percent of women whose sexual debut was at age 20 or older. Among men, 13 percent of those whose sexual debut was at age 17 or younger are HIV positive, compared with 16 and 14 percent of men whose sexual debut was at age 18-19 and at age 20 or older, respectively.

ZDHS respondents are considered to have had a higher-risk sexual encounter if they had intercourse with a non-marital, non-cohabiting partner. Twenty-three percent of women who had a higher-risk sexual encounter in the 12 months preceding the survey are HIV positive, compared with 15 percent of those who had sexual intercourse in the past year but not in a higher-risk encounter. It should be noted that 27 percent of women who did not have sexual intercourse over the past 12 months are HIV positive. Among men, HIV prevalence is 14 percent for those who reported having had higher-risk sex and 15 percent for those who were recently sexually active but did not engage in higher-risk intercourse.

HIV prevalence by number of partners in the past 12 months varies greatly, and is highest among women and men who reported having two partners (32 percent for women and 20 percent for men). It should be noted that 27 percent of women and 11 percent of men with no sexual partner(s) in the past year are HIV positive. Among people with one partner, HIV prevalence is 16 percent for women and 13 percent for men.

Table 14.7 HIV prevalence by sexual behaviour

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by sexual behaviour characteristics, Zambia 2007

Sexual behaviour characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age at first sexual intercourse						
<16	17.5	1,782	12.8	1,550	15.3	3,331
16-17	17.5	1,374	12.9	887	15.7	2,261
18-19	17.7	764	16.4	832	17.0	1,596
20+	21.0	512	13.9	877	16.5	1,389
Missing	17.6	351	(19.0)	38	17.7	389
Higher-risk intercourse in past 12 months[1]						
Had higher-risk intercourse	23.0	705	13.6	1,449	16.7	2,154
Had sexual intercourse, not higher risk	15.0	3,389	14.8	2,186	14.9	5,575
No sexual intercourse in past 12 months	27.2	689	10.6	548	19.9	1,238
Number of sexual partners in past 12 months						
0	27.2	687	10.5	547	19.8	1,234
1	16.1	4,019	12.8	2,869	14.7	6,888
2	31.7	72	20.0	631	21.2	703
3+	*	3	19.7	126	19.8	129
Missing	*	3	*	10	*	13
Number of higher-risk partners in past 12 months[2]						
0	17.0	4,079	14.0	2,735	15.8	6,813
1	22.1	660	13.8	1,074	17.0	1,734
2	37.6	43	11.0	273	14.6	316
3+	*	2	18.0	102	17.7	104
Condom use						
Ever used a condom	23.0	1,603	15.8	2,621	18.5	4,224
Never used a condom	15.3	3,176	10.5	1,551	13.8	4,728
Missing	*	4	*	11	*	15
Condom use at last sexual intercourse in past 12 months						
Used condom	26.7	491	16.7	857	20.3	1,348
Did not use condom	14.9	3,603	13.6	2,777	14.4	6,380
No sexual intercourse in past 12 months	27.2	689	10.6	548	19.9	1,238
Condom use at last higher-risk intercourse in past 12 months						
Used condom	24.0	272	13.7	703	16.6	975
Did not use condom	22.4	433	13.5	746	16.7	1,179
No higher-risk intercourse/no intercourse past 12 months	17.0	4,079	14.0	2,735	15.8	6,813
Number of lifetime partners						
1	9.5	2,165	2.9	630	8.0	2,794
2	20.4	1,435	9.3	709	16.8	2,144
3-4	28.7	946	15.5	1,182	21.3	2,128
5-9	37.2	198	16.3	971	19.9	1,170
10+	(37.2)	26	22.3	597	22.9	623
Missing	*	14	22.2	93	22.8	107
Paid for sexual intercourse in past 12 months[3]						
Yes	*	0	16.7	251	16.7	251
Used condom	*	0	18.3	135	18.2	135
Did not use condom	*	0	14.8	116	14.8	116
No (no paid sexual intercourse/no sexual intercourse in past 12 months)	17.9	4,783	13.7	3,933	16.0	8,716
Total 15-49	17.9	4,783	13.8	4,183	16.0	8,967
50-59	na	na	12.7	432	12.7	432
Total men 15-59	na	na	13.7	4,615	13.7	4,615

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable
[1] Sexual intercourse with a non-marital, non-cohabiting partner
[2] A non-marital, non-cohabiting partner, among the last three partners in the past 12 months
[3] Includes men who reported having a prostitute as at least one of their last three sexual partners in the past 12 months

Table 14.7 indicates that ever use of condoms is negatively related to HIV prevalence among both women and men. Women who have never used a condom have lower HIV prevalence (15 percent) than those who have ever used a condom (23 percent). Similarly, men who have ever used a condom have a prevalence rate of 16 percent, compared with 11 percent among those who have never used a condom. A similar pattern exists among women and men with respect to condom use at last sexual encounter in the 12 months preceding the survey. HIV prevalence increases with increasing number of lifetime partners for both men and women. There is not much variation in HIV prevalence by whether male respondents paid for sexual intercourse in the past 12 months.

14.3 HIV PREVALENCE AMONG YOUTH

Table 14.8 shows HIV prevalence among women and men age 15-24. Overall, 7 percent of youth age 15-24 tested positive for HIV, and prevalence is higher among young women (9 percent) than among young men (4 percent). HIV prevalence increases with age, from 4 percent among youth age 15-17 to 6 percent among those age 18-22 to 13 percent among youth age 23-24. This age pattern is seen for young women, but for young men the increase in HIV prevalence is not linear; prevalence decreases between the 18-19 age group and the 20-22 age group (4 and 2 percent, respectively).

Table 14.8 HIV prevalence among young people by background characteristics

Percentage HIV positive among women and men age 15-24 who were tested for HIV, by background characteristics, Zambia 2007

Background characteristic	Women age 15-24		Men age 15-24		Total age 15-24	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age						
15-19	5.7	1,202	3.6	1,162	4.7	2,365
15-17	4.4	745	3.5	709	3.9	1,454
18-19	7.9	458	3.8	453	5.9	911
20-24	11.8	1,023	5.2	865	8.7	1,888
20-22	9.6	627	2.4	553	6.2	1,180
23-24	15.2	396	10.0	312	12.9	708
Marital status						
Never married	6.8	1,240	3.4	1,767	4.8	3,007
Ever had sex	11.0	553	3.2	1,037	5.9	1,590
Never had sex	3.4	687	3.7	730	3.5	1,417
Married/living together	9.5	874	9.9	238	9.6	1,112
Divorced/separated/widowed	19.3	111	*	22	18.7	133
Currently pregnant						
Pregnant	8.5	254	na	na	na	na
Not pregnant or not sure	8.5	1,971	na	na	na	na
Residence						
Urban	11.1	1,032	5.7	990	8.5	2,021
Rural	6.2	1,193	2.9	1,038	4.7	2,231
Province						
Central	15.0	194	5.4	177	10.4	371
Copperbelt	8.3	409	4.8	432	6.5	841
Eastern	4.2	281	2.2	250	3.3	531
Luapula	8.7	155	9.7	111	9.1	267
Lusaka	10.5	381	6.6	369	8.6	750
Northern	5.1	305	2.0	269	3.6	574
North-Western	4.4	122	0.0	102	2.4	224
Southern	10.3	237	3.3	225	6.9	462
Western	10.9	140	2.9	93	7.7	233
Education						
No education	8.7	139	3.8	42	7.6	181
Primary	8.1	1,045	4.1	890	6.2	1,935
Secondary	8.9	976	4.6	1,040	6.6	2,016
More than secondary	9.7	65	(3.0)	57	6.5	121
Wealth quintile						
Lowest	5.2	339	2.0	320	3.7	659
Second	4.3	366	3.5	246	3.9	613
Middle	9.2	375	2.6	350	6.0	725
Fourth	11.4	509	7.8	478	9.7	987
Highest	10.0	636	4.0	633	7.0	1,269
Total	8.5	2,225	4.3	2,028	6.5	4,253

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

Table 14.8 shows the relationship between HIV prevalence and marital status among youth. Young respondents who have never been married have a lower HIV prevalence (5 percent) than those who are married or living together (10 percent), and a much lower prevalence than youth who are separated, divorced, or widowed (19 percent). Among youth who have never been married, those who have never had sex have a lower prevalence (4 percent) than those who have had sex (6 percent). The differences in the prevalence rates are more pronounced among young women than among young men. Eleven percent of women who ever had sex tested positive for HIV, compared with 3 percent of those who never had sex. For men, the pattern is reversed and the differences are insignificant; 3 percent of young men who have ever had sex are HIV positive compared with 4 percent of men who have never had sex.

HIV prevalence is higher in urban areas than in rural areas and the same pattern is seen true for young women and men in these areas. By province, Central has the highest HIV prevalence (10 percent), followed by Luapula and Lusaka (9 percent each), while North-Western has the lowest prevalence (2 percent). Among young women, Central province (15 percent) has the highest prevalence of HIV, while among young men, the highest prevalence is in Luapula (10 percent).

Youth with no education have a somewhat higher prevalence of HIV than those with any level of education. Women with more than a secondary education have the highest HIV prevalence (10 percent), while among men, those with secondary education have the highest prevalence (5 percent). By wealth status, women and men in the fourth quintile have the highest HIV prevalence; 11 percent for women and 8 percent for men.

14.3.1 HIV Prevalence by Sexual Behaviour among Youth

The 2007 ZDHS collected data on behaviours that correlate with STI infection rates. Information on sexual behaviour characteristics is important in designing, targeting, and monitoring HIV prevention interventions for the young adult population. Three behaviours that correlate with STI rates include the number of sexual partners, age at first sexual intercourse, and condom use. It is important to note that responses about sexual behaviour are subject to reporting bias. This section examines data on sexual behaviour related to the spread of HIV and other sexually transmitted infections among respondents who have ever had sexual intercourse. Five key aspects of sexual behaviour have been examined: relative age of first sexual partner, higher-risk sexual intercourse in the past 12 months, number of sexual partners in the past 12 months, number of higher-risk sexual partners in the past 12 months, and condom use.

Table 14.9 shows the HIV prevalence among youth by sexual behaviour. In addition to other questions, women age 15-24 were asked about the age of their first sexual partner. HIV prevalence among women age 15-24 whose first sexual partner was 10 or more years older is slightly lower than among women whose partners were younger or the same age (9 and 11 percent, respectively). HIV prevalence is higher among young women (13 percent) who had higher-risk sexual intercourse in the past 12 months than among young men in the same category (5 percent). Men who reported no recent higher-risk sexual intercourse are less likely to be HIV positive than women in the same category (6 and 10 percent, respectively).

Respondents were asked about the number of sexual partners they had in the past 12 months. Table 14.9 shows that the proportion of youth who tested positive for HIV increases with the number of sexual partners. HIV prevalence is three times as high among young women with two sexual partners (30 percent) than those with none or one sexual partner (10 percent). Similarly, HIV prevalence is highest among male respondents who had at least two sexual partners in the past 12 months (9 percent), compared with those with no sexual partner (3 percent) and those with one partner (4 percent).

Table 14.9 HIV prevalence among young people by sexual behaviour

Percentage HIV positive among women and men age 15-24 who ever had sex and were tested for HIV, by sexual behaviour, Zambia 2007

Sexual behaviour characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Relative age of first sexual partner						
10+ years older	9.0	105	na	na	na	na
<10 years older/same age/ younger/don't know	10.8	1,324	na	na	na	na
Missing	12.4	109	na	na	na	na
Higher-risk intercourse in past 12 months[1]						
Had higher-risk intercourse	13.2	407	4.7	760	7.7	1,168
Had sexual intercourse, not higher risk	9.8	905	6.4	195	9.2	1,100
No sexual intercourse in past 12 months	10.2	226	3.4	342	6.1	568
Number of sexual partners in past 12 months						
0	10.2	226	3.2	341	6.0	566
1	10.3	1,275	4.1	760	8.0	2,035
2	30.0	36	8.9	152	13.0	189
3+	*	1	(5.5)	40	(7.1)	41
Missing	*	0	*	4	*	4
Number of higher-risk partners in past 12 months[2]						
0	9.9	1,130	4.5	537	8.2	1,668
1	11.7	377	4.5	556	7.4	934
2	33.0	30	5.1	148	9.8	177
3+	na	na	5.8	56	5.8	57
Condom use						
Ever used a condom	13.9	577	6.2	739	9.6	1,317
Never used a condom	8.9	958	2.6	553	6.6	1,512
Missing	*	2	*	5	*	7
Condom use at first sex						
Used condom	14.6	381	4.0	275	10.2	657
Did not use condom	9.2	1,125	4.8	990	7.1	2,115
Missing/don't know	(21.1)	31	(3.6)	33	(12.2)	64
Condom use at last sexual intercourse in past 12 months						
Used condom	18.2	234	5.1	372	10.2	606
Did not use condom	9.3	1,078	5.0	584	7.8	1,662
No sexual intercourse in past 12 months	10.2	226	3.4	342	6.1	568
Total	10.8	1,538	4.6	1,298	8.0	2,836

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable
[1] Sexual intercourse with a non-marital, non-cohabiting partner
[2] A non-marital, non-cohabiting partner, among the last three partners in the past 12 months

Youth who have ever used a condom (10 percent) are more likely to be HIV positive than youth who have never used a condom (7 percent). HIV prevalence is significantly higher among young women who reported having used a condom at first sex than among those who didn't use a condom (15 and 9 percent, respectively). Furthermore, HIV prevalence is twice as high among young women who used a condom (18 percent) during their last sexual intercourse (in the past 12 months than among women who didn't use a condom (9 percent). These patterns are less pronounced among young men.

14.4 HIV Prevalence by Other Characteristics

14.4.1 HIV Prevalence and STIs

A strong link exits between sexually transmitted infections and the sexual transmission of HIV. Many studies have demonstrated that sexually transmitted infections are a co-factor for HIV

transmission. STI control may potentially play an important role in the reduction of HIV transmission. Respondents in the 2007 ZDHS who had ever had sex were asked if they had contracted a disease through sexual contact in the past 12 months, or if they had had any symptoms associated with STIs (a bad-smelling, abnormal discharge from the vagina/penis or a genital sore or ulcer). Table 14.10 shows HIV prevalence among women and men age 15-49 who have ever had sex, by characteristics related to HIV risk, including whether they had had an STI in the past 12 months and prior testing for HIV. The data show that respondents with a history of STIs or STI symptoms have substantially higher rates of HIV infection than those with no history of STIs or STI symptoms.

Women who had an STI or STI symptoms in the past 12 months were twice as likely to be HIV positive (34 percent) as women who did not have an STI or STI symptoms (17 percent). Similarly, men who reported having an STI or STI symptoms in the past 12 months (30 percent) were more than twice as likely to be HIV positive as men who did not report an STI or STI symptoms (13 percent).

Overall, respondents who ever had sex and who have been tested for HIV at some time are more likely to be HIV positive than sexually active adults who have never been tested (20 and 14 percent, respectively).

Table 14.10 HIV prevalence by other characteristics

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by whether they had an STI in the past 12 months and by prior testing for HIV, Zambia 2007

	Women		Men		Total	
Characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Sexually transmitted infection in past 12 months						
Had STI or STI symptoms	33.9	244	30.4	271	32.0	515
No STI, no symptoms	17.1	4,518	12.7	3,897	15.1	8,415
Don't know/missing	*	21	*	15	(7.6)	37
Prior HIV testing						
Ever tested	21.1	2,107	18.1	1,024	20.1	3,131
Received results	21.1	1,902	18.2	928	20.2	2,831
Did not received results	21.0	205	16.9	96	19.7	301
Never tested	15.5	2,655	12.5	3,147	13.9	5,802
Missing	*	22	*	12	(0.8)	33
Total 15-49	17.9	4,783	13.8	4,183	16.0	8,967

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

14.4.2 HIV Prevalence by Previous Testing Behaviour

Knowing one's HIV status through testing is considered to be a key motivating factor for behaviour change. It also helps individuals make decisions to reduce infection risks and increase safer sex practices. Additionally, knowledge of one's HIV status provides an important link to HIV/AIDS treatment and care, and other support services including clinical management of related illness, access to antiretroviral therapy (ART), and psychological support for HIV-positive persons. To assess the awareness and coverage of HIV testing services, 2007 ZDHS respondents were asked whether they had ever been tested for HIV. Those respondents who had been tested were further asked whether they had received the results of their last HIV test and where they had been tested.

Table 14.11 shows that , 57 percent of HIV-positive people had never been tested before. Thirty-eight percent of HIV-positive people had been tested previously and received the results of their last test, meaning they know their HIV status. Sixty-nine percent of HIV-positive men and 49 percent of HIV-positive women had never been tested and may not have been aware that they were HIV positive.

Table 14.11 Prior HIV testing by current HIV status

Percent distribution of women and men age 15-49 by HIV testing status prior to the survey, according to whether HIV positive or negative, Zambia 2007

HIV testing prior to the survey	Women		Men		Total	
	HIV positive	HIV negative	HIV positive	HIV negative	HIV positive	HIV negative
Previously tested, received results of last test	45.4	34.0	28.3	18.9	38.4	26.7
Previously tested, did not receive result of last test	5.7	3.8	2.7	2.0	4.5	2.9
Not previously tested	48.9	61.7	69.0	78.8	57.1	70.0
Missing	0.0	0.5	0.0	0.4	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	885	4,617	606	4,336	1,491	8,953

14.4.3 HIV Prevalence by Male Circumcision

Male circumcision is believed to reduce the risk of HIV infection, in part because of physiological differences that decrease susceptibility to HIV among circumcised men. In the recent past, several studies in sub-Saharan Africa—including clinical trials conducted in South Africa, Kenya, and Uganda (Auvert et al., 2005; Gray et al., 2007; and Parker et al., 2007)—have documented that male circumcision provides some protection against HIV and other STIs. However, although the research supporting circumcision's protective effects is compelling, it is important to emphasize that circumcised men can still get infected with HIV and can infect their sexual partners. To investigate the relationship between male circumcision and HIV status, men were asked whether they were circumcised. Table 14.12 presents the results data on HIV prevalence by male circumcision status. Circumcised men age 15-49 have a slightly lower HIV prevalence rate than uncircumcised men (11 and 13 percent, respectively). However, examination of the age pattern shows that the HIV prevalence is substantially higher among circumcised men in the 25-29 age group, compared with uncircumcised men in the same age group (18 and 11 percent, respectively). In urban areas, the HIV prevalence rate among circumcised and uncircumcised men is the same (16 percent). In rural areas, the HIV prevalence rate is slightly lower among men who are circumcised (7 percent) than among those who are not circumcised (10 percent).

North-Western province has the lowest HIV prevalence rate for circumcised men (3 percent), while Lusaka has the highest (20 percent). HIV prevalence among circumcised men is lower than that among uncircumcised men in Central, Southern, Western, and Luapula provinces. On the other hand, HIV prevalence is higher among circumcised men than uncircumcised men in Copperbelt and Lusaka. It should be noted that the unweighted number of circumcised men who are HIV positive is too small for several of the provinces to make comparisons and draw meaningful conclusions.

Circumcised men who have completed secondary school (14 percent) are more likely to be HIV positive than those with no education or who have completed lower levels of education. Among uncircumcised men, HIV prevalence increases steadily with level of education, from 8 percent among uneducated men to 19 percent among men with more than secondary education.

HIV prevalence increases with wealth quintiles among both circumcised and uncircumcised men. In both groups, the lowest HIV prevalence is observed among those in the lowest wealth quintile (6 and 7 percent, respectively). On the other hand, the highest HIV prevalence is observed among circumcised men in the highest wealth quintile (16 percent) and among uncircumcised men in the fourth wealth quintile (19 percent).

Table 14.12 HIV prevalence by male circumcision status

Among men age 15-49 who were tested for HIV, the percentage HIV positive by whether circumcised, according to background characteristics, Zambia 2007

Background characteristic	Circumcised		Not circumcised	
	Percentage HIV positive	Number	Percentage HIV positive	Number
Age				
15-19	0.0	111	4.0	1,052
20-24	4.2	114	5.3	751
25-29	17.6	96	10.6	700
30-34	15.1	97	17.4	690
35-39	18.8	99	23.1	509
40-44	12.3	56	26.0	354
45-49	10.7	45	19.9	268
Residence				
Urban	16.2	273	15.9	1,875
Rural	6.5	345	9.8	2,449
Province				
Central	(7.3)	28	12.9	431
Copperbelt	15.1	123	11.9	826
Eastern	*	20	9.3	634
Luapula	(9.9)	31	15.9	287
Lusaka	19.8	95	18.9	783
Northern	*	22	5.5	640
North-Western	2.9	175	8.1	75
Southern	(8.6)	20	13.4	493
Western	10.6	105	16.1	155
Education				
No education	(4.2)	28	8.2	182
Primary	8.3	262	11.3	1,985
Secondary	14.1	274	13.0	1,847
More than secondary	(9.5)	54	19.0	310
Wealth quintile				
Lowest	5.7	110	6.9	807
Second	4.6	106	10.4	608
Middle	10.1	125	10.8	761
Fourth	14.7	138	18.6	991
Highest	16.1	139	13.3	1,157
Religion				
Catholic	14.4	96	11.3	984
Protestant	10.7	485	12.8	3,230
Muslim	*	17	*	11
Other	*	21	10.0	86
Total 15-49	10.8	619	12.5	4,324
50-59	11.0	53	12.9	379
Total men 15-59	10.8	672	12.5	4,702

Notes: Total includes 12 cases where information on religion is missing. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

14.4.4 HIV Prevalence among Cohabitating Partners

In the 2007 ZDHS, more than 2,000 cohabitating couples were interviewed and tested for HIV. Table 14.13 shows the percent distribution of partners living in the same household and both of whom were tested for HIV, by HIV status according to background characteristics. For the majority of partners (81 percent), both the women and the men were HIV negative. Eight percent of cohabitating partners were both HIV positive. There was discordance in HIV status among 11 percent of cohabitating partners. Among discordant partners, 7 percent were cases where the male partner is HIV positive and the female partner is HIV negative, while in 5 percent of the cases, the female partner is HIV positive and the male partner is HIV negative.

Table 14.13 HIV prevalence among cohabitating partners

Percent distribution of partners living in the same household, both of whom were tested for HIV, by the HIV status, according to background characteristics, Zambia 2007

Background characteristic	Both HIV positive	Man HIV positive, woman HIV negative	Woman HIV positive, man HIV negative	Both HIV negative	Total	Number
Woman's age						
15-19	5.1	5.0	2.8	87.2	100.0	150
20-29	7.2	7.1	4.6	81.1	100.0	1,027
30-39	10.9	6.4	5.7	77.0	100.0	765
40-49	5.2	6.4	3.3	85.0	100.0	382
Man's Age						
15-19	*	*	*	*	*	11
20-29	3.9	6.3	3.3	86.6	100.0	577
30-39	10.6	6.6	5.7	77.2	100.0	957
40-49	9.1	8.2	5.3	77.4	100.0	531
50-59	4.6	4.7	2.3	88.4	100.0	247
Age difference between partners						
Woman older	8.2	6.2	9.8	75.8	100.0	83
Same age/man older by 0-4 years	8.1	6.9	4.3	80.7	100.0	871
Man older by 5-9 years	7.2	5.8	3.7	83.3	100.0	989
Man older by 10-14 years	10.1	8.1	6.0	75.9	100.0	291
Man older by 15+ years	8.4	8.9	9.2	73.4	100.0	89
Type of union						
Monogamous	8.1	6.4	4.7	80.8	100.0	2,104
Polygynous	6.1	9.5	2.7	81.8	100.0	201
Residence						
Urban	14.1	8.0	8.4	69.6	100.0	792
Rural	4.8	5.9	2.7	86.5	100.0	1,532
Province						
Central	9.4	5.9	8.2	76.4	100.0	217
Copperbelt	11.1	2.9	9.2	76.8	100.0	332
Eastern	5.1	4.7	1.3	88.9	100.0	406
Luapula	6.7	7.1	4.1	82.1	100.0	182
Lusaka	15.6	11.7	6.3	66.4	100.0	349
Northern	2.0	6.0	1.5	90.5	100.0	369
North-Western	3.6	2.9	3.7	89.8	100.0	115
Southern	8.8	8.8	3.4	79.0	100.0	231
Western	7.2	10.4	5.7	76.7	100.0	124
Woman's education						
No education	5.7	4.4	1.7	88.2	100.0	298
Primary	6.5	6.8	4.6	82.1	100.0	1,415
Secondary	12.9	6.9	5.1	75.1	100.0	521
More than secondary	10.0	10.8	12.2	67.0	100.0	90
Man's education						
No education	4.0	4.3	2.1	89.5	100.0	137
Primary	6.1	4.9	3.5	85.6	100.0	1,173
Secondary	9.8	9.0	6.3	74.8	100.0	800
More than secondary	14.0	8.7	6.2	71.1	100.0	214
Wealth quintile						
Lowest	3.0	4.9	1.9	90.2	100.0	560
Second	3.9	6.0	2.9	87.1	100.0	420
Middle	6.7	6.4	3.6	83.3	100.0	451
Fourth	12.5	7.8	7.1	72.6	100.0	444
Highest	14.8	8.6	8.1	68.5	100.0	449
Total	8.0	6.6	4.6	80.8	100.0	2,324

Notes: Table based on couples for which a valid test result (positive or negative) is available for both partners. Total includes 19 cases for which type of union is missing. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

14.4.5 HIV Prevalence among Women Who Recently Gave Birth

Table 14.14 presents results on HIV prevalence among women who gave birth in the 12 months preceding the survey by age and residence. Overall, HIV prevalence is highest among mothers age 25-29 and age 30-34 (18 and 19 percent, respectively). Across all age groups, women in urban areas are more likely to be HIV positive than women in rural areas. For example, women age 25-29 in urban areas (32 percent) are about three times as likely to be HIV positive as women in rural areas (11 percent) in the same age group. Similarly, urban women age 15-19 are three times as likely

to be HIV positive as rural women in the same age group (13 and 4 percent, respectively), while urban women age 30-34 are about twice as likely to be HIV positive as rural women in the same age group (29 and 15 percent, respectively).

Table 14.14 HIV prevalence among women who recently gave birth

Among women with a birth in the 12 months preceding the survey, the percentage HIV positive, by age group and urban-rural residence, Zambia 2007

Age and residence	Percentage HIV negative	Percentage HIV positive	Percentage indeterminate	Number of women who gave birth in past 12 months
Urban				
15-19	86.7	13.3	0.0	58
20-24	83.1	16.9	0.0	86
25-29	68.5	31.5	0.0	93
30-34	71.2	28.8	0.0	57
35-39	(85.2)	(14.8)	(0.0)	24
40-49	*	*	*	5
Rural				
15-19	95.9	4.1	0.0	85
20-24	94.1	5.2	0.7	169
25-29	88.8	11.2	0.0	186
30-34	84.9	15.1	0.0	145
35-39	93.4	6.6	0.0	80
40-49	(100.0)	(0.0)	(0.0)	48
Total				
15-19	92.2	7.8	0.0	143
20-24	90.3	9.2	0.5	255
25-29	82.0	18.0	0.0	279
30-34	81.1	18.9	0.0	201
35-39	91.5	8.5	0.0	104
40-49	100.0	0.0	0.0	53

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

14.5 COVERAGE FOR SYPHILIS TESTING

In the 2007 ZDHS, all eligible women and men interviewed in every third household among all the selected households were eligible for a syphilis testing. As with HIV testing, respondents voluntarily consented to the syphilis test. A full description of the procedures for sample collection, testing, and treatment of syphilis is discussed in Chapter 1.

Tables 14.15 summarizes coverage rates for syphilis testing by residence for 4,604 respondents. The table shows that among the women and men eligible for testing, 52 percent consented to syphilis testing, 24 percent refused to be tested, and 3 percent were absent from the household when the nurse/nurse counsellor visited the household. Seventeen percent of the samples were missing in the lab and 4 percent of the samples had the sample identifiers missing.

A comparison of coverage rates for syphilis testing among women and men shows that coverage is higher for women (55 percent) than for men (50 percent). It is expected that men are more likely to be absent from the household at the time of the survey, hence their lower response rate. About one in four men and women refused to be tested for syphilis.

Testing coverage is higher in rural areas (55 percent) than in urban areas (49 percent). The percentage of respondents absent from home at the time the nurse/nurse counsellor visited is higher in urban than rural areas (4 and 2 percent, respectively).

Table 14.15 Coverage of syphilis testing by residence

Percent distribution of de facto women age 15-49 and men age 15-59 eligible for syphilis testing by testing status, according to residence (unweighted), Zambia 2007

Syphilis testing status	Residence		Total
	Urban	Rural	
Women			
Venous blood tested	53.2	56.2	54.8
Refused to provide blood	24.4	22.4	23.3
Absent at the time of blood collection	1.9	0.9	1.3
Sample missing in lab	16.8	17.0	16.9
Test not complete	0.1	0.0	0.0
Other	0.4	0.6	0.5
Sample identifier missing in questionnaire	3.2	2.9	3.1
Total	100.0	100.0	100.0
Unweighted number	1,056	1,257	2,313
Men			
Venous blood tested	45.5	53.7	50.0
Refused to provide blood	28.1	20.5	23.9
Absent at the time of blood collection	5.5	3.3	4.3
Sample missing in lab	14.4	18.3	16.5
Test not complete	0.1	0.1	0.1
Other	1.3	0.8	1.0
Sample identifier missing in questionnaire	5.2	3.2	4.1
Total	100.0	100.0	100.0
Unweighted number	1,037	1,254	2,291
Total			
Venous blood tested	49.4	55.0	52.4
Refused to provide blood	26.2	21.5	23.6
Absent at the time of blood collection	3.7	2.1	2.8
Sample missing in lab	15.6	17.7	16.7
Test not complete	0.1	0.0	0.1
Other	0.8	0.7	0.7
Sample identifier missing in questionnaire	4.2	3.1	3.6
Total	100.0	100.0	100.0
Unweighted number	2,093	2,511	4,604

Table 14.16 shows coverage of syphilis testing by province. Coverage ranges from 20 percent in North-Western province to 72 percent in Western province. Refusals are fairly high in all the provinces. Central had the highest percentage of refusals (34 percent), followed by Copperbelt (30 percent), while Eastern province had the lowest percentage of refusals (18 percent). Overall, patterns of syphilis testing coverage by province are similar for women and men.

Table 14.16 Coverage of syphilis testing by province

Percent distribution of de facto women age 15-49 and men age 15-59 eligible for syphilis testing by testing status, according to province (unweighted), Zambia 2007

Syphilis testing status	Province									Total
	Central	Copperbelt	Eastern	Luapula	Lusaka	Northern	North-Western	Southern	Western	
Women										
Venous blood tested	50.5	66.7	61.8	72.4	45.1	63.1	17.3	32.9	74.8	54.8
Refused to provide blood	31.9	28.5	17.7	20.3	23.4	21.7	26.9	22.5	20.0	23.3
Absent at the time of blood collection	2.5	1.4	0.0	3.0	1.3	1.1	0.5	2.5	0.4	1.3
Sample missing in lab	9.3	1.0	15.5	2.6	27.3	9.5	50.0	39.6	2.4	16.9
Test not complete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Other	1.0	0.0	0.0	0.4	0.3	0.4	1.4	0.8	0.4	0.5
Sample identifier missing in questionnaire	4.9	2.4	5.0	1.3	2.6	4.2	3.8	1.7	1.6	3.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted number	204	291	317	232	308	263	208	240	250	2,313
Men										
Venous blood tested	44.9	58.0	61.7	61.1	40.1	62.2	22.3	32.1	68.8	50.0
Refused to provide blood	36.9	30.9	18.0	23.2	25.4	18.7	18.9	20.7	22.6	23.9
Absent at the time of blood collection	5.1	6.2	1.7	11.1	4.7	3.8	3.4	2.2	1.5	4.3
Sample missing in lab	8.4	0.7	13.2	2.0	25.4	7.6	47.1	38.0	5.0	16.5
Test not complete	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Other	0.5	0.7	0.0	2.0	1.5	1.5	0.5	2.2	0.0	1.0
Sample identifier missing in questionnaire	4.2	2.9	5.4	0.5	2.9	6.1	7.8	4.8	2.0	4.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted number	214	307	295	198	339	262	206	271	199	2,291
Total										
Venous blood tested	47.6	62.2	61.8	67.2	42.5	62.7	19.8	32.5	72.2	52.4
Refused to provide blood	34.4	29.8	17.8	21.6	24.4	20.2	22.9	21.5	21.2	23.6
Absent at the time of blood collection	3.8	3.8	0.8	6.7	3.1	2.5	1.9	2.3	0.9	2.8
Sample missing in lab	8.9	0.8	14.4	2.3	26.3	8.6	48.6	38.7	3.6	16.7
Test not complete	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1
Other	0.7	0.3	0.0	1.2	0.9	1.0	1.0	1.6	0.2	0.7
Sample identifier missing in questionnaire	4.5	2.7	5.2	0.9	2.8	5.1	5.8	3.3	1.8	3.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted number	418	598	612	430	647	525	414	511	449	4,604

14.6 SYPHILIS PREVALENCE

14.6.1 Syphilis Prevalence by Age, Sex, and Residence

Table 14.17 shows the results of the syphilis testing in the 2007 ZDHS. Seven percent of eligible respondents age 15-49 who were tested for syphilis were found to be positive on the screening test (RPR) and 4 percent were found to be positive on both the screening test and the confirmatory test (TPHA). Overall, 4 percent of women and 5 percent of men age 15-49 in Zambia have syphilis. Syphilis prevalence among men age 15-59 is also 5 percent.

Table 14.17 Syphilis testing by age

Prevalence of syphilis among women and men age 15-49, by age group and type of test, Zambia 2007

	Women			Men			Total		
Age	Percentage positive on screening test	Percentage positive on screening and confirmatory test	Number tested	Percentage positive on screening test	Percentage positive on screening and confirmatory test	Number tested	Percentage positive on screening test	Percentage positive on screening and confirmatory test	Number tested
15-19	4.8	2.1	258	3.3	0.4	249	4.1	1.3	508
20-24	7.4	4.3	208	5.0	3.4	196	6.2	3.9	404
25-29	8.4	4.4	224	9.2	7.0	182	8.8	5.5	406
30-34	12.1	6.8	188	11.8	8.3	168	12.0	7.5	355
35-39	8.3	2.6	130	6.4	3.9	134	7.3	3.3	265
40-44	1.8	1.4	97	10.4	10.4	107	6.3	6.1	203
45-49	3.4	3.2	102	9.6	0.9	54	5.5	2.4	156
50-54	na	na	na	11.3	3.8	72	na	na	na
55-59	na	na	na	8.5	6.1	45	na	na	na
Total 15-49	7.1	3.7	1,208	7.3	4.7	1,090	7.2	4.2	2,298
Total 15-59	na	na	na	7.6	4.7	1,206	na	na	na

na = Not applicable

The population testing positive on both syphilis tests rises rapidly with age, from a low of 1 percent in the 15-19 age group to a peak of 8 percent in the 30-34 age group, then falls to 3 percent in the 35-39 age group, fluctuating thereafter. The pattern varies slightly for women and men. While the prevalence for women peaks in the 30-34 age group, for men it peaks in the 40-44 age group.

In the 2001-2002 ZDHS, 9 percent of respondents tested positive for syphilis on the screening test and 7 percent tested positive on the confirmatory test. Although the prevalence of syphilis declined between the 2001-02 and the 2007 surveys, the difference is not statistically significant.

Table 14.18 shows that syphilis prevalence is similar for women in urban and rural areas (3 and 4 percent, respectively), and is the same (5 percent) for men in urban and rural areas. Southern (9 percent), Western and North-Western provinces (6 percent each), and Lusaka (5 percent) have prevalence rates above the national average. Table 14.18 shows that the lowest syphilis prevalence rates are among respondents with more than secondary education. On the other hand, syphilis prevalence rates for respondents who have completed secondary education is slightly higher than for respondents with no education or those who have completed primary education.

Table 14.18 Syphilis prevalence by background characteristic

Prevalence of syphilis among women and men age 15-49, by background characteristics, Zambia 2007

	Women		Men		Total	
Background characteristic	Percentage syphilis positive	Number	Percentage syphilis positive	Number	Percentage syphilis positive	Number
Residence						
Urban	3.4	518	5.0	468	4.2	986
Rural	3.9	690	4.5	622	4.2	1,312
Province						
Central	2.9	105	4.2	102	3.5	207
Copperbelt	2.4	223	2.9	205	2.6	428
Eastern	2.1	170	1.5	142	1.8	312
Luapula	3.8	89	2.0	70	3.0	159
Lusaka	4.4	201	6.3	188	5.3	389
Northern	4.1	170	2.9	147	3.5	318
North-Western	3.3	56	8.1	54	5.7	110
Southern	5.7	110	11.3	120	8.6	230
Western	6.8	83	5.3	62	6.2	145
Education						
No education	2.4	119	7.9	40	3.8	159
Primary	4.2	635	3.6	487	4.0	1,122
Secondary	4.0	378	6.0	475	5.1	853
More than secondary	0.0	76	1.8	88	1.0	164
Total 15-49	3.7	1,208	4.7	1,090	4.2	2,298
Total 15-59	na	na	4.7	1,206	na	na

na = Not applicable

Table 14.19 shows that the proportion of respondents who tested positive for syphilis increases with age, from 1 percent in the 15-19 age group to a peak of 8 percent in the 30-34 age group, and then drops slightly to 4 percent among those age 30 and older. In urban areas, peak syphilis prevalence (6 percent) is reached among women age 20-24, while among men, it is reached in the 30-34 age group (11 percent). In rural areas, syphilis prevalence is highest among women age 30-34 (10 percent), while among men it is highest for the 25-29 and 30-34 age groups (8 and 7 percent, respectively). After the peak, syphilis prevalence among respondents in rural areas drops to 2 percent for women age 35 and older and to 5 percent for men age 35 and older.

Table 14.19 Syphilis prevalence by age, sex, and urban-rural residence

Syphilis prevalence rates among women and men age 15-49. by age and residence, Zambia 2007

	Urban		Rural		Total	
Age	Percentage syphilis positive	Number tested	Percentage syphilis positive	Number tested	Percentage syphilis positive	Number tested
Women						
15-19	2.4	124	1.8	135	2.1	258
20-24	5.8	86	3.3	122	4.3	208
25-29	3.6	109	5.1	115	4.4	224
30-34	3.0	80	9.5	108	6.8	188
35+	3.0	120	2.1	210	2.5	330
Total 15-49	3.4	518	3.9	690	3.7	1,208
Men						
15-19	0.0	140	1.0	109	0.4	249
20-24	4.9	97	2.1	100	3.4	196
25-29	5.4	66	7.8	115	7.0	182
30-34	10.7	59	7.0	108	8.3	168
35+	6.8	161	4.5	250	5.4	411
Total 15-49	5.0	468	4.5	622	4.7	1,090
Total 15-59	4.9	524	4.5	682	4.7	1,206
Total						
15-19	1.1	264	1.4	244	1.3	508
20-24	5.3	183	2.7	222	3.9	404
25-29	4.3	175	6.5	230	5.5	406
30-34	6.3	139	8.3	216	7.5	355
35+	5.2	281	3.4	460	4.1	741
Total 15-49	4.2	986	4.2	1,312	4.2	2,298

14.6.2 Syphilis Prevalence by Reproductive and Sexual Activity Characteristics

Table 14.20 shows that syphilis infection rates among pregnant women and non-pregnant women are similar (4 percent). Female respondents who are married or living together with a man are more likely to be infected with syphilis (5 percent), than other women. Among men, those who are divorced, separated, or widowed are more likely to be positive for syphilis (14 percent) than other men. Syphilis prevalence is much higher among men who paid for sex (13 percent) than those who did not (4 percent). Respondents who reported having had an STI are much more likely to test positive for syphilis than those who have not had an STI or STI symptoms (18 and 5 percent, respectively).

Table 14.20 Syphilis prevalence by reproductive and sexual activity characteristics

Prevalence of syphilis among women and men age 15-49 by current pregnancy status (women only), current marital status, recent exposure to higher-risk sex, recent exposure to multiple partners, recent paid sex encounter (men only) and self-reporting of recent STI symptoms, Zambia 2007

	Women		Men		Total	
Characteristic	Percentage syphilis positive	Number	Percentage syphilis positive	Number	Percentage syphilis positive	Number
Currently pregnant						
Pregnant	4.1	128	na	na	4.1	128
Not pregnant or not sure	3.7	1,080	na	na	3.7	1,080
Marital status						
Never married	0.7	305	0.9	450	0.8	755
Ever had sex	1.4	151	1.0	303	1.1	454
Never had sex	0.1	154	0.7	146	0.4	300
Married/living together	5.0	743	6.7	577	5.7	1,320
Divorced/separated/widowed	3.5	160	13.5	63	6.3	223
Recent exposure to high-risk sex						
Had sex with non-marital, non-cohabitating partner	1.6	178	8.1	350	5.9	528
No higher-risk sex	4.9	731	3.8	470	4.5	1,201
No sex	2.2	298	1.8	270	2.0	569
Married						
No sex	*	19	*	9	(4.7)	28
Sex with spouse(s) only	5.0	718	3.8	465	4.5	1,183
Sex with 1 partner	*	6	18.4	89	17.3	95
Sex with 2+ partners	*	0	*	14	*	14
Unmarried						
No sex	1.8	280	1.9	261	1.9	540
Sex with 1 partner	1.2	175	3.9	192	2.6	367
Sex with 2+ partners	*	11	0.0	59	1.1	70
Recent paid sex encounter						
Paid for sex	na	na	12.6	68	12.6	68
No paid sex	3.7	1,208	4.2	1,022	3.9	2,230
STI/STI symptoms						
Had STI	(24.1)	45	12.9	53	18.0	98
Had STI symptoms	(9.7)	27	(0.0)	30	4.6	57
No STI/STI symptoms	2.8	1,133	4.4	1,007	3.5	2,140

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

14.6.3 Syphilis Prevalence by Condom Use, Sexual Behaviour, and STI Treatment

The 2007 data can provide an indication of the extent to which people with syphilis appear to be taking precautions not to infect their sexual partners. Condoms, when consistently and properly used, have proved to be effective in preventing sexually transmitted infections, and seeking effective treatment for an STI breaks the transmission cycle. Health care facilities offering STI care also provide an important entry point for people at high risk of contracting HIV, not only for diagnosis and treatment but also for information and counselling.

Table 14.21 presents information on condom use, sexual behaviour, and STI treatment among women and men age 15-49 who tested positive for syphilis. Seventy-one percent of men and 27 percent of women who have syphilis have used a condom at some time, while 24 percent of men and 12 percent of women used a condom at their last sexual encounter. Men are also more likely than women to have used a condom at last higher-risk sex (15 and 1 percent, respectively). However, one-fourth of syphilis-positive respondents (5 percent of women and 40 percent of men) did not use a condom the last time they had a higher-risk sexual encounter. Among male respondents who have paid for sex, 17 percent did not use a condom during sexual intercourse. Fourteen percent of all respondents (20 percent of women and 9 percent of men) who tested positive for syphilis reported having been treated for an STI or STI symptoms.

Table 14.21 Syphilis prevention and STI treatment experience

Percent distribution of syphilis-positive women and men age 15-49, by experience with use of condoms and treatment for STIs, Zambia 2007

Condom use/treatment	Women	Men	Total
Condom use			
Ever used a condom	27.1	70.7	50.3
Never used a condom	72.9	26.3	48.1
Missing	0.0	3.0	1.6
Condom use at last sexual intercourse in past 12 months			
Used condom	11.8	23.5	18.0
Did not use condom	73.9	66.8	70.1
No sexual intercourse in past 12 months	14.3	9.7	11.9
Condom use at last higher-risk intercourse in past 12 months			
Used condom	0.8	15.0	8.4
Did not use condom	5.4	40.3	24.0
No higher-risk intercourse/no intercourse in past 12 months	93.8	44.7	67.7
Condom use in paid sex encounter			
Did not use condom	0.0	16.8	8.9
No encounter	100.0	83.2	91.1
Recent treatment for STI/STI symptoms			
Treated for STI/STI symptoms	20.4	9.0	14.3
Not treated for STI/STI symptoms	7.0	2.5	4.6
Missing	2.5	2.0	2.2
No STI/STI symptoms	70.2	86.6	78.9
Total	100.0	100.0	100.0
Number	45	51	96

na = Not applicable

ADULT AND MATERNAL MORTALITY 15

Margaret Tembo-Mwanamwenge

In the 2007 ZDHS, data were collected on the survivorship of respondents' siblings. These data allow for the estimation of adult mortality, which is useful in assessing the impact of the AIDS epidemic on survivorship of adults in Zambia. The inclusion of questions to determine if female sibling deaths were maternity-related permits the estimation of the level of maternal mortality, a major indicator of maternal health and well-being.

In Chapter 8 of this report, estimates of mortality during the first years of life were presented and discussed. While early childhood mortality is high and varies substantially with social and economic development, death rates are much lower at adult ages, and estimates for particular subgroups can be distorted by small sample sizes.

Maternal mortality is an aspect of adult mortality dynamics that is of particular interest in the Zambian context. Maternal mortality is an important indicator for women's programmes and reproductive health programmes in the country.

15.1 DATA

To obtain the sibling history, each respondent was first asked to give the total number of her mother's live births. The respondent was next asked to provide a list of all of the children born to her mother starting with the first-born. Then, the respondent was asked whether each of these siblings was still alive at the survey date. For living siblings, the current age was collected. For deceased siblings, the age at death and number of years since the person's death were collected.

Interviewers were instructed that, when a respondent could not provide precise information on age at death or years since death, approximate but quantitative answers were acceptable. For sisters who died at age 12 or above, three questions were used to determine whether the death was maternity-related: "Was [NAME OF SISTER] pregnant when she died?" and if negative, "Did she die during childbirth?" and if negative, "Did she die within two months after the end of a pregnancy or childbirth?" An additional question determined whether the death was due to an accident or other violent act.

The estimation of adult and maternal mortality by either direct or indirect means requires reasonably accurate reporting of the number of sisters and brothers the respondent ever had, the number who have died, and (for maternal mortality) the number of sisters who died of maternity-related causes.

Table 15.1 shows the number of siblings reported by the respondents and the completeness of the data reported on current age, age at death, and years since death. Of the 41,180 siblings reported in the sibling histories of 2007 ZDHS respondents, survival status was not reported for 25 siblings (0.1 percent). Among surviving siblings, current age (used to estimate exposure to death) was not reported for 217 siblings (less than 1 percent). Among deceased siblings, complete reporting of age at death and years since death was nearly universal. For 98 percent of deceased siblings, both age at death and years since death (or year of death) were reported. In 1 percent of cases, both age at death and the years since death (or year of death) were missing.

Table 15.1 Completeness of reporting on siblings

Number of siblings reported by female survey respondents and completeness of reported data on sibling age, age at death (AD) and years since death (YSD), Zambia 2007

Survival status of siblings and completeness of reporting	Sisters		Brothers		All siblings	
	Number	Percentage	Number	Percentage	Number	Percentage
All siblings	20,404	100.0	20,775	100.0	41,180	100.0
Living	16,565	81.2	16,901	81.4	33,466	81.3
Dead	3,827	18.8	3,861	18.6	7,689	18.7
Information missing	12	0.1	13	0.1	25	0.1
Living siblings	16,565	100.0	16,901	100.0	33,466	100.0
Age reported	16,458	99.4	16,790	99.3	33,249	99.4
Age missing	106	0.6	111	0.7	217	0.6
Dead siblings	3,827	100.0	3,861	100.0	7,689	100.0
AD and YSD reported	3,771	98.5	3,771	97.7	7,541	98.1
AD only missing	19	0.5	23	0.6	42	0.5
YSD only missing	3	0.1	9	0.2	13	0.2
AD and YSD missing	34	0.9	58	1.5	93	1.2

15.2 DIRECT ESTIMATES OF ADULT MORTALITY

One way to assess the quality of the data used to estimate maternal mortality is to evaluate the plausibility and stability of overall adult mortality. It is reasoned that if estimated rates of overall adult mortality are implausible, rates based on a subset of deaths—i.e., maternal deaths in particular—are unlikely to be free of serious problems. Also, levels and trends in overall adult mortality have important implications in their own right for health and social programmes in Zambia, especially regarding the AIDS epidemic.

The direct estimation of adult mortality uses the reported ages at death and years since death of respondents' brothers and sisters. Because of the differentials in exposure to the risk of dying, age- and sex-specific death rates are presented in this report.

Table 15.2 presents the age-specific rates for female and male mortality (15-49 years) for the period zero to six years before the 2007 ZDHS. This seven-year period is taken as a compromise between the desire for the most recent data and the need to minimize the level of sampling errors. The results in Table 15.2 indicate that the age-adjusted adult mortality rate over the age range 15-49 years was 12.5 deaths per 1,000 years of exposure for the period zero to six years preceding the 2007 ZDHS. The rate is higher among women (13.2 deaths per 1,000 years of exposure) than men (11.9 deaths per 1,000 years of exposure). Mortality levels rise rapidly with age among both women and men. Rates plateau for women in the 35-44 year age group before decreasing in age group 45-49 For men, mortality levels continue to increase steadily up to age group 40-49. (See also Figure 15.1.)

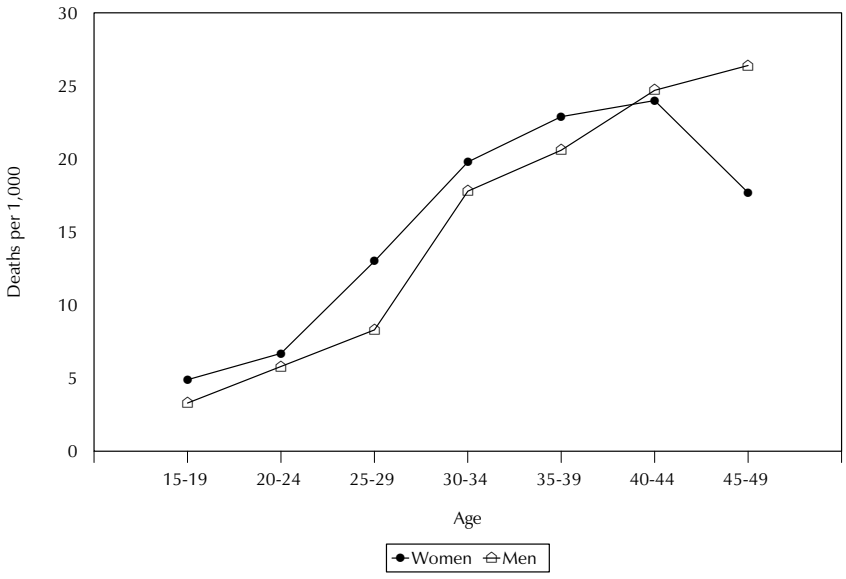
Table 15.2 Adult mortality rates and trends

Direct estimates of age-specific mortality rates for women and men age 15-49 for the period 0-6 years preceding the 2007 ZDHS, 2001-2002 ZDHS, and 1996 ZDHS

Age	2007 ZDHS Deaths	2007 ZDHS Exposure (person-years)	2007 ZDHS Mortality rate[1]	2001-2002 ZDHS mortality rate[1]	1996 ZDHS mortality rate[1]
			WOMEN		
15-19	83.5	17,173.4	4.9	4.4	4.3
20-24	126.5	18,878.1	6.7	9.7	7.7
25-29	229.8	17,671.3	13.0	17.6	13.9
30-34	281.8	14,240.2	19.8	21.7	15.3
35-39	225.5	9,841.0	22.9	24.1	16.5
40-44	146.4	6,106.4	24.0	20.9	14.7
45-49	60.0	3,379.5	17.7	19.3	14.5
15-49	1,153.3	87,290.0	13.2[a]	14.3[a]	10.6[a]
			MEN		
15-19	57.8	17,619.4	3.3	4.1	3.4
20-24	115.9	19,895.0	5.8	6.2	5.4
25-29	153.8	18,569.2	8.3	11.7	11.7
30-34	266.8	15,022.4	17.8	22.8	17.5
35-39	211.6	10,249.9	20.6	30.0	22.2
40-44	143.2	5,803.7	24.7	29.5	22.5
45-49	82.6	3,127.4	26.4	22.8	21.3
15-49	1,031.7	90,286.9	11.9[a]	14.0[a]	11.3[a]
			TOTAL		
15-19	141.2	34,792.8	4.1	4.3	3.9
20-24	242.4	38,773.1	6.3	7.9	6.6
25-29	383.6	36,240.5	10.6	14.6	12.8
30-34	548.7	29,262.6	18.7	22.2	16.4
35-39	437.0	20,090.9	21.8	27.1	19.3
40-44	289.6	11,910.1	24.3	25.2	18.4
45-49	142.6	6,506.9	21.9	21.0	17.9
15-49	2,185.1	177,576.9	12.5[a]	14.1[a]	10.9[a]

[1] Expressed per 1,000 person-years of exposure
[a] Age-adjusted rates

Figure 15.1 Age-Specific Mortality Rates by Sex



ZDHS 2007

15.3 TRENDS IN ADULT MORTALITY

Table 15.3 shows the adult mortality rates observed in the 1996 ZDHS, the 2001-2002 ZDHS, and the 2007 ZDHS. A comparison of adult mortality estimates suggests that mortality rates for all adults 15-49 rose between the 1996 and 2001-02 ZDHS surveys from 10.9 deaths to 14.1 deaths per 1,000 years of exposure. Most of the increased mortality was due to higher mortality among women and men age 25 and older. The increase was more pronounced among women. However, between the 2001-2002 and 2007 surveys, there was a moderate decrease in overall adult mortality from 14.1 to 12.5 deaths per 1,000 years of exposure, with the most noticeable decline observed among men (from 14.0 to 11.9 deaths per 1,000 years of exposure).

Table 15.3 Trends in adult mortality rates

Age-specific mortality rates for women and men age 15-49 for the period 0-6 years preceding the 1996 ZDHS, 2001-2002 ZDHS, and 2007 ZDHS

Age	1996 ZDHS	2001-2002 ZDHS	2007 ZDHS
WOMEN			
15-19	4.3	4.4	4.9
20-24	7.7	9.7	6.7
25-29	13.9	17.6	13.0
30-34	15.3	21.7	19.8
35-39	16.5	24.1	22.9
40-44	14.7	20.9	24.0
45-49	14.5	19.3	17.7
MEN			
15-49	10.6[a]	14.3[a]	13.2[a]
15-19	3.4	4.1	3.3
20-24	5.4	6.2	5.8
25-29	11.7	11.7	8.3
30-34	17.5	22.8	17.8
35-39	22.2	30.0	20.6
40-44	22.5	29.5	24.7
45-49	21.3	22.8	26.4
TOTAL			
15-49	11.3[a]	14.0[a]	11.9[a]
15-19	3.9	4.3	4.1
20-24	6.6	7.9	6.3
25-29	12.8	14.6	10.6
30-34	16.4	22.2	18.7
35-39	19.3	27.1	21.8
40-44	18.4	25.2	24.3
45-49	17.9	21.0	21.9
15-49	10.9[a]	14.1[a]	12.5[a]

Note: Mortality rates expressed per 1,000 person-years of exposure

[a] Age-adjusted rates

15.4 DIRECT ESTIMATES OF MATERNAL MORTALITY

Maternal deaths are a subset of all female deaths and are associated with pregnancy and childbearing. Two survey methods are generally used to estimate maternal mortality in developing countries: the indirect sisterhood method (Graham et al., 1989) and a direct variant of the sisterhood method (Rutenberg and Sullivan, 1991). In this report, the direct estimation procedure is applied.

Age-specific estimates of maternal mortality from the reported survivorship of sisters are shown in Table 15.4 for the seven-year period before the 2007 survey. These rates were calculated by dividing the number of maternal deaths by woman-years of exposure. To remove the effect of truncation bias (the upper boundary for eligibility for women interviewed in the survey is 49 years), the overall rate for women age 15-49 was standardized by the age distribution of survey respondents. Maternal deaths were defined as any death that was reported as occurring during pregnancy, childbirth, or within two months after the birth or termination of a pregnancy.[1] Estimates of maternal mortality are therefore based solely on the timing of the death in relationship to the pregnancy.

The results in Table 15.4 indicate that the rate of mortality associated with pregnancy and childbearing is 1.2 maternal deaths per 1,000 woman-years of exposure. The estimated age-specific mortality rates display a plausible pattern, being generally higher during the peak childbearing ages than at the younger and older age groups. However, the age-specific pattern should be interpreted with caution because of the small number of events—only 105.8 maternal deaths for women of all ages.

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 general fertility rate of 0.198, which prevailed during the same period. Thus, the obstetrical risk of pregnancy and childbearing is emphasized. Using this

[1] This time-dependent definition includes all deaths that occurred during pregnancy and two months after pregnancy, even if the death was due to non-maternal causes. However, this definition is unlikely to result in over-reporting of maternal deaths because most deaths to women during the two-month period are due to maternal causes, and maternal deaths are more likely to be under-reported than over-reported.

procedure, the maternal mortality ratio during the seven-year period preceding the 2007 ZDHS is estimated as 591 maternal deaths per 100,000 live births.

Table 15.4 also presents maternal mortality estimates from the 2001-2002 and 1996 ZDHS surveys. The comparison suggests that maternal mortality levels have remained moderately high in Zambia over the three surveys. The 1996 ZDHS estimates mark the highest maternal mortality ratio observed. It is important to recognize that the small numbers of maternal deaths reported in the surveys make it difficult to assess with any statistical confidence whether the magnitude and direction of the indicated changes accurately reflect trends in maternal mortality in Zambia over the past 11 years.

Table 15.4 Direct estimates of maternal mortality

Direct estimates of maternal mortality for the period 0-6 years preceding the 2007 ZDHS, 2001-2002 ZDHS, and 1996 ZDHS

	2007 ZDHS			2001-2002 ZDHS	1996 ZDHS
Age	Deaths	Exposure (woman-years)	Mortality rate[1]	mortality rate[1]	mortality rate[1]
15-19	4.8	17,173	0.28	0.77	0.75
20-24	13.7	18,878	0.73	1.27	1.40
25-29	23.4	17,671	1.33	2.64	2.14
30-34	32.2	14,240	2.26	1.81	1.96
35-39	20.9	9,841	2.13	1.16	1.46
40-44	7.3	6,106	1.20	2.04	0.50
45-49	3.4	3,380	1.00	0.12	0.82
15-49	105.8	87,290.0	1.21[a]	1.44[a]	1.34[a]
General fertility rate			0.198[a]	0.198[a]	0.206[a]
Maternal mortality ratio[2]			591	729	649

[1] Expressed per 1,000 woman-years of exposure
[2] Calculated as the maternal mortality rate divided by the general fertility rate and expressed per 100,000 live births
[a] Age-adjusted rates

WOMEN'S EMPOWERMENT AND HEALTH OUTCOMES

16

Chola Nakazwe Daka, Mildred Sapeyo Tolosi, and Arthur Kachemba

In this chapter we explore factors affecting women's status such as employment, type of earnings, women's control over cash earnings, and the magnitude of their earnings relative to those of their partner's. This chapter also defines three summary indices of women's empowerment derived from women's responses. The indices are based on the number of household decisions in which the respondent participates, her opinion on the number of circumstances in which a woman is justified in refusing to have sexual intercourse with her husband, and her opinion on the number of reasons wife beating is justified. The ranking of women on these three indices is then related to select demographic and health outcomes, including contraceptive use and the receipt of health care services during pregnancy, at delivery, and in the postnatal period.

16.1 WOMEN'S AND MEN'S EMPLOYMENT

The 2007 ZDHS collected information relating to women's and men's employment. In measuring women's employment it is important to take extra care because some of the activities that women do, especially work on family farms, in family businesses, or in the informal sector, are often not perceived by women themselves as employment and hence are not reported as such. To avoid underestimating women's employment, the 2007 ZDHS asked women several questions to ascertain their employment status. First they were asked, *"Aside from your own housework, are you currently working?"* Women who answered "no" to this question were then asked, *"As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business, or work on the family farm or in the family business. Are you currently doing any of these things or any other work? Do you have any job or business from which you were on leave, illness, vacation, maternity leave or any other such reason? Have you done any work in the last 12 months? What is your occupation, that is, what kind of work do you mainly do?"*

It should be recognized, however, that there are several obstacles standing in the way of women gaining access to employment, the "most significant being inequality in respect of access to education, discrimination in employment and occupation, which leads to categorization of jobs according to gender, national laws and regulations, inequality in respect of access to factors of production, the low level of women's participation in decision-making and social control bodies and finally, social attitudes" (ILO, 1995).

16.1.1 Employment Status

Table 16.1 shows the percent distribution of women and men age 15-49, by employment status and form of payment, according to age. Overall, around six in ten (61 percent) of currently married women and almost all (98 percent) of currently married men were employed in the 12 months preceding the survey. The proportion of employed women increases steadily with age from 44 percent among women age 15-19 to 75 percent among women age 45-49. Fifty-five percent of married women and 60 percent of married men employed in the 12 months preceding the survey were paid only in cash. One-third of the women and about one-quarter of men were not paid at all for their work.

Table 16.1 Employment and cash earnings of currently married women

Percentage of currently married women and men age 15-49 who were employed at any time in the past 12 months and the percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, Zambia 2007

Age	Currently married women		Percent distribution of currently married respondents employed in the past 12 months, by type of earnings						
	Percentage employed	Number of women	Cash only	Cash and in-kind	In-kind only	Not paid	Missing	Total	Number of women
				WOMEN					
15-19	43.8	280	42.9	12.4	5.4	39.4	0.0	100.0	123
20-24	52.8	889	51.2	9.1	2.2	37.2	0.3	100.0	469
25-29	57.3	1,053	59.6	10.6	1.9	27.9	0.0	100.0	604
30-34	64.4	826	54.8	9.0	2.4	33.9	0.0	100.0	532
35-39	68.3	590	54.3	11.8	2.3	31.6	0.0	100.0	403
40-44	70.9	411	54.6	7.5	2.3	35.5	0.0	100.0	291
45-49	74.6	353	54.2	10.5	2.1	33.2	0.0	100.0	264
Total 15-49	61.0	4,402	54.6	9.9	2.3	33.1	0.0	100.0	2,685
				MEN					
15-19	*	17	*	*	*	*	*	*	17
20-24	97.1	282	60.8	14.1	0.6	23.8	0.7	100.0	274
25-29	97.9	651	56.3	15.4	1.2	26.0	1.1	100.0	638
30-34	98.7	795	63.4	13.1	1.8	20.9	0.9	100.0	785
35-39	98.6	641	60.2	14.2	1.5	23.9	0.2	100.0	632
40-44	97.4	424	61.5	13.1	2.7	21.8	0.9	100.0	413
45-49	97.4	358	55.8	16.6	1.6	25.6	0.4	100.0	349
Total 15-49	98.1	3,168	59.9	14.3	1.6	23.5	0.8	100.0	3,106
Men 50-59	96.6	456	59.8	14.5	1.2	22.9	1.6	100.0	441
Total men 15-59	97.9	3,624	59.9	14.3	1.6	23.4	0.9	100.0	3,547

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

16.2 Women's Control Over Their Own Earnings and Relative Magnitude of Women's Earnings

As a means of assessing women's autonomy, currently married women who earned cash for their work in the 12 months preceding the survey were asked who usually decides how their earnings are spent. This information assesses women's control over their own earnings. Women who earned cash for their work were also asked the relative magnitude of their earnings compared with those of their husband or partner. It is expected that employment and earnings are more likely to empower women if women themselves control their own earnings and perceive them as significant relative to those of their husband or partner.

Table 16.2.1 shows the percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how their cash earnings are used, and by the relative magnitude of their earnings compared with those of their husband or partner, according to background characteristics. Almost four out of ten women (38 percent) decide for themselves how their earnings are used. A similar proportion (41 percent) of women make joint decisions with their husband, while only 21 percent report that decisions are mainly made by their husband.

The percentage of women who make independent decisions on their earnings does not vary widely by age or number of living children. Independent decision-making on earnings by women is higher in urban than rural areas (49 percent compared with 28 percent). At the provincial level, the highest proportions of women who decide for themselves how their earnings are spent are in the Central province

(50 percent), Copperbelt (49 percent), and Lusaka (48 percent). Western province has the lowest proportion of women (9 percent) who decide for themselves how their earnings are spent. At the same time, Western province has the highest proportion of women (87 percent) who report joint decision making. Around one-fifth of women (21 percent) report dominance of husbands in making decisions on how the woman's earnings are used.

Table 16.2.1 also shows the relative magnitude of women's earnings with respect to their husband's earnings during the 12 months preceding the survey. Almost seven in ten women reported that they earn less than their husband. Thirteen percent said that they earn more than their husband, and a similar percentage earn about the same as their husbands. The proportion of women who earn more than their husband/partner generally increases with age. A higher proportion of women in urban areas reported earning more than their husbands compared with women in rural areas (17 and 10 percent, respectively). Lusaka has the highest proportion (20 percent) of women reporting that they earn more than their husband while Western province has the lowest proportion (6 percent). Regarding education, women with more than secondary education are most likely (19 percent) to report that they earn more than their husband.

Table 16.2.1 Control over women's cash earnings and relative magnitude of women's earnings: Women

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how wife's cash earnings are used and by whether she earned more or less than her husband, according to background characteristics, Zambia 2007

Background characteristic	Person who decides how the wife's cash earnings are used:						Women's cash earnings compared with husband's cash earnings:						
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	More	Less	About the same	Husband/ partner has no earnings	Don't know/ missing	Total	Number of women
Age													
15-19	36.2	44.5	19.0	0.0	0.4	100.0	3.3	77.2	12.6	6.0	1.0	100.0	68
20-24	30.2	43.0	26.7	0.0	0.0	100.0	7.7	75.4	15.0	1.0	0.9	100.0	283
25-29	36.5	42.5	19.8	0.5	0.6	100.0	11.7	70.2	13.8	2.8	1.4	100.0	424
30-34	42.6	35.2	21.4	0.3	0.4	100.0	13.4	65.6	13.7	5.0	2.4	100.0	339
35-39	39.9	40.5	19.5	0.0	0.1	100.0	16.0	67.5	10.9	4.2	1.5	100.0	266
40-44	44.0	35.1	20.8	0.0	0.1	100.0	20.3	64.6	9.8	4.8	0.6	100.0	181
45-49	34.7	48.8	15.1	0.0	1.4	100.0	19.2	66.1	7.6	5.7	1.4	100.0	171
Number of living children													
0	34.3	44.7	18.9	0.0	2.0	100.0	10.0	68.9	14.4	1.3	5.3	100.0	118
1-2	37.3	43.5	18.9	0.3	0.0	100.0	11.0	72.6	12.9	2.5	1.0	100.0	553
3-4	36.0	41.3	22.4	0.1	0.2	100.0	13.6	67.6	14.5	3.1	1.1	100.0	527
5+	40.8	36.5	21.7	0.2	0.7	100.0	16.2	66.7	9.5	6.3	1.3	100.0	534
Residence													
Urban	49.3	39.1	10.7	0.1	0.7	100.0	17.4	69.6	7.4	3.7	1.8	100.0	788
Rural	28.1	42.1	29.2	0.3	0.2	100.0	9.9	68.5	16.7	3.8	1.1	100.0	944
Province													
Central	49.5	26.1	23.4	0.9	0.0	100.0	11.2	70.9	12.3	5.0	0.6	100.0	207
Copperbelt	48.7	35.6	14.7	0.0	1.1	100.0	15.8	69.3	10.0	3.8	1.1	100.0	397
Eastern	29.3	36.2	34.2	0.0	0.3	100.0	13.6	75.8	6.3	4.0	0.3	100.0	118
Luapula	41.1	39.3	17.5	0.0	2.0	100.0	14.6	76.1	7.3	0.0	2.0	100.0	47
Lusaka	48.2	40.5	11.2	0.0	0.0	100.0	19.5	68.1	5.0	4.6	2.8	100.0	295
Northern	20.1	42.2	36.9	0.6	0.3	100.0	6.6	60.9	27.7	4.0	0.8	100.0	272
North-Western	41.1	40.8	18.1	0.0	0.0	100.0	7.7	82.1	9.3	0.0	0.9	100.0	75
Southern	30.0	45.5	24.2	0.0	0.3	100.0	15.8	72.8	9.2	0.7	1.4	100.0	230
Western	9.3	87.1	3.0	0.0	0.6	100.0	5.6	57.5	23.4	10.1	3.5	100.0	92
Education													
No education	32.8	33.7	33.2	0.0	0.3	100.0	13.9	64.5	12.5	5.0	4.0	100.0	167
Primary	39.1	36.9	23.5	0.2	0.3	100.0	11.7	68.9	14.1	4.4	0.9	100.0	1,004
Secondary	40.0	44.0	15.1	0.4	0.5	100.0	14.8	71.5	10.0	1.9	1.8	100.0	402
More than secondary	29.4	64.3	5.2	0.0	1.1	100.0	19.4	67.9	8.6	3.0	1.1	100.0	159
Wealth quintile													
Lowest	25.8	46.1	28.1	0.0	0.0	100.0	8.2	65.6	19.5	5.9	0.9	100.0	271
Second	22.6	44.1	32.7	0.6	0.0	100.0	5.4	68.6	19.8	5.2	1.0	100.0	270
Middle	29.6	38.7	30.5	0.4	0.7	100.0	11.7	71.3	13.7	1.9	1.5	100.0	300
Fourth	56.5	28.8	13.8	0.2	0.7	100.0	17.9	68.0	8.7	3.9	1.5	100.0	443
Highest	41.1	48.7	9.6	0.0	0.5	100.0	17.8	70.8	6.7	2.8	1.9	100.0	447
Total	37.8	40.8	20.8	0.2	0.4	100.0	13.3	69.0	12.5	3.8	1.4	100.0	1,732

Table 16.2.2 shows the percent distributions of currently married men age 15-49 who receive cash earnings and of currently married women 15-49 whose husbands receive cash earnings, by person who decides how men's cash earnings are used, according to background characteristics. According to men, most decisions about how a man's cash earnings are spent are made jointly by husband and wife (67 percent), with 27 percent stating that they themselves decide, and only 7 percent stating that these decisions are mainly made by their wives. When reporting on spending of their husbands' earnings, women are more likely than men to say that men mainly make decisions about their earnings by themselves (41 percent) and are less likely than men to say that men make decisions jointly with their wives (45 percent).

Table 16.2.2 Control over men's cash earnings

Percent distributions of currently married men age 15-49 who receive cash earnings and of currently married women 15-49 whose husbands receive cash earnings, by person who decides how men's cash earnings are used, according to background characteristics, Zambia 2007

	Person who decides how husband's cash earnings are used: Men							Person who decides how husband's cash earnings are used: Women						
Background characteristic	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number
Age														
15-19	13.6	40.4	45.9	0.0	0.0	100.0	11	16.0	40.4	42.3	0.0	1.2	100.0	265
20-24	5.6	54.0	39.9	0.0	0.4	100.0	205	10.4	46.1	43.0	0.4	0.1	100.0	860
25-29	7.0	62.6	30.1	0.0	0.3	100.0	458	12.2	49.6	37.3	0.5	0.3	100.0	1,026
30-34	6.4	65.3	27.8	0.1	0.3	100.0	600	14.1	42.5	42.5	0.5	0.3	100.0	784
35-39	7.1	68.5	22.7	0.3	1.5	100.0	470	11.5	46.1	41.7	0.3	0.3	100.0	562
40-44	8.4	69.2	22.2	0.0	0.1	100.0	308	13.0	42.6	44.4	0.0	0.0	100.0	387
45-49	4.5	72.8	22.6	0.0	0.2	100.0	252	13.1	44.0	42.5	0.4	0.0	100.0	331
Number of living children														
0	7.9	59.3	32.8	0.0	0.0	100.0	171	13.5	46.7	37.0	1.1	1.6	100.0	301
1-2	6.8	65.6	27.5	0.0	0.0	100.0	752	13.4	46.3	39.9	0.2	0.2	100.0	1,416
3-4	6.8	66.0	25.8	0.3	1.0	100.0	739	12.3	44.6	42.3	0.6	0.2	100.0	1,294
5+	5.9	66.9	26.4	0.0	0.7	100.0	641	11.3	45.0	43.3	0.3	0.1	100.0	1,204
Residence														
Urban	8.3	69.3	22.1	0.0	0.3	100.0	980	17.8	51.6	29.6	0.5	0.4	100.0	1,502
Rural	5.4	63.0	30.8	0.2	0.7	100.0	1,323	9.6	42.0	47.9	0.3	0.2	100.0	2,713
Province														
Central	6.9	71.1	21.6	0.0	0.5	100.0	245	10.8	44.6	43.1	1.2	0.3	100.0	421
Copperbelt	6.8	68.1	23.9	0.2	0.9	100.0	372	17.1	47.4	34.3	0.8	0.5	100.0	672
Eastern	4.6	54.4	40.5	0.3	0.3	100.0	424	6.6	28.7	64.1	0.5	0.0	100.0	634
Luapula	3.5	81.3	15.3	0.0	0.0	100.0	77	7.2	49.3	43.4	0.0	0.0	100.0	361
Lusaka	9.4	67.0	23.6	0.0	0.0	100.0	457	21.4	50.0	28.0	0.3	0.3	100.0	605
Northern	7.1	64.5	27.7	0.0	0.7	100.0	305	9.2	45.8	44.6	0.0	0.4	100.0	631
North-Western	7.9	54.5	34.9	0.0	2.8	100.0	89	17.0	48.2	34.7	0.0	0.0	100.0	230
Southern	5.7	70.6	23.7	0.0	0.0	100.0	204	12.7	51.0	35.6	0.1	0.6	100.0	438
Western	4.6	73.7	20.5	0.0	1.2	100.0	130	6.9	54.9	37.3	0.4	0.5	100.0	223
Education														
No education	4.2	60.1	35.1	0.0	0.6	100.0	126	9.7	32.3	56.8	0.8	0.5	100.0	539
Primary	7.7	57.5	33.8	0.1	0.8	100.0	1,071	12.6	43.1	43.8	0.3	0.2	100.0	2,554
Secondary	6.3	70.3	23.1	0.2	0.2	100.0	837	14.0	54.2	30.9	0.5	0.3	100.0	935
More than secondary	4.8	85.9	8.8	0.0	0.5	100.0	269	11.0	72.0	16.0	0.0	0.9	100.0	187
Wealth quintile														
Lowest	5.3	55.9	38.1	0.3	0.4	100.0	453	9.0	37.8	52.1	0.6	0.5	100.0	842
Second	4.8	58.3	35.6	0.3	1.0	100.0	326	8.0	41.1	50.7	0.2	0.0	100.0	815
Middle	6.6	68.3	24.7	0.0	0.3	100.0	396	11.0	43.5	45.3	0.3	0.0	100.0	864
Fourth	7.7	65.8	25.6	0.0	1.0	100.0	589	17.0	46.3	35.9	0.3	0.5	100.0	885
Highest	7.9	76.1	16.0	0.0	0.0	100.0	539	17.4	58.9	22.7	0.5	0.5	100.0	809
Total 15-49	6.7	65.6	27.1	0.1	0.5	100.0	2,303	12.5	45.4	41.4	0.4	0.3	100.0	4,215
Men 50-59	6.1	73.2	19.8	0.4	0.5	100.0	327	na	na	na	na	na	na	na
Total men 15-59	6.6	66.6	26.2	0.1	0.5	100.0	2,631	na	na	na	na	na	na	na

na = Not applicable

The percentage of married men who make independent decisions on how their cash earnings are spent decreases with age. Men with secondary or higher education are more likely to make joint decisions with their spouse on how their own cash earnings are spent (86 percent), compared with those with no education (60 percent). Luapula has the highest proportion of men who make joint decisions on how their cash earnings are spent (81 percent), while Eastern province has the lowest proportion (54 percent).

Table 16.3 shows that currently married women who earn more than their husband are more likely to decide how their husband or partner's earnings are used (27 percent) than those who earn less (14 percent) or the same as their husband (8 percent). Women who earn the same as their husband or partner are most likely to make joint decisions on how their own earnings (57 percent) and their husbands or partner's earnings (64 percent) are used.

Table 16.3 Women's control over their own earnings and over those of their husband

Percent distributions of currently married women age 15-49 with cash earnings in the past 12 months by person who decides how the woman's cash earnings are used and of currently married women age 15-49 whose husbands have cash earnings by person who decides how the husband's cash earnings are used, according to the relation between woman's and husband's cash earnings, Zambia 2007

	Person who decides how the wife's cash earnings are used:							Person who decides how husband's cash earnings are used:						
Women's earnings relative to husband's earnings	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number of women	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number of women
More than husband/partner	44.7	39.1	15.8	0.3	0.0	100.0	231	26.6	42.7	29.9	0.8	0.0	100.0	230
Less than husband/partner	39.4	38.7	21.6	0.2	0.0	100.0	1,195	13.7	51.9	33.9	0.4	0.0	100.0	1,195
Same as husband partner	18.8	57.1	24.1	0.0	0.0	100.0	216	7.9	64.1	27.6	0.4	0.0	100.0	216
Husband/partner has no cash earnings/did not work	45.9	42.0	12.1	0.0	0.0	100.0	65	na	na	na	na	na	na	0
Woman has no cash earnings	na	na	na	na	na	na	0	8.5	36.0	54.8	0.3	0.4	100.0	861
Woman did not work in past 12 months	na	na	na	na	na	na	0	12.1	43.7	43.4	0.4	0.4	100.0	1,688
Don't know/missing	(38.7)	(11.1)	(21.0)	(0.0)	(29.2)	100.0	25	*	*	*	*	*	100.0	24
Total	37.8	40.8	20.8	0.2	0.4	100.0	1,732	12.5	45.4	41.4	0.4	0.3	100.0	4,215

Note: An asterisk indicates that an estimate is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

16.3 WOMAN'S PARTICIPATION IN DECISION-MAKING

Decision-making can be a complex process, and the ability of women to make decisions that affect the circumstances of their own lives is essential for their empowerment. To assess women's decision-making autonomy, the 2007 ZDHS collected information on women's participation in four types of household decisions: respondent's own health care; making major household purchases; making household purchases for daily needs; and visits to family or relatives. Women are considered to participate in decision-making if they make decisions alone or jointly with their husband or someone else.

Table 16.4.1 shows that 60 percent of women reported that they make most of the decisions involving purchases of daily household needs themselves. Regarding a wife's visits to family or friends, 44 percent of married women said that such decisions are made jointly with their husband. Decisions regarding major household purchases are likely to be made by the husband (44 percent) or jointly with the wife (42 percent).

Married men were asked to give their opinion as to who they thought should have a final say in decision-making. Table 16.4.2 shows the percent distribution of currently married men by the person whom they think should have a greater say in making decisions in five areas 1) the woman's own health care, 2) major household purchases, 3) purchase of daily household needs, 4) visits to family/friends, and 5) how many children to have and when.

Table 16.4.1 Women's participation in decision-making according to women

Percent distribution of currently married women age 15-49 by person who usually makes decisions about four kinds of issues, Zambia 2007

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Missing	Total	Number of women
Own health care	31.7	33.0	34.0	0.8	0.2	0.2	100.0	4,402
Major household purchases	13.7	41.8	43.7	0.4	0.2	0.2	100.0	4,402
Purchases of daily household needs	60.3	19.0	20.1	0.3	0.1	0.2	100.0	4,402
Visits to her family or relatives	22.8	43.5	33.2	0.1	0.3	0.2	100.0	4,402

Table 16.4.2 shows that more than half of men think that the husband should make decisions about major household purchases and visits to the wife's family or relatives. Sixty-six percent of married men think their wives should make decisions related to the purchase of daily household needs. Thirty-seven percent of men think that decisions about how to spend the wife's cash earnings should be made mainly by the husband while 35 percent think that husbands and wives should decide jointly how to spend money that the wife earns. Forty-nine percent of men think that decisions on the number of children to have should be made jointly by the husband and wife; however, 46 percent of men think that the husband alone should make the decision on the number of children to have.

Table 16.4.2 Women's participation in decision-making according to men

Percent distribution of currently married men age 15-49 by person they think should have a greater say in making decisions about five kinds of issues, Zambia 2007

Decision	Wife	Wife and husband equally	Husband	Don't know/ depends	Missing	Total	Number of men
Major household purchases	4.0	43.5	52.2	0.0	0.3	100.0	3,168
Purchases of daily household needs	66.4	15.9	17.5	0.0	0.3	100.0	3,168
Visits to wife's family or relatives	7.5	38.3	53.7	0.3	0.3	100.0	3,168
What to do with the money wife earns	26.8	34.8	37.2	0.9	0.3	100.0	3,168
How many children to have	3.1	49.3	46.4	0.9	0.3	100.0	3,168

Table 16.5.1 shows how women's participation in decision-making varies by background characteristics. The table focuses on four decisions: the woman's own health care, making major household purchases, making purchases for daily household needs, and visits to her family or relatives. In addition, the table includes two summary indicators: 1) the proportion of women involved in making decisions in all four areas and 2) the proportion of women not involved in making any of the decisions.

Table 16.5.1 shows that almost four in ten married women (37 percent) report taking part in all four decisions and one in ten women have no say in any of the four decisions. When looking at specific decisions, married women are most likely to be involved in decisions on purchases for daily household needs (79 percent) and they are least likely to be involved in decisions regarding major household purchases (56 percent). Women who are employed for cash (44 percent) and women in urban areas (47 percent) are more likely than other women to participate in making all four decisions. Western province has the highest percentage of women that participate in all four decisions (53 percent), followed by Lusaka (51 percent). The results show that the percentage of women participating in all four decisions increases with the level of education: 68 percent of women with more than secondary education participate in all four decisions, compared with 29 percent of women with no education. Participation in all four decisions also increases with wealth quintile.

Table 16.5.1 Women's participation in decision-making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, Zambia 2007

Background characteristic	Specific decision: Own health care	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives	Percentage who participate in all four decisions	Percentage who participate in none of the four decisions	Number of women
Age							
15-19	58.5	50.6	68.4	61.9	29.2	14.7	280
20-24	62.5	50.1	76.2	63.7	32.7	11.5	889
25-29	68.2	58.4	81.2	67.3	39.1	8.3	1,053
30-34	63.8	54.3	79.9	67.0	37.2	9.5	826
35-39	65.7	56.4	81.8	68.0	39.7	9.1	590
40-44	66.4	61.5	82.0	68.7	41.3	8.5	411
45-49	63.9	59.3	81.3	64.9	38.1	9.7	353
Employment (past 12 months)							
Not employed	67.3	55.5	78.1	67.4	36.8	8.4	1,713
Employed for cash	68.4	64.3	88.3	72.2	43.7	4.4	1,732
Employed not for cash	54.0	40.1	65.5	53.7	25.4	21.6	952
Number of living children							
0	59.4	54.7	76.0	66.9	37.3	12.7	315
1-2	66.7	56.4	79.8	66.7	36.7	8.8	1,458
3-4	64.2	53.4	79.2	65.1	35.8	10.1	1,352
5+	64.5	57.1	79.5	66.7	38.6	9.9	1,277
Residence							
Urban	71.7	66.9	91.2	76.2	47.4	2.8	1,540
Rural	61.0	49.4	72.9	60.9	31.4	13.6	2,863
Province							
Central	72.1	55.1	81.5	77.2	43.1	7.6	438
Copperbelt	65.7	64.4	90.7	73.0	37.5	1.9	699
Eastern	49.7	39.8	55.3	35.5	22.1	28.9	689
Luapula	72.2	58.6	84.2	78.5	38.6	3.3	363
Lusaka	72.2	66.5	92.1	77.8	51.3	3.2	620
Northern	61.3	39.7	72.4	53.1	21.6	11.0	655
North-Western	74.9	65.1	77.2	82.2	47.3	7.6	232
Southern	58.8	62.5	84.3	72.0	40.4	7.5	447
Western	71.7	63.4	81.3	75.0	52.7	11.8	258
Education							
No education	61.2	44.9	68.7	58.2	29.4	18.4	572
Primary	61.4	52.8	77.4	64.1	34.2	10.7	2,678
Secondary	71.5	63.6	87.9	72.3	43.1	3.7	959
More than secondary	87.5	85.4	94.3	89.9	67.9	1.2	193
Wealth quintile							
Lowest	55.8	43.9	65.9	52.5	26.9	19.5	912
Second	60.9	47.4	74.0	62.5	31.8	12.6	864
Middle	65.5	53.5	75.3	65.3	34.1	10.4	889
Fourth	65.5	60.8	88.3	70.8	39.7	4.1	911
Highest	77.1	73.3	93.9	81.2	53.9	1.8	825
Total	64.8	55.5	79.3	66.2	37.0	9.8	4,402

Note: Total includes 6 women with information missing on employment status.

The 2007 ZDHS also collected information on men's opinions concerning women's participation in decision-making in five specified areas. Table 16.5.2 shows the percent distribution of married men age 15-49 who think that a wife should participate in specific household decisions, either alone or jointly with her husband.

Table 16.5.2 shows that one in five married men are of the opinion that wives, alone or jointly with their husband or partner, should participate in all five of the specified decisions. Four in five married men (82 percent) think that their wives should participate in decisions about purchases for daily household needs. This proportion is almost equal to the proportion of women in Table 16.5.1 (79 percent) who say that they do participate in decisions on purchases for daily needs. More than half of men think that a wife should participate in decisions about what to do with the money she earns and the number of children to have (62 and 52 percent, respectively).

Table 16.5.2 Men's attitudes towards wives' participation in decision-making

Percentage of currently married men age 15-49 who think a wife should have the greater say alone or equal say with her husband on five specific kinds of decisions, by background characteristics, Zambia 2007

Background characteristic	Specific decision					Percentage who think wife should participate in all five decisions	Percentage who think wife should participate in none of the five decisions	Number of men
	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives	What to do with the money the wife earns	How many children to have			
Age								
15-19	*	*	*	*	*	*	*	17
20-24	38.6	76.0	36.4	52.5	41.6	11.5	6.6	282
25-29	41.2	82.7	40.6	57.9	47.3	15.7	4.0	651
30-34	47.8	81.5	45.7	61.5	53.6	18.6	4.5	795
35-39	47.4	82.3	46.8	62.2	54.6	21.3	3.6	641
40-44	55.7	84.3	52.0	65.1	56.9	24.9	4.3	424
45-49	57.0	85.9	54.2	69.8	59.1	29.3	2.6	358
Employment (past 12 months)								
Not employed	36.6	73.2	38.7	50.2	40.0	23.2	12.9	55
Employed for cash	51.4	86.3	49.9	67.8	56.1	23.2	2.5	2,303
Employed not for cash	37.4	71.9	34.7	45.0	43.1	10.7	7.6	801
Number of living children								
0	40.2	85.8	43.8	60.6	48.7	15.4	4.0	224
1-2	46.0	83.2	46.0	63.3	52.5	19.2	3.6	979
3-4	47.9	80.8	45.8	60.6	52.2	20.9	4.9	1,015
5+	50.4	82.0	46.0	61.2	53.5	20.7	4.0	950
Residence								
Urban	54.7	90.4	52.2	67.8	57.0	24.2	1.5	1,093
Rural	43.8	78.0	42.4	58.3	50.0	17.7	5.6	2,075
Province								
Central	56.2	87.2	54.9	75.0	62.8	31.9	2.7	313
Copperbelt	46.0	89.3	50.2	61.9	54.7	17.7	2.7	466
Eastern	50.5	82.6	49.2	72.3	50.0	25.4	3.6	514
Luapula	52.3	60.4	43.7	45.9	51.7	14.8	7.0	252
Lusaka	57.6	88.2	45.1	65.6	47.2	20.1	2.2	479
Northern	35.0	74.9	39.7	50.5	46.5	12.1	7.8	483
North-Western	37.1	69.9	45.8	56.8	56.9	16.5	8.6	177
Southern	40.1	88.5	33.0	55.3	45.5	13.3	2.2	319
Western	51.6	90.6	53.8	64.5	75.8	33.4	3.3	165
Education								
No education	37.1	76.0	41.1	60.0	47.8	19.0	8.3	191
Primary	40.6	76.8	39.6	54.5	44.2	12.8	5.6	1,622
Secondary	52.7	88.2	48.9	65.6	57.6	23.7	2.2	1,074
More than secondary	74.6	94.8	72.8	88.4	83.0	47.3	0.7	281
Wealth quintile								
Lowest	37.9	80.7	43.1	60.7	44.8	17.9	5.6	745
Second	39.2	71.8	37.9	52.6	49.1	13.4	8.4	558
Middle	51.6	76.7	44.2	56.7	53.5	17.9	3.8	617
Fourth	51.8	87.8	44.8	61.6	49.7	18.6	1.7	664
Highest	58.7	93.7	59.6	76.6	67.1	32.5	1.5	584
Total 15-49	47.5	82.2	45.8	61.6	52.4	19.9	4.2	3,168
Men 50-59	59.0	88.0	60.6	71.1	65.8	30.8	2.2	456
Total men 15-59	49.0	83.0	47.7	62.8	54.1	21.3	3.9	3,624

Note: Total includes 9 men with information missing on employment status. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Men's support of wives' participation in decision-making increases with the man's level of education and age. For instance, 19 percent of men with no education believe that a wife should participate in all five decisions, compared with 47 percent of men with higher education. Among the provinces, the highest proportion of men who think that wives should participate in all the specified decisions is in Western province (33 percent), while men in Northern province are least likely to have this opinion (12 percent).

16.4 Attitudes towards Wife Beating

The ZDHS collected information on the degree of acceptance of wife beating by asking whether a husband is justified in beating his wife in each of five situations: if she burns the food, if she argues with him, if she goes out without telling him, if she neglects the children, and if she refuses to have sex with him.

Tables 16.6.1 and 16.6.2 show the percentage of women and men who agree that a husband would be justified in hitting or beating his wife for specific reasons. The last column shows the percentages (of women or men) who feel that wife beating is justified for at least one of the specified reasons. A high proportion of women agreeing that wife beating is acceptable is an indication that women generally accept the right of a men to control his wife's behaviour by means of violence. A low proportion agreeing indicates that the majority of women reject societal norms that place them at low status relative to men.

Table 16.6.1 shows that a high proportion of women find wife beating justified in certain circumstances. More than three in five women agree that at least one of the specified reasons justifies wife beating. The least likely reason that justifies wife beating is burning the food (33 percent), followed by refusing to have sexual intercourse (36 percent).

Women who have never married are least likely to agree that wife beating is justified (57 percent) for any of the reasons. These women in particular are not likely to agree that a husband has the right to beat his wife for refusing to have sex with him (24 percent). Women in urban areas are less likely to agree with at least one of the specified reasons than those in rural areas (56 and 66 percent, respectively). Luapula has the highest proportion of women who say that wife beating is justified for at least one of the reasons (85 percent), while Lusaka has the lowest proportion (40 percent). Except for Eastern and Lusaka provinces, 50 percent or more of women agree that wife beating is justified for at least one of the specified reasons. Women with no education or with primary education are three times as likely to agree that wife beating is justified for at least one reason, compared with women who have more than secondary education. Women in the highest wealth quintile are less likely than women in the other wealth quintiles to agree with at least one of the specified reasons for wife beating (47 percent compared with 65 percent and higher).

Table 16.6.2 shows that fewer men than women age 15-49 agree that wife beating is justified for at least one of the specified reasons (49 and 62 percent, respectively). Rural men are more likely to agree with wife beating for one of the specified reasons than their urban counterparts (54 versus 43 percent). By province, Southern has the highest proportion of men who say wife beating is justified for at least one of the reasons specified (65 percent), while Eastern has the lowest proportion (30 percent). Men with more than secondary education are much less likely to accept wife beating than men with no education and men with secondary or lower education.

Table 16.6.1 Attitudes towards wife beating: Women

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Zambia 2007

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Number of women
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him		
Age							
15-19	31.4	43.2	40.6	42.8	25.9	61.4	1,574
20-24	34.9	45.7	45.4	45.5	39.3	65.0	1,370
25-29	32.2	42.6	43.3	41.5	37.9	61.6	1,363
30-34	34.8	43.3	41.9	43.8	41.2	63.4	1,056
35-39	32.9	41.5	39.0	39.9	40.3	58.7	747
40-44	31.7	42.8	41.2	40.3	38.0	60.9	561
45-49	31.8	38.7	42.8	40.9	38.6	58.7	475
Employment (past 12 months)							
Not employed	32.8	43.8	41.3	42.6	35.1	63.1	3,250
Employed for cash	32.3	43.1	41.4	40.5	36.9	59.5	2,591
Employed not for cash	34.8	41.4	46.6	46.7	38.3	64.1	1,299
Marital status							
Never married	28.1	39.2	35.5	39.2	24.0	57.0	1,856
Married or living together	34.8	44.2	45.1	44.0	40.5	63.9	4,402
Divorced/separated/widowed	33.5	45.5	42.2	42.7	41.5	62.2	888
Number of living children							
0	28.4	40.0	35.5	38.7	25.7	57.0	1,855
1-2	34.2	44.7	44.6	43.4	37.8	63.1	2,150
3-4	34.1	43.6	45.6	43.9	40.8	63.8	1,642
5+	35.6	44.0	43.6	44.8	42.4	64.3	1,499
Residence							
Urban	26.7	40.9	33.4	35.5	29.8	55.7	3,009
Rural	37.5	44.7	48.7	47.7	41.0	66.4	4,137
Province							
Central	35.3	49.7	61.1	57.8	44.4	71.7	659
Copperbelt	37.9	59.8	47.1	43.0	41.7	70.6	1,264
Eastern	20.9	16.4	22.1	20.9	23.0	44.1	971
Luapula	54.0	68.9	70.6	68.1	57.7	84.6	530
Lusaka	14.0	24.1	14.6	23.3	18.1	39.9	1,172
Northern	51.8	64.8	59.8	60.8	49.0	79.9	966
North-Western	31.2	35.3	34.4	36.3	35.2	51.4	365
Southern	35.9	40.9	47.1	48.6	37.5	65.4	727
Western	22.6	27.6	43.8	42.6	32.8	57.0	492
Education							
No education	36.3	38.6	41.8	42.2	41.3	61.6	744
Primary	38.4	48.0	48.4	47.4	42.7	68.3	3,891
Secondary	26.6	41.2	37.4	39.2	28.1	57.7	2,140
More than secondary	5.8	11.1	7.1	11.9	6.7	20.5	371
Wealth quintile							
Lowest	33.9	39.1	46.1	43.5	38.0	64.7	1,240
Second	38.8	48.0	50.2	48.9	44.8	67.6	1,283
Middle	43.3	50.8	53.0	52.6	43.7	70.6	1,280
Fourth	34.4	46.9	43.0	44.0	36.6	64.9	1,567
Highest	19.3	33.4	25.4	28.8	23.5	47.0	1,776
Total	32.9	43.1	42.3	42.6	36.3	61.9	7,146

Note: Total includes 6 women with information missing on employment status.

Table 16.6.2 Attitudes towards wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Zambia 2007

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number of men
Age							
15-19	18.8	33.6	35.0	38.6	19.7	54.8	1,416
20-24	15.5	32.1	33.8	36.1	18.1	51.6	1,066
25-29	15.6	30.4	32.4	34.7	17.9	51.7	977
30-34	12.9	29.5	31.8	31.9	16.5	46.7	954
35-39	9.9	25.1	30.1	27.2	14.6	43.1	717
40-44	9.7	22.4	30.6	29.7	14.6	42.9	475
45-49	12.8	24.7	26.9	28.5	18.8	43.3	390
Employment (past 12 months)							
Not employed	15.3	24.9	28.4	31.0	15.0	45.7	1,214
Employed for cash	13.0	27.9	31.0	32.0	16.7	47.2	3,357
Employed not for cash	17.9	38.3	39.4	40.3	21.7	57.8	1,414
Marital status							
Never married	16.9	31.3	33.1	36.0	18.4	52.3	2,553
Married or living together	12.3	28.2	31.5	31.5	16.4	46.5	3,168
Divorced/separated/widowed	19.0	32.5	36.6	38.3	22.5	55.1	274
Number of living children							
0	16.6	31.4	33.0	35.7	18.1	52.0	2,697
1-2	12.6	29.0	31.0	31.1	17.1	48.0	1,235
3-4	13.9	27.4	31.9	32.9	16.1	45.8	1,085
5+	12.3	28.5	33.0	32.5	18.2	47.8	978
Residence							
Urban	10.0	25.1	25.6	27.4	11.4	42.7	2,601
Rural	18.1	33.2	37.6	38.5	22.3	54.4	3,395
Province							
Central	14.6	39.7	45.3	46.2	22.6	63.2	559
Copperbelt	10.9	31.4	27.7	28.5	11.2	46.3	1,140
Eastern	7.8	14.5	15.2	17.1	13.8	30.4	795
Luapula	18.5	43.8	45.8	44.4	25.3	64.3	387
Lusaka	8.7	18.7	22.3	25.4	11.5	38.6	1,072
Northern	26.7	40.9	45.0	44.9	27.2	62.7	805
North-Western	17.8	34.0	35.5	34.4	23.5	49.4	303
Southern	24.8	39.3	45.9	49.6	23.0	65.4	621
Western	5.9	12.1	26.0	26.8	10.4	36.2	315
Education							
No education	11.5	22.9	30.0	28.4	18.6	43.4	267
Primary	19.0	35.9	38.6	39.6	23.3	56.5	2,775
Secondary	12.2	27.5	29.9	31.6	13.8	47.5	2,512
More than secondary	2.0	7.1	9.1	11.7	2.4	19.0	441
Wealth quintile							
Lowest	16.0	29.7	32.9	34.8	22.6	49.2	1,114
Second	20.0	34.8	40.9	41.6	23.5	57.2	869
Middle	22.0	39.5	43.1	42.4	24.4	60.3	1,097
Fourth	13.2	31.2	32.5	34.5	16.0	52.4	1,381
Highest	6.4	18.5	19.5	21.4	7.0	34.4	1,534
Total 15-49	14.6	29.7	32.4	33.7	17.5	49.3	5,995
Men 50-59	8.1	19.9	20.5	20.9	14.4	34.9	505
Total men 15-59	14.1	28.9	31.5	32.7	17.3	48.2	6,500

Note: Total includes 9 men with information missing on employment status.

16.5 Attitudes towards Refusing Sex with Husband

The extent of control women have over when and with whom they have sex has important implications for demographic and health outcomes such as transmission of HIV and other sexually transmitted infections, it is also an indicator of their women's autonomy and status. To measure women's agreement with the idea that a woman has the right to refuse to have sex with her husband, respondents were asked whether a wife is justified in refusing to have sex with her husband under three circumstances: she knows her husband has a sexually transmitted disease, she knows her husband has had sex with other women, and she is tired or not in the mood.

Table 16.7.1 shows that about two-fifths (39 percent) of the women believe wives are justified in refusing sexual intercourse with their husband or partner for all of the specified reasons, while around one-tenth (11 percent) believe that a woman may not refuse to have sexual intercourse with her husband for any of the specified reasons. Knowledge that a husband has a sexually transmitted disease is the most widely accepted reason for refusing sexual relations (77 percent) whereas being tired or not in the mood is the least accepted reason (58 percent). There is little difference between women in urban and rural areas regarding a woman's right to refuse sex with her husband or partner. Provincial variations are pronounced. Women from Luapula are least likely to agree with all of the reasons (7 percent), while those from Western are most likely to agree (77 percent). Furthermore, the belief that wives are justified for all of the specified reasons in refusing to have sexual intercourse increases in a linear fashion with level of education from 35 percent among women with no education to 57 percent of women with more than secondary education.

Table 16.7.2 shows the percentage of men who believe that a wife is justified in refusing to have sex with her husband for specific reasons, by background characteristics. Men are more likely than women to agree that a wife is justified to refuse sex for all three of the specified reasons (58 percent compared with 39 percent). Knowledge that a husband has a sexually transmitted disease is the reason most frequently given by men to justify a woman refusing sexual intercourse with her husband (86 percent) whereas the wife being tired or not in the mood is the least cited reason (73 percent).

The percentage of men who believe that wives are justified in refusing sexual intercourse with their husband increases with age for all the specified reasons. Men who have never married and those who have no children are less likely than other men to agree with all of the reasons for a wife to refuse sex with her husband. Men in rural areas are less likely than their urban counterparts to agree that a wife is justified in refusing sex with her husband for all the specified reasons (52 and 63 percent, respectively). By province, men in Eastern and Southern provinces are least likely to agree with all of the reasons that a wife is justified in refusing sex (42 percent each), while those from Western are most likely to agree (81 percent).

Men's agreement with a wife's right to refuse sex with her husband increases with level of education, from 53 percent of men with no education to 76 percent of men with more than secondary education. In addition, the lower the level of education, the higher the percentage of men who believe that wives are not justified in refusing to have sexual intercourse with their husband for any of the three reasons (11 percent for men with no education compared with 1 percent of men with more than secondary education). The belief that wives are justified in refusing sex with their husband for all three reasons increases with wealth status, from 49 percent among men in the lowest wealth quintile to 68 percent among men in the highest wealth quintile.

Table 16.7.1 Attitudes towards refusing sexual intercourse with husband: Women

Percentage of all women age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific circumstances, by background characteristics, Zambia 2007

Background characteristic	Wife is justified in refusing intercourse with her husband if she: Knows husband has a sexually transmitted disease	Knows husband has intercourse with other women	Is tired or not in the mood	Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Number of women
Age						
15-19	66.5	55.7	54.1	38.3	20.6	1,574
20-24	76.7	59.1	56.1	37.9	11.1	1,370
25-29	80.0	64.0	62.8	42.5	6.8	1,363
30-34	80.4	59.7	58.9	39.3	8.6	1,056
35-39	81.1	57.4	56.8	35.9	8.3	747
40-44	80.6	60.4	60.4	39.2	9.3	561
45-49	81.4	59.2	58.6	39.1	8.6	475
Employment (past 12 months)						
Not employed	71.4	54.9	55.3	35.4	14.9	3,250
Employed for cash	82.6	64.7	64.2	45.2	7.3	2,591
Employed not for cash	78.5	59.7	52.3	35.9	10.5	1,299
Marital status						
Never married	69.6	58.3	55.9	40.5	18.6	1,856
Married or living together	79.0	59.5	58.3	38.0	8.9	4,402
Divorced/separated/widowed	80.5	60.2	60.1	41.4	8.6	888
Number of living children						
0	69.6	57.2	54.6	39.3	18.7	1,855
1-2	79.1	60.0	58.8	39.8	9.5	2,150
3-4	79.0	61.4	59.3	39.7	8.0	1,642
5+	79.7	58.7	59.2	36.9	8.8	1,499
Residence						
Urban	80.0	61.5	59.1	40.3	9.1	3,009
Rural	74.4	57.7	57.1	38.1	13.1	4,137
Province						
Central	74.1	64.8	62.1	48.1	14.5	659
Copperbelt	81.3	54.3	53.8	32.8	8.4	1,264
Eastern	82.8	60.8	55.4	40.2	9.7	971
Luapula	58.3	28.6	35.2	7.2	18.7	530
Lusaka	79.2	69.8	63.0	45.6	8.3	1,172
Northern	79.5	49.2	50.1	27.9	11.0	966
North-Western	78.9	67.9	73.6	54.7	10.8	365
Southern	58.3	57.2	58.4	34.1	20.3	727
Western	90.8	86.3	83.6	77.0	5.6	492
Education						
No education	72.8	55.9	55.0	35.1	12.2	744
Primary	75.1	56.5	55.7	36.1	12.8	3,891
Secondary	78.9	62.5	60.3	42.5	10.1	2,140
More than secondary	88.8	77.2	73.5	57.4	3.0	371
Wealth quintile						
Lowest	78.5	60.5	59.3	41.7	10.6	1,240
Second	74.8	56.4	56.5	38.0	13.9	1,283
Middle	70.6	53.8	54.9	34.1	14.8	1,280
Fourth	75.6	59.6	56.8	37.2	10.8	1,567
Highest	82.3	64.3	61.2	43.1	8.2	1,776
Total	76.7	59.3	57.9	39.0	11.4	7,146

Note: Total includes 6 women with information missing on employment status.

Table 16.7.2 Attitude towards refusing sexual intercourse with husband: Men

Percentage of all men age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific circumstances, by background characteristics, Zambia 2007

Background characteristic	Wife is justified in refusing intercourse with her husband if she:			Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Number of men
	Knows husband has a sexually transmitted disease	Knows husband has intercourse with other women	Is tired or not in the mood			
Age						
15-19	80.2	71.0	67.2	52.1	9.3	1,416
20-24	84.1	73.0	71.1	53.4	5.5	1,066
25-29	86.4	73.5	73.1	56.3	4.4	977
30-34	88.0	73.6	76.0	58.4	4.0	954
35-39	89.9	75.7	77.6	62.3	3.5	717
40-44	92.4	78.0	79.6	63.6	2.3	475
45-49	90.9	80.7	78.0	65.4	4.1	390
Employment (past 12 months)						
Not employed	83.2	73.0	71.0	57.1	8.2	1,214
Employed for cash	88.2	76.4	76.6	60.2	3.6	3,357
Employed not for cash	83.2	69.2	67.2	49.6	7.0	1,414
Marital status						
Never married	83.0	72.9	71.1	55.1	6.9	2,553
Married or living together	87.8	74.6	74.5	58.2	4.4	3,168
Divorced/separated/widowed	92.4	75.5	77.0	61.0	3.1	274
Number of living children						
0	82.4	72.3	70.5	54.1	7.2	2,697
1-2	88.1	76.2	75.7	59.7	4.3	1,235
3-4	89.0	72.5	75.0	57.8	4.0	1,085
5+	89.7	77.2	75.5	60.8	3.3	978
Residence						
Urban	88.7	78.9	78.0	63.1	3.9	2,601
Rural	83.8	70.1	69.4	52.3	6.6	3,395
Province						
Central	92.7	84.0	87.4	75.4	3.2	559
Copperbelt	88.9	79.2	81.0	66.8	3.8	1,140
Eastern	78.7	61.8	61.4	42.3	9.5	795
Luapula	92.3	66.4	70.8	51.1	4.5	387
Lusaka	88.7	77.1	72.2	56.7	3.9	1,072
Northern	86.9	72.7	69.1	53.0	5.5	805
North-Western	77.1	66.0	72.2	51.5	9.2	303
Southern	73.5	68.4	62.0	41.5	8.3	621
Western	95.2	88.1	89.1	80.7	1.6	315
Education						
No education	79.9	67.3	66.5	52.7	11.1	267
Primary	82.9	69.7	67.3	50.5	6.8	2,775
Secondary	88.7	76.9	77.7	61.4	3.9	2,512
More than secondary	92.9	87.8	88.7	76.0	1.4	441
Wealth quintile						
Lowest	81.3	67.1	67.6	49.4	7.9	1,114
Second	84.6	70.3	68.6	52.0	7.3	869
Middle	84.0	71.9	69.5	52.9	5.7	1,097
Fourth	87.4	75.2	73.8	57.7	4.3	1,381
Highest	90.2	81.2	81.8	67.7	3.3	1,534
Total 15-49	86.0	73.9	73.2	57.0	5.4	5,995
Men 50-59	91.4	80.6	82.4	68.4	1.9	505
Total men 15-59	86.4	74.5	73.9	57.9	5.1	6,500

Note: Total includes 9 men with information missing on employment status.

Table 16.7.3 shows the percentage of men who believe that a husband has the right to certain behaviours when his wife refuses to have sex with him when he wants her to. These behaviours include: getting angry and reprimanding her, refusing her financial support, forcing her to have sex, and having sex with another woman. More than half of men (53 percent) feel that a man has no right to carry out any of the specified behaviours when his wife or partner refuses to have sexual intercourse with him. On the other hand, just 1 percent of the men feel a man has the right to engage in all of the specified behaviours when denied sex with his wife or partner.

Table 16.7.3 Men's attitudes towards a husband's rights when his wife refuses to have sexual intercourse

Percentage of men age 15-49 who consider that a husband has the right to carry out certain behaviors when his wife refuses to have sex with him when he wants her to, by background characteristics, Zambia 2007

Background characteristic	When a woman refuses to have sex with her husband, he has the right to: Get angry and reprimand her	Refuse her financial support	Use force to have sex	Have sex with another woman	Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Number of men
Age							
15-19	39.5	13.8	8.8	10.2	1.7	55.2	1,416
20-24	42.4	11.5	9.5	9.6	1.9	51.8	1,066
25-29	45.2	9.9	9.1	9.8	1.4	50.9	977
30-34	42.2	8.0	7.9	7.3	1.0	54.9	954
35-39	44.5	9.1	9.6	7.4	1.0	52.9	717
40-44	42.3	5.9	7.7	5.5	1.0	54.2	475
45-49	45.2	10.1	9.3	5.8	1.1	51.6	390
Employment (past 12 months)							
Not employed	38.1	11.0	6.8	8.1	1.1	57.6	1,214
Employed for cash	41.2	8.8	8.4	8.3	1.3	54.8	3,357
Employed not for cash	50.0	13.6	11.8	9.8	1.8	45.5	1,414
Marital status							
Never married	40.1	12.2	8.6	10.4	1.7	54.9	2,553
Married or living together	44.4	9.0	9.1	6.8	1.1	52.2	3,168
Divorced/separated/widowed	44.4	10.1	8.7	12.1	2.3	50.4	274
Number of living children							
0	40.0	12.3	8.6	9.8	1.6	55.1	2,697
1-2	43.5	8.6	8.9	7.4	1.1	52.4	1,235
3-4	43.8	8.9	8.1	8.9	1.5	53.2	1,085
5+	47.1	9.2	10.4	6.2	1.1	49.2	978
Residence							
Urban	37.9	8.0	5.7	7.4	0.5	57.9	2,601
Rural	46.1	12.2	11.3	9.4	2.1	49.6	3,395
Province							
Central	35.7	10.7	8.8	11.5	1.9	60.4	559
Copperbelt	39.5	7.2	4.9	7.6	0.3	56.3	1,140
Eastern	33.6	6.7	10.2	6.6	1.8	61.9	795
Luapula	73.7	9.4	14.0	6.9	1.2	23.0	387
Lusaka	39.0	8.6	6.4	8.0	0.4	56.4	1,072
Northern	51.2	17.0	14.5	7.9	2.3	44.2	805
North-Western	44.8	20.4	17.3	12.4	6.1	50.4	303
Southern	52.4	11.9	7.5	12.8	1.0	43.4	621
Western	18.8	8.7	2.2	5.4	0.7	79.3	315
Education							
No education	39.4	8.9	10.3	10.0	2.4	57.5	267
Primary	47.5	12.8	12.4	9.5	2.0	48.0	2,775
Secondary	40.1	9.1	5.9	8.2	0.9	55.6	2,512
More than secondary	27.8	3.7	2.5	4.1	0.0	70.4	441
Wealth quintile							
Lowest	41.9	12.2	12.4	8.2	1.7	53.9	1,114
Second	47.1	12.0	11.4	9.9	2.2	49.0	869
Middle	51.7	14.8	12.3	10.2	3.0	44.2	1,097
Fourth	44.1	8.8	7.4	9.7	0.7	51.5	1,381
Highest	32.6	6.5	3.7	5.9	0.2	63.2	1,534
Total 15-49	42.6	10.4	8.9	8.6	1.4	53.2	5,995
Men 50-59	37.7	5.8	7.1	7.2	2.0	60.6	505
Total men 15-59	42.2	10.0	8.7	8.5	1.4	53.8	6,500

Note: Total includes 10 men with information missing on employment status.

Getting angry and reprimanding the wife is the most accepted behaviour carried out by a husband when a wife refuses to have sex with him (43 percent). On the other hand, 10 percent of men think that a husband has the right to deny his wife financial support, 9 percent believe he has the right to force his wife or partner to have sex with him and 9 percent believe that he has the right to have sex with another woman if his wife refuses to have sex with him. Western has the highest percentage of men (79 percent) who think that a man has no right to behave in any of the specified ways when his wife or partner refuses to have sexual intercourse with him, followed by Eastern (62 percent). Luapula province has the lowest percentage of men who disagree with all of the specified behaviours (23 percent). Men with more than secondary education (70 percent) and those in the highest wealth quintile (63 percent) are more likely than other men to believe that a man is not justified in carrying out any of the specified behaviours if his wife or partner refuses to have sex with him.

16.6 WOMEN'S EMPOWERMENT INDICATORS

The three sets of empowerment indicators, namely women's participation in making household decisions, their attitude towards wife beating, and their attitude towards a wife's right to refuse sexual intercourse with her husband or partner can be summarized in three separate indices. The first index shows the number of decisions (see Table 16.5.1 for the list of decisions) in which women participate either alone or jointly with their husband or partner. This index ranges from 0 to 4 and is positively related to women's empowerment. It reflects the degree of decision-making control that women are able to exercise in areas that affect their own lives.

The second index, which ranges from 0 to 5, is the number of reasons (see Table 16.6.1 for a list of reasons) for which a woman thinks that a husband is justified in beating his wife. A lower score on this indicator is interpreted as reflecting a greater sense of entitlement and self-esteem, and higher status of women.

The final index, which is ranges in value from 0 to 3, is the number of circumstances (see Table 16.7.1 for the list of circumstances) in which the respondent feels that a woman is justified in refusing sexual intercourse with her husband or partner. This indicator reflects perceptions of sexual roles and women's right over their bodies and relates positively to women's sense of self and empowerment. Table 16.8 shows how these indices relate to each other.

Some associations are observed between the indices. More participation in decision-making is associated with agreeing on a woman's right to refuse sexual intercourse with her husband or partner. Women with more say in decision-making are more likely to agree that a woman is justified in refusing sexual relations with her husband for all the specified reasons than women with no say at all (40 and 34

Table 16.8 Indicators of women's empowerment

Percentage of women age 15-49 who participate in all decision making, percentage who disagree with all reasons for justifying wife beating, and percentage who agree with all reasons for refusing sexual intercourse with husband, by value on each of the indicators of women's empowerment, Zambia 2007

Empowerment indicator	Percentage who participate in all decision-making	Percentage who disagree with all the reasons justifying wife beating	Percentage who agree with all the reasons for refusing sexual intercourse with husband
Number of decisions in which women participate[1]			
0	na	42.4	33.8
1-2	na	26.9	35.5
3-4	na	39.6	39.8
Number of reasons for which wife beating is justified[2]			
0	45.4	na	44.7
1-2	35.5	na	38.9
3-4	30.6	na	34.2
5	30.5	na	33.0
Number of reasons given for refusing to have sexual intercourse with husband[3]			
0	40.2	45.1	na
1-2	33.6	32.1	na
3	41.0	43.6	na

[1] Restricted to currently married women. See Table 16.5.1 for the list of decisions.
[2] See Table 16.6.1 for the list of reasons.
[3] See Table 16.7.1 for the list of reasons.
na = Not applicable

percent, respectively). Disapproval of wife beating is also associated with participation in all household decision-making and agreement that a woman has a right to refuse sex with her husband. Women who think there is no justifiable reason to beat a wife are more likely to participate in all household decisions than women who think that a husband is justified in beating his wife for any or all of the specified reasons (45 and 31 percent, respectively). In addition, women who do not agree that any of the five reasons for justifying wife beating are more likely to agree that a woman has a right to refuse sex with her husband than women who agree with all five justifications for wife beating (45 and 33 percent, respectively).

16.7 Current Use of Contraception by Woman's Empowerment Status

A woman's desire and ability to control her fertility and her choice of contraceptive methods are in part affected by her status in the household and her own sense of empowerment. A woman who is unable to control other aspects of her life may be less able to make decisions regarding her fertility. She may also feel the need to choose contraceptive methods that are less obvious or do not need the approval of her husband.

Table 16.9 shows the relationship of each of the three empowerment indicators with current use of contraceptive methods by married women. Although there is no clear pattern of association between contraceptive use and decision-making, the expected relationships are observed between contraceptive use and both disagreement with reasons for wife beating and agreement with reasons for refusing sexual intercourse with the husband.

Table 16.9 Current use of contraception by women's status

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's status, Zambia 2007

Empowerment indicator	Any method	Any modern method	Modern contraceptive methods: Female sterilization	Modern contraceptive methods: Temporary modern female methods[1]	Modern contraceptive methods: Male condom	Any traditional method	Not using method	Total	Number of women
Number of decisions in which women participate[2]									
0	41.2	34.3	0.7	29.0	4.7	6.8	58.8	100.0	431
1-2	38.6	29.7	0.7	24.8	4.2	8.9	61.4	100.0	1,310
3-4	41.8	33.9	2.6	26.3	5.0	7.9	58.2	100.0	2,661
Number of reasons for which wife beating is justified[3]									
0	44.9	37.3	2.5	28.9	5.9	7.6	55.1	100.0	1,588
1-2	42.3	36.1	1.6	29.4	5.2	6.2	57.7	100.0	983
3-4	35.3	26.9	1.4	21.4	4.2	8.3	64.7	100.0	941
5	37.4	26.7	1.5	22.5	2.6	10.7	62.6	100.0	890
Number of reasons given for refusing to have sexual intercourse with husband[4]									
0	37.2	29.7	1.0	24.2	4.6	7.5	62.8	100.0	392
1-2	39.5	32.1	2.0	25.8	4.4	7.4	60.5	100.0	2,339
3	43.4	34.1	1.9	27.1	5.2	9.2	56.6	100.0	1,671
Total	40.8	32.7	1.9	26.1	4.7	8.1	59.2	100.0	4,402

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Pill, IUD, injectables, implants, female condom, diaphragm, foam/jelly and lactational amenorrhoea method
[2] Restricted to currently married women. See Table 16.5.1 for the list of decisions.
[3] See Table 16.6.1 for the list of reasons.
[4] See Table 16.7.1 for the list of reasons.

Use of any contraceptive method and use of any modern method increases as the number of reasons for which wife beating is justified decreases. Thirty-seven percent of women who agree with none of the reasons justifying wife beating are currently using a modern method, compared with 27 percent of women who agree with all five reasons justifying wife beating. On the other hand, women who agree with all five reasons justifying wife beating are more likely than other women to use a traditional method of contraception.

Use of any method and use of any modern method of contraception increase with the number of reasons the respondent thinks a woman is justified in refusing sex with her husband. For example, the percentage of women using any method of contraception increases from 37 percent among women who do not agree with any of the reasons for which a woman can refuse sex with her husband to 43 percent among women who agree with all three reasons for refusing sex.

16.8 IDEAL FAMILY SIZE AND UNMET NEED BY WOMEN'S STATUS

Women's fertility preferences (e.g., ideal number of children) are typically lower than those of their husband or partner. As a woman becomes more empowered to negotiate fertility decision-making, she has more control over contraceptive use and, thus, over her chances of becoming pregnant and giving birth. Women who have a desire to space or limit their births, but are not using family planning, are defined as having unmet need for family planning. Table 16.10 shows how women's ideal family size and their unmet need for family planning vary by the three indicators of women's status.

The data show that women who participate in three to four decisions have the lowest desired family size (5.0 children) and relatively higher unmet need for family planning (spacing and limiting births). Conversely, women who do not participate in any decision-making have a lower unmet need for spacing and limiting births than other women. Desired family size increases with the number of reasons a woman thinks that wife beating is justified, from 4.4 children among women who agree with none of the reasons justifying wife beating to 5.0 children among women who agree with all five reasons justifying wife beating. Unmet need for spacing and limiting is lower among women who think that wife beating is not justified for any reason than among other women. The number of reasons for which a respondent thinks that women can refuse sexual intercourse with their husband is not strongly associated with desired family size or unmet need.

Table 16.10 Women's empowerment and ideal number of children and unmet need for family planning

Mean ideal number of children for women 15-49 and the percentage of currently married women age 15-49 with an unmet need for family planning, by indicators of women's empowerment, Zambia 2007

Empowerment indicator	Mean ideal number of children[1]	Number of women	Percentage of currently married women with an unmet need for family planning: For spacing	For limiting	Total	Number of women
Number of decisions in which women participate[2]						
0	5.3	380	8.4	2.4	10.8	431
1-2	5.3	1,213	11.3	3.5	14.8	1,310
3-4	5.0	2,502	11.2	3.0	14.2	2,661
Number of reasons for which wife beating is justified[3]						
0	4.4	2,538	8.4	2.1	10.6	1,588
1-2	4.6	1,515	11.7	3.5	15.2	983
3-4	4.8	1,412	13.1	3.8	16.9	941
5	5.0	1,225	12.2	3.7	15.9	890
Number of reasons given for refusing to have sexual intercourse with husband[4]						
0	4.4	724	11.5	1.8	13.3	392
1-2	4.8	3,333	11.5	3.9	15.4	2,339
3	4.5	2,633	10.1	2.2	12.3	1,671
Total	4.6	6,690	10.9	3.1	14.0	4,402

[1] Mean excludes respondents who gave non-numeric responses.
[2] Restricted to currently married women. See Table 16.5.1 for the list of decisions.
[3] See Table 16.6.1 for the list of reasons.
[4] See Table 16.7.1 for the list of reasons.

16.9 WOMEN'S STATUS AND REPRODUCTIVE HEALTH CARE

In countries where health care is widespread, women's empowerment may not affect their access to reproductive health services. In other countries, however, increased empowerment of women is likely to increase their ability to seek out and use health services to better meet their own reproductive health goals, including safe motherhood. Table 16.11 shows women's use of antenatal, delivery, and postnatal care services from health workers by level of empowerment as measured by the three indicators of women's status.

Use of antenatal care (ANC) is widespread in Zambia. Over nine in ten women (94 percent) who gave birth in the five years preceding the survey sought ANC for their most recent birth. For this reason, there is little variation in use of ANC by background characteristics, including the empowerment indicators. On the other hand, the data show the expected associations between women's empowerment and use of services for delivery and postnatal care. The more decisions a woman participates in, the more likely she is to receive assistance during delivery and postnatal care. For example, only 32 percent of women who do not participate in any of the four decisions received delivery assistance from health personnel, compared with 51 percent of women who participate in all four decisions. The lower the number of reasons for which a woman thinks that wife beating is justified, the more likely she is to receive care from health personnel during delivery. Similarly, the higher the number of reasons for which a respondent believes a woman can refuse sex, the more likely she is to receive care from health personnel during delivery. The same relationships are observed in the likelihood of receiving postnatal care.

Table 16.11 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the five years preceding the survey who received antenatal care, delivery assistance, and postnatal care from health personnel for the most recent birth, by indicators of women's empowerment, Zambia 2007

Empowerment indicator	Received antenatal care from health personnel[1]	Received delivery assistance from health personnel	Received postnatal care from health personnel within the first two days after delivery[1]	Number of women with a live birth in the past five years
Number of decisions in which women participate[2]				
0	94.2	32.3	25.2	358
1-2	93.1	42.7	30.7	1,024
3-4	93.9	50.7	36.6	1,984
Number of reasons for which wife beating is justified[3]				
0	94.0	55.7	39.9	1,422
1-2	94.4	49.0	34.1	948
3-4	92.4	44.3	31.6	899
5	93.9	43.4	32.7	866
Number of reasons given for refusing to have sexual intercourse with husband[4]				
0	93.3	40.4	27.2	390
1-2	94.3	48.6	35.3	2,159
3	93.0	51.8	37.2	1,587
Total	93.7	49.1	35.3	4,136

Note: Health personnel includes doctor, nurse, midwife, auxiliary nurse, or auxiliary midwife.
[1] Includes deliveries in a health facility and not in a health facility
[2] Restricted to currently married women. See Table 16.5.1 for the list of decisions.
[3] See Table 16.6.1 for the list of reasons.
[4] See Table 16.7.1 for the list of reasons.

DOMESTIC VIOLENCE 17

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The 2007 ZDHS collected more information on domestic violence than was collected in the 2001-2002 ZDHS. Domestic violence against women has been acknowledged worldwide as a violation of basic human rights, and an increasing amount of research highlights the health burdens, intergenerational effects, and demographic consequences of such violence (United National General Assembly, 1991; Heise et al., 1994, 1998; Jejeebhoy, 1998). The inclusion of the domestic violence module in the 2007 ZDHS is in recognition of the presence of gender-based violence as an economic, human rights, and health issue in Zambia. Gender-based violence is defined as any act of violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion, or arbitrary deprivations of liberty, occurring in public or private life (United Nations, 1993 and 1995). Domestic violence includes physical, sexual, emotional, psychological, or economic abuse committed by a person against a spouse, child, and any other person who is a member of the household, dependent, or parent of a child of that household. Domestic violence has negative health consequences on the victims and especially on the reproductive health of women.

Despite ongoing efforts to protect women and vulnerable populations against violence, there is still much to be done to protect victims and to further inform and educate the population about the problem. Moreover, in addition to baseline indicators presented in this chapter, a mechanism is needed to keep a database with locally updated statistics (UNIFEM, 2005).

The 2007 ZDHS included a special module designed to obtain information on the extent to which women in Zambia experience domestic violence. The domestic violence module was administered to one eligible woman randomly selected in each household with the use of the Kish-grid technique (Kish, 1965). Although the module focused on the extent of marital violence, information was also obtained on any physical violence involving perpetrators other than the woman's current husband (or the last husband for separated or divorced women) that a woman may have experienced since her fifteenth birthday. Women who reported recent marital violence were asked about assistance they have ever told anyone about the violence, and whether they ever sought help.

The collection of data on domestic violence is challenging because women may not disclose issues on domestic violence. Collection of such sensitive information requires the establishment of rapport between the interviewer and the respondent. Field staff received special training on gender-based violence, focusing on domestic violence, to prepare them to collect data on domestic violence. Interviewers were instructed that interviews can only proceed when maximum privacy had been ensured. If privacy was not assured, the questions in the domestic violence module were not to be asked.

17.1 WOMEN EXPERIENCING PHYSICAL VIOLENCE

There were 5,236 women who were asked questions on domestic violence in the 2007 ZDHS. In Zambia, domestic violence occurs across all socioeconomic and cultural backgrounds. Table 17.1 presents the percent distribution of women age 15-49 who have ever experienced physical violence since age 15, and the percentage who have experienced physical violence during the 12 months preceding the survey, by background characteristics. The data show that almost half (47 percent) of all women have experienced physical violence since they were 15 and one-third of women experienced physical violence in the 12 months preceding the survey.

Experience of physical violence varies greatly by background characteristics. By age group, experience of physical violence increases steadily to age 25-29 and decreases thereafter. Fifty-four percent of women age 25-29 have experienced physical violence at some point since age 15, while 40 percent experienced violence during the 12 months preceding the survey.

Women who are employed and receive their payment in cash are more likely than other women to have ever experienced physical violence since age 15 (54 percent) and during the 12 months preceding the survey (36 percent). On the other hand, unemployed women are the least likely to experience physical violence, with 40 percent having experienced violence since age 15 and 25 percent during the past 12 months. Three in five (61 percent) divorced, separated or widowed women reported experiencing violence since age 15, compared with 52 percent of married or cohabiting women, and 28 percent of never-married women.

Women with no children are less likely than other women to have experienced physical violence since age 15, or in the 12 months preceding the survey. Experience of violence increases by number of living children up to three to four children and then decreases among women with five or more children. Fifty-five percent of women with three to four children have experienced physical violence since age 15, and 41 percent of such women have experienced physical violence in the 12 months preceding the survey.

Women in urban areas are more likely than their rural counterparts to report having ever experienced physical violence (50 percent as compared with 44 percent). Differentials are similar for experience of physical violence in the past year, with more women in urban areas reporting they experienced physical violence than their counterparts in rural areas (35 percent and 31 percent, respectively). More than half of women in Copperbelt (57 percent) and half of the women in Luapula reported that they have experienced physical violence since age 15. The highest percentage of women who reported experience of physical violence within the past year is in Luapula (46 percent). Women in Eastern province are least likely to report ever experiencing physical violence since age 15 and experiencing physical violence within the last 12 months (37 and 20 percent, respectively).

The percentage of women who have ever experienced physical violence since age 15 and the percentage who have experienced physical violence in the last 12 months preceding the survey are higher among women with primary education than other women (49 and 36 percent, respectively). Women with no education are least likely to have experienced physical violence since age 15 (40 percent). Women with more than secondary education represent the education group with the lowest percentage of women reporting physical violence in the last 12 months (27 percent).

Among wealth quintiles, the percentage of women reporting physical violence since age 15 increases from lowest quintile to the fourth quintile, and then decreases from the fourth quintile to the highest quintile. A similar pattern is observed for experience of physical violence in the past year.

Table 17.1 Experience of physical violence

Percentage of women age 15-49 who have ever experienced physical violence since age 15 and percentage who have experienced physical violence during the 12 months preceding the survey, by background characteristics, Zambia 2007

Background characteristic	Percentage who have ever experienced physical violence since age 15[1]	Percentage who have experienced physical violence in the past 12 months			Number of women
		Often	Sometimes	Often or sometimes	
Current age					
15-19	33.3	1.9	16.6	18.5	1,085
20-24	46.3	5.9	28.2	34.1	1,053
25-29	53.7	8.3	31.5	39.8	1,024
30-39	52.2	5.7	31.4	37.1	1,303
40-49	48.6	5.7	27.1	32.8	770
Employed last 12 months					
Not employed	39.9	4.4	24.5	28.9	2,370
Employed for cash	54.0	5.8	30.4	36.2	1,911
Employed not for cash	50.0	7.3	27.0	34.3	954
Marital status					
Never married	28.0	0.6	10.7	11.3	1,326
Married or living together	51.6	5.5	33.9	39.5	3,252
Divorced/separated/widowed	61.3	15.0	26.2	41.2	657
Number of living children					
0	32.8	2.6	14.5	17.1	1,314
1-2	49.9	6.7	29.9	36.6	1,617
3-4	54.7	6.6	34.5	41.1	1,206
5+	50.6	5.7	29.9	35.6	1,100
Residence					
Urban	50.2	5.0	30.1	35.2	2,205
Rural	44.4	5.8	24.9	30.6	3,031
Province					
Central	48.4	6.7	17.8	24.5	483
Copperbelt	57.3	5.8	38.0	43.8	926
Eastern	36.7	5.4	14.6	20.0	712
Luapula	50.2	8.2	38.1	46.4	389
Lusaka	48.2	4.7	28.0	32.7	858
Northern	46.6	3.8	27.6	31.4	708
North-Western	45.2	7.6	25.3	32.8	267
Southern	40.5	3.9	27.5	31.4	533
Western	42.1	5.7	21.7	27.4	360
Education					
No education	39.8	7.4	20.4	27.9	543
Primary	49.4	6.1	29.8	35.9	2,850
Secondary	45.8	4.4	24.6	28.9	1,575
More than secondary	39.9	0.7	26.0	26.8	267
Wealth quintile					
Lowest	40.7	4.6	22.3	26.9	907
Second	45.6	6.7	24.7	31.4	948
Middle	47.7	6.4	28.0	34.4	941
Fourth	54.6	5.7	34.1	39.8	1,148
Highest	44.6	4.3	25.2	29.4	1,292
Total	46.8	5.5	27.1	32.5	5,236

Note: Total includes one woman with information missing on employment status
[1] Includes the past 12 months

17.2 PERPETRATORS OF PHYSICAL VIOLENCE

Table 17.2 shows the percentage of women reporting any physical violence since age 15 who have received violence from various people, according to marital status. Among women who experienced violence since age 15, a total of 60 percent reported that their current husband or partner committed violence against them, and 17 percent reported that the perpetrator was a former husband or partner. These proportions are higher among the ever-married women, with 70 percent reporting their current husband or partner and 20 reporting their former husband or partner as the perpetrator. Among never-married women, 19 percent reported that a sister or brother physically abused them, and 17 percent reported that they experienced physical violence from their father or step-father. Furthermore, 15 percent of never-married women report another relative and a similar proportion report their teacher as the perpetrator of the physical violence.

Table 17.2 Persons committing physical violence

Among women age 15-49 who have experienced physical violence since age 15, percentage who report specific persons who committed the violence, according to the respondent's marital status, Zambia 2007

	Marital status		
Person	Ever married	Never married	Total
Current husband/partner	70.3	na	59.6
Former husband/partner	20.2	na	17.1
Current boyfriend	0.1	5.1	0.8
Former boyfriend	2.4	5.7	2.9
Father/step-father	3.7	17.4	5.8
Sister/brother	5.0	19.2	7.2
Daughter/ son	0.0	0.3	0.0
Other relative	3.7	15.1	5.4
Mother-in-law	0.3	na	0.2
Father-in-law	0.0	na	0.0
Other in-law	0.4	na	0.6
Teacher	2.6	15.2	4.5
Employer/someone at work	0.0	0.3	0.1
Police/soldier	0.0	0.0	0.0
Other	6.3	21.6	8.6
Number of women	2,081	372	2,453

na = Not applicable

17.3 EXPERIENCE OF SEXUAL VIOLENCE

Table 17.3 shows that one in five women have experienced sexual violence at some point in their lives. The highest proportion of women having reporting experience with sexual violence is among women age 25-39 (22 percent). Women who are employed for cash are the most likely to report sexual violence (25 percent), while unemployed women are the least likely to do so (17 percent).

Divorced, separated or widowed women are more likely than currently married and never-married women to have experienced sexual violence. Thirty percent of formerly married women experienced sexual violence, compared with 20 percent of married women and 16 percent of never-married women. Women in urban areas are more likely to report experience with sexual violence than their counterparts in rural areas (23 percent compared with 18 percent, respectively). By province, the percentage of women who have experienced sexual violence is highest in North-Western (29 percent) and Copperbelt (28 percent) and lowest in Eastern (12 percent).

Table 17.3 Experience of sexual violence

Percentage of women age 15-49 who have ever experienced sexual violence, by background characteristics, Zambia 2007

Background characteristic	Percentage who have ever experienced sexual violence[1]	Number of women
Current age		
15-19	15.5	1,085
20-24	20.9	1,053
25-29	22.1	1,024
30-39	22.2	1,303
40-49	20.0	770
Employed last 12 months		
Not employed	16.9	2,370
Employed for cash	24.6	1,911
Employed not for cash	19.7	954
Marital status		
Never married	15.6	1,326
Married or living together	20.2	3,252
Divorced/separated/widowed	29.6	657
Residence		
Urban	23.2	2,205
Rural	18.0	3,031
Province		
Central	19.4	483
Copperbelt	28.1	926
Eastern	11.8	712
Luapula	15.1	389
Lusaka	20.5	858
Northern	18.8	708
North-Western	28.6	267
Southern	19.5	533
Western	19.9	360
Education		
No education	13.6	543
Primary	21.5	2,850
Secondary	19.9	1,575
More than secondary	21.2	267
Wealth quintile		
Lowest	15.6	907
Second	18.7	948
Middle	20.0	941
Fourth	23.4	1,148
Highest	21.7	1,292
Total	20.2	5,236

Note: An asterisk indicates fewer than 25 unweighted cases and has been suppressed.
[1] Includes those whose sexual initiation was forced against their will

As was observed for physical violence, women with primary education are more likely than other women to have experienced sexual violence with 22 percent of women with primary education reported experiencing sexual violence. On the other hand, women with no education were least likely to have experienced sexual violence (14 percent). Analysis by wealth quintile shows that the proportion of women who have experienced sexual violence is highest among women in the fourth wealth quintile (23 percent) and lowest among women in the lowest wealth quintile (16 percent).

Table 17.4 presents information on the women age 15-49 years who have experienced sexual violence by age at first experience of sexual violence according to current age. Data show that 15 percent of women were age 14 or younger when they were first sexually assaulted, and 20 percent were in the age group 15-19 years.

Table 17.4 Age at first experience of sexual violence

Percent distribution of women age 15-49 who have experienced sexual violence by age at first experience of sexual violence, according to current age, Zambia 2007

	Age at first experience of sexual violence							
Current age	Less than 10 years	10-14 years	15-19 years	20-49 years	Don't know[1]	Missing	Total	Number of women
15-19	4.5	29.4	38.8	na	27.3	0.0	100.0	168
20-24	4.0	9.8	19.1	5.4	61.6	0.1	100.0	220
25-29	2.3	8.7	16.4	7.8	64.9	0.0	100.0	227
30-39	0.3	11.0	14.0	10.2	64.4	0.0	100.0	289
40-49	4.4	4.2	18.3	12.1	61.0	0.0	100.0	154
Total	2.8	12.2	20.1	7.4	57.6	0.0	100.0	1,057

[1] Includes women who report having ever experienced sexual violence committed only by their current husband if currently married or by most recent husband if divorced, separated, or widowed, and whose sexual initiation was not forced against their will. For these women, the age at first experience of sexual violence is not known.
na = Not applicable

Table 17.5 presents the percentage of women who reported specific persons committing sexual violence against them among women age 15-49 years who have experienced sexual violence, according to age at first experience of sexual violence and marital status. Forty-two percent of all women with experience of sexual violence reported that their current or former husband or partner committed sexual violence against them. Among ever-married women, this proportion rises to 52 percent. Among never-married women who have experienced sexual violence, strangers (23 percent) and current or former boyfriends (17 percent) are the most commonly cited persons committing sexual violence.

Table 17.5 Persons committing sexual violence

Among women age 15-49 who have experienced sexual violence, percentage who report specific persons committing sexual violence according to age at first experience of sexual violence and current marital status, Zambia 2007

	Age at first experience of sexual violence			Marital status		
Person	< 15 years	15 years or older	Don't know[1]	Ever married	Never married	Total
Current husband/partner	0.7	17.7	64.1	52.1	na	41.9
Former husband/partner	4.4	9.4	20.6	18.8	na	15.1
Current/former boyfriend	6.0	21.1	0.7	4.7	17.0	7.1
Father	0.1	0.5	0.0	0.2	0.1	0.2
Stepfather	0.3	0.0	0.0	0.1	0.0	0.0
Other relative	19.0	8.3	0.2	4.1	9.8	5.2
In-law	1.4	1.4	0.0	0.1	2.8	0.6
Own friend/acquaintance	9.5	8.0	0.0	2.7	7.3	3.6
Family friend	6.2	3.7	0.4	1.4	5.6	2.2
Teacher	0.8	2.6	0.0	0.6	1.8	0.8
Employer/someone at work	0.0	0.8	0.0	0.0	1.1	0.2
Police/soldier	0.0	0.6	0.0	0.2	0.0	0.2
Priest/ religious leader	0.0	0.8	0.0	0.0	1.1	0.2
Stranger	34.0	19.5	1.5	8.4	23.0	11.3
Other	17.6	5.5	0.0	3.3	7.7	4.1
Not asked	0.0	0.0	12.6	3.5	22.7	7.2
Missing	0.0	0.1	0.0	0.0	0.0	0.0
Number of women	158	291	609	850	207	1,057

[1] For these women, the age of first experience of sexual violence is not known.
na = Not applicable

It is important to highlight that among women who were less than 15 years old when their first experience of sexual violence occurred, 34 percent reported that they have experienced sexual violence from a stranger, 19 percent reported they have experienced sexual violence from a relative (other than their father), and 10 percent reported that they have experienced sexual violence from a friend or acquaintance.

17.4 EXPERIENCE OF DIFFERENT FORMS OF VIOLENCE

Table 17.6 shows information on the percentage of women age 15-49 who reported having experienced various combinations of forms of violence, by current age. Overall, 52 percent of women reported that they have experienced either physical or sexual violence. Around one in three women have experienced only physical violence, 5 percent have experienced only sexual violence, and 15 percent have experienced both physical and sexual violence. Two-fifths of women age 15-19 reported that they have experienced some form of physical or sexual violence, while over half of women age 20 to 49 years reported having experienced either physical or sexual violence.

Table 17.6 Experience of different forms of violence

Percentage of women age 15-49 who have experienced different forms of violence by current age, Zambia 2007

Age	Physical violence only[1]	Sexual violence only[2]	Physical and sexual violence[3]	Physical or sexual violence[4]	Number of women
15-19	24.3	6.5	9.0	39.8	1,085
15-17	22.7	5.8	7.1	35.6	673
18-19	27.0	7.5	12.1	46.6	412
20-24	30.7	5.3	15.6	51.6	1,053
25-29	36.9	5.4	16.8	59.0	1,024
30-39	33.9	3.9	18.2	56.1	1,303
40-49	33.0	4.4	15.6	53.0	770
Total	31.7	5.1	15.1	51.9	5,236

[1] Women who reported physical violence only.
[2] Women who reported sexual violence only. Includes forced sexual initiation.
[3] Women who reported that they were both physically and sexually abused.
Includes forced sexual initiation.
[4] Total women who reported physical abuse, sexual abuse, or physical and sexual abuse

17.5 VIOLENCE DURING PREGNANCY

Women experience violence in all stages of their life. In the 2007 ZDHS, women who had ever been pregnant (whether the pregnancy resulted in a live birth or not) were asked whether they experienced any type of physical violence during any of their pregnancies and were asked who was the perpetrator of that violence. Table 17.7 presents these findings according to selected background characteristics. Overall, 10 percent of women who had ever been pregnant reported that they experienced violence while pregnant.

Violence during pregnancy occurs at all ages. Women age 25-39 reported the highest prevalence of violence while pregnant (11 percent). Divorced or separated or widowed women were more likely than married women to have experienced violence during pregnancy (15 and 10 percent, respectively). Women with living children are more likely than women no living children to have experienced violence during pregnancy.

Experience of physical violence during pregnancy is somewhat higher among women in urban areas than those in rural areas (11 percent compared with 9 percent, respectively). There are notable variations in experience of physical violence during pregnancy by province. Women in Lusaka (15 percent), North-Western (13 percent), and Western (12 percent) are more likely to experience violence during pregnancy than other women. The lowest percentages of women who reported experiencing violence during pregnancy are found in Northern and Southern provinces (6 percent each).

Looking at education and wealth, women with primary education and women in the fourth and highest wealth quintiles are more likely than other women to experience violence during pregnancy; 11 percent of women in each of these groups have experienced physical violence while pregnant. Women with more than secondary education (2 percent) are least likely to experience physical violence during pregnancy when compared with other women (9 to 11 percent).

Table 17.7 Violence during pregnancy

Among women age 15-49 who have ever been pregnant, percentage who have ever experienced physical violence during pregnancy, by background characteristics, Zambia 2007

Background characteristic	Percentage who have ever experienced physical violence during pregnancy	Number of women who have ever been pregnant
Current age		
15-19	9.5	312
20-24	8.7	858
25-29	10.9	958
30-39	11.1	1,262
40-49	6.4	750
Marital status		
Never married	0.0	350
Married or living together	9.5	3,157
Divorced/separated/widowed	15.4	634
Number of living children		
0	7.5	218
1-2	9.0	1,617
3-4	11.0	1,206
5+	9.3	1,100
Residence		
Urban	11.3	1,564
Rural	8.6	2,576
Province		
Central	10.0	375
Copperbelt	9.7	698
Eastern	9.0	597
Luapula	8.4	320
Lusaka	14.8	613
Northern	5.5	577
North-Western	13.4	226
Southern	5.5	429
Western	11.8	307
Education		
No education	9.1	507
Primary	10.5	2,430
Secondary	9.0	1,030
More than secondary	1.6	173
Wealth quintile		
Lowest	7.6	787
Second	10.0	815
Middle	9.2	791
Fourth	10.5	922
Highest	10.6	825
Total	9.6	4,140

17.6 MARITAL CONTROL BY HUSBAND OR PARTNER

Marital violence refers to violence perpetuated by partners in a marital union. A series of questions were included in the 2007 ZDHS to elicit the degree of marital control exercised by the husband or partner over the respondent. Attempts by husbands or partners to closely control and monitor their female counterparts have been found to be among the most important early warning signs of violence in a relationship. Controlling behaviours most often manifest themselves in terms of extreme possessiveness, jealousy, and attempts to isolate the woman from her family and friends.

In order to determine the degree of marital control by husbands on their wives, women were asked whether they experienced any of a list of specific acts of controlling behaviours by their husbands, such as the husband is jealous or gets angry if she talks to other men, accuses her of being unfaithful, does not permit meetings with female friends, tries to limit contact with family, insists on knowing where she is at all times, and does not trust her with any money. Table 17.8 presents the percentage of ever-married women whose husbands or partners display each of the listed behaviours by selected background characteristics. Since the accumulation of such behaviours is more significant than the display of any single behaviour, the proportion of women whose husbands display at least three of the specified behaviours is highlighted.

The results show that the main controlling behaviours women experienced from their husbands were being jealous or angry if she talks to other men and her husband's insistence on knowing where she is at all times (66 percent and 61 percent, respectively). Just over one-third of ever-married women said that their husbands frequently accuse them of being unfaithful (36 percent), over one-fourth said their husbands do not permit them to meet their female friends (26 percent), and over one-fifth reported that their husbands do not trust them with money (22 percent). Furthermore, 14 percent of women reported that their husbands try to limit their contact with their families. About four-tenth of women reported that their spouses display three or more of the specific behaviours, while about one-fifth of women reported that their spouses do not display any of the behaviours.

A higher percentage of women in urban areas reported that their husbands displayed three 3 or more of the specified behaviours (48 percent) compared with their counterparts in rural areas (38 percent). Furthermore, 73 percent of the women in urban areas reported that their husband/partner is jealous or angry if she talks to other men compared with 62 percent of their counterparts in rural areas. Luapula has the highest proportion of women who reported that their husband/partner displays three or more of the specified behaviours (67 percent), compared with 26 percent in Western province.

There is a negative relationship between education and husbands/partners demonstrating controlling behaviour. The higher a woman's education the less likely she is to report experiencing controlling behaviours by her husband.

Table 17.8 Degree of marital control exercised by husbands

Percentage of ever-married women age 15-49 whose husband/partner ever demonstrates specific types of controlling behaviors, according to background characteristics, Zambia 2007

Background characteristic	Percentage of women whose husband: Is jealous or angry if she talks to other men	Frequently accuses her of being unfaithful	Does not permit her to meet her female friends	Tries to limit her contact with her family	Insists on knowing where she is at all times	Does not trust her with any money	Displays 3 or more of the specific behaviors	Displays none of the specific behaviors	Number of women
Current age									
15-19	58.7	33.8	27.9	9.9	57.7	21.6	37.6	24.1	226
20-24	65.5	33.7	28.5	14.1	61.7	24.6	42.0	21.3	762
25-29	68.5	41.6	26.9	16.2	65.5	21.9	45.9	18.2	901
30-39	67.0	37.0	23.5	12.7	62.6	21.9	41.8	19.1	1,261
40-49	64.6	32.7	23.7	12.1	54.4	17.9	38.2	25.7	759
Employed last 12 months									
Not employed	67.9	37.1	25.3	14.1	63.2	23.8	42.8	19.5	1,463
Employed for cash	67.7	39.5	26.7	13.5	60.3	19.1	43.6	20.6	1,595
Employed not for cash	60.0	29.6	23.8	12.4	59.6	22.7	37.0	23.8	850
Number of living children									
0	60.0	34.7	27.3	11.9	59.2	21.7	39.6	24.6	287
1-2	68.7	37.0	27.8	15.2	65.2	21.7	44.7	18.8	1,332
3-4	66.7	39.1	25.4	14.0	61.1	22.4	42.2	19.8	1,193
5+	63.9	33.4	22.5	11.3	57.0	20.8	38.6	23.7	1,098
Marital status and duration									
Currently married woman	64.0	33.1	22.5	11.9	59.3	20.2	38.1	22.3	3,252
Married only once	63.0	31.7	21.5	11.4	59.0	19.7	36.7	22.7	2,645
0-4 years	62.5	28.8	25.5	13.0	61.0	21.1	37.8	21.9	673
5-9 years	63.6	34.3	22.3	12.5	58.3	20.3	38.0	22.2	685
10+ years	62.8	31.8	19.0	10.1	58.4	18.5	35.5	23.3	1,287
Married more than once	68.8	39.5	26.9	14.0	60.6	22.9	43.7	20.5	604
Divorced/separated/ widowed	76.3	52.6	40.5	21.4	70.6	28.6	60.6	14.3	657
Residence									
Urban	72.7	39.2	30.4	16.2	67.2	21.5	48.2	16.5	1,449
Rural	62.2	34.8	22.7	11.9	57.7	21.8	38.1	23.5	2,461
Province									
Central	61.8	38.1	20.8	12.1	50.8	14.3	36.1	29.3	359
Copperbelt	72.7	38.9	34.1	16.6	77.0	14.6	50.6	12.8	656
Eastern	56.3	31.9	14.9	5.7	46.5	12.0	31.1	32.0	586
Luapula	77.5	52.3	37.6	19.6	91.7	50.7	66.5	2.5	309
Lusaka	68.6	39.1	26.5	16.3	52.4	23.9	43.3	24.2	589
Northern	67.1	24.7	21.3	10.4	68.0	31.6	37.2	13.2	563
North-Western	65.5	46.8	32.9	15.9	55.3	31.4	51.0	21.6	211
Southern	66.3	33.0	26.0	20.4	64.8	18.2	38.0	21.4	401
Western	55.5	35.0	20.1	4.9	34.9	6.3	26.4	36.0	236
Education									
No education	60.5	32.7	18.0	9.3	53.2	21.6	36.3	27.8	498
Primary	66.2	37.8	26.5	13.7	61.1	23.1	42.6	20.6	2,344
Secondary	70.7	37.8	28.5	16.1	67.9	19.9	46.0	16.5	910
More than secondary	56.4	19.6	17.6	8.9	49.6	10.9	24.4	30.1	157
Wealth quintile									
Lowest	57.8	29.5	18.4	7.6	47.5	19.1	32.1	28.4	757
Second	61.8	37.4	22.6	11.9	58.1	21.6	38.2	23.6	771
Middle	67.7	38.9	28.0	15.4	67.3	27.6	45.3	17.4	764
Fourth	70.6	41.4	30.6	15.6	66.1	20.2	49.0	19.1	860
Highest	72.1	34.1	27.5	16.6	66.4	19.9	43.5	16.4	757
Total	66.1	36.4	25.5	13.5	61.2	21.7	41.8	20.9	3,910

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women. The total includes women with information missing for employment status and number of unions, who are not shown separately.

17.7 FORMS OF SPOUSAL VIOLENCE

Table 17.9 shows the percentage of ever-married women by their experience of physical, sexual, and emotional spousal violence at the hands of their husbands or partners. It should be noted that different types of violence are not mutually exclusive and women may report multiple forms of violence. Research suggests that physical violence in intimate relationships is often accompanied by psychological abuse and in one-third to over half of cases, by sexual abuse (Krug et al., 2002).

The data from the 2007 ZDHS show that 47 percent of ever-married women reported having ever experienced any form of physical violence, 17 percent reported any sexual violence, and 26 percent reported any emotional violence. Figure 17.1 shows the proportion of ever-married women who have experienced different forms of violence by their current or last husbands ever and during the 12 months preceding the survey.

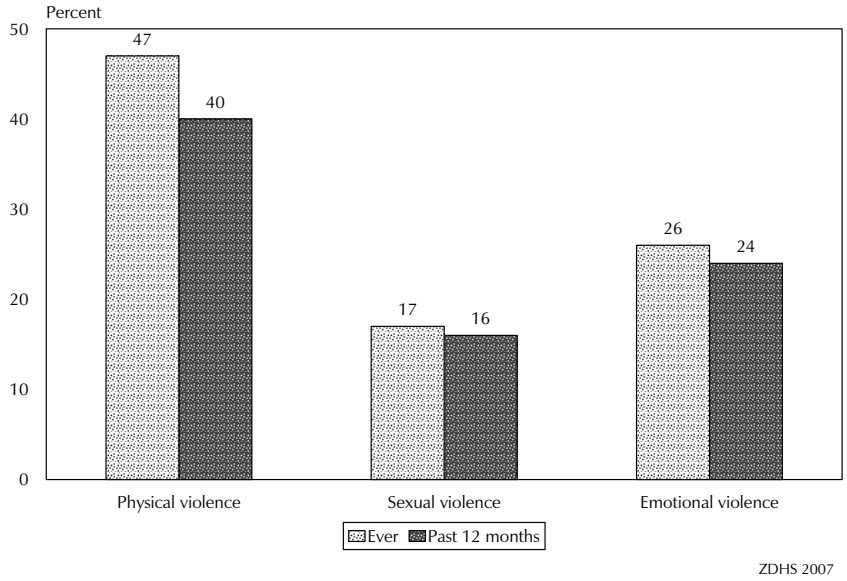
Table 17.9 Forms of spousal violence

Percentage of ever-married women age 15-49 who have experienced various forms of violence ever or in the 12 months preceding the survey, committed by their husband/partner, Zambia 2007

		In the past 12 months[1]		
	Ever	Often	Sometimes	Often or sometimes
Physical violence				
Any	46.5	7.0	32.7	39.6
Pushed her, shook her, or threw something at her	11.9	2.6	7.9	10.5
Slapped her	41.9	5.6	29.5	35.0
Twisted her arm or pulled her hair	13.8	2.3	9.8	12.2
Punched her with his fist or with something that could hurt her	13.9	2.6	9.3	11.9
Kicked her, dragged her, or beat her up	12.4	2.4	8.1	10.5
Tried to choke her or burn her on purpose	3.8	0.7	2.7	3.4
Threatened her or attacked her with a knife, gun, or any other weapon	3.3	0.6	2.3	2.9
Sexual violence				
Any	16.7	5.6	10.3	16.0
Physically forced her to have sexual intercourse with him even when she did not want to	15.0	4.9	9.5	14.4
Forced her to perform any sexual acts she did not want to	9.4	2.8	6.0	8.8
Emotional violence				
Any	25.6	7.3	16.6	23.9
Said or did something to humiliate her in front of others	17.3	4.8	11.0	15.8
Threatened to hurt or harm her or someone close to her	9.7	2.5	6.5	9.0
Insulted her or made her feel bad about herself	17.5	4.9	11.7	16.6
Any form of physical and/or sexual violence	49.5	10.4	32.6	43.0
Any form of physical and sexual violence	13.7	2.2	8.1	10.3
Any form of emotional, physical and/or sexual violence	53.9	13.9	33.8	47.7
Any form of emotional, physical and sexual violence	8.8	1.2	4.5	5.7
Number of ever married women	3,910	3,679	3,679	3,679

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women.
[1] Excludes widows
na = Not applicable

Figure 17.1 Forms of Spousal Violence



The most common forms of spousal physical violence are slapping (42 percent), followed by punching her with his fist or something that could hurt her (14 percent), and twisting her arm and pulling her hair (14 percent). Thirty-five percent of women reported that they had been slapped within 12 months preceding the survey.

The most common form of spousal sexual violence is forcing sexual intercourse against a woman's will (15 percent) followed by forcing her to perform any other sexual acts against her will (9 percent).

The most common form of emotional spousal violence is a spouse insulting or making his wife feel bad about herself (18 percent), followed by humiliating her in front of others (17 percent), and threatening to harm her or someone close to her (10 percent). The percentages are similar for women experiencing all three of these forms of emotional violence during the 12 months preceding the survey.

During the past year, 48 percent of ever-married women reported having experienced emotional, physical and/or sexual violence followed by those who experienced physical and/or sexual violence (43 percent) often or sometimes in the 12 months preceding the survey. On the other hand, 10 percent of women experienced physical and sexual violence, and 6 percent experienced any form of emotional, physical and sexual violence often or sometimes within the same period.

Table 17.10 presents the percentage of ever-married women by their experience of emotional, physical, or sexual spousal violence, by selected background characteristics. Women aged 25-29 are more likely to have experienced emotional, physical, or sexual violence (59 percent) than younger or older women. Women who are employed and receive cash payment are the most likely to report that they have ever experienced any of the three forms of spousal abuse (58 percent) when compared with other women. Furthermore, women with three to four children are more likely than other women to experience any form of spousal abuse (58 percent). Divorced, separated and widowed women were more likely than currently married women to have experienced any of the three forms of spousal violence (65 percent compared with 52 percent). Women who have been married for less than five years are less likely than women who have been married for longer to experience emotional, physical, or sexual violence within their marriage.

Table 17.10 Spousal violence by background characteristics

Percentage of ever-married women age 15-49 by whether they have ever experienced emotional, physical, or sexual violence committed by their husband/partner, according to background characteristics, Zambia 2007

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical or sexual violence	Emotional, physical and sexual violence	Number of women
Current age							
15-19	17.6	34.9	11.4	37.8	43.3	5.4	226
20-24	24.3	47.4	17.5	50.0	54.2	9.0	762
25-29	28.6	51.9	19.2	55.8	59.2	10.6	901
30-39	26.1	46.9	17.8	49.7	54.0	9.5	1,261
40-49	24.9	43.9	13.9	46.5	51.8	6.4	759
Employed last 12 months							
Not employed	22.2	43.7	13.8	45.8	49.7	7.5	1,463
Employed for cash	29.1	49.4	20.2	53.3	57.8	10.4	1,595
Employed not for cash	24.8	47.7	16.2	50.6	55.2	8.3	850
Number of living children							
0	18.5	32.8	15.9	36.5	39.6	8.9	287
1-2	26.9	49.0	18.3	51.8	55.5	10.3	1,332
3-4	27.5	49.3	17.3	52.6	57.8	8.6	1,193
5+	23.8	45.4	15.2	48.0	52.5	7.3	1,098
Marital status and duration							
Currently married women	23.1	44.9	15.2	48.0	52.1	7.4	3,252
Married only once	21.7	45.4	15.1	48.3	52.4	6.9	2,645
0-4 years	17.7	36.9	14.2	40.2	43.7	6.3	673
5-9 years	22.6	49.4	16.4	52.4	55.2	8.0	685
10+ years	23.3	47.7	14.8	50.4	55.4	6.6	1,287
Married more than once	28.9	42.7	15.9	46.1	50.7	9.6	604
Divorced/separated/widowed	38.1	56.4	25.4	59.3	64.6	16.1	657
Residence							
Urban	32.0	52.3	21.1	55.5	61.0	11.6	1,449
Rural	21.9	43.7	14.5	46.5	50.2	7.2	2,461
Province							
Central	29.7	42.5	12.6	45.9	51.5	6.5	359
Copperbelt	34.7	60.3	26.1	63.6	69.0	13.8	656
Eastern	16.4	37.6	8.9	39.6	43.5	4.4	586
Luapula	16.5	53.9	9.7	55.9	58.6	4.1	309
Lusaka	30.9	46.7	17.9	49.1	54.6	11.2	589
Northern	25.2	45.5	15.5	47.9	51.6	6.8	563
North-Western	29.7	42.5	23.6	48.3	53.6	14.7	211
Southern	19.0	41.5	20.4	47.0	49.8	8.4	401
Western	24.0	46.9	16.9	48.4	51.0	10.5	236
Education							
No education	19.4	39.6	10.5	41.4	44.7	6.2	498
Primary	26.4	49.0	18.1	52.2	56.0	9.4	2,344
Secondary	27.2	47.5	17.8	50.6	56.3	9.0	910
More than secondary	24.5	35.3	14.3	37.6	45.2	7.2	157
Wealth quintile							
Lowest	20.6	40.0	12.9	43.6	47.1	6.5	757
Second	22.3	46.1	14.7	48.0	51.3	8.3	771
Middle	22.8	45.7	16.4	48.4	52.9	8.0	764
Fourth	31.6	54.8	20.7	57.9	63.6	10.5	860
Highest	30.0	46.6	19.5	50.2	54.9	10.7	757
Respondent's father beat her mother							
Yes	30.8	54.6	22.1	57.6	61.4	12.6	1,421
No	21.6	40.9	13.4	44.1	48.6	6.2	2,120
Don't know	28.5	51.0	17.1	53.0	58.2	9.3	363
Total	25.6	46.9	16.9	49.9	54.2	8.8	3,910

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women. The total includes women with information missing on employment status, number of unions and father beating mother, who are not shown separately.

Women in urban areas are more likely than their rural counterparts to have experienced emotional, physical or sexual violence (61 percent and 50 percent, respectively). There is much variation by province with women in Copperbelt reporting the highest percentage of physical, sexual, or emotional spousal abuse (69 percent), and women in Eastern (44 percent) reporting the lowest percentage.

Overall, women with more than secondary level education or with no education (45 percent each) were less likely to report spousal violence than women with secondary or primary education (56 percent each). By wealth quintile, the proportion of women who have experienced emotional, physical or sexual violence by their husbands or partners increases from 47 percent in the lowest wealth quintile to 64 percent in the fourth wealth quintile before decreasing to 55 percent in the highest wealth quintile.

The results of the 2007 ZDHS show that family history of domestic violence is associated with a respondent's own experience of domestic violence. Among women whose fathers beat their mothers, 61 percent have themselves experienced spousal violence, compared with 49 percent of women whose fathers did not beat their mothers.

17.8 VIOLENCE BY SPOUSAL CHARACTERISTICS AND WOMEN'S INDICATORS

Examining husbands' characteristics may help to understand some of the underlying contributing factors to spousal violence. Table 17.11 presents information on ever-married women's experience of spousal violence by husbands' characteristics and empowerment indicators. Women whose husbands have completed some education beyond the secondary level are less likely than other women to have experienced any of the three types of spousal violence (47 percent compared with 52 percent or higher).

Women who say their husbands get drunk frequently are much more likely than other women, even those who say their husbands get drunk sometimes, to have experienced spousal violence. Forty-four percent of women whose husbands do no drink and 56 percent of women whose husbands get drunk sometimes have ever experienced physical, sexual or emotional violence compared with 77 percent of women whose husbands get drunk frequently.

The results in Table 17.11 also show that controlling behaviours are highly associated with spousal violence. For example, around one-third (31 percent) of women whose husbands exhibit none of the controlling behaviours asked about have experienced any of the three forms of spousal violence, compared with almost three-quarters (74 percent) of women whose husbands exhibit five to six of the controlling behaviours.

Examining the relationships between the three empowerment indicators and spousal violence shows that the associations are not always clear. Decision making does not have the expected association with spousal violence: women who participate in the least decisions are also least likely to experience spousal violence. On the other hand, women who agree with none of the five reasons to justify wife beating are less likely than other women to experience physical and sexual violence.

Table 17.11 Spousal violence by husband's characteristics and empowerment indicators

Percentage of ever-married women age 15-49 who have ever suffered emotional, physical, or sexual violence committed by their current or most recent husband/partner, according to husband's/partner's characteristics, marital characteristics, and empowerment indicators, Zambia 2007

	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical or sexual violence	Emotional, physical and sexual violence	Number of women
Husband's/partner's education							
No education	30.5	45.9	16.2	47.7	52.1	13.1	256
Primary	23.1	46.7	15.4	49.6	53.2	7.8	1,712
Secondary	27.5	49.1	18.2	51.7	56.7	9.6	1,487
Higher	24.9	37.7	16.2	42.0	46.7	7.2	358
Don't know/missing	30.7	52.5	29.3	62.4	66.6	11.4	96
Husband's/partner's alcohol consumption							
Does not drink	17.7	35.7	12.7	39.3	44.3	4.3	1,807
Drinks/never gets drunk	*	*	*	*	*	*	17
Gets drunk sometimes	23.6	51.0	15.3	53.3	55.5	7.8	1,300
Gets drunk very often	48.0	67.4	30.1	70.2	76.7	21.3	775
Spousal age difference[1]							
Wife older	19.4	43.1	17.4	45.3	47.0	10.4	89
Wife is same age	33.0	42.0	20.8	44.0	53.0	13.9	83
Wife's 1-4 years younger	20.0	47.5	14.8	50.7	53.8	5.8	1,093
Wife's 5-9 years younger	24.2	44.2	14.7	47.0	51.7	7.3	1,352
Wife's 10+ years younger	24.6	42.3	16.0	45.5	50.0	9.1	621
Spousal education difference							
Husband better educated	25.5	46.4	16.8	49.5	53.7	8.6	2,511
Wife better educated	28.1	48.8	17.1	51.6	56.8	9.5	659
Both equally educated	20.8	45.4	15.7	47.4	50.9	7.6	495
Neither educated	25.3	42.8	12.4	44.1	49.3	9.6	123
Don't know/missing	34.5	56.7	29.4	64.6	67.9	14.0	121
Number of marital control behaviors displayed by husband/partner							
0	9.1	26.8	6.0	28.1	31.0	1.1	818
1-2	17.0	39.8	12.5	42.4	46.5	4.3	1,456
3-4	38.3	62.1	24.9	67.1	72.4	14.1	1,206
5-6	50.5	66.3	30.3	68.3	73.5	23.9	429
Number of decisions in which women participate							
0	17.1	38.5	7.7	40.0	43.2	4.6	310
1-2	25.1	44.9	16.2	48.2	53.0	8.6	988
3-4	23.0	46.0	15.9	49.1	53.0	7.2	1,954
Number of reasons given for refusing to have sexual intercourse with husband							
0	21.0	41.1	14.4	43.4	47.2	8.0	340
1-2	24.5	48.7	16.5	52.1	56.1	7.9	2,075
3	28.2	45.6	18.2	48.2	53.2	10.3	1,494
Number of reasons for which wife beating is justified							
0	24.0	41.2	14.7	44.2	48.7	8.1	1,389
1-2	28.5	49.9	18.4	53.0	58.1	9.0	895
3-4	24.3	49.1	19.3	52.3	55.1	9.6	854
5	26.5	51.1	16.6	53.7	58.5	9.1	771
Total	25.6	46.9	16.9	49.9	54.2	8.8	3,910

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women. An asterisk indicates that an estimate is based on fewer than 25 unweighted cases and has been suppressed. The total includes women with information missing on husband's consumption of alcohol and spousal age difference, who are not shown separately.

[1] Includes only currently married women

17.9 FREQUENCY OF SPOUSAL VIOLENCE

Table 17.12 shows the percent distribution of ever-married women who have ever experienced emotional violence and physical or sexual violence perpetrated by their husband or partner by how often it occurred in the 12 months prior to the survey, according to background characteristics.

Table 17.12 Frequency of spousal violence among those who report violence

Percent distribution of ever-married women age 15-49 (excluding widows) who have ever suffered emotional violence committed by their current or most recent husband/partner by frequency of violence in the 12 months preceding the survey, and percent distribution of those who have ever suffered physical or sexual violence committed by their current or most recent husband/partner by frequency of violence in the 12 months preceding the survey, according to background characteristics, Zambia 2007

	Frequency of emotional violence in the past 12 months						Frequency of physical or sexual violence in the past 12 months					
Background characteristic	Often	Some-times	Not at all	Missing	Total	Number of women	Often	Some-times	Not at all	Missing	Total	Number of women
Current age												
15-19	(24.0)	(74.8)	(1.2)	(0.0)	100.0	40	14.8	79.9	5.3	0.0	100.0	84
20-24	26.5	65.3	6.8	1.5	100.0	178	22.3	68.4	9.0	0.4	100.0	375
25-29	31.0	61.7	6.7	0.5	100.0	257	24.1	63.9	11.7	0.3	100.0	491
30-39	26.4	65.1	8.3	0.3	100.0	308	20.2	64.7	14.9	0.2	100.0	575
40-49	31.1	64.3	3.6	1.0	100.0	166	17.7	64.1	18.1	0.0	100.0	297
Employed last 12 months												
Not employed	26.1	68.3	5.3	0.3	100.0	307	20.3	69.0	10.7	0.0	100.0	639
Employed for cash	26.9	65.1	7.3	0.6	100.0	435	19.8	68.1	11.8	0.3	100.0	782
Employed not for cash	34.9	57.4	6.4	1.3	100.0	205	24.6	56.4	18.6	0.4	100.0	401
Number of living children												
0	31.4	55.8	9.4	3.4	100.0	51	29.7	56.0	14.3	0.0	100.0	101
1-2	27.4	66.7	5.4	0.4	100.0	342	21.0	68.8	10.1	0.1	100.0	657
3-4	31.5	58.5	9.1	0.8	100.0	309	20.6	66.8	12.3	0.3	100.0	584
5+	25.2	70.6	3.9	0.3	100.0	246	19.7	62.8	17.2	0.3	100.0	481
Marital status and duration												
Currently married woman	24.4	71.3	3.6	0.6	100.0	750	18.2	69.8	11.8	0.3	100.0	1,547
Married only once	21.3	73.6	4.3	0.8	100.0	574	16.9	71.2	11.7	0.2	100.0	1,270
0-4 years	22.5	74.7	1.1	1.6	100.0	119	16.5	76.9	6.7	0.0	100.0	270
5-9 years	20.9	73.6	3.7	1.8	100.0	155	21.0	71.7	6.9	0.4	100.0	357
10+ years	20.9	73.2	5.9	0.0	100.0	300	14.7	68.5	16.5	0.2	100.0	644
Married more than once	35.1	63.6	1.3	0.0	100.0	175	24.3	63.1	12.2	0.4	100.0	274
Divorced/separated	43.3	38.6	17.2	0.9	100.0	198	37.2	43.7	19.2	0.0	100.0	275
Residence												
Urban	25.7	69.0	4.8	0.5	100.0	427	19.4	72.6	8.1	0.0	100.0	727
Rural	30.6	60.8	7.8	0.8	100.0	522	22.1	61.4	16.1	0.4	100.0	1,096
Province												
Central	25.1	64.0	9.2	1.6	100.0	105	27.1	45.7	27.2	0.0	100.0	156
Copperbelt	26.1	71.1	2.1	0.6	100.0	210	16.9	78.3	4.9	0.0	100.0	377
Eastern	35.5	56.3	8.2	0.0	100.0	96	21.9	44.2	33.1	0.9	100.0	221
Luapula	52.8	47.2	0.0	0.0	100.0	50	23.0	77.0	0.0	0.0	100.0	167
Lusaka	24.0	67.5	8.5	0.0	100.0	168	18.8	69.8	11.3	0.0	100.0	264
Northern	23.4	65.7	10.8	0.0	100.0	132	13.4	69.4	17.2	0.0	100.0	256
North-Western	29.7	59.6	6.8	3.9	100.0	61	30.0	61.5	8.0	0.5	100.0	95
Southern	24.5	71.0	3.4	1.1	100.0	72	29.9	65.8	3.4	0.9	100.0	179
Western	37.6	54.4	7.7	0.4	100.0	53	22.7	64.4	12.9	0.0	100.0	107
Education												
No education	41.5	53.3	4.2	0.9	100.0	92	24.8	53.7	21.5	0.0	100.0	193
Primary	29.1	64.3	6.4	0.1	100.0	593	21.4	64.9	13.4	0.3	100.0	1,153
Secondary	22.5	68.4	7.0	2.1	100.0	229	19.5	71.5	8.8	0.2	100.0	426
More than secondary	(19.6)	(71.1)	(9.3)	(0.0)	100.0	34	(10.9)	(85.5)	(3.6)	(0.0)	100.0	51
Wealth quintile												
Lowest	27.1	65.9	7.0	0.0	100.0	152	20.4	59.3	20.3	0.0	100.0	320
Second	32.0	57.4	9.7	1.0	100.0	168	23.2	58.6	17.7	0.4	100.0	355
Middle	33.0	58.8	6.5	1.7	100.0	166	22.9	65.5	11.2	0.4	100.0	357
Fourth	26.8	70.2	2.7	0.2	100.0	248	20.6	71.7	7.5	0.2	100.0	446
Highest	24.6	66.8	7.8	0.7	100.0	213	18.0	72.1	10.0	0.0	100.0	345
Total	28.4	64.5	6.5	0.7	100.0	948	21.0	65.8	12.9	0.2	100.0	1,822

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women. Figures in parentheses are based on 25-49 unweighted cases. The total includes women with information missing on number of unions, who are not shown separately.

The data show that 65 percent of ever-married women who have ever experienced emotional violence from their husbands or partners experienced emotional violence sometimes, and 28 percent experienced it often. Seven percent of women who have ever experienced emotional violence from their husbands or partners did not experience such violence at all during the past 12 months. Among ever-married women who have ever experienced physical or sexual violence from their husbands or partners, 66 percent reported that it occurred sometimes, 21 percent reported that physical or sexual violence occurred often during the past year preceding the survey, while 13 percent reported that this did not happen within the last year,.

Thirty-one percent of women in rural areas experienced emotional violence from their husband or partner often during the 12 months preceding the survey, compared with 26 percent of their counterparts in urban areas. On the other hand, women in rural areas who have ever experienced physical or sexual violence from their husbands or partners are twice as likely as urban women not to have experienced such violence during the 12 months preceding the survey (16 percent and 8 percent, respectively). At the provincial level, Luapula has the highest percentage (53 percent) of women who reported experiencing emotional violence often in the 12 months preceding the survey, while Northern has the lowest percentage (23 percent). For physical or sexual violence, women in North-Western and Southern provinces are most likely (30 percent each) to experience these forms of spousal violence often in the 12 months preceding the survey, while women in Northern are least likely (13 percent).

17.10 ONSET OF SPOUSAL VIOLENCE

To study the timing of the onset of marital violence, the 2007 ZDHS asked ever-married women who experienced physical or sexual spousal violence when the first episode of violence took place. Table 17.13 shows the interval between marriage and the first episode of spousal physical or sexual violence.

The results indicate that the majority of ever-married women have experienced no physical or sexual violence by their husbands or partners (51 percent). However, 29 percent of all ever-married women reported that physical or sexual violence began to occur during the first two years after marriage. Ten percent of women reported that violence was initiated less than a year into the marriage, and 13 percent said that violence was initiated three to five years after marriage. Less than one percent reported that violence began prior to marriage.

Table 17.13 Onset of marital violence

Percent distribution of ever-married women by number of years between marriage and first experience of physical or sexual violence by their husband/partner, if ever, according to marital status and duration, Zambia 2007

	Years between marriage and first experience of violence[1]									
Marital status and duration	Experienced no violence	Before marriage	<1 year	1-2 years	3-5 years	6-9 years	10+ years	Don't know/ missing[2]	Total	Number of women
Currently married	52.4	0.7	9.6	18.2	11.9	3.7	3.5	0.1	100.0	3,252
Married only once	52.0	0.8	9.2	18.0	12.4	3.8	3.8	0.1	100.0	2,645
< 1 year	72.3	5.0	20.3	na	na	na	na	0.0	100.0	158
1-2 years	60.3	0.2	17.2	21.3	na	na	na	0.1	100.0	252
3-5 years	52.0	0.5	13.4	23.8	9.6	na	na	0.0	100.0	388
6-9 years	47.1	0.5	7.8	22.9	17.1	4.4	na	0.0	100.0	561
10+ years	49.9	0.7	5.6	15.5	14.9	5.6	7.7	0.2	100.0	1,287
Married more than once	54.7	0.2	11.1	19.0	9.6	3.2	2.0	0.2	100.0	604
Divorced/separated/widowed	41.2	0.5	11.5	22.5	15.4	4.4	4.1	0.4	100.0	657
Total	50.5	0.7	9.9	18.9	12.5	3.8	3.6	0.2	100.0	3,910

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women. The total includes women with information missing on number of unions, who are not shown separately.
na = Not applicable
[1] For couples who are not married but are living together as if married, the time of marriage refers to the time when the respondent first started living together with her partner.
[2] Includes women for whom the timing of the first experience of violence and duration of marriage are inconsistent

17.11 TYPES OF INJURIES TO WOMEN BECAUSE OF SPOUSAL VIOLENCE

Table 17.14 presents information on the types of injuries ever-married women have endured as a result of spousal violence, and whether they have experienced them in the 12 months preceding the survey.

The data shows that the percentages of ever-married women who reported having ever suffered from any of the types of injuries are very similar to the percentages of women who reported enduring the same injuries within the 12 months preceding the survey.

The most commonly experienced injuries resulting from spousal violence are cuts, bruises or aches, and eye injuries, sprains, dislocations, or burns. This is true for all the types of violence. Among women who have ever experienced physical violence, 23 percent suffered from cuts, bruises or aches and 11 percent experienced eye injuries, sprains, dislocations, or burns over the last 12 months.

Table 17.14 Injuries to women due to spousal violence

Percentage of ever-married women age 15-49 who have experienced specific types of spousal violence by types of injuries resulting from what their husband/partner did to them, according to the type of violence and whether they have experienced the violence ever and in the 12 months preceding the survey, Zambia 2007

	Cuts, bruises, or aches	Severe burns	Eye injuries, sprains, dislocations, or burns	Deep wounds, broken bones, broken teeth, or any other serious injury	Any of these injuries	Number of ever married women
Experienced physical violence						
Ever[1]	23.1	1.4	10.5	4.2	25.8	1,817
In the past 12 months[2]	24.2	1.3	11.4	4.6	27.0	1,458
Experienced sexual violence[3]						
Ever[1]	30.8	2.6	16.6	7.6	34.4	653
In the past 12 months[2]	30.0	2.5	16.4	7.3	33.9	588
Experienced physical or sexual violence [3]						
Ever[1]	21.8	1.3	9.9	3.9	24.3	1,933
In the past 12 months[2]	22.5	1.2	10.5	4.2	25.1	1,583

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women.
[1] Includes in the past 12 months
[2] Excludes widows
[3] Excludes respondents whose sexual initiation was forced but who have not experienced any other form of physical or sexual violence

17.12 VIOLENCE BY WOMEN AGAINST THEIR SPOUSE

In cases of domestic violence either the man or the woman can be the instigator of violent behaviour. Ever-married women were also asked about instances when they said or did something to physically harm their husband or partner at times when he was not already physically hurting them. Table 17.15 presents the percentage of ever-married women who have committed physical violence against their husband or partner when he was not already harming them by selected characteristics.

Table 17.15 Violence by women against their spouse

Percentage of ever-married women age 15-49 who have committed physical violence against their husband/partner when he was not already beating or physically hurting them, ever and in the past 12 months, according to women's own experience of spousal violence and their own and husband's/partner's characteristics, Zambia 2007

Background characteristic	Percentage of women who have committed physical violence against their current or most recent husband/partner					Number of women[1]
	Ever	Number of women	Often	Sometimes	Any	
Woman's experience of spousal physical violence						
Ever	18.2	1,817	1.0	9.0	9.9	1,708
In the last 12 months	19.7	1,514	1.1	10.3	11.4	1,458
Not last 12 months/widow/missing	10.8	303	0.0	1.2	1.2	250
Never	2.5	2,092	0.1	1.1	1.2	1,971
Current age						
15-19	8.3	226	1.2	5.1	6.2	225
20-24	9.2	762	0.9	5.4	6.2	748
25-29	8.1	901	0.6	4.3	4.8	884
30-39	10.5	1,261	0.0	5.0	5.0	1,176
40-49	11.9	759	0.6	4.1	4.8	645
Employed last 12 months						
Not employed	8.9	1,463	0.7	5.5	6.2	1,408
Employed for cash	11.2	1,595	0.3	4.6	4.9	1,471
Employed not for cash	8.8	850	0.6	3.7	4.3	799
Number of living children						
0	10.9	287	1.7	5.5	7.2	279
1-2	10.9	1,332	0.5	6.4	6.9	1,261
3-4	8.1	1,193	0.4	3.7	4.0	1,122
5+	10.1	1,098	0.3	3.6	4.0	1,016
Residence						
Urban	13.6	1,449	0.7	7.4	8.0	1,306
Rural	7.6	2,461	0.4	3.3	3.7	2,373
Province						
Central	6.0	359	0.4	3.4	3.8	344
Copperbelt	12.6	656	0.6	5.0	5.6	588
Eastern	5.3	586	0.1	2.5	2.6	566
Luapula	19.1	309	1.0	8.5	9.5	297
Lusaka	14.5	589	0.8	8.3	9.1	544
Northern	8.8	563	0.4	5.2	5.6	536
North-Western	6.2	211	0.3	2.5	2.8	204
Southern	7.5	401	0.8	3.4	4.2	377
Western	4.9	236	0.4	1.3	1.7	223
Wealth quintile						
Lowest	4.3	757	0.2	1.5	1.7	734
Second	8.2	771	0.3	4.0	4.2	742
Middle	9.5	764	0.4	4.6	5.1	734
Fourth	12.7	860	1.4	5.8	7.2	786
Highest	13.9	757	0.1	8.0	8.1	682

Continued…

Table 17.15—*Continued*

Background characteristic	Percentage of women who have committed physical violence against their current or most recent husband/partner					Number of women[1]
	Ever	Number of women	Often	Sometimes	Any	
Marital status and duration						
Currently married woman	8.8	3,252	0.4	4.9	5.4	3,252
Married only once	8.4	2,645	0.3	4.7	5.0	2,645
0-4 years	8.3	673	0.5	6.2	6.8	673
5-9 years	6.5	685	0.5	3.2	3.7	685
10+ years	9.5	1,287	0.1	4.6	4.7	1,287
Married more than once	10.4	604	0.9	6.1	7.0	604
Divorced/separated/widowed	15.0	657	1.0	3.4	4.4	426
Education						
No education	6.2	498	0.6	2.2	2.8	481
Primary	9.3	2,344	0.5	4.3	4.8	2,213
Secondary	12.5	910	0.6	6.3	6.9	848
More than secondary	13.5	157	0.0	10.6	10.6	136
Husband's/partner's education						
No education	5.4	256	0.8	3.0	3.8	244
Primary	8.5	1,712	0.4	4.4	4.8	1,661
Secondary	10.8	1,487	0.5	4.4	4.9	1,368
Higher	14.6	358	1.0	10.0	11.0	321
Don't know/missing	11.2	96	0.0	2.4	2.4	84
Husband's/partner's alcohol consumption						
Does not drink	6.1	1,807	0.1	2.4	2.5	1,723
Drinks/never gets drunk	7.3	17	0.0	2.5	2.5	17
Gets drunk sometimes	9.7	1,300	0.5	5.3	5.8	1,222
Gets drunk very often	19.0	775	1.5	9.6	11.1	706
Spousal age difference [2]						
Wife older	9.3	89	0.5	5.2	5.6	89
Wife is same age	11.1	83	0.0	5.7	5.7	83
Wife's 1-4 years younger	8.7	1,093	0.7	4.9	5.6	1,093
Wife's 5-9 years younger	8.6	1,352	0.3	5.0	5.3	1,352
Wife's 10+ years younger	8.8	621	0.3	5.0	5.2	621
Spousal education difference						
Husband better educated	10.5	2,511	0.5	5.1	5.6	2,353
Wife better educated	9.6	659	0.6	5.0	5.6	625
Both equally educated	7.1	495	0.1	3.3	3.4	473
Neither educated	6.0	123	1.7	2.8	4.6	118
Don't know/missing	12.5	121	0.4	4.0	4.4	109
Total	9.8	3,910	0.5	4.7	5.3	3,679

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women. The total includes women with information missing on employment status, number of unions, husband's alcohol consumption, and spousal age difference, who are not shown separately.

[1] Excludes widows

[2] Currently married women

Overall, 10 percent of ever-married women age 15-49 who have committed physical violence against their husband/partner when he was not already beating or physically hurting them. Women in the age group 40-49 are more likely than younger women to have initiated physical violence against their current or most recent husband or partner (12 percent). Women age 15-19 and 25-29 were least likely to have initiated marital violence (8 percent each). Women who are employed for cash are more likely to initiate physical violence against their most recent husband/partner than unemployed women or women who are employed but are not paid in cash (11 percent compared with 9 percent). Analysis by residence shows that women who live in urban areas are more likely than women in rural areas to have ever initiated physical violence against their husband/partner (14 percent compared with 8 percent). By province, Luapula has the highest percentage of women ever initiating physical violence against their husband or partner (19 percent) while Western and Eastern have the lowest percentage (5 percent, each).

Divorced or separated or widowed women are more likely to have initiated physical violence against their husband or partner than other women. The likelihood of women initiating physical violence against their husbands or partners increases with women's level of education, from 6 percent among women with no education to 14 percent among women with more than secondary education. Women whose husbands or partners get drunk very often are more likely to initiate physical violence than women whose husbands do not drink (19 versus 6 percent).

17.13 Help-Seeking Behaviour by Women Who Experience Violence

Table 17.16 presents information on women who reported having ever experienced violence by whether they have sought help to stop the violence, according to selected characteristics. Forty-six percent of women who ever experienced physical or sexual violence have ever sought help from any source. Only 6 percent of abused women who never sought help told someone about the violence, and 41 percent never sought help and never told anyone.

Women who experienced both physical and sexual violence were more likely to seek help (56 percent) than women who experienced only physical violence (43 percent), or women who experienced only sexual violence (40 percent). Women who are unemployed are less likely to seek help (43 percent) compared with women who are either employed for cash (47 percent) or are employed but are not paid in cash (51 percent). Divorced, separated or widowed women are also more likely to have ever sought help to end the violence than other women.

With regard to residence, women in urban areas reported a slightly higher percentage of help seeking behaviour to stop violence than their counterparts in rural areas (47 percent compared with 45 percent). Women living in Western province are more likely to have ever sought assistance to end violence against them (66 percent) than women in other provinces. Less than forty percent of abused women in Eastern, Luapula, and North-Western provinces have ever sought help. Although there are no strong patterns when considering help seeking behaviour and the wealth status or woman's level of education, those who have more than secondary education are less likely to have sought help compared with uneducated women or women with lower education. Women in the lowest and highest wealth quintiles reported the highest percentage of help-seeking behaviour (49 percent each).

Table 17.16 Help seeking to stop violence

Percent distribution of women age 15-49 who have ever experienced physical or sexual violence by whether they have told anyone about the violence and whether they have ever sought help from any source to and the violence according to type of violence and background characteristics, Zambia 2007

Background characteristic	Never sought help: Never told anyone	Never sought help: Percentage who told someone	Have sought help from any source	Missing/ don't know	Total	Number of women
Type of violence						
Physical only	43.4	5.1	42.9	8.6	100.0	1,661
Sexual only	50.9	5.7	40.1	3.2	100.0	266
Both physical and sexual	32.2	7.8	55.7	4.3	100.0	792
Current age						
15-19	39.1	9.8	48.9	2.2	100.0	432
20-24	46.4	5.1	41.5	7.0	100.0	543
25-29	35.6	6.6	50.7	7.1	100.0	605
30-39	41.4	4.0	46.7	7.8	100.0	731
40-49	42.4	5.5	42.8	9.4	100.0	408
Employed last 12 months						
Not employed	44.7	5.8	43.3	6.2	100.0	1,067
Employed for cash	39.7	6.4	46.9	7.1	100.0	1,129
Employed not for cash	35.8	5.3	51.3	7.6	100.0	522
Number of living children						
0	44.0	10.1	43.8	2.0	100.0	513
1-2	38.8	5.2	50.5	5.4	100.0	902
3-4	39.4	4.9	46.3	9.4	100.0	706
5+	43.1	4.6	42.3	10.0	100.0	597
Marital status and duration						
Never married	41.5	12.3	43.9	2.3	100.0	474
Currently married woman	43.1	4.7	44.9	7.4	100.0	1,813
Married only once	44.0	4.8	44.4	6.7	100.0	1,465
0-4 years	44.8	4.6	44.8	5.9	100.0	347
5-9 years	40.4	5.9	46.3	7.5	100.0	413
10+ years	45.8	4.3	43.2	6.7	100.0	706
Married more than once	39.2	4.2	46.8	9.8	100.0	345
Divorced/separated/widowed	31.2	4.1	55.0	9.7	100.0	432
Residence						
Urban	40.0	7.3	47.4	5.2	100.0	1,236
Rural	41.6	4.8	45.4	8.2	100.0	1,482
Province						
Central	41.1	7.1	47.9	3.8	100.0	255
Copperbelt	45.2	5.9	44.1	4.8	100.0	587
Eastern	48.5	4.3	39.1	8.0	100.0	287
Luapula	52.6	6.4	38.9	2.1	100.0	211
Lusaka	36.7	7.8	51.3	4.2	100.0	454
Northern	38.8	4.1	41.6	15.5	100.0	362
North-Western	41.3	2.5	37.3	18.9	100.0	143
Southern	34.2	5.6	54.3	5.9	100.0	248
Western	23.2	8.8	65.9	2.1	100.0	170
Education						
No education	42.6	4.9	45.0	7.5	100.0	234
Primary	42.4	5.1	44.4	8.2	100.0	1,553
Secondary	36.2	7.2	52.2	4.3	100.0	808
More than secondary	49.6	10.5	34.7	5.2	100.0	123
Wealth quintile						
Lowest	39.1	4.3	49.4	7.2	100.0	411
Second	39.9	6.5	44.7	8.9	100.0	475
Middle	42.0	2.6	45.9	9.6	100.0	480
Fourth	42.4	7.1	43.5	7.0	100.0	690
Highest	40.5	7.7	48.9	3.0	100.0	662
Total	40.9	5.9	46.3	6.8	100.0	2,719

Note: Women who experienced forced sexual initiation but not other forms of physical or sexual violence were not asked the questions about seeking help and are, thus, excluded from this table. The total includes women with information missing on number of unions, who are not shown separately.

Table 17.17 presents information on the sources of help by type of violence. A majority of women who have ever experienced any form of violence sought help from a family member (70 percent). Thirty-nine percent of women sought assistance from their in-laws, and 14 percent sought help from a friend or neighbour. The least commonly mentioned sources of help are a doctor or other medical personnel, the woman's husband, partner, or boyfriend, or a social service organization (around 1 percent each).

Table 17.17 Sources from where help was sought

Percentage of women age 15-49 who have ever experienced physical or sexual violence and sought help according to source from which help was sought, by type of violence experienced, Zambia 2007

	Type of violence			
Percentage who sought help from:	Physical only	Sexual only	Both physical and sexual	Total
Own family	69.7	64.5	71.0	69.8
In-laws	40.8	14.4	41.3	38.7
Husband/partner boyfriend	0.5	4.6	0.8	1.0
Friend/ neighbor	9.5	29.7	17.1	13.9
Religious leader	4.5	0.0	6.9	5.0
Doctor/ medical personnel	0.7	1.4	1.0	0.8
Police	5.8	2.2	10.7	7.2
Social service organization	0.3	1.2	2.3	1.1
Other	5.5	6.2	6.4	5.9
Number of women	712	107	441	1,260

ORPHANS AND VULNERABLE CHILDREN 18

Dorothy Simambo Kaemba

One of the outcomes of the AIDS epidemic has been an increased number of children who have been orphaned or whose social and economic vulnerability has increased due to the serious illness of a parent or other adult member of the household. This chapter looks first at the prevalence of orphaned and vulnerable children (OVCs) in Zambia. The chapter next examines the extent to which children who are orphaned and vulnerable are disadvantaged in comparison to other children on several key measures of children's welfare including school attendance. The chapter then reviews information on the care and support given to households in which there are orphaned and vulnerable children.

In reviewing the 2007 ZDHS results, it is important to remember that survey includes only OVCs living in households. Children who are living in institutions or other non-household settings, including children living on the street, are not included in the ZDHS OVC results. Thus, the ZDHS results should be considered as a minimum estimate of the problem of OVCs in Zambia.

In the 2007 ZDHS an orphan is defined as a child below age 18 with one or both parents deceased. A vulnerable child is defined as a child below age 18 who has a chronically ill (sick for 3 or more consecutive months within the last 12 months) parent or who lives in a household where an adult has been chronically ill or has died in the last 12 months preceding the survey.

18.1 ORPHANED AND VULNERABLE CHILDREN

18.1.1 Children's Living Arrangements and Orphanhood

Information was collected in the household questionnaire on the living arrangements and parental survival status of all children under age 18 who reside in the households included in the ZDHS sample. These data are presented in Table 18.1.

Around four in ten Zambian children under age 18 in the households sampled for the ZDHS were not living with both parents. About one in five children were not living with either parent. Fifteen percent of children under age 18 were orphaned; that is, one or both parents were dead.

The percentage of children who are not living with both parents increases with age, from one-quarter of children age 0-4 years to 61 percent of children age 15-17. Observing only children who were orphaned, the percentage rises rapidly with age, from 3 percent of children under age 5 to 30 percent of children age 15-17. Urban children (20 percent) are more likely to be orphaned than rural children (12 percent). North-Western (9 percent) has the lowest proportions of orphaned children, and Copperbelt (20 percent), Lusaka (20 percent), Western (17 percent), and Southern (16 percent) have the highest. The percentage of children with one or both parents dead increases with wealth quintile from 11 percent in the lowest quintile to 20 percent in the highest quintile.

Earlier ZDHS surveys obtained information on orphanhood only for children under age 15. A comparison of the results from the 2001-2002 and 2007 surveys for this age group indicates that there has been a slight decrease in orphanhood. The proportion of children orphaned, i.e., with one or both parents dead, has decreased from 15 to 13 percent between the two surveys. However, the proportion of children who are not living with either parent remains the same (17 percent).

Table 18.1 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 by children's living arrangements and survival status of parents, and the percentage of children not living with a biological parent, according to background characteristics, Zambia 2007

Background characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with either parent					Total	Percentage not living with a biological parent	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead	Information missing on father/ mother			
Age													
0-4	73.5	18.1	1.9	0.6	0.1	4.2	0.6	0.3	0.3	0.3	100.0	5.6	6,341
..<2	76.7	20.0	1.5	0.0	0.0	1.1	0.3	0.0	0.0	0.3	100.0	1.8	2,697
..2-4	71.2	16.7	2.2	1.1	0.3	6.4	0.9	0.5	0.5	0.3	100.0	8.5	3,644
5-9	60.5	12.8	5.2	3.3	1.1	10.2	1.7	2.7	2.1	0.4	100.0	17.1	5,503
10-14	44.9	10.3	8.1	4.3	2.2	15.0	3.2	5.1	6.3	0.4	100.0	30.1	5,240
15-17	38.7	8.3	7.9	3.5	2.3	17.7	3.9	6.8	8.5	2.4	100.0	39.3	2,046
Sex													
Male	58.6	13.0	5.1	3.0	1.2	9.9	1.9	3.1	3.5	0.6	100.0	19.1	9,430
Female	57.8	13.8	5.3	2.5	1.2	10.7	2.0	2.9	3.2	0.6	100.0	19.4	9,700
Residence													
Urban	54.1	11.4	7.4	2.9	2.1	10.8	2.2	3.4	5.0	0.8	100.0	22.1	6,249
Rural	60.2	14.4	4.1	2.7	0.8	10.1	1.9	2.8	2.6	0.4	100.0	17.8	12,881
Province													
Central	58.6	12.7	4.0	3.2	0.9	10.9	3.1	2.9	3.3	0.3	100.0	20.5	1,954
Copperbelt	56.6	11.5	8.4	2.3	1.9	9.2	2.4	2.5	4.4	0.7	100.0	19.3	2,904
Eastern	62.4	13.1	3.4	2.5	0.9	10.1	1.8	2.1	3.3	0.3	100.0	17.7	2,952
Luapula	59.7	14.8	4.1	2.9	0.9	9.9	1.7	3.0	2.7	0.3	100.0	17.6	1,636
Lusaka	55.1	11.1	6.0	2.4	2.5	11.1	1.8	4.0	5.1	1.0	100.0	22.9	2,360
Northern	68.6	9.5	4.8	1.6	0.3	8.3	1.6	2.8	2.1	0.5	100.0	15.2	2,795
North-Western	57.6	15.8	3.3	3.9	0.2	13.3	1.4	2.5	1.3	0.6	100.0	19.1	1,194
Southern	55.4	13.5	5.4	3.0	1.6	11.4	1.9	3.6	3.3	0.9	100.0	21.1	2,042
Western	37.9	27.9	5.8	4.9	1.3	11.6	2.0	4.4	3.4	0.7	100.0	22.1	1,294
Wealth quintile													
Lowest	63.5	13.6	3.8	3.1	1.1	8.1	1.9	2.2	2.4	0.3	100.0	14.8	4,162
Second	59.8	15.9	4.6	2.0	0.1	10.2	2.0	3.0	1.9	0.4	100.0	17.5	4,001
Middle	57.6	14.4	4.5	2.9	0.7	11.2	1.9	3.3	3.0	0.5	100.0	19.9	3,904
Fourth	56.1	12.2	7.5	2.7	1.7	9.6	1.9	2.8	4.7	0.8	100.0	19.8	3,611
Highest	52.9	10.4	5.8	3.0	2.7	12.8	2.3	3.9	5.2	0.9	100.0	25.2	3,453
Total <15	60.6	14.0	4.9	2.6	1.1	9.4	1.8	2.5	2.7	0.3	100.0	16.8	17,085
Total <18	58.2	13.4	5.2	2.7	1.2	10.3	2.0	3.0	3.4	0.6	100.0	19.2	19,130

Note: Table is based only on children who usually live in the household.

18.1.2 Orphaned and Vulnerable Children

Children whose parents are ill for an extended period or who live in households where other adults suffer from chronic illness can experience significant hardships as serious illness may limit the resources available to feed, clothe, and educate a family's youngest members. The ZDHS included several questions to determine if any adults in the household (including the child's parents) had been chronically ill during the 12-month period before the survey. Members of a household were considered to be chronically ill if they had been very sick, i.e., too sick to work or do normal activities, for a period of at least 3 months during the 12-month period before the survey. Questions were included for children whose parents were not living in the same household at the time of the survey to determine if the parent(s) had been chronically ill prior in the 12-month period before the survey.

Table 18.2 presents the proportion of children considered vulnerable because of chronic illness of a parent or other adult during the 12-month period prior to the ZDHS. The table also shows the overall proportion of children identified in the ZDHS as orphaned or vulnerable. Among children age 18 and younger, 3 percent had a parent who was chronically ill during the year prior to the survey, 4 percent live in a household in which at least one adult (a parent or other household member) was chronically ill during the same period, and 2 percent live in a household where at least one adult who had been chronically ill died during the 12 months preceding the survey. Overall, 6 percent of children age 18 or younger are considered to be vulnerable, i.e., they lived in a household in which at least one adult had been chronically ill during the year before the survey or they had at least a parent living in the household or elsewhere who had suffered from a chronic illness.

Table 18.2 Orphans and vulnerable children (OVC)

Percentage of de jure children under age 18 years who are orphans or made vulnerable due to illness among adult household members (OVC), according to background characteristics, Zambia 2007

		Percentage of children who:					
	Orphan children					OVC children	
Background characteristic	Percentage of children with one or both parents dead	Have a very sick parent for at least 3 months in the past 12 months[1]	Live in a household where at least one adult has been very sick for at least 3 months in the past 12 months[2]	Live in a household where at least one adult died in the past 12 months and had been very sick for at least 3 months before he/she died[2]	Have a very sick parent or live in a household where an adult has been very sick or died in the past 12 months (vulnerable children)[2]	Percentage of children who are orphans and/or vulnerable	Number of children
Age							
0-4	3.3	2.3	3.2	1.4	4.8	7.6	6,341
..<2	1.9	1.9	2.6	1.2	3.9	5.7	2,697
..2-4	4.3	2.7	3.6	1.5	5.4	9.0	3,644
5-9	12.9	2.5	3.2	1.8	5.4	16.9	5,503
10-14	25.2	2.8	3.9	2.7	7.0	29.7	5,240
15-17	29.8	2.5	4.7	2.2	7.2	34.4	2,046
Sex							
Male	15.0	2.8	3.8	1.9	6.0	19.4	9,430
Female	14.8	2.2	3.3	2.1	5.6	19.0	9,700
Residence							
Urban	20.2	3.3	5.1	3.0	8.4	26.5	6,249
Rural	12.3	2.2	2.8	1.5	4.6	15.6	12,881
Province							
Central	14.2	2.8	4.4	2.1	6.7	18.9	1,954
Copperbelt	19.9	1.7	2.7	3.8	6.5	24.9	2,904
Eastern	11.6	1.9	2.1	1.4	4.0	14.3	2,952
Luapula	12.4	1.5	2.3	2.0	4.4	15.0	1,636
Lusaka	19.7	5.8	8.4	2.5	11.6	29.0	2,360
Northern	11.7	2.1	2.3	0.9	3.3	14.2	2,795
North-Western	8.9	1.6	1.7	0.7	2.8	11.3	1,194
Southern	16.0	2.8	4.6	2.1	6.9	21.5	2,042
Western	16.9	2.3	3.1	1.3	5.0	19.7	1,294
Wealth quintile							
Lowest	11.4	2.2	3.1	1.4	4.9	15.0	4,162
Second	11.7	2.4	2.5	1.4	4.5	14.7	4,001
Middle	13.5	2.0	2.8	1.7	4.6	17.1	3,904
Fourth	18.9	3.3	4.2	2.1	6.6	23.7	3,611
Highest	20.2	2.9	5.5	3.3	9.2	27.1	3,453
Total <15	13.1	2.5	3.4	1.9	5.7	17.4	17,085
Total <18	14.9	2.5	3.6	2.0	5.8	19.2	19,130

Note: Table is based only on children who usually live in the household. Very sick means person was too sick to work or do normal activities.
[1] Whether or not lives in same household as child
[2] Person age 18-59 years

Table 18.2 also shows that, taken together, almost 1 in 5 children are orphaned or vulnerable. The percentage of children under age 18 who were orphaned or vulnerable increases markedly with age from 6 percent of children under the age 2 years to 34 percent of children age 15-17 years. Urban children (27 percent) were more likely to be orphaned or vulnerable than rural children (16 percent). At the provincial level, North-Western (11 percent) has the lowest proportion of children orphaned and vulnerable and Lusaka (29 percent) the highest. The percentage of children who are orphaned or vulnerable increases with increasing wealth.

18.2 Social and Economic Situation of Orphaned and Vulnerable Children

Information collected in the 2007 ZDHS Household Questionnaire can be used to look at several important aspects of the social and economic situation of orphaned and vulnerable children including information on school attendance, possession of items considered basic for meeting a child's material needs, residence with siblings and nutritional status. These results provide a means for assessing the impact on children's welfare of the chronic illness and/death of parents or other adult household members and of monitoring and evaluation of OVC programmes (UNICEF, 2005).

18.2.1 School Attendance

Orphaned and vulnerable children may be at greater risk of dropping out of school. This can happen for many reasons, such as the inability to pay school fees, the need to help with household labour or to stay at home to care for sick parents or younger siblings. Table 18.3 presents data on school attendance rates among children age 10-14. The first several columns of the table contrast the situation between the two groups, children whose parents are both dead and children whose parents are both alive and the child is living with at least one parent. The final columns compare school attendance for the entire population of orphaned and vulnerable children to that of children who are neither orphaned nor vulnerable.

The results in Table 18.3 indicate that, in general, orphaned and vulnerable children are only very slightly disadvantaged with respect to school attendance in comparison to other children; 88 percent of OVCs currently attend school compared with 91 percent of the other children. Double orphans (i.e., children whose father and mother are dead) are less likely than children whose parents are both alive and who live with at least one parent to be currently in school (86 and 92 percent, respectively).

Table 18.3 School attendance by survivorship of parents and by OVC status

For de jure children 10-14 years of age, the percentage attending school by parental survival and by OVC status, and the ratios of the percentages attending for parental survival and OVC status, according to background characteristics, Zambia 2007

Background characteristic	Percentage attending school by survivorship of parents: Both parents dead	Both parents alive and living with at least one parent: Number	Both parents alive and living with at least one parent: Number	Ratio[1]	OVC: Percentage attending school (OVC)	OVC: Number (OVC)	Not OVC: Percentage attending school (not OVC)	Not OVC: Number (not OVC)	Ratio[2]
Sex									
Male	82.6	170	91.9	1,620	0.90	87.7	795	91.5	1,881	0.96
Female	88.6	162	91.2	1,499	0.97	88.1	761	90.9	1,803	0.97
Residence									
Urban	87.3	145	96.1	1,033	0.91	90.9	690	95.1	1,190	0.96
Rural	84.1	188	89.3	2,087	0.94	85.4	867	89.4	2,493	0.96
Province									
Central	(85.2)	33	95.2	308	0.89	84.7	170	95.7	372	0.89
Copperbelt	(91.9)	64	95.3	461	0.96	88.9	311	95.3	527	0.93
Eastern	73.4	67	86.1	540	0.85	78.3	193	87.1	631	0.90
Luapula	(94.2)	23	88.9	268	1.06	88.0	113	88.6	315	0.99
Lusaka	75.9	59	95.2	387	0.80	89.3	278	94.2	431	0.95
Northern	*	24	90.4	472	1.00	91.3	152	88.3	555	1.03
North-Western	*	8	92.6	184	1.04	91.9	54	93.1	239	0.99
Southern	(93.1)	33	95.2	305	0.98	94.0	181	95.2	371	0.99
Western	(100.0)	23	84.5	194	1.18	85.6	105	83.5	243	1.02
Wealth quintile									
Lowest	84.2	53	85.9	705	0.98	81.6	255	85.8	791	0.95
Second	(92.3)	42	89.3	635	1.03	85.1	249	89.5	766	0.95
Middle	76.9	66	92.2	624	0.83	84.9	300	92.4	763	0.92
Fourth	81.5	83	93.5	580	0.87	89.7	356	91.9	665	0.98
Highest	93.4	88	98.4	576	0.95	94.2	397	97.5	699	0.97
Total	85.5	333	91.6	3,119	0.93	87.9	1,557	91.2	3,684	0.96

Notes: Table is based only on children who usually live in the household. Figures in in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Ratio of the percentage with both parents deceased to the percentage with both parents alive and living with a parent
[2] Ratio of the percentage for OVC to the percentage for non OVC

18.2.2 Basic Material Needs

The 2007 ZDHS obtained information as to whether or not the minimum basic material needs of children age 5-17 were being met. Basic material needs were considered to have been met if the child had a pair of shoes, two sets of clothes, and a blanket. Table 18.4 shows that minimum basic material needs were met for more than half (56 percent) of all children age 5-17. In terms of the basic items, children were least likely to have a pair of shoes (58 percent) and most likely to have at least two sets of clothes (88 percent). Children who are OVCs are slightly less likely than children who are not OVCs to possess the three basic needs (53 percent and 56 percent, respectively).

Table 18.4 also shows that rural orphaned and vulnerable children are half as likely as urban orphaned and vulnerable children to have all three minimum basic material needs met (35 contrasted to 75 percent). However, this pattern is consistent between urban and rural children whether they are OVCs or not. There is also a very marked difference by province in the likelihood that orphaned and vulnerable children's basic needs are met. Orphaned and vulnerable children living in Western province (21 percent) have the lowest proportion with all three basic needs met, and those in Lusaka have the highest proportion (75 percent).

Wealth clearly determines whether or not basic needs are met for all children, including OVCs. Among OVCs, the percentage with all three basic needs met increases from 21 percent among those in the lowest quintile to 88 percent in the highest quintile.

Table 18.4. Possession of basic material needs by orphans and vulnerable children

Among de jure children age 5-17 years, the percentage possessing three minimum basic material needs, the percentages of OVC and non-OVC who possess all three basic material needs, and the ratio of the percentage for OVC to the percentage for non OVC, according to background characteristics, Zambia 2007

Background characteristic	Among children 5-17 years of age percentage possessing: Shoes	Two sets of clothes	Blanket	All three basic needs[1]	Number of children	OVC: Percentage possessing all three basic needs (OVC)[1]	OVC: Number (OVC)	Not OVC: Percentage possessing all three basic needs (not OVC)[1]	Not OVC: Number (not OVC)	Ratio[2]
Age										
5-9	53.6	87.8	87.1	51.6	5,503	45.3	929	52.8	4,575	0.86
10-14	57.4	88.3	87.0	54.7	5,240	52.2	1,557	55.8	3,684	0.94
15-17	70.7	88.0	87.6	68.2	2,046	65.6	703	69.5	1,342	0.94
Sex										
Male	56.8	87.3	86.9	54.1	6,297	51.8	1,579	54.9	4,718	0.94
Female	59.0	88.8	87.4	56.9	6,492	54.5	1,609	57.7	4,883	0.94
Residence										
Urban	84.1	94.5	92.3	81.1	4,453	75.3	1,454	83.8	3,000	0.90
Rural	43.9	84.6	84.4	41.9	8,336	34.6	1,735	43.8	6,601	0.79
Province										
Central	67.3	89.2	92.3	65.8	1,310	55.8	321	69.0	990	0.81
Copperbelt	79.0	94.6	93.6	77.1	2,032	70.0	636	80.3	1,397	0.87
Eastern	43.6	78.8	79.8	41.6	1,955	34.5	375	43.2	1,580	0.80
Luapula	36.6	86.4	84.4	35.0	1,058	28.2	214	36.7	844	0.77
Lusaka	83.4	93.9	89.7	78.2	1,665	75.2	595	79.8	1,070	0.94
Northern	57.1	80.6	80.5	53.2	1,792	44.1	337	55.3	1,455	0.80
North-Western	39.0	81.2	75.5	36.4	766	36.7	114	36.4	653	1.01
Southern	56.7	94.6	93.5	56.2	1,363	52.7	374	57.5	989	0.92
Western	22.8	93.8	93.5	22.6	847	20.8	224	23.2	623	0.89
Wealth quintile										
Lowest	31.2	79.9	82.1	29.0	2,636	21.3	524	30.8	2,112	0.69
Second	37.0	82.3	81.5	35.3	2,576	26.1	508	37.5	2,068	0.70
Middle	51.1	88.6	86.1	49.2	2,543	37.9	575	52.5	1,969	0.72
Fourth	78.1	92.9	91.2	74.7	2,445	66.6	740	78.1	1,705	0.85
Highest	93.3	96.9	95.1	90.9	2,589	87.9	843	92.4	1,746	0.95
Total	57.9	88.0	87.1	55.5	12,789	53.2	3,189	56.3	9,601	0.94

Note: Table is based only on children who usually live in the household.
[1] Shoes, two sets of clothing, and a blanket
[2] Ratio of the percentage for OVC to the percentage for non OVC.

18.2.3 Orphans Living with Siblings

Sibling connections are particularly close in situations where a parent dies, and maintaining these bonds can be particularly helpful in assisting children in dealing with the loss of a parent. Table 18.5 assesses the success of families and communities in keeping orphaned siblings together

Over half (53 percent) of the orphans are not living with all their siblings. The likelihood that an orphan is not living with all their siblings increases with the child's age. Among the provinces, Western (29 percent) has the lowest proportion of orphans living apart from other siblings and Luapula has the highest proportion (63 percent).

Table 18.5 Orphans not living with siblings

Among orphans under age 18 who have one or more siblings under age 18, the percentage who do not live with all their siblings under age 18, by background characteristics, Zambia 2007

Background characteristic	Percentage of orphans not living with all siblings	Number of orphans with one or more siblings
Age		
0-4	46.0	135
5-9	48.6	507
10-14	55.8	902
15-17	56.2	388
Sex		
Male	50.9	940
Female	55.5	993
Orphanhood status		
Maternal orphan	54.0	416
Paternal orphan	49.1	1,139
Both parents dead	65.1	377
Residence		
Urban	52.6	841
Rural	53.8	1,092
Province		
Central	56.1	192
Copperbelt	55.1	406
Eastern	60.3	230
Luapula	63.0	161
Lusaka	50.4	311
Northern	44.7	205
North-Western	50.9	68
Southern	61.6	220
Western	28.8	140
Wealth quintile		
Lowest	44.2	359
Second	53.5	305
Middle	60.0	364
Fourth	51.3	467
Highest	57.2	438
Total	53.3	1,932

Note: Table is based only on children who usually live in the household.

18.2.4 Nutritional Status

Table 18.6 considers the effect of orphanhood and vulnerability on the nutritional status of children age five and younger. Twenty-two percent of orphaned and vulnerable children are underweight compared with 19 percent of other children. Among all under 5 children, those living in Lusaka have the lowest proportion of underweight children (13 percent). However, among OVCs, Southern has the lowest proportion who are underweight (12 percent). Looking just at the status of OVCs, the percentage underweight was greatest in Luapula province (34 percent).

Table 18.6 Underweight orphans and vulnerable children

Percentage of de-jure children under age five years who slept in the household the night before who are underweight, total and by OVC status, according to background characteristics, Zambia 2007

	Children under age 5						
			OVC		Not OVC		
Background characteristic	Percentage of children under five who are underweight[1]	Number of children	Percentage underweight[1]	Number of OVC	Percentage underweight[1]	Number of non OVC	Ratio[2]
Age							
< 1 year	9.2	1,045	24.3	65	8.2	981	2.97
1-2 years	24.6	2,266	33.0	154	24.0	2,111	1.37
3-4 years	18.3	2,153	12.5	191	18.9	1,962	0.66
Sex							
Male	20.7	2,712	23.7	212	20.4	2,500	1.16
Female	17.7	2,753	20.3	198	17.5	2,555	1.16
Residence							
Urban	16.6	1,548	20.7	170	16.1	1,379	1.29
Rural	20.2	3,916	23.0	240	20.0	3,676	1.15
Province							
Central	19.9	525	17.1	37	20.1	488	0.85
Copperbelt	19.6	733	23.3	63	19.2	670	1.21
Eastern	17.1	857	13.5	39	17.2	818	0.78
Luapula	21.8	489	33.5	29	21.1	460	1.59
Lusaka	13.3	609	21.8	84	11.9	525	1.83
Northern	22.0	886	29.7	54	21.5	832	1.38
North-Western	26.1	363	28.8	18	26.0	344	1.11
Southern	16.7	593	12.0	59	17.2	534	0.70
Western	18.6	410	28.5	28	17.9	383	1.60
Wealth quintile							
Lowest	20.5	1,318	27.3	84	20.1	1,234	1.36
Second	21.4	1,227	21.6	71	21.4	1,156	1.01
Middle	20.7	1,181	20.3	83	20.7	1,098	0.98
Fourth	16.4	984	18.9	94	16.1	890	1.17
Highest	14.3	754	22.6	79	13.3	676	1.69
Total	19.2	5,465	22.0	410	18.9	5,055	1.16

Note: Table is based only on children who usually live in the household and who also slept in household the night preceding the interview.

[1] Two or more standard deviations below mean on the WHO Child Growth Standards for weight for age

[2] Ratio of the percentage for OVC to the percentage for non OVC.

18.2.5 Sex before Age 15

Teenage orphans and vulnerable children frequently may be at high risk of early sexual activity because they lack adult guidance to help them protect themselves. Table 18.7 shows that OVCs were somewhat more likely than non-OVC children in the 15-17 age group to have initiated sexual activity before age 15.

Table 18.7 shows that among those in the age group 15-17, male OVCs were more likely than male non-OVCs to have initiated sexual activity before age 15 (21 and 15 percent, respectively). The scenario is opposite for the females, where a smaller proportion of OVC teens (9 percent) had sexual intercourse before the exact age of 15 compared to the non-OVCs (16 percent). The proportions of male and female non-OVCs who initiated sex by age 15 are relatively similar, 16 percent for women and 15 percent for men. However, among the OVCs the difference between women and men is high (9 percent compared with 21 percent).

Table 18.7 Sexual intercourse before age 15 of orphans and vulnerable children

Percentage of de-jure children age 15-17 who had sexual intercourse before exact age 15, total and by OVC status, and ratio of the percentage for OVC to the percentage for non OVC, by sex, Zambia 2007

	Female		Male	
OVC status	Percentage who had sexual intercourse before exact age 15	Number	Percentage who had sexual intercourse before exact age 15	Number
OVC	8.7	332	20.7	299
Non-OVC	15.9	629	15.1	576
Total	13.4	961	17.0	875
Ratio[1]	0.55	0	1.37	0

Note: Table is based only on children who usually live in the household and who also slept in household the night preceding the interview.
na = Not applicable
[1] Ratio of the percentage for OVC to the percentage for non OVC

18.3 CARE AND SUPPORT FOR OVCS

One of the important challenges in countries like Zambia which have greatly increased OVC populations, principally due to the AIDS epidemic, is the need to assist families to care for these children. The 2007 ZDHS asked question to assess the extent to which families and communities recognise and address the need to care for orphaned and vulnerable children.

18.3.1 Succession Planning

Succession planning is important in ensuring that children will receive appropriate care and support in the event of the death of a parent or primary caregiver. Table 18.8 looks at the extent to which women and men who identified themselves as primary caregivers for at least one child under age 18 had identified a guardian for the child(ren) in the event they could not care for their child.

Overall, two-thirds of respondents age 15-49 said that they were a primary caregiver for a child under the age of 18. Table 18.8 shows that, among these primary caregivers, 34 percent made arrangements for care to be provided to a child in the event they were unable to provide care due to illness or death.

Table 18.8 Succession planning

Percentage of de facto women and men age 15-49 who are the primary caregivers of children under age 18 years, and among the primary caregivers, the percentage who have made arrangements for someone else to care for the children in the event of their own inability to do so due to illness or death, by background characteristics, Zambia 2007

Background characteristic	Percentage of women and men who are primary caregivers	Number of women and men 15-49	Percentage of caregivers who have made succession arrangements	Number of primary caregivers
Age				
15-19	12.3	2,990	35.4	368
20-29	69.4	4,776	32.8	3,315
30-39	93.8	3,474	33.2	3,257
40-49	93.1	1,901	35.3	1,769
Sex				
Male	56.2	5,995	37.6	3,369
Female	74.7	7,146	31.0	5,339
Education				
No education	84.1	1,011	23.8	851
Primary	72.3	6,665	31.1	4,822
Secondary	53.2	4,652	37.7	2,476
More than secondary	68.8	812	52.0	559
Residence				
Urban	58.0	5,610	42.0	3,252
Rural	72.4	7,532	28.6	5,457
Province				
Central	68.1	1,218	47.0	830
Copperbelt	58.7	2,403	52.0	1,411
Eastern	72.9	1,766	28.1	1,287
Luapula	74.2	917	26.3	681
Lusaka	59.7	2,243	34.5	1,339
Northern	68.7	1,772	22.9	1,217
North-Western	71.4	668	42.6	477
Southern	66.2	1,348	31.7	892
Western	71.2	807	6.0	575
Wealth quintile				
Lowest	75.8	2,353	25.6	1,785
Second	75.2	2,152	25.8	1,618
Middle	68.7	2,377	32.1	1,634
Fourth	65.3	2,949	38.3	1,926
Highest	52.8	3,310	45.1	1,746
Total	66.3	13,141	33.6	8,708

Note: Table is based only on women and men who slept in household the night preceding the interview.

18.3.2 External Support for Households with OVCs

The 2007 ZDHS collected information on the extent to which free external care and support services are reaching OVC. Table 18.9 first shows the percentage of adults age 18-59 who were chronically ill or died after a chronic illness during the year before the survey whose households had received certain types of free external support during the month prior to the survey (or to the person's death). The table shows that medical support was received for 29 percent of these individuals, 25 percent received emotional support, and 9 percent received social or material support. Forty-two percent received at least one type of support, while 6 percent received all the three types of support, and 58 percent did not receive any medical, emotional, or social or material support. Higher levels of support for sick people are observed in rural areas than urban.

Table 18.9 External support for very sick persons

Percentage of women and men age 18-59 who have been either very sick or who died within the last 12 months after being very sick whose households received certain free basic external support to care for them within the last year, by background characteristics, Zambia 2007

Background characteristic	:Percentage of very sick persons whose households received						Number of persons
	Medical support at least once a month during illness	Emotional support in the last 30 days[1]	Social/ material support in the last 30 days[2]	At least one type of support in the last 30 days	All three types of support in the last 30 days	None of the three types o f support	
Age							
15-19	20.0	28.6	15.9	41.9	0.0	58.1	10
20-29	30.5	20.4	6.3	42.2	3.3	57.8	110
30-39	26.5	24.7	10.3	39.9	5.9	60.1	140
40-49	30.7	26.0	7.3	39.5	6.7	60.5	96
50-59	31.9	28.6	10.0	48.4	7.8	51.6	53
Sex							
Male	25.7	26.2	6.0	39.1	5.1	60.9	186
Female	32.0	23.1	10.9	43.6	5.8	56.4	223
Residence							
Urban	28.0	26.1	6.7	43.5	3.3	56.5	186
Rural	30.1	23.2	10.2	40.0	7.4	60.0	223
Province							
Central	30.6	19.6	8.6	36.8	6.2	63.2	49
Copperbelt	21.2	36.2	2.5	50.0	2.5	50.0	69
Eastern	36.1	29.4	17.5	45.4	15.5	54.6	37
Luapula	24.9	22.2	4.7	30.9	4.7	69.1	28
Lusaka	27.2	17.2	4.7	33.2	1.6	66.8	96
Northern	18.9	41.2	15.4	46.8	7.7	53.2	40
North-Western	38.8	27.3	13.3	49.6	10.8	50.4	11
Southern	25.9	13.3	14.2	33.8	7.5	66.2	50
Western	63.7	19.3	7.6	66.5	3.9	33.5	28
Wealth quintile							
Lowest	29.2	19.9	10.2	35.8	6.3	64.2	67
Second	33.0	30.1	9.3	51.0	5.3	49.0	65
Middle	29.2	19.8	8.5	36.5	6.6	63.5	81
Fourth	37.8	24.1	13.3	47.6	7.6	52.4	100
Highest	17.4	28.3	2.5	37.3	2.1	62.7	96
Total	29.1	24.5	8.6	41.6	5.5	58.4	409

Note: Table is based only on women and men who usually live in the household and who were very sick (unable to work or do normal activities) in the last 12 months or who died in the last 12 months and were very sick at least 3 of the 12 months before death. Support refers to the past 30 days for living persons and in the 30 days preceding death for deceased persons. [1] Support such as companionship, counseling from a trained counselor or spiritual support for which there was no payment

[2] Support such as help with household work, training for a caregiver, legal services, clothing, food or financial support for which there was no payment.

Table 18.10 looks at the extent to which free external care and support was received by households which included at least one OVC member. The table shows that eight in ten children lived in households that did not receive any type of support. Sixteen percent of children received at least one type of support. Among those that did receive some type of support, the household was most likely to have received school-related assistance (8 percent).

Rural OVCs were more likely than urban OVCs to live in households that received some type of support (19 versus 12 percent, respectively). Orphaned and vulnerable children in Lusaka and North-Western (8 percent each) were the least likely to be living in a household receiving external support. Children in Western were the most likely to be in a household which received some type of support (46 percent).

Table 18.10 External support for orphans and vulnerable children

Percentage of orphans and vulnerable children under age 18 years whose household received certain free basic external support to care for the child in the last 12 months, by background characteristics, Zambia 2007

	Percentage of orphans and vulnerable children whose households received:							
Background characteristics	Medical support in past 12 months[1]	Emotional support in past 3 months[2]	Social/ material support in the last 3 months[3]	School-related assistance in the last 12 months[4]	At least one type of support	All of the types of support[5]	None of the types of support	Number of OVC children
Age								
0-4	6.0	4.5	2.2	0.0	10.5	0.0	89.5	482
5-9	6.2	5.6	2.9	8.2	17.1	0.5	82.9	929
10-14	5.8	4.1	3.4	10.2	17.2	0.2	82.8	1,557
15-17	4.4	3.8	2.9	8.7	14.3	0.4	85.7	703
Sex								
Male	5.2	3.4	3.0	7.7	14.4	0.3	85.6	1,832
Female	6.2	5.5	3.1	8.5	17.0	0.3	83.0	1,838
Residence								
Urban	3.5	4.6	2.8	5.9	11.6	0.3	88.4	1,656
Rural	7.5	4.3	3.3	9.8	19.1	0.3	80.9	2,015
Province								
Central	3.2	4.8	2.9	13.6	19.1	0.5	80.9	370
Copperbelt	3.3	5.7	2.1	9.8	15.8	0.1	84.2	723
Eastern	5.1	1.2	4.4	9.0	14.3	0.3	85.7	423
Luapula	6.9	16.3	4.4	7.0	24.8	0.7	75.2	245
Lusaka	2.5	4.5	2.4	2.4	7.6	0.4	92.4	686
Northern	1.3	3.5	0.2	5.9	9.3	0.0	90.7	396
North-Western	2.9	2.9	1.9	3.5	8.3	0.0	91.7	134
Southern	2.4	0.9	3.6	7.3	12.5	0.4	87.5	439
Western	38.2	2.7	8.1	17.2	45.6	0.2	54.4	254
Wealth quintile								
Lowest	10.3	2.3	3.7	11.3	21.8	0.0	78.2	623
Second	9.0	4.3	3.0	10.0	19.9	0.5	80.1	590
Middle	4.7	4.7	3.4	10.1	17.7	0.3	82.3	667
Fourth	4.7	6.7	3.6	8.9	15.9	0.8	84.1	855
Highest	2.1	3.8	1.9	2.5	7.5	0.0	92.5	935
Total	5.7	4.5	3.0	8.1	15.7	0.3	84.3	3,670

Note: Table is based on de jure household members, i.e., usual household members.
na = Not applicable
[1] Medical care, supplies or medicine
[2] Companionship, counseling from a trained counselor, or spiritual support for which there was no payment.
[3] Help with household work, training for a caregiver, legal services, clothing, food, or financial support for which there was no payment.
[4] Allowance, free admission, books, or supplies for which there as no payment. Percentage calculated for ages 5-17 years.
[5] Four types of support for those age 5-17, three types of support (i.e. excluding school support) received by those age 0-4.

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SAMPLE IMPLEMENTATION

APPENDIX A

Table A.1 Sample implementation: Women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall response rates, according to urban-rural residence and region, Zambia 2007

	Residence		Province									
Result	Urban	Rural	Central	Copper-belt	Eastern	Luapula	Lusaka	Northern	North-western	Southern	Western	Total
Selected households												
Completed (C)	92.9	88.2	85.9	92.8	93.3	84.1	95.4	85.4	85.2	88.5	97.9	89.9
Household present but no competent respondent at home (HP)	0.6	0.9	1.7	0.6	0.5	1.3	0.5	0.2	0.4	1.8	0.5	0.8
Refused (R)	1.0	1.0	2.8	0.9	0.3	0.6	1.5	0.9	1.1	1.4	0.1	1.0
Dwelling not found (DNF)	0.3	0.2	0.9	0.1	0.1	0.0	0.1	0.1	0.1	0.6	0.0	0.2
Household absent (HA)	1.1	2.9	2.3	1.8	0.7	4.4	0.7	3.7	4.9	1.6	0.6	2.3
Dwelling vacant/address not a dwelling (DV)	3.3	4.7	4.3	2.8	4.0	7.7	1.5	6.6	5.6	4.3	0.7	4.2
Dwelling destroy (DD)	0.8	2.0	2.1	0.9	1.2	1.9	0.3	3.1	2.7	1.8	0.2	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	2,899	5,070	774	852	1,075	905	873	924	852	866	848	7,969
Household response rate (HRR)[1]	98.0	97.6	94.1	98.3	99.1	97.8	97.9	98.6	98.2	95.9	99.4	97.8
Eligible women												
Completed (EWC)	95.7	97.1	95.7	94.3	98.1	96.0	96.2	97.4	95.5	96.4	98.2	96.5
Not at home (EWNH)	1.7	1.2	1.7	1.6	0.3	2.9	1.1	0.9	1.7	2.1	0.9	1.4
Refused (EWR)	1.9	1.2	2.0	3.4	1.0	0.7	1.8	1.0	2.2	0.8	0.6	1.5
Partly completed (EWPC)	0.2	0.0	0.0	0.3	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.1
Incapacitated (EWI)	0.5	0.5	0.6	0.3	0.5	0.4	0.5	0.6	0.4	0.7	0.3	0.5
Other (EWO)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,320	4,088	702	879	958	733	976	804	717	853	786	7,408
Eligible women response rate (EWRR)[2]	95.7	97.1	95.7	94.3	98.1	96.0	96.2	97.4	95.5	96.4	98.2	96.5
Overall women response rate (OWRR)[3]	93.8	94.8	90.0	92.7	97.2	93.9	94.2	96.0	93.9	92.4	97.6	94.3

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 * EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

[3] The overall response rate (ORR) is calculated as:

$$OWRR = HRR * EWRR/100$$

Table A.2 Sample implementation: Men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men and overall response rates, according to urban-rural residence and region, Zambia 2007

	Residence		Province									
Result	Urban	Rural	Central	Copper-belt	Eastern	Luapula	Lusaka	Northern	North-western	Southern	Western	Total
Selected households												
Completed (C)	92.9	88.2	85.9	92.8	93.3	84.1	95.4	85.4	85.2	88.5	97.9	89.9
Household present but no competent respondent at home (HP)	0.6	0.9	1.7	0.6	0.5	1.3	0.5	0.2	0.4	1.8	0.5	0.8
Refused (R)	1.0	1.0	2.8	0.9	0.3	0.6	1.5	0.9	1.1	1.4	0.1	1.0
Dwelling not found (DNF)	0.3	0.2	0.9	0.1	0.1	0.0	0.1	0.1	0.1	0.6	0.0	0.2
Household absent (HA)	1.1	2.9	2.3	1.8	0.7	4.4	0.7	3.7	4.9	1.6	0.6	2.3
Dwelling vacant/address not a dwelling (DV)	3.3	4.7	4.3	2.8	4.0	7.7	1.5	6.6	5.6	4.3	0.7	4.2
Dwelling destroy (DD)	0.8	2.0	2.1	0.9	1.2	1.9	0.3	3.1	2.7	1.8	0.2	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	2,899	5,070	774	852	1,075	905	873	924	852	866	848	7,969
Household response rate (HRR)[1]	98.0	97.6	94.1	98.3	99.1	97.8	97.9	98.6	98.2	95.9	99.4	97.8
Eligible men												
Completed (EMC)	87.8	93.6	87.7	85.7	95.5	89.0	91.4	91.0	90.1	92.8	95.5	91.0
Not at home (EMNH)	7.7	4.3	7.6	9.0	2.6	8.7	4.5	5.7	6.7	4.9	3.4	5.8
Refused (EMR)	3.5	1.1	2.6	4.5	1.6	1.3	2.9	1.8	2.1	1.3	0.6	2.2
Partly completed (EMPC)	0.2	0.1	0.6	0.0	0.0	0.2	0.0	0.3	0.0	0.1	0.2	0.1
Incapacitated (EMI)	0.8	0.9	1.5	0.6	0.3	0.6	1.1	1.1	1.0	0.8	0.3	0.8
Other (EMO)	0.1	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	3,225	3,921	684	947	897	629	1,052	786	699	834	618	7,146
Eligible men response rate (EMRR)[2]	87.8	93.6	87.7	85.7	95.5	89.0	91.4	91.0	90.1	92.8	95.5	91.0
Overall men response rate (OMRR)[3]	86.1	91.4	82.5	84.3	94.7	87.1	89.5	89.7	88.5	89.0	94.9	88.9

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EMRR) is calculated as:

$$\frac{100 * EMC}{EMC + EMNH + EMP + EMR + EMPC + EMI + EMO}$$

[3] The overall response rate (OMRR) is calculated as:

$$OMRR = HRR * EMRR/100$$

Table A.3 Coverage of HIV testing by social and demographic characteristics: Women

Percent distribution of interviewed women age 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Zambia 2007

	Testing status					
Characteristic	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]	Total	Number
Marital status						
Never married	79.1	19.5	0.1	1.3	100.0	1,941
Ever had sex	80.3	17.8	0.1	1.8	100.0	1,009
Never had sex	77.9	21.2	0.0	0.9	100.0	932
Married/Living together	79.8	19.3	0.0	0.8	100.0	4,316
Divorced or separated	83.7	15.8	0.0	0.5	100.0	577
Widowed	80.4	18.6	0.0	1.0	100.0	312
Type of union						
In polygynous union	81.8	18.2	0.0	0.0	100.0	605
Not in polygynous union	79.6	19.4	0.0	1.0	100.0	3,672
Not currently in union	80.2	18.6	0.0	1.1	100.0	2,830
DK/missing	71.8	28.2	0.0	0.0	100.0	39
Ever had sexual intercourse						
Yes	80.3	18.7	0.0	1.0	100.0	6,210
No	77.9	21.2	0.0	0.9	100.0	932
Missing	50.0	50.0	0.0	0.0	100.0	4
Currently pregnant						
Pregnant	80.4	18.6	0.1	0.9	100.0	770
Not pregnant or not sure	79.9	19.1	0.0	1.0	100.0	6,376
Times slept away from home in past 12 months						
None	78.6	20.3	0.0	1.0	100.0	4,040
1-2	82.7	16.4	0.0	0.8	100.0	2,067
3-4	82.4	16.2	0.2	1.2	100.0	507
5+	79.4	19.4	0.0	1.1	100.0	360
Missing	72.7	27.3	0.0	0.0	100.0	172
Time away in past 12 months						
Away for more than one month	83.6	15.3	0.1	1.0	100.0	1,255
Away only for less than 1 month	81.1	18.0	0.1	0.8	100.0	1,668
Not away	78.4	20.6	0.0	1.0	100.0	4,158
Missing	80.0	20.0	0.0	0.0	100.0	65
Religion						
Catholic	79.5	19.4	0.1	1.0	100.0	1,368
Protestant	80.1	19.0	0.0	1.0	100.0	5,652
Muslim	92.3	7.7	0.0	0.0	100.0	26
Other	78.9	21.1	0.0	0.0	100.0	90
Missing	80.0	20.0	0.0	0.0	100.0	10
Total 15-49	80.0	19.0	0.0	1.0	100.0	7,146

[1] Includes all dried blood spot (DBS) samples tested at the laboratory for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

[2] Includes: 1) other results of blood collection (e.g. technical problems in the field), 2) lost specimens, 3) non-corresponding bar codes, and 4) other laboratory results such as the blood not being tested for technical reason, not enough blood to complete the algorithm, etc.

Table A.4 Coverage of HIV testing by social and demographic characteristics: Men

Percent distribution of interviewed men 15-59 by HIV testing status, according to social and demographic characteristics (unweighted), Zambia 2007

Characteristic	Testing status				Total	Number
	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]		
Marital status						
Never married	78.5	19.5	0.1	1.8	100.0	2,546
Ever had sex	80.9	17.4	0.1	1.6	100.0	1,638
Never had sex	74.2	23.3	0.1	2.3	100.0	908
Married/Living together	79.9	19.4	0.1	0.6	100.0	3,630
Divorced or separated	79.3	19.1	0.0	1.6	100.0	246
Widowed	84.6	15.4	0.0	0.0	100.0	78
Type of union						
In polygynous union	80.6	18.3	0.0	1.1	100.0	284
Not in polygynous union	79.9	19.5	0.1	0.5	100.0	3,346
Not currently in union	78.7	19.4	0.1	1.8	100.0	2,870
Ever had sexual intercourse						
Yes	80.3	18.7	0.1	0.9	100.0	5,587
No	74.2	23.3	0.1	2.3	100.0	908
Missing	20.0	80.0	0.0	0.0	100.0	5
Male circumcision						
Circumcised	77.4	21.3	0.0	1.3	100.0	1,040
Not circumcised	79.9	19.0	0.1	1.1	100.0	5,455
DK/Missing	0.0	100.0	0.0	0.0	100.0	5
Times slept away from home in past 12 months						
None	78.1	20.7	0.1	1.1	100.0	3,570
1-2	81.6	17.3	0.1	1.1	100.0	1,564
3-4	82.5	15.9	0.2	1.5	100.0	611
5+	78.4	20.9	0.1	0.5	100.0	741
Missing	78.6	7.1	0.0	14.3	100.0	14
Time away in past 12 months						
Away for more than one month	80.8	18.0	0.1	1.2	100.0	1,113
Away only for less than 1 month	81.2	17.8	0.1	1.0	100.0	1,789
Not away	78.1	20.7	0.1	1.1	100.0	3,570
Missing	75.0	17.9	0.0	7.1	100.0	28
Religion						
Catholic	80.2	18.5	0.1	1.2	100.0	1,347
Protestant	79.5	19.3	0.1	1.1	100.0	4,932
Muslim	84.6	15.4	0.0	0.0	100.0	26
Other	70.3	28.1	0.0	1.6	100.0	185
Missing	80.0	20.0	0.0	0.0	100.0	10
Total 15-59	79.4	19.4	0.1	1.1	100.0	6,500

[1] Includes all dried blood spot (DBS) samples tested at the laboratory for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

Includes: 1) other results of blood collection (e.g. technical problems in the field), 2) lost specimens, 3) non-corresponding bar codes, and 4) other laboratory results such as the blood not being tested for technical reason, not enough blood to complete the algorithm, etc.

Table A.5 Coverage of HIV testing by sexual behavior characteristics: Women

Percent distribution of interviewed women who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), Zambia 2007

Sexual behavior characteristic	Testing status				Total	Number
	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]		
Age at first sexual intercourse						
<16	82.4	16.8	0.0	0.8	100.0	2,333
16-17	79.9	19.0	0.1	1.0	100.0	1,808
18-19	78.6	19.9	0.1	1.3	100.0	983
20+	77.6	21.3	0.0	1.1	100.0	625
Missing	78.5	20.6	0.0	0.9	100.0	461
Higher-risk intercourse in past 12 months[3]						
Had higher-risk intercourse	81.0	17.6	0.1	1.3	100.0	996
Had sexual intercourse, not higher risk	80.1	19.0	0.0	0.8	100.0	4,326
No sexual intercourse in past 12 months	80.5	18.2	0.0	1.2	100.0	888
Number of sexual partners in past 12 months						
0	80.5	18.2	0.0	1.2	100.0	884
1	80.2	18.9	0.0	0.9	100.0	5,227
2	86.7	13.3	0.0	0.0	100.0	90
3+	80.0	20.0	0.0	0.0	100.0	5
Missing	75.0	25.0	0.0	0.0	100.0	4
Number of higher-risk partners in past 12 months[4]						
0	80.2	18.9	0.0	0.9	100.0	5,214
1	80.8	17.7	0.1	1.4	100.0	932
2	85.0	15.0	0.0	0.0	100.0	60
3+	75.0	25.0	0.0	0.0	100.0	4
Any condom use						
Ever used a condom	82.9	16.2	0.0	0.9	100.0	2,098
Never used a condom	79.0	20.0	0.0	1.0	100.0	4,103
Missing	77.8	22.2	0.0	0.0	100.0	9
Condom use at last sexual intercourse in past 12 months						
Used condom	82.4	16.9	0.0	0.7	100.0	692
Did not use condom	80.0	19.0	0.0	1.0	100.0	4,629
No sexual intercourse in past 12 months	80.5	18.2	0.0	1.2	100.0	888
Missing	0.0	100.0	0.0	0.0	100.0	1
Number of lifetime partners						
1	77.5	21.2	0.0	1.2	100.0	2,753
2	81.5	17.7	0.1	0.8	100.0	1,826
3-4	83.9	15.2	0.0	0.9	100.0	1,293
5-9	83.2	16.5	0.0	0.4	100.0	279
10+	82.1	17.9	0.0	0.0	100.0	39
Missing	80.0	15.0	0.0	5.0	100.0	20
Prior HIV testing						
Ever tested, got result	80.6	18.4	0.1	0.9	100.0	2,525
Ever tested, did not get result	82.2	16.7	0.0	1.1	100.0	270
Never tested	79.9	19.2	0.0	0.9	100.0	3,386
Missing	82.8	10.3	0.0	6.9	100.0	29
Condom use at last higher-risk intercourse in past 12 months[3]						
Used condom	84.9	14.9	0.0	0.3	100.0	383
Did not use condom	78.6	19.2	0.2	2.0	100.0	613
No higher-risk intercourse/no intercourse past 12 months	80.2	18.9	0.0	0.9	100.0	5,214
Total 15-49	80.3	18.7	0.0	1.0	100.0	6,210

[1] Includes all dried blood spot (DBS) samples tested at the laboratory for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

[2] Includes: 1) other results of blood collection (e.g. technical problems in the field), 2) lost specimens, 3) non-corresponding bar codes, and 4) other laboratory results such as the blood not being tested for technical reason, not enough blood to complete the algorithm, etc.

[3] Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent

[4] A partner who neither was a spouse nor who lived with the respondent, among the last three partners in the past 12 months

[5] Refers to those age 15-24 only

Table A.6 Coverage of HIV testing by sexual behavior characteristics: Men

Percent distribution of interviewed men who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), Zambia 2007

Sexual behaviour characteristic	Testing status: DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]	Total	Number
Age at first sexual intercourse						
<16	81.9	16.9	0.1	1.1	100.0	2,016
16-17	79.6	19.5	0.0	0.9	100.0	1,233
18-19	81.0	18.2	0.1	0.7	100.0	1,088
20+	78.1	20.9	0.2	0.8	100.0	1,182
Missing	72.1	27.9	0.0	0.0	100.0	68
Higher-risk intercourse in past 12 months[3]						
Had higher-risk intercourse	82.7	15.6	0.2	1.6	100.0	1,802
Had sexual intercourse, not higher risk	79.0	20.4	0.0	0.5	100.0	3,093
No sexual intercourse in past 12 months	79.6	19.1	0.1	1.2	100.0	692
Number of sexual partners in past 12 months						
0	79.9	18.8	0.1	1.2	100.0	687
1	79.4	19.7	0.1	0.8	100.0	3,920
2	84.2	14.7	0.2	0.9	100.0	812
3+	85.1	13.0	0.0	1.9	100.0	154
Missing	71.4	28.6	0.0	0.0	100.0	14
Number of higher-risk partners in past 12 months[4]						
0	79.2	20.2	0.1	0.6	100.0	3,785
1	81.9	16.4	0.2	1.4	100.0	1,334
2	85.0	13.0	0.0	2.0	100.0	347
3+	84.3	14.0	0.0	1.7	100.0	121
Any condom use						
Ever used a condom	81.7	17.2	0.1	0.9	100.0	3,277
Never used a condom	78.2	20.8	0.1	0.9	100.0	2,298
Missing	83.3	16.7	0.0	0.0	100.0	12
Condom use at last sexual intercourse in past 12 months						
Used condom	80.9	17.7	0.2	1.2	100.0	1,110
Did not use condom	80.2	18.9	0.1	0.8	100.0	3,784
No sexual intercourse in past 12 months	79.6	19.1	0.1	1.2	100.0	692
Missing	100.0	0.0	0.0	0.0	100.0	1
Paid for sexual intercourse in past 12 months[5]						
Yes	85.0	12.1	0.0	2.9	100.0	314
Used condom	84.1	14.2	0.0	1.7	100.0	176
Did not use condom	86.2	9.4	0.0	4.3	100.0	138
No (no paid sexual intercourse/no sexual intercourse in past 12 months)	80.0	19.1	0.1	0.8	100.0	5,273
Number of lifetime partners						
1	74.7	23.8	0.2	1.2	100.0	815
2	77.4	21.7	0.0	0.9	100.0	920
3-4	81.4	17.7	0.0	0.9	100.0	1,498
5-9	83.3	16.0	0.1	0.6	100.0	1,335
10+	83.7	15.0	0.1	1.1	100.0	872
Missing	70.7	28.6	0.0	0.7	100.0	147
Prior HIV testing status						
Ever tested, got result	80.4	18.7	0.2	0.7	100.0	1,287
Ever tested, did not get result	83.0	15.0	0.0	2.0	100.0	147
Never tested	80.2	18.8	0.1	0.9	100.0	4,137
Missing	68.8	31.3	0.0	0.0	100.0	16
Condom use at last higher-risk intercourse in past 12 months[4]						
Used condom	81.0	17.5	0.2	1.3	100.0	911
Did not use condom	84.4	13.7	0.1	1.8	100.0	891
No higher-risk intercourse/no intercourse past 12 months	79.2	20.2	0.1	0.6	100.0	3,785
Total 15-59	80.3	18.7	0.1	0.9	100.0	5,587

[1] Includes all dried blood spot (DBS) samples tested at the laboratory for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g. technical problems in the field), 2) lost specimens, 3) non-corresponding bar codes, and 4) other laboratory results such as the blood not being tested for technical reason, not enough blood to complete the algorithm, etc.
[3] Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent
[4] A partner who neither was a spouse nor who lived with the respondent, among the last three partners in the past months
[5] Includes men who report having a prostitute for at least one of their last three sexual partners in the past 12 months
[6] Refers to those age 15-24 only

ESTIMATES OF SAMPLING ERRORS

Appendix B

The estimates from a sample survey are affected by two types of errors: nonsampling errors and sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the Zambia Demographic and Health Survey 2007 (ZDHS 2007) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the ZDHS 2007 is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the ZDHS 2007 sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the ZDHS 2007 is a Macro SAS procedure. This procedure used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

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

in which

$$z_{hi} = y_{hi} - rx_{hi}\text{, and } z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of clusters selected in the h^{th} stratum,
y_{hi} is the sum of the weighted values of variable y in the i^{th} cluster in the h^{th} stratum,
x_{hi} is the sum of the weighted number of cases in the i^{th} cluster in the h^{th} stratum, and

f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the ZDHS 2007, there were 319 non-empty clusters. Hence, 319 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 319 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 318 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, the design effect (DEFT) for each estimate is calculated, 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. The relative standard error and confidence limits for the estimates are also calculated.

Sampling errors for the ZDHS 2007 are calculated for selected variables considered to be of primary interest for the women's survey and for the men's surveys, respectively. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for each of the 9 provinces. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.13 present the value of the statistic (R), its standard error (SE), the number of unweighted (N-UNWE) and weighted (N-WEIG) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to child-bearing.

The confidence interval, e.g., as calculated for *children ever born*, can be interpreted as follows: the overall average from the national sample is 3.032 and its standard error is 0.045. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 3.032±2×0.045. There is a high probability (95 percent) that the *true* average number of children ever born is between 2.943 and 3.122.

For the total sample, the value of the DEFT, averaged over all variables for women, is 1.4. This means that, due to multi-stage clustering of the sample, the average standard error for all the women indicators is increased by a factor of 1.4 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Zambia DHS 2007

Variable	Estimate	Base population
	WOMEN	
Urban residence	Proportion	All women
Literate	Proportion	All women
No education	Proportion	All women
Secondary education or higher	Proportion	All women
Net attendance ratio	Ratio	Children 7-13 years
Never married	Proportion	All women
Currently married	Proportion	All women
Married before age 20	Proportion	All women age 25-49
Currently pregnant	Proportion	All women
Children ever born	Mean	All women
Children surviving	Mean	All women
Children ever born to women age 40-49	Mean	All women age 40-49
Knows any contraceptive method	Proportion	Currently married women
Ever used any contraceptive method	Proportion	Currently married women
Currently using any contraceptive method	Proportion	Currently married women
Currently using pill	Proportion	Currently married women
Currently using IUD	Proportion	Currently married women
Currently using female sterilization	Proportion	Currently married women
Currently using periodic abstinence	Proportion	Currently married women
Using public sector source	Proportion	Current users of modern method
Want no more children	Proportion	Currently married women
Want to delay birth at least 2 years	Proportion	Currently married women
Ideal family size	Mean	All women
Mother completely protected against tetanus	Proportion	Women with at least one live birth in past five years
Mother received medical assistance at delivery	Proportion	Births in past 5 years
Had diarrhea in the 2 weeks before survey	Proportion	Children age 0 to 59 months
Treated with oral rehydration salts (ORS)	Proportion	Children with diarrhea in two weeks before interview
Taken to a health provider	Proportion	Children with diarrhea in two weeks before interview
Vaccination card seen	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received DPT/DHH vaccination (3 doses)	Proportion	Children 12-23 months
Received polio vaccination (3 doses)	Proportion	Children 12-23 months
Received measles vaccination	Proportion	Children 12-23 months
Received all vaccinations[1]	Proportion	Children 12-23 months
Height-for-age (-2 SD)	Proportion	Children 0-59 months
Weight-for-height (-2 SD)	Proportion	Children 0-59 months
Weight-for-age (-2 SD)	Proportion	Children 0-59 months
BMI <18.5	Proportion	All women
Total fertility rate (3 years)	Rate	Women year of exposure to pregnancy
Neonatal mortality[2]	Rate	Children exposed to the risk of mortality
Post-neonatal mortality[2]	Rate	Children exposed to the risk of mortality
Infant mortality[2]	Rate	Children exposed to the risk of mortality
Child mortality[2]	Rate	Children exposed to the risk of mortality
Under-five mortality[2]	Rate	Children exposed to the risk of mortality
HIV positive	Proportion	All women 15-49 tested
Syphilis positive[3]	Proportion	All women 15-49 tested
Maternal mortality ratio (past 0-6 years)[4]	Ratio	Live births in past 7 years
	MEN	
Urban residence	Proportion	All men age 15-49
No education	Proportion	All men age 15-49
Secondary education or higher	Proportion	All men age 15-49
Never married	Proportion	All men age 15-49
Currently married	Proportion	All men age 15-49
Knows any contraceptive method	Proportion	Currently married men 15-49
Knows any modern method	Proportion	Currently married men 15-49
Ever used any contraceptive method	Proportion	Currently married men 15-49
Want no more children	Proportion	Currently married men 15-49
Want to delay birth at least 2 years	Proportion	Currently married men 15-49
Ideal family size	Mean	All men age 15-49
HIV positive (15-49)	Proportion	All men 15-49 tested
HIV positive (15-59)	Proportion	All men 15-59 tested
Syphilis positive (15-49)	Proportion	All men 15-49 tested
Syphilis positive (15-59)	Proportion	All men 15-59 tested
	WOMEN AND MEN	
HIV positive	Proportion	All men and women 15-49 tested
Syphilis positive	Proportion	All men and women 15-49 tested

[1] Received BCG, 3 doses of DPT or 3 doses of DPT/HB/HIB, 3 doses of polio and measles
[2] Last 0-4 years for national sample, last 0-9 years for regional samples
[3] Only calculated for national, urban, and rural samples due to small number of valid test cases
[4] Only calculated for national sample

Table B.2 Sampling errors for national sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.421	0.012	7146	7146	2.021	0.028	0.397	0.445
Literacy	0.637	0.011	7146	7146	1.983	0.018	0.614	0.659
No education	0.104	0.006	7146	7146	1.786	0.062	0.091	0.117
With secondary education or higher	0.351	0.013	7146	7146	2.342	0.038	0.325	0.378
Net attendance ratio (primary)	0.800	0.008	7359	7361	1.476	0.009	0.785	0.815
Never married (in union)	0.260	0.008	7146	7146	1.627	0.032	0.243	0.277
Currently married (in union)	0.616	0.009	7146	7146	1.486	0.014	0.599	0.633
Married before age 20	0.682	0.013	4143	4202	1.731	0.018	0.657	0.708
Currently pregnant	0.107	0.004	7146	7146	1.156	0.040	0.098	0.115
Children ever born	3.032	0.045	7146	7146	1.347	0.015	2.943	3.122
Children surviving	2.577	0.036	7146	7146	1.277	0.014	2.504	2.650
Children ever born to women over 40	6.474	0.128	995	1036	1.356	0.020	6.218	6.729
Knowing any contraceptive method	0.988	0.002	4316	4402	1.212	0.002	0.985	0.992
Ever used any contraceptive method	0.772	0.009	4316	4402	1.404	0.012	0.754	0.790
Currently using any method	0.408	0.009	4316	4402	1.261	0.023	0.389	0.426
Currently using a modern method	0.327	0.008	4316	4402	1.184	0.026	0.310	0.344
Currently using pill	0.110	0.005	4316	4402	1.155	0.050	0.099	0.121
Currently using IUD	0.001	0.000	4316	4402	1.064	0.536	0.000	0.002
Currently using female sterilization	0.019	0.003	4316	4402	1.492	0.165	0.012	0.025
Currently using periodic abstinence	0.012	0.002	4316	4402	1.114	0.154	0.008	0.016
Using public sector source	0.680	0.016	1538	1460	1.379	0.024	0.647	0.713
Want no more children	0.359	0.009	4316	4402	1.205	0.024	0.342	0.377
Want to delay at least 2 years	0.386	0.009	4316	4402	1.160	0.022	0.369	0.403
Ideal number of children	4.640	0.040	6711	6690	1.575	0.009	4.560	4.720
Mothers completely protected against tetanus	0.813	0.009	4148	4136	1.512	0.011	0.795	0.832
Mothers received medical assistance at delivery	0.465	0.013	6401	6435	1.767	0.029	0.438	0.491
Had diarrhea in the last 2 weeks	0.155	0.007	5844	5861	1.321	0.042	0.142	0.169
Treated with sugar-salt-water solution	0.599	0.022	909	911	1.253	0.036	0.556	0.643
Sought medical treatment	0.588	0.022	909	911	1.228	0.037	0.545	0.631
Having health card, seen	0.779	0.014	1266	1272	1.183	0.018	0.752	0.807
Received BCG vaccination	0.923	0.009	1266	1272	1.215	0.010	0.904	0.941
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.797	0.016	1266	1272	1.395	0.020	0.765	0.829
Received polio vaccination (3 doses)	0.770	0.016	1266	1272	1.307	0.020	0.739	0.801
Received measles vaccination	0.849	0.013	1266	1272	1.319	0.016	0.822	0.876
Received all vaccinations	0.676	0.018	1266	1272	1.321	0.026	0.641	0.711
Height-for-age (below -2SD)	0.454	0.010	5600	5602	1.394	0.022	0.434	0.473
Weight-for-height (below -2SD)	0.052	0.003	5600	5602	1.084	0.064	0.045	0.059
Weight-for-age (below -2SD)	0.146	0.006	5600	5602	1.213	0.042	0.134	0.158
BMI < 18.5	0.096	0.005	6096	6085	1.256	0.049	0.086	0.105
Total fertility rate (last 3 years)	6.169	0.164	na	19814	1.493	0.027	5.841	6.498
Neonatal mortality (last 0-4 years)	34.371	2.725	6399	6432	1.062	0.079	28.920	39.821
Post-neonatal mortality (last 0-4 years)	36.048	2.795	6392	6428	1.158	0.078	30.459	41.637
Infant mortality (last 0-4 years)	70.419	3.553	6413	6448	1.007	0.050	63.312	77.525
Child mortality (last 0-4 years)	51.981	3.550	6067	6106	1.121	0.068	44.882	59.080
Under-five mortality (last 0-4 years)	118.739	4.850	6508	6544	1.065	0.041	109.038	128.440
HIV prevalence (women 15-49)	0.161	0.007	5715	5502	1.466	0.044	0.147	0.175
Syphilis prevalence (women 15-49)	0.037	0.007	1268	1208	1.313	0.188	0.023	0.051
Maternal mortality ratio (last 0-6 years)	591	71	na	na	1.185	0.119	450	732
MEN								
Urban residence	0.434	0.013	6005	5995	2.094	0.031	0.407	0.461
No education	0.045	0.004	6005	5995	1.510	0.090	0.037	0.053
With secondary education or higher	0.493	0.013	6005	5995	2.081	0.027	0.466	0.519
Never married (in union)	0.426	0.009	6005	5995	1.408	0.021	0.408	0.444
Currently married (in union)	0.528	0.009	6005	5995	1.396	0.017	0.510	0.546
Knowing any contraceptive method	0.998	0.001	3186	3168	1.095	0.001	0.996	1.000
Knowing any modern contraceptive method	0.998	0.001	3186	3168	1.069	0.001	0.996	1.000
Ever used any contraceptive method	0.818	0.009	3186	3168	1.243	0.010	0.801	0.835
Want no more children	0.263	0.010	3186	3168	1.275	0.038	0.243	0.283
Want to delay at least 2 years	0.485	0.011	3186	3168	1.274	0.023	0.462	0.508
Ideal number of children	4.892	0.054	5768	5782	1.533	0.011	4.785	5.000
HIV prevalence (men 15-49)	0.123	0.006	4755	4942	1.316	0.051	0.110	0.135
HIV prevalence (men 15-59)	0.123	0.006	5161	5374	1.301	0.048	0.111	0.135
Syphilis prevalence (men 15-49)	0.047	0.009	1042	1090	1.314	0.184	0.030	0.064
Syphilis prevalence (men 15-59)	0.047	0.008	1146	1206	1.324	0.177	0.030	0.063
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.143	0.006	10470	10444	1.673	0.040	0.131	0.154
Syphilis prevalence (men and women 15-49)	0.042	0.006	2310	2298	1.467	0.146	0.030	0.054

na = Not applicable

Table B.3 Sampling errors for urban sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Literacy	0.813	0.017	3178	3009	2.501	0.021	0.779	0.848
No education	0.032	0.005	3178	3009	1.450	0.141	0.023	0.041
With secondary education or higher	0.597	0.026	3178	3009	2.956	0.043	0.545	0.648
Net attendance ratio (primary)	0.871	0.008	2697	2478	1.200	0.010	0.854	0.888
Never married (in union)	0.351	0.016	3178	3009	1.877	0.045	0.320	0.383
Currently married (in union)	0.512	0.014	3178	3009	1.554	0.027	0.484	0.539
Married before age 20	0.585	0.026	1704	1657	2.215	0.045	0.532	0.638
Currently pregnant	0.078	0.005	3178	3009	1.153	0.071	0.067	0.089
Children ever born	2.355	0.072	3178	3009	1.578	0.031	2.210	2.499
Children surviving	2.024	0.059	3178	3009	1.488	0.029	1.906	2.142
Children ever born to women over 40	6.001	0.220	398	403	1.531	0.037	5.562	6.440
Knowing any contraceptive method	0.998	0.001	1610	1540	0.774	0.001	0.996	0.999
Ever used any contraceptive method	0.854	0.013	1610	1540	1.470	0.015	0.828	0.880
Currently using any method	0.484	0.016	1610	1540	1.310	0.034	0.451	0.516
Currently using a modern method	0.420	0.017	1610	1540	1.408	0.041	0.386	0.455
Currently using pill	0.182	0.011	1610	1540	1.160	0.061	0.160	0.205
Currently using IUD	0.001	0.001	1610	1540	1.175	0.828	0.000	0.003
Currently using female sterilization	0.034	0.008	1610	1540	1.744	0.234	0.018	0.049
Currently using periodic abstinence	0.015	0.003	1610	1540	1.151	0.233	0.008	0.022
Using public sector source	0.593	0.024	849	774	1.399	0.040	0.545	0.640
Want no more children	0.425	0.015	1610	1540	1.208	0.035	0.395	0.455
Want to delay at least 2 years	0.308	0.014	1610	1540	1.208	0.045	0.280	0.336
Ideal number of children	3.948	0.061	3071	2924	1.856	0.016	3.825	4.070
Mothers completely protected against tetanus	0.802	0.019	1484	1347	1.764	0.023	0.764	0.839
Mothers received medical assistance at delivery	0.830	0.017	2073	1883	1.759	0.020	0.796	0.864
Had diarrhea in the last 2 weeks	0.172	0.013	1873	1697	1.349	0.073	0.147	0.197
Treated with sugar-salt-water solution	0.593	0.041	324	291	1.384	0.069	0.511	0.674
Sought medical treatment	0.564	0.037	324	291	1.224	0.065	0.491	0.638
Having health card, seen	0.785	0.024	392	347	1.090	0.030	0.737	0.832
Received BCG vaccination	0.947	0.014	392	347	1.156	0.014	0.920	0.974
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.894	0.017	392	347	1.086	0.020	0.859	0.928
Received polio vaccination (3 doses)	0.809	0.022	392	347	1.053	0.027	0.766	0.852
Received measles vaccination	0.885	0.022	392	347	1.295	0.025	0.840	0.929
Received all vaccinations	0.712	0.023	392	347	0.967	0.033	0.665	0.758
Height-for-age (below -2SD)	0.390	0.020	1786	1598	1.649	0.052	0.349	0.431
Weight-for-height (below -2SD)	0.044	0.006	1786	1598	1.104	0.127	0.033	0.055
Weight-for-age (below -2SD)	0.128	0.012	1786	1598	1.335	0.090	0.105	0.152
BMI < 18.5	0.075	0.007	2823	2673	1.424	0.094	0.061	0.089
Total fertility rate (last 3 years)	4.272	0.173	na	8250	1.711	0.041	3.926	4.619
Neonatal mortality (last 0-9 years)	34.016	3.939	3839	3501	1.145	0.116	26.137	41.894
Post-neonatal mortality (last 0-9 years)	46.415	3.774	3849	3511	1.072	0.081	38.867	53.963
Infant mortality (last 0-9 years)	80.431	4.752	3845	3505	0.975	0.059	70.928	89.934
Child mortality (last 0-9 years)	56.301	6.262	3743	3431	1.356	0.111	43.778	68.825
Under-five mortality (last 0-9 years)	132.204	7.717	3873	3536	1.225	0.058	116.770	147.639
HIV prevalence (women 15-49)	0.231	0.014	2537	2317	1.640	0.059	0.204	0.259
Syphilis prevalence (women 15-49)	0.034	0.012	562	518	1.575	0.353	0.010	0.059
MEN								
No education	0.015	0.003	2631	2601	1.455	0.234	0.008	0.021
With secondary education or higher	0.717	0.023	2631	2601	2.578	0.032	0.672	0.763
Never married (in union)	0.525	0.015	2631	2601	1.493	0.028	0.496	0.554
Currently married (in union)	0.420	0.013	2631	2601	1.340	0.031	0.394	0.446
Knowing any contraceptive method	0.999	0.001	1149	1093	1.269	0.001	0.996	1.001
Knowing any modern contraceptive method	0.999	0.001	1149	1093	1.269	0.001	0.996	1.001
Ever used any contraceptive method	0.872	0.011	1149	1093	1.101	0.012	0.850	0.893
Want no more children	0.346	0.018	1149	1093	1.276	0.052	0.310	0.382
Want to delay at least 2 years	0.387	0.018	1149	1093	1.248	0.046	0.351	0.422
Ideal number of children	3.987	0.057	2567	2556	1.596	0.014	3.873	4.101
HIV prevalence (men 15-49)	0.159	0.011	2030	2148	1.377	0.070	0.137	0.182
HIV prevalence (men 15-59)	0.159	0.010	2188	2322	1.339	0.066	0.138	0.180
Syphilis prevalence (men 15-49)	0.050	0.015	429	468	1.396	0.295	0.021	0.079
Syphilis prevalence (men 15-59)	0.049	0.014	472	524	1.403	0.285	0.021	0.077
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.197	0.011	4567	4464	1.832	0.055	0.175	0.218
Syphilis prevalence (men and women 15-49)	0.042	0.010	991.000	986.000	1.577	0.240	0.022	0.062

na = Not applicable

Table B,4 Sampling errors for rural sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Literacy	0.508	0.013	3968	4137	1.623	0.025	0.482	0.534
No education	0.156	0.010	3968	4137	1.816	0.067	0.135	0.177
With secondary education or higher	0.173	0.010	3968	4137	1.681	0.058	0.153	0.193
Net attendance ratio (primary)	0.764	0.010	4662	4883	1.532	0.014	0.743	0.785
Never married (in union)	0.193	0.008	3968	4137	1.324	0.043	0.176	0.210
Currently married (in union)	0.692	0.010	3968	4137	1.378	0.015	0.672	0.712
Married before age 20	0.746	0.011	2439	2545	1.236	0.015	0.724	0.768
Currently pregnant	0.128	0.006	3968	4137	1.117	0.046	0.116	0.140
Children ever born	3.525	0.052	3968	4137	1.134	0.015	3.422	3.629
Children surviving	2.978	0.042	3968	4137	1.086	0.014	2.893	3.063
Children ever born to women over 40	6.775	0.155	597	633	1.262	0.023	6.464	7.085
Knowing any contraceptive method	0.984	0.003	2706	2863	1.216	0.003	0.978	0.990
Ever used any contraceptive method	0.728	0.012	2706	2863	1.424	0.017	0.704	0.752
Currently using any method	0.367	0.012	2706	2863	1.270	0.032	0.343	0.390
Currently using a modern method	0.276	0.009	2706	2863	1.101	0.034	0.257	0.295
Currently using pill	0.070	0.006	2706	2863	1.200	0.084	0.059	0.082
Currently using IUD	0.001	0.001	2706	2863	0.976	0.693	0.000	0.002
Currently using female sterilization	0.010	0.002	2706	2863	1.099	0.205	0.006	0.015
Currently using periodic abstinence	0.010	0.002	2706	2863	1.086	0.204	0.006	0.015
Using public sector source	0.779	0.022	689	686	1.361	0.028	0.736	0.822
Want no more children	0.324	0.011	2706	2863	1.204	0.033	0.303	0.346
Want to delay at least 2 years	0.428	0.011	2706	2863	1.122	0.025	0.407	0.449
Ideal number of children	5.178	0.046	3640	3767	1.302	0.009	5.086	5.269
Mothers completely protected against tetanus	0.819	0.010	2664	2789	1.366	0.012	0.799	0.839
Mothers received medical assistance at delivery	0.313	0.015	4328	4553	1.757	0.047	0.284	0.343
Had diarrhea in the last 2 weeks	0.149	0.008	3971	4164	1.298	0.052	0.133	0.164
Treated with sugar-salt-water solution	0.602	0.026	585	619	1.188	0.043	0.551	0.654
Sought medical treatment	0.599	0.027	585	619	1.226	0.044	0.546	0.652
Having health card, seen	0.778	0.017	874	925	1.203	0.022	0.743	0.812
Received BCG vaccination	0.914	0.012	874	925	1.209	0.013	0.891	0.937
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.761	0.021	874	925	1.412	0.027	0.720	0.802
Received polio vaccination (3 doses)	0.756	0.020	874	925	1.356	0.026	0.716	0.795
Received measles vaccination	0.836	0.016	874	925	1.303	0.020	0.803	0.868
Received all vaccinations	0.662	0.023	874	925	1.400	0.034	0.617	0.707
Height-for-age (below -2SD)	0.479	0.011	3814	4004	1.288	0.023	0.458	0.501
Weight-for-height (below -2SD)	0.055	0.004	3814	4004	1.067	0.074	0.047	0.063
Weight-for-age (below -2SD)	0.153	0.007	3814	4004	1.160	0.047	0.139	0.167
BMI < 18.5	0.112	0.006	3273	3411	1.148	0.057	0.099	0.124
Total fertility rate (last 3 years)	7.475	0.150	na	11564	1.267	0.020	7.175	7.775
Neonatal mortality (last 0-9 years)	37.372	2.411	7928	8330	0.957	0.065	32.551	42.193
Post-neonatal mortality (last 0-9 years)	44.664	2.948	7925	8318	1.117	0.066	38.768	50.560
Infant mortality (last 0-9 years)	82.036	3.502	7948	8347	0.983	0.043	75.033	89.039
Child mortality (last 0-9 years)	61.918	3.990	7648	8031	1.202	0.064	53.938	69.897
Under-five mortality (last 0-9 years)	138.874	5.269	8036	8447	1.134	0.038	128.336	149.412
HIV prevalence (women 15-49)	0.110	0.007	3178	3185	1.326	0.067	0.095	0.124
Syphilis prevalence (women 15-49)	0.039	0.008	706	690	1.106	0.206	0.023	0.056
MEN								
No education	0.068	0.007	3374	3395	1.532	0.098	0.054	0.081
With secondary education or higher	0.320	0.013	3374	3395	1.587	0.040	0.295	0.346
Never married (in union)	0.350	0.010	3374	3395	1.264	0.030	0.329	0.371
Currently married (in union)	0.611	0.011	3374	3395	1.319	0.018	0.589	0.633
Knowing any contraceptive method	0.998	0.001	2037	2075	1.032	0.001	0.995	1.000
Knowing any modern contraceptive method	0.997	0.001	2037	2075	1.006	0.001	0.995	1.000
Ever used any contraceptive method	0.790	0.012	2037	2075	1.283	0.015	0.766	0.813
Want no more children	0.219	0.012	2037	2075	1.263	0.053	0.196	0.242
Want to delay at least 2 years	0.537	0.014	2037	2075	1.249	0.026	0.509	0.564
Ideal number of children	5.610	0.077	3201	3226	1.471	0.014	5.455	5.764
HIV prevalence (men 15-49)	0.094	0.007	2725	2795	1.214	0.072	0.081	0.108
HIV prevalence (men 15-59)	0.095	0.007	2973	3053	1.238	0.070	0.082	0.109
Syphilis prevalence (men 15-49)	0.045	0.010	613	622	1.240	0.232	0.024	0.065
Syphilis prevalence (men 15-59)	0.045	0.010	674	682	1.250	0.221	0.025	0.065
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.103	0.006	5903	5980	1.490	0.057	0.091	0.114
Syphilis prevalence (men and women 15-49)	0.042	0.008	1319	1312	1.378	0.182	0.027	0.057

na = Not applicable

Table B.5 Sampling errors for Central sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Literacy	0.690	0.031	672	659	1.762	0.046	0.627	0.753
No education	0.077	0.016	672	659	1.549	0.207	0.045	0.109
With secondary education or higher	0.349	0.039	672	659	2.097	0.111	0.272	0.427
Net attendance ratio (primary)	0.830	0.014	745	749	0.873	0.016	0.803	0.857
Never married (in union)	0.225	0.026	672	659	1.611	0.116	0.173	0.277
Currently married (in union)	0.665	0.025	672	659	1.368	0.037	0.616	0.715
Married before age 20	0.721	0.025	386	384	1.103	0.035	0.670	0.771
Currently pregnant	0.098	0.013	672	659	1.146	0.134	0.072	0.125
Children ever born	3.176	0.146	672	659	1.305	0.046	2.883	3.468
Children surviving	2.777	0.123	672	659	1.277	0.044	2.532	3.023
Children ever born to women over 40	6.926	0.356	90	91	1.093	0.051	6.214	7.637
Knowing any contraceptive method	0.993	0.004	427	438	0.980	0.004	0.985	1.001
Ever used any contraceptive method	0.634	0.039	427	438	1.681	0.062	0.555	0.713
Currently using any method	0.328	0.031	427	438	1.372	0.095	0.265	0.390
Currently using a modern method	0.272	0.030	427	438	1.384	0.110	0.212	0.331
Currently using pill	0.114	0.018	427	438	1.143	0.155	0.078	0.149
Currently using IUD	0.000	0.000	427	438	na	na	0.000	0.000
Currently using female sterilization	0.004	0.003	427	438	0.997	0.736	0.000	0.011
Currently using periodic abstinence	0.017	0.007	427	438	1.109	0.407	0.003	0.031
Using public sector source	0.613	0.044	134	131	1.032	0.071	0.526	0.700
Want no more children	0.367	0.027	427	438	1.145	0.073	0.314	0.421
Want to delay at least 2 years	0.373	0.023	427	438	0.992	0.062	0.326	0.419
Ideal number of children	4.523	0.106	581	568	1.352	0.023	4.311	4.735
Mothers completely protected against tetanus	0.814	0.028	397	405	1.439	0.034	0.757	0.870
Mothers received medical assistance at delivery	0.335	0.032	610	632	1.449	0.094	0.272	0.398
Had diarrhea in the last 2 weeks	0.189	0.019	563	584	1.146	0.102	0.151	0.228
Treated with sugar-salt-water solution	0.576	0.075	106	111	1.519	0.130	0.426	0.726
Sought medical treatment	0.593	0.084	106	111	1.700	0.141	0.426	0.761
Having health card, seen	0.844	0.051	130	137	1.631	0.061	0.742	0.946
Received BCG vaccination	0.930	0.031	130	137	1.401	0.033	0.868	0.991
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.836	0.058	130	137	1.803	0.069	0.720	0.951
Received polio vaccination (3 doses)	0.781	0.055	130	137	1.528	0.070	0.672	0.890
Received measles vaccination	0.916	0.035	130	137	1.469	0.038	0.846	0.986
Received all vaccinations	0.717	0.055	130	137	1.403	0.076	0.608	0.827
Height-for-age (below -2SD)	0.527	0.026	527	546	1.152	0.050	0.475	0.580
Weight-for-height (below -2SD)	0.059	0.011	527	546	0.981	0.179	0.038	0.080
Weight-for-age (below -2SD)	0.152	0.016	527	546	0.948	0.103	0.120	0.183
BMI < 18.5	0.093	0.015	580	563	1.236	0.161	0.063	0.123
Total fertility rate (last 3 years)	6.360	0.467	na	1826	1.495	0.073	5.425	7.295
Neonatal mortality (last 0-9 years)	33.258	4.824	1129	1171	0.795	0.145	23.609	42.907
Post-neonatal mortality (last 0-9 years)	30.885	4.361	1130	1172	0.875	0.141	22.164	39.606
Infant mortality (last 0-9 years)	64.143	5.966	1132	1174	0.809	0.093	52.212	76.075
Child mortality (last 0-9 years)	57.070	10.200	1097	1135	1.137	0.179	36.669	77.471
Under-five mortality (last 0-9 years)	117.553	11.631	1144	1187	1.093	0.099	94.291	140.814
HIV prevalence (women 15-49)	0.220	0.023	495	507	1.243	0.105	0.173	0.266
MEN								
No education	0.039	0.009	550	559	1.045	0.221	0.022	0.056
With secondary education or higher	0.469	0.035	550	559	1.628	0.074	0.399	0.538
Never married (in union)	0.393	0.027	550	559	1.295	0.069	0.339	0.447
Currently married (in union)	0.559	0.030	550	559	1.406	0.053	0.499	0.619
Knowing any contraceptive method	0.996	0.004	300	313	1.057	0.004	0.989	1.004
Knowing any modern contraceptive method	0.996	0.004	300	313	1.057	0.004	0.989	1.004
Ever used any contraceptive method	0.677	0.040	300	313	1.460	0.058	0.598	0.756
Want no more children	0.193	0.015	300	313	0.657	0.078	0.163	0.223
Want to delay at least 2 years	0.492	0.025	300	313	0.879	0.052	0.441	0.543
Ideal number of children	5.304	0.190	541	549	1.615	0.036	4.924	5.684
HIV prevalence (men 15-49)	0.126	0.017	428	458	1.063	0.136	0.092	0.160
HIV prevalence (men 15-59)	0.130	0.017	470	506	1.107	0.132	0.095	0.164
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.175	0.017	923	965	1.373	0.098	0.141	0.210

na = Not applicable

Table B.6 Sampling errors for Copperbelt sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Literacy	0.803	0.031	829	1264	2.222	0.038	0.742	0.865
No education	0.028	0.008	829	1264	1.441	0.296	0.011	0.044
With secondary education or higher	0.552	0.042	829	1264	2.420	0.076	0.468	0.636
Net attendance ratio (primary)	0.879	0.016	781	1113	1.238	0.018	0.847	0.910
Never married (in union)	0.317	0.022	829	1264	1.350	0.069	0.274	0.361
Currently married (in union)	0.553	0.018	829	1264	1.026	0.032	0.518	0.588
Married before age 20	0.651	0.043	483	725	1.961	0.066	0.566	0.737
Currently pregnant	0.080	0.008	829	1264	0.897	0.106	0.063	0.097
Children ever born	2.672	0.125	829	1264	1.313	0.047	2.423	2.921
Children surviving	2.275	0.099	829	1264	1.236	0.044	2.077	2.474
Children ever born to women over 40	6.266	0.370	124	189	1.471	0.059	5.526	7.007
Knowing any contraceptive method	0.999	0.001	477	699	0.783	0.001	0.996	1.001
Ever used any contraceptive method	0.873	0.021	477	699	1.397	0.024	0.830	0.915
Currently using any method	0.477	0.025	477	699	1.102	0.053	0.426	0.527
Currently using a modern method	0.415	0.028	477	699	1.221	0.066	0.360	0.470
Currently using pill	0.199	0.016	477	699	0.899	0.083	0.166	0.232
Currently using IUD	0.000	0.000	477	699	na	na	0.000	0.000
Currently using female sterilization	0.048	0.015	477	699	1.576	0.322	0.017	0.079
Currently using periodic abstinence	0.014	0.006	477	699	1.122	0.434	0.002	0.026
Using public sector source	0.517	0.044	205	319	1.247	0.085	0.429	0.604
Want no more children	0.458	0.022	477	699	0.952	0.047	0.414	0.501
Want to delay at least 2 years	0.356	0.023	477	699	1.040	0.064	0.310	0.401
Ideal number of children	4.210	0.119	803	1228	1.688	0.028	3.972	4.447
Mothers completely protected against tetanus	0.895	0.020	420	606	1.309	0.022	0.856	0.935
Mothers received medical assistance at delivery	0.753	0.031	623	880	1.487	0.042	0.690	0.815
Had diarrhea in the last 2 weeks	0.183	0.021	579	813	1.211	0.112	0.142	0.225
Treated with sugar-salt-water solution	0.651	0.054	104	149	1.061	0.083	0.543	0.759
Sought medical treatment	0.515	0.054	104	149	1.021	0.105	0.406	0.623
Having health card, seen	0.823	0.033	117	169	0.903	0.040	0.758	0.888
Received BCG vaccination	0.948	0.021	117	169	1.029	0.023	0.905	0.991
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.865	0.034	117	169	1.054	0.039	0.797	0.933
Received polio vaccination (3 doses)	0.812	0.032	117	169	0.875	0.039	0.749	0.876
Received measles vaccination	0.870	0.036	117	169	1.148	0.042	0.797	0.943
Received all vaccinations	0.734	0.035	117	169	0.838	0.047	0.665	0.804
Height-for-age (below -2SD)	0.438	0.032	552	760	1.408	0.072	0.374	0.501
Weight-for-height (below -2SD)	0.023	0.006	552	760	0.997	0.279	0.010	0.035
Weight-for-age (below -2SD)	0.149	0.020	552	760	1.264	0.133	0.109	0.189
BMI < 18.5	0.074	0.012	719	1109	1.184	0.156	0.051	0.097
Total fertility rate (last 3 years)	4.751	0.305	na	3458	1.359	0.064	4.141	5.361
Neonatal mortality (last 0-9 years)	29.677	5.196	1173	1662	0.955	0.175	19.285	40.068
Post-neonatal mortality (last 0-9 years)	49.096	5.282	1174	1666	0.725	0.108	38.532	59.661
Infant mortality (last 0-9 years)	78.773	6.075	1176	1665	0.692	0.077	66.624	90.922
Child mortality (last 0-9 years)	58.954	11.630	1136	1616	1.299	0.197	35.693	82.214
Under-five mortality (last 0-9 years)	133.083	12.918	1193	1688	1.124	0.097	107.246	158.919
HIV prevalence (women 15-49)	0.216	0.022	611	973	1.340	0.103	0.171	0.261
MEN								
No education	0.020	0.006	743	1140	1.092	0.278	0.009	0.032
With secondary education or higher	0.689	0.039	743	1140	2.308	0.057	0.610	0.767
Never married (in union)	0.526	0.023	743	1140	1.265	0.044	0.479	0.572
Currently married (in union)	0.409	0.019	743	1140	1.035	0.046	0.372	0.446
Knowing any contraceptive method	0.998	0.002	322	466	0.777	0.002	0.994	1.002
Knowing any modern contraceptive method	0.996	0.003	322	466	0.741	0.003	0.991	1.001
Ever used any contraceptive method	0.904	0.016	322	466	1.003	0.018	0.871	0.937
Want no more children	0.353	0.030	322	466	1.131	0.086	0.292	0.413
Want to delay at least 2 years	0.404	0.032	322	466	1.180	0.080	0.340	0.469
Ideal number of children	4.063	0.090	727	1120	1.375	0.022	3.883	4.242
HIV prevalence (men 15-49)	0.123	0.018	520	949	1.234	0.145	0.088	0.159
HIV prevalence (men 15-59)	0.122	0.017	565	1029	1.231	0.139	0.088	0.156
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.170	0.017	1131	1922	1.522	0.100	0.136	0.204

na = Not applicable

Table B.7 Sampling errors for Eastern sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Literacy	0.477	0.024	940	971	1.483	0.051	0.429	0.525
No education	0.195	0.026	940	971	2.005	0.133	0.143	0.247
With secondary education or higher	0.161	0.018	940	971	1.523	0.114	0.124	0.197
Net attendance ratio (primary)	0.741	0.027	1074	1187	1.866	0.036	0.688	0.794
Never married (in union)	0.181	0.016	940	971	1.282	0.089	0.149	0.214
Currently married (in union)	0.710	0.022	940	971	1.493	0.031	0.665	0.754
Married before age 20	0.784	0.020	572	612	1.181	0.026	0.743	0.825
Currently pregnant	0.107	0.013	940	971	1.252	0.118	0.082	0.133
Children ever born	3.538	0.107	940	971	1.141	0.030	3.324	3.753
Children surviving	2.956	0.089	940	971	1.119	0.030	2.777	3.134
Children ever born to women over 40	6.603	0.291	140	155	1.171	0.044	6.020	7.186
Knowing any contraceptive method	0.994	0.003	627	689	1.048	0.003	0.987	1.000
Ever used any contraceptive method	0.901	0.013	627	689	1.118	0.015	0.874	0.927
Currently using any method	0.526	0.022	627	689	1.126	0.043	0.481	0.571
Currently using a modern method	0.485	0.022	627	689	1.107	0.046	0.441	0.530
Currently using pill	0.087	0.015	627	689	1.350	0.175	0.057	0.117
Currently using IUD	0.001	0.001	627	689	0.596	1.000	0.000	0.002
Currently using female sterilization	0.021	0.007	627	689	1.249	0.338	0.007	0.036
Currently using periodic abstinence	0.004	0.003	627	689	1.021	0.614	0.000	0.010
Using public sector source	0.815	0.035	212	198	1.294	0.043	0.745	0.884
Want no more children	0.392	0.025	627	689	1.302	0.065	0.341	0.443
Want to delay at least 2 years	0.390	0.027	627	689	1.376	0.069	0.336	0.443
Ideal number of children	4.671	0.103	829	831	1.583	0.022	4.465	4.878
Mothers completely protected against tetanus	0.912	0.016	572	629	1.373	0.018	0.879	0.944
Mothers received medical assistance at delivery	0.429	0.032	902	1022	1.708	0.075	0.365	0.493
Had diarrhea in the last 2 weeks	0.114	0.011	808	916	0.954	0.094	0.092	0.135
Treated with sugar-salt-water solution	0.742	0.051	95	104	1.157	0.069	0.639	0.844
Sought medical treatment	0.749	0.045	95	104	1.017	0.060	0.660	0.839
Having health card, seen	0.835	0.028	170	187	0.985	0.033	0.780	0.891
Received BCG vaccination	0.980	0.009	170	187	0.864	0.009	0.961	0.998
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.884	0.031	170	187	1.274	0.035	0.822	0.946
Received polio vaccination (3 doses)	0.839	0.033	170	187	1.185	0.039	0.773	0.905
Received measles vaccination	0.890	0.028	170	187	1.172	0.031	0.834	0.945
Received all vaccinations	0.719	0.050	170	187	1.450	0.069	0.620	0.818
Height-for-age (below -2SD)	0.495	0.028	741	853	1.497	0.056	0.439	0.551
Weight-for-height (below -2SD)	0.036	0.007	741	853	0.971	0.187	0.022	0.049
Weight-for-age (below -2SD)	0.127	0.016	741	853	1.260	0.127	0.095	0.159
BMI < 18.5	0.066	0.010	814	829	1.104	0.147	0.047	0.086
Total fertility rate (last 3 years)	7.127	0.343	na	2711	1.342	0.048	6.442	7.812
Neonatal mortality (last 0-9 years)	44.095	5.766	1701	1906	0.989	0.131	32.563	55.627
Post-neonatal mortality (last 0-9 years)	37.857	5.806	1701	1902	1.271	0.153	26.245	49.469
Infant mortality (last 0-9 years)	81.951	6.434	1704	1908	0.898	0.079	69.084	94.819
Child mortality (last 0-9 years)	75.234	8.979	1683	1878	1.157	0.119	57.276	93.192
Under-five mortality (last 0-9 years)	151.020	10.787	1729	1940	1.094	0.071	129.446	172.594
HIV prevalence (women 15-49)	0.110	0.015	810	748	1.389	0.139	0.079	0.140
MEN								
No education	0.107	0.018	783	795	1.617	0.168	0.071	0.142
With secondary education or higher	0.274	0.025	783	795	1.582	0.092	0.224	0.325
Never married (in union)	0.319	0.022	783	795	1.306	0.068	0.275	0.362
Currently married (in union)	0.647	0.023	783	795	1.363	0.036	0.600	0.693
Knowing any contraceptive method	1.000	0.000	488	514	na	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	488	514	na	0.000	1.000	1.000
Ever used any contraceptive method	0.890	0.022	488	514	1.520	0.024	0.847	0.933
Want no more children	0.249	0.028	488	514	1.433	0.113	0.193	0.305
Want to delay at least 2 years	0.504	0.026	488	514	1.161	0.052	0.452	0.557
Ideal number of children	5.146	0.192	734	738	2.037	0.037	4.761	5.531
HIV prevalence (men 15-49)	0.095	0.015	653	654	1.286	0.155	0.066	0.125
HIV prevalence (men 15-59)	0.098	0.014	718	719	1.274	0.144	0.070	0.126
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.103	0.013	1463	1402	1.684	0.130	0.076	0.130

na = Not applicable

Table B.8 Sampling errors for Luapula sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Literacy	0.578	0.034	704	530	1.803	0.058	0.510	0.645
No education	0.120	0.022	704	530	1.816	0.186	0.075	0.165
With secondary education or higher	0.219	0.033	704	530	2.081	0.149	0.154	0.284
Net attendance ratio (primary)	0.718	0.024	816	644	1.452	0.033	0.671	0.766
Never married (in union)	0.214	0.023	704	530	1.497	0.108	0.167	0.260
Currently married (in union)	0.685	0.023	704	530	1.309	0.034	0.639	0.731
Married before age 20	0.788	0.027	412	324	1.320	0.034	0.734	0.841
Currently pregnant	0.153	0.014	704	530	1.064	0.094	0.124	0.182
Children ever born	3.534	0.142	704	530	1.266	0.040	3.250	3.819
Children surviving	2.899	0.123	704	530	1.309	0.042	2.654	3.144
Children ever born to women over 40	6.983	0.374	94	72	1.189	0.054	6.234	7.731
Knowing any contraceptive method	0.975	0.010	463	363	1.372	0.010	0.955	0.995
Ever used any contraceptive method	0.485	0.038	463	363	1.637	0.079	0.409	0.561
Currently using any method	0.158	0.024	463	363	1.417	0.152	0.110	0.207
Currently using a modern method	0.140	0.022	463	363	1.338	0.154	0.097	0.183
Currently using pill	0.028	0.009	463	363	1.142	0.315	0.010	0.045
Currently using IUD	0.000	0.000	463	363	na	na	0.000	0.000
Currently using female sterilization	0.008	0.004	463	363	1.037	0.525	0.000	0.017
Currently using periodic abstinence	0.006	0.003	463	363	0.846	0.518	0.000	0.012
Using public sector source	0.852	0.044	68	45	1.019	0.052	0.763	0.940
Want no more children	0.280	0.025	463	363	1.175	0.088	0.231	0.329
Want to delay at least 2 years	0.544	0.024	463	363	1.056	0.045	0.495	0.593
Ideal number of children	5.337	0.100	699	526	1.230	0.019	5.137	5.537
Mothers completely protected against tetanus	0.743	0.019	441	346	0.906	0.025	0.705	0.780
Mothers received medical assistance at delivery	0.339	0.040	716	577	1.848	0.118	0.259	0.419
Had diarrhea in the last 2 weeks	0.104	0.020	652	531	1.578	0.197	0.063	0.144
Treated with sugar-salt-water solution	0.472	0.067	69	55	1.003	0.142	0.338	0.606
Sought medical treatment	0.486	0.074	69	55	1.108	0.152	0.338	0.634
Having health card, seen	0.647	0.049	127	103	1.176	0.076	0.549	0.746
Received BCG vaccination	0.841	0.036	127	103	1.141	0.043	0.769	0.914
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.684	0.050	127	103	1.215	0.072	0.585	0.783
Received polio vaccination (3 doses)	0.714	0.052	127	103	1.306	0.072	0.611	0.817
Received measles vaccination	0.758	0.038	127	103	1.029	0.050	0.682	0.834
Received all vaccinations	0.613	0.054	127	103	1.270	0.088	0.505	0.720
Height-for-age (below -2SD)	0.563	0.033	610	492	1.612	0.059	0.497	0.630
Weight-for-height (below -2SD)	0.054	0.010	610	492	1.099	0.181	0.034	0.073
Weight-for-age (below -2SD)	0.177	0.018	610	492	1.166	0.103	0.141	0.214
BMI < 18.5	0.134	0.021	562	421	1.433	0.155	0.092	0.175
Total fertility rate (last 3 years)	7.177	0.392	na	1483	1.600	0.055	6.392	7.962
Neonatal mortality (last 0-9 years)	33.247	5.281	1331	1072	0.991	0.159	22.686	43.809
Post-neonatal mortality (last 0-9 years)	63.835	10.750	1334	1076	1.477	0.168	42.335	85.335
Infant mortality (last 0-9 years)	97.082	13.651	1335	1076	1.459	0.141	69.780	124.385
Child mortality (last 0-9 years)	66.320	8.041	1285	1032	1.003	0.121	50.237	82.403
Under-five mortality (last 0-9 years)	156.964	16.465	1351	1089	1.424	0.105	124.033	189.894
HIV prevalence (women 15-49)	0.115	0.017	606	408	1.275	0.144	0.082	0.148
MEN								
No education	0.026	0.010	516	387	1.405	0.378	0.006	0.046
With secondary education or higher	0.359	0.031	516	387	1.463	0.086	0.297	0.421
Never married (in union)	0.320	0.030	516	387	1.437	0.092	0.261	0.379
Currently married (in union)	0.652	0.031	516	387	1.483	0.048	0.589	0.714
Knowing any contraceptive method	1.000	0.000	325	252	0.000	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	325	252	0.000	0.000	1.000	1.000
Ever used any contraceptive method	0.530	0.027	325	252	0.977	0.051	0.476	0.585
Want no more children	0.264	0.039	325	252	1.585	0.147	0.187	0.342
Want to delay at least 2 years	0.498	0.037	325	252	1.333	0.074	0.423	0.572
Ideal number of children	5.516	0.129	488	364	1.312	0.023	5.258	5.774
HIV prevalence (men 15-49)	0.153	0.018	425	317	1.015	0.116	0.118	0.189
HIV prevalence (men 15-59)	0.150	0.017	465	346	1.045	0.115	0.115	0.185
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.132	0.012	1031	726	1.159	0.093	0.107	0.156

na = Not applicable

Table B.9 Sampling errors for Lusaka sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Literacy	0.741	0.032	939	1172	2.248	0.044	0.676	0.805
No education	0.044	0.008	939	1172	1.223	0.186	0.028	0.061
With secondary education or higher	0.538	0.046	939	1172	2.843	0.086	0.445	0.631
Net attendance ratio (primary)	0.850	0.013	817	952	0.951	0.015	0.824	0.876
Never married (in union)	0.328	0.030	939	1172	1.938	0.091	0.268	0.387
Currently married (in union)	0.530	0.027	939	1172	1.666	0.051	0.475	0.584
Married before age 20	0.563	0.044	537	665	2.043	0.078	0.475	0.651
Currently pregnant	0.084	0.011	939	1172	1.183	0.127	0.063	0.106
Children ever born	2.315	0.116	939	1172	1.414	0.050	2.084	2.547
Children surviving	1.986	0.097	939	1172	1.353	0.049	1.793	2.180
Children ever born to women over 40	5.735	0.303	121	155	1.147	0.053	5.129	6.340
Knowing any contraceptive method	1.000	0.000	520	620	0.000	0.000	1.000	1.000
Ever used any contraceptive method	0.848	0.020	520	620	1.244	0.023	0.809	0.887
Currently using any method	0.461	0.027	520	620	1.237	0.059	0.407	0.516
Currently using a modern method	0.398	0.028	520	620	1.283	0.069	0.343	0.453
Currently using pill	0.157	0.019	520	620	1.204	0.123	0.119	0.196
Currently using IUD	0.002	0.003	520	620	1.150	1.014	0.000	0.007
Currently using female sterilization	0.020	0.008	520	620	1.284	0.394	0.004	0.036
Currently using periodic abstinence	0.011	0.004	520	620	0.986	0.414	0.002	0.020
Using public sector source	0.607	0.040	240	289	1.256	0.065	0.528	0.687
Want no more children	0.357	0.027	520	620	1.265	0.075	0.304	0.410
Want to delay at least 2 years	0.284	0.023	520	620	1.151	0.080	0.238	0.330
Ideal number of children	3.932	0.086	925	1152	1.458	0.022	3.761	4.104
Mothers completely protected against tetanus	0.685	0.037	447	520	1.664	0.055	0.610	0.760
Mothers received medical assistance at delivery	0.775	0.031	644	736	1.493	0.040	0.714	0.837
Had diarrhea in the last 2 weeks	0.146	0.019	582	660	1.187	0.130	0.108	0.184
Treated with sugar-salt-water solution	0.557	0.090	86	96	1.545	0.162	0.377	0.737
Sought medical treatment	0.487	0.068	86	96	1.129	0.140	0.351	0.623
Having health card, seen	0.767	0.046	113	123	1.085	0.060	0.675	0.859
Received BCG vaccination	0.941	0.024	113	123	1.013	0.025	0.893	0.989
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.919	0.023	113	123	0.863	0.025	0.872	0.966
Received polio vaccination (3 doses)	0.797	0.041	113	123	1.007	0.051	0.715	0.878
Received measles vaccination	0.919	0.040	113	123	1.290	0.043	0.840	0.999
Received all vaccinations	0.703	0.044	113	123	0.936	0.063	0.615	0.792
Height-for-age (below -2SD)	0.372	0.032	559	625	1.405	0.085	0.309	0.435
Weight-for-height (below -2SD)	0.044	0.009	559	625	1.006	0.216	0.025	0.062
Weight-for-age (below -2SD)	0.097	0.015	559	625	1.002	0.154	0.067	0.127
BMI < 18.5	0.078	0.013	815	1025	1.368	0.164	0.052	0.104
Total fertility rate (last 3 years)	4.111	0.313	na	3234	1.621	0.076	3.485	4.736
Neonatal mortality (last 0-9 years)	38.897	7.120	1197	1357	0.971	0.183	24.656	53.138
Post-neonatal mortality (last 0-9 years)	46.164	7.180	1197	1357	1.127	0.156	31.804	60.524
Infant mortality (last 0-9 years)	85.061	8.243	1198	1358	0.875	0.097	68.575	101.547
Child mortality (last 0-9 years)	54.627	8.191	1165	1331	0.882	0.150	38.246	71.008
Under-five mortality (last 0-9 years)	135.042	11.288	1203	1366	0.929	0.084	112.465	157.618
HIV prevalence (women 15-49)	0.224	0.023	740	902	1.516	0.104	0.178	0.271
MEN								
No education	0.025	0.006	896	1072	1.236	0.259	0.012	0.038
With secondary education or higher	0.663	0.035	896	1072	2.180	0.052	0.594	0.732
Never married (in union)	0.506	0.025	896	1072	1.481	0.049	0.457	0.556
Currently married (in union)	0.447	0.024	896	1072	1.416	0.053	0.399	0.494
Knowing any contraceptive method	0.997	0.003	416	479	1.160	0.003	0.990	1.003
Knowing any modern contraceptive method	0.997	0.003	416	479	1.160	0.003	0.990	1.003
Ever used any contraceptive method	0.880	0.015	416	479	0.913	0.017	0.851	0.909
Want no more children	0.332	0.027	416	479	1.182	0.082	0.277	0.386
Want to delay at least 2 years	0.370	0.027	416	479	1.150	0.074	0.315	0.425
Ideal number of children	3.994	0.101	878	1050	1.517	0.025	3.791	4.197
HIV prevalence (men 15-49)	0.190	0.017	708	878	1.169	0.091	0.156	0.225
HIV prevalence (men 15-59)	0.191	0.016	764	952	1.095	0.082	0.160	0.222
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.208	0.018	1448	1780	1.689	0.087	0.171	0.244

na = Not applicable

Table B.10 Sampling errors for Northern sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
No education	0.132	0.021	783	966	1.759	0.162	0.089	0.174
With secondary education or higher	0.208	0.026	783	966	1.793	0.125	0.156	0.260
Net attendance ratio (primary)	0.760	0.024	794	1007	1.368	0.031	0.712	0.807
Never married (in union)	0.208	0.021	783	966	1.446	0.101	0.166	0.250
Currently married (in union)	0.678	0.025	783	966	1.501	0.037	0.628	0.728
Married before age 20	0.757	0.021	445	558	1.049	0.028	0.714	0.800
Currently pregnant	0.128	0.013	783	966	1.128	0.105	0.101	0.155
Children ever born	3.355	0.111	783	966	1.054	0.033	3.133	3.578
Children surviving	2.782	0.081	783	966	0.913	0.029	2.619	2.945
Children ever born to women over 40	6.839	0.456	121	151	1.649	0.067	5.928	7.751
Knowing any contraceptive method	0.979	0.007	505	655	1.043	0.007	0.966	0.992
Ever used any contraceptive method	0.756	0.024	505	655	1.279	0.032	0.707	0.805
Currently using any method	0.377	0.034	505	655	1.564	0.090	0.309	0.444
Currently using a modern method	0.169	0.019	505	655	1.158	0.114	0.131	0.208
Currently using pill	0.052	0.011	505	655	1.067	0.202	0.031	0.074
Currently using IUD	0.000	0.000	505	655	na	na	0.000	0.000
Currently using female sterilization	0.007	0.004	505	655	1.135	0.619	0.000	0.015
Currently using periodic abstinence	0.002	0.001	505	655	0.681	0.656	0.000	0.005
Using public sector source	0.787	0.052	109	113	1.310	0.066	0.684	0.891
Want no more children	0.324	0.027	505	655	1.311	0.084	0.269	0.378
Want to delay at least 2 years	0.436	0.025	505	655	1.145	0.058	0.385	0.486
Ideal number of children	5.158	0.099	735	897	1.263	0.019	4.960	5.356
Mothers completely protected against tetanus	0.806	0.027	480	629	1.494	0.033	0.753	0.859
Mothers received medical assistance at delivery	0.294	0.040	783	1042	2.022	0.135	0.215	0.374
Had diarrhea in the last 2 weeks	0.180	0.024	697	932	1.547	0.132	0.133	0.228
Treated with sugar-salt-water solution	0.517	0.051	125	168	1.050	0.098	0.416	0.618
Sought medical treatment	0.507	0.051	125	168	1.056	0.100	0.406	0.608
Having health card, seen	0.749	0.044	166	229	1.322	0.059	0.662	0.837
Received BCG vaccination	0.819	0.035	166	229	1.221	0.043	0.748	0.889
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.630	0.050	166	229	1.356	0.080	0.530	0.731
Received polio vaccination (3 doses)	0.691	0.048	166	229	1.376	0.070	0.595	0.787
Received measles vaccination	0.711	0.048	166	229	1.394	0.067	0.615	0.806
Received all vaccinations	0.550	0.054	166	229	1.422	0.099	0.441	0.659
Height-for-age (below -2SD)	0.493	0.023	684	920	1.184	0.047	0.447	0.539
Weight-for-height (below -2SD)	0.060	0.011	684	920	1.204	0.183	0.038	0.082
Weight-for-age (below -2SD)	0.173	0.020	684	920	1.297	0.113	0.134	0.212
BMI < 18.5	0.131	0.015	657	797	1.118	0.114	0.101	0.161
Total fertility rate (last 3 years)	7.941	0.357	na	2691	1.157	0.045	7.228	8.654
Neonatal mortality (last 0-9 years)	34.408	5.671	1417	1876	1.090	0.165	23.066	45.750
Post-neonatal mortality (last 0-9 years)	59.916	6.394	1411	1865	0.985	0.107	47.128	72.704
Infant mortality (last 0-9 years)	94.325	7.377	1417	1876	0.925	0.078	79.571	109.079
Child mortality (last 0-9 years)	71.862	10.896	1363	1793	1.406	0.152	50.070	93.654
Under-five mortality (last 0-9 years)	159.408	13.073	1433	1899	1.243	0.082	133.262	185.554
HIV prevalence (women 15-49)	0.077	0.013	634	744	1.233	0.169	0.051	0.103
MEN								
No education	0.048	0.015	661	805	1.808	0.313	0.018	0.079
With secondary education or higher	0.384	0.030	661	805	1.566	0.077	0.325	0.444
Never married (in union)	0.366	0.026	661	805	1.367	0.070	0.314	0.417
Currently married (in union)	0.599	0.027	661	805	1.437	0.046	0.544	0.654
Knowing any contraceptive method	0.997	0.003	376	483	1.107	0.003	0.991	1.003
Knowing any modern contraceptive method	0.997	0.003	376	483	1.107	0.003	0.991	1.003
Ever used any contraceptive method	0.864	0.021	376	483	1.208	0.025	0.821	0.907
Want no more children	0.194	0.026	376	483	1.251	0.132	0.143	0.245
Want to delay at least 2 years	0.628	0.036	376	483	1.443	0.057	0.556	0.700
Ideal number of children	5.500	0.127	651	791	1.362	0.023	5.246	5.755
HIV prevalence (men 15-49)	0.057	0.012	529	662	1.167	0.206	0.034	0.081
HIV prevalence (men 15-59)	0.059	0.011	576	720	1.116	0.186	0.037	0.081
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.068	0.010	1163	1406	1.323	0.144	0.048	0.087

na = Not applicable

Table B.11 Sampling errors for North-Western sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Literacy	0.466	0.028	685	365	1.471	0.060	0.410	0.523
No education	0.154	0.019	685	365	1.368	0.123	0.116	0.192
With secondary education or higher	0.219	0.026	685	365	1.632	0.118	0.168	0.271
Net attendance ratio (primary)	0.791	0.021	751	414	1.255	0.026	0.749	0.832
Never married (in union)	0.229	0.019	685	365	1.168	0.082	0.191	0.266
Currently married (in union)	0.635	0.028	685	365	1.535	0.045	0.579	0.692
Married before age 20	0.752	0.030	388	210	1.349	0.039	0.693	0.811
Currently pregnant	0.134	0.014	685	365	1.090	0.106	0.106	0.163
Children ever born	3.456	0.128	685	365	1.144	0.037	3.200	3.712
Children surviving	3.049	0.103	685	365	1.044	0.034	2.842	3.255
Children ever born to women over 40	6.875	0.364	91	49	1.103	0.053	6.148	7.603
Knowing any contraceptive method	0.996	0.003	418	232	1.017	0.003	0.989	1.002
Ever used any contraceptive method	0.693	0.032	418	232	1.404	0.046	0.630	0.757
Currently using any method	0.320	0.023	418	232	1.028	0.073	0.273	0.367
Currently using a modern method	0.224	0.022	418	232	1.085	0.099	0.180	0.268
Currently using pill	0.031	0.010	418	232	1.168	0.320	0.011	0.051
Currently using IUD	0.000	0.000	418	232	na	na	0.000	0.000
Currently using female sterilization	0.030	0.009	418	232	1.039	0.291	0.012	0.047
Currently using periodic abstinence	0.007	0.004	418	232	1.038	0.605	0.000	0.015
Using public sector source	0.807	0.038	143	70	1.154	0.047	0.731	0.884
Want no more children	0.279	0.020	418	232	0.893	0.070	0.239	0.318
Want to delay at least 2 years	0.423	0.021	418	232	0.858	0.049	0.381	0.464
Ideal number of children	5.616	0.119	619	330	1.285	0.021	5.379	5.853
Mothers completely protected against tetanus	0.804	0.023	438	243	1.204	0.028	0.759	0.849
Mothers received medical assistance at delivery	0.405	0.045	713	402	2.070	0.111	0.315	0.495
Had diarrhea in the last 2 weeks	0.162	0.017	665	374	1.121	0.106	0.127	0.196
Treated with sugar-salt-water solution	0.639	0.045	114	61	0.845	0.070	0.549	0.728
Sought medical treatment	0.666	0.053	114	61	0.996	0.080	0.559	0.772
Having health card, seen	0.778	0.034	147	84	0.973	0.043	0.710	0.845
Received BCG vaccination	0.937	0.022	147	84	0.987	0.023	0.894	0.980
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.605	0.082	147	84	2.025	0.135	0.442	0.769
Received polio vaccination (3 doses)	0.585	0.075	147	84	1.834	0.128	0.436	0.734
Received measles vaccination	0.780	0.047	147	84	1.357	0.060	0.686	0.874
Received all vaccinations	0.515	0.067	147	84	1.625	0.130	0.381	0.650
Height-for-age (below -2SD)	0.436	0.018	665	369	0.888	0.041	0.400	0.472
Weight-for-height (below -2SD)	0.076	0.012	665	369	1.050	0.155	0.052	0.099
Weight-for-age (below -2SD)	0.196	0.016	665	369	0.952	0.081	0.164	0.228
BMI < 18.5	0.140	0.020	578	305	1.374	0.142	0.100	0.180
Total fertility rate (last 3 years)	7.253	0.330	na	1013	0.991	0.045	6.593	7.913
Neonatal mortality (last 0-9 years)	28.197	5.424	1277	723	1.027	0.192	17.348	39.045
Post-neonatal mortality (last 0-9 years)	36.432	4.474	1286	728	0.872	0.123	27.484	45.379
Infant mortality (last 0-9 years)	64.628	7.169	1283	727	0.995	0.111	50.291	78.966
Child mortality (last 0-9 years)	46.228	8.079	1248	711	1.266	0.175	30.071	62.385
Under-five mortality (last 0-9 years)	107.868	9.644	1292	732	1.011	0.089	88.580	127.157
HIV prevalence (women 15-49)	0.091	0.019	507	281	1.474	0.208	0.053	0.129
MEN								
No education	0.053	0.012	583	303	1.327	0.233	0.028	0.078
With secondary education or higher	0.457	0.032	583	303	1.524	0.069	0.394	0.520
Never married (in union)	0.383	0.022	583	303	1.072	0.056	0.340	0.426
Currently married (in union)	0.586	0.023	583	303	1.136	0.040	0.540	0.633
Knowing any contraceptive method	0.993	0.005	320	177	1.047	0.005	0.983	1.003
Knowing any modern contraceptive method	0.993	0.005	320	177	1.047	0.005	0.983	1.003
Ever used any contraceptive method	0.735	0.024	320	177	0.990	0.033	0.686	0.784
Want no more children	0.196	0.020	320	177	0.921	0.104	0.155	0.237
Want to delay at least 2 years	0.559	0.033	320	177	1.201	0.060	0.492	0.626
Ideal number of children	6.078	0.235	552	286	1.416	0.039	5.608	6.547
HIV prevalence (men 15-49)	0.045	0.011	464	251	1.140	0.245	0.023	0.066
HIV prevalence (men 15-59)	0.044	0.010	500	272	1.098	0.229	0.024	0.064
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.069	0.014	971	532	1.738	0.205	0.041	0.097

na = Not applicable

Table B.12 Sampling errors for Southern sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Literacy	0.666	0.024	822	727	1.460	0.036	0.618	0.714
No education	0.083	0.015	822	727	1.538	0.179	0.053	0.113
With secondary education or higher	0.398	0.028	822	727	1.621	0.070	0.342	0.453
Net attendance ratio (primary)	0.873	0.022	860	789	1.813	0.025	0.830	0.916
Never married (in union)	0.265	0.023	822	727	1.481	0.086	0.220	0.311
Currently married (in union)	0.615	0.023	822	727	1.346	0.037	0.569	0.661
Married before age 20	0.685	0.029	471	421	1.368	0.043	0.627	0.744
Currently pregnant	0.106	0.012	822	727	1.099	0.111	0.082	0.130
Children ever born	3.049	0.132	822	727	1.358	0.043	2.784	3.313
Children surviving	2.674	0.111	822	727	1.279	0.041	2.453	2.895
Children ever born to women over 40	6.873	0.287	105	99	0.997	0.042	6.299	7.447
Knowing any contraceptive method	0.989	0.006	491	447	1.229	0.006	0.978	1.001
Ever used any contraceptive method	0.814	0.020	491	447	1.164	0.025	0.774	0.855
Currently using any method	0.458	0.020	491	447	0.898	0.044	0.417	0.498
Currently using a modern method	0.391	0.020	491	447	0.894	0.050	0.352	0.430
Currently using pill	0.139	0.013	491	447	0.812	0.091	0.114	0.165
Currently using IUD	0.005	0.003	491	447	1.071	0.705	0.000	0.011
Currently using female sterilization	0.006	0.003	491	447	0.860	0.482	0.000	0.013
Currently using periodic abstinence	0.043	0.010	491	447	1.122	0.240	0.022	0.063
Using public sector source	0.797	0.029	235	192	1.105	0.037	0.738	0.855
Want no more children	0.356	0.017	491	447	0.789	0.048	0.322	0.390
Want to delay at least 2 years	0.373	0.014	491	447	0.663	0.039	0.345	0.402
Ideal number of children	4.578	0.089	806	711	1.179	0.020	4.399	4.756
Mothers completely protected against tetanus	0.749	0.019	490	446	0.996	0.026	0.710	0.788
Mothers received medical assistance at delivery	0.362	0.029	740	683	1.390	0.079	0.305	0.419
Had diarrhea in the last 2 weeks	0.173	0.017	681	629	1.160	0.098	0.139	0.207
Treated with sugar-salt-water solution	0.623	0.047	121	109	1.021	0.075	0.529	0.717
Sought medical treatment	0.714	0.044	121	109	1.038	0.062	0.626	0.802
Having health card, seen	0.776	0.038	157	145	1.128	0.049	0.700	0.851
Received BCG vaccination	0.978	0.012	157	145	1.050	0.012	0.954	1.002
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.879	0.025	157	145	0.956	0.028	0.830	0.928
Received polio vaccination (3 doses)	0.813	0.031	157	145	1.005	0.039	0.750	0.876
Received measles vaccination	0.920	0.019	157	145	0.909	0.021	0.881	0.959
Received all vaccinations	0.744	0.034	157	145	0.964	0.045	0.677	0.812
Height-for-age (below -2SD)	0.362	0.026	665	615	1.406	0.072	0.310	0.414
Weight-for-height (below -2SD)	0.048	0.007	665	615	0.828	0.139	0.035	0.062
Weight-for-age (below -2SD)	0.128	0.014	665	615	1.063	0.112	0.100	0.157
BMI < 18.5	0.082	0.012	710	621	1.140	0.145	0.058	0.105
Total fertility rate (last 3 years)	6.661	0.497	na	2022	1.540	0.075	5.667	7.656
Neonatal mortality (last 0-9 years)	36.525	6.216	1331	1230	0.955	0.170	24.093	48.957
Post-neonatal mortality (last 0-9 years)	27.499	5.806	1331	1228	1.171	0.211	15.887	39.111
Infant mortality (last 0-9 years)	64.024	8.657	1332	1230	1.077	0.135	46.709	81.338
Child mortality (last 0-9 years)	41.613	5.350	1261	1168	0.817	0.129	30.914	52.313
Under-five mortality (last 0-9 years)	102.973	8.796	1338	1236	0.949	0.085	85.382	120.564
HIV prevalence (women 15-49)	0.158	0.017	668	560	1.230	0.110	0.123	0.192
MEN								
No education	0.026	0.008	726	621	1.430	0.328	0.009	0.042
With secondary education or higher	0.434	0.031	726	621	1.665	0.071	0.373	0.495
Never married (in union)	0.443	0.017	726	621	0.912	0.038	0.409	0.476
Currently married (in union)	0.515	0.016	726	621	0.873	0.031	0.482	0.547
Knowing any contraceptive method	1.000	0.000	370	319	na	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	370	319	na	0.000	1.000	1.000
Ever used any contraceptive method	0.874	0.021	370	319	1.217	0.024	0.832	0.916
Want no more children	0.311	0.028	370	319	1.146	0.089	0.256	0.367
Want to delay at least 2 years	0.463	0.024	370	319	0.941	0.053	0.414	0.512
Ideal number of children	4.927	0.153	708	604	1.371	0.031	4.622	5.232
HIV prevalence (men 15-49)	0.132	0.020	568	513	1.384	0.149	0.093	0.172
HIV prevalence (men 15-59)	0.135	0.020	605	548	1.432	0.148	0.095	0.174
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.145	0.015	1236	1073	1.530	0.106	0.115	0.176

na = Not applicable

Table B.13 Sampling errors for Western sample, Zambia 2007

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Literacy	0.574	0.039	772	492	2.203	0.069	0.495	0.652
No education	0.222	0.039	772	492	2.568	0.174	0.144	0.299
With secondary education or higher	0.226	0.024	772	492	1.582	0.106	0.178	0.274
Net attendance ratio (primary)	0.706	0.033	721	506	1.719	0.046	0.641	0.772
Never married (in union)	0.316	0.023	772	492	1.366	0.072	0.270	0.362
Currently married (in union)	0.525	0.025	772	492	1.395	0.048	0.475	0.576
Married before age 20	0.464	0.042	449	303	1.789	0.091	0.380	0.549
Currently pregnant	0.128	0.016	772	492	1.343	0.127	0.095	0.160
Children ever born	2.961	0.102	772	492	1.106	0.034	2.758	3.164
Children surviving	2.491	0.086	772	492	1.085	0.034	2.320	2.662
Children ever born to women over 40	5.698	0.282	109	75	1.023	0.049	5.134	6.261
Knowing any contraceptive method	0.946	0.019	388	258	1.605	0.020	0.909	0.983
Ever used any contraceptive method	0.649	0.041	388	258	1.692	0.063	0.566	0.731
Currently using any method	0.331	0.033	388	258	1.389	0.101	0.264	0.398
Currently using a modern method	0.230	0.031	388	258	1.468	0.137	0.167	0.293
Currently using pill	0.085	0.021	388	258	1.445	0.241	0.044	0.127
Currently using IUD	0.000	0.000	388	258	na	na	0.000	0.000
Currently using female sterilization	0.007	0.004	388	258	1.025	0.603	0.000	0.016
Currently using periodic abstinence	0.006	0.004	388	258	1.092	0.703	0.000	0.015
Using public sector source	0.722	0.067	192	104	2.045	0.093	0.588	0.855
Want no more children	0.280	0.024	388	258	1.065	0.087	0.232	0.329
Want to delay at least 2 years	0.369	0.030	388	258	1.232	0.082	0.308	0.429
Ideal number of children	5.253	0.162	714	448	1.890	0.031	4.929	5.576
Mothers completely protected against tetanus	0.862	0.037	463	312	2.295	0.042	0.789	0.935
Mothers received medical assistance at delivery	0.421	0.046	670	461	2.116	0.110	0.329	0.514
Had diarrhea in the last 2 weeks	0.138	0.013	617	422	0.952	0.098	0.111	0.165
Treated with sugar-salt-water solution	0.596	0.071	89	58	1.263	0.118	0.455	0.737
Sought medical treatment	0.658	0.065	89	58	1.195	0.099	0.529	0.788
Having health card, seen	0.739	0.038	139	94	1.031	0.052	0.662	0.815
Received BCG vaccination	0.974	0.019	139	94	1.435	0.020	0.935	1.012
Received DPT or DPT-HepB-Hib vaccination (3 doses)	0.863	0.046	139	94	1.594	0.053	0.771	0.955
Received polio vaccination (3 doses)	0.861	0.042	139	94	1.442	0.049	0.777	0.944
Received measles vaccination	0.931	0.026	139	94	1.222	0.028	0.878	0.983
Received all vaccinations	0.800	0.047	139	94	1.385	0.058	0.707	0.893
Height-for-age (below -2SD)	0.363	0.021	597	421	1.037	0.059	0.320	0.406
Weight-for-height (below -2SD)	0.106	0.016	597	421	1.217	0.151	0.074	0.137
Weight-for-age (below -2SD)	0.130	0.016	597	421	1.141	0.124	0.097	0.162
BMI < 18.5	0.143	0.017	661	416	1.223	0.117	0.109	0.176
Total fertility rate (last 3 years)	6.221	0.317	na	1378	1.185	0.051	5.587	6.855
Neonatal mortality (last 0-9 years)	47.722	8.701	1211	835	1.229	0.182	30.320	65.125
Post-neonatal mortality (last 0-9 years)	49.155	9.388	1210	836	1.386	0.191	30.379	67.931
Infant mortality (last 0-9 years)	96.877	12.462	1216	839	1.279	0.129	71.954	121.800
Child mortality (last 0-9 years)	47.160	8.454	1153	798	1.300	0.179	30.251	64.069
Under-five mortality (last 0-9 years)	139.468	14.291	1226	847	1.232	0.102	110.887	168.050
HIV prevalence (women 15-49)	0.161	0.023	644	379	1.565	0.141	0.116	0.206
MEN								
No education	0.096	0.026	547	315	2.047	0.270	0.044	0.148
With secondary education or higher	0.386	0.038	547	315	1.808	0.098	0.311	0.462
Never married (in union)	0.413	0.022	547	315	1.064	0.054	0.368	0.458
Currently married (in union)	0.525	0.024	547	315	1.137	0.046	0.476	0.573
Knowing any contraceptive method	1.000	0.000	269	165	na	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	269	165	na	0.000	1.000	1.000
Ever used any contraceptive method	0.720	0.029	269	165	1.049	0.040	0.663	0.778
Want no more children	0.163	0.025	269	165	1.125	0.156	0.112	0.214
Want to delay at least 2 years	0.499	0.032	269	165	1.062	0.065	0.434	0.564
Ideal number of children	6.297	0.332	489	279	1.696	0.053	5.632	6.962
HIV prevalence (men 15-49)	0.139	0.020	460	260	1.263	0.147	0.098	0.180
HIV prevalence (men 15-59)	0.132	0.020	498	283	1.289	0.148	0.093	0.171
WOMEN AND MEN								
HIV prevalence (men and women 15-49)	0.152	0.017	1104	638	1.600	0.114	0.117	0.187

na = Not applicable

DATA QUALITY TABLES

Appendix C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Zambia 2007

	Female		Male	
Age	Number	Percent	Number	Percent
0	691	3.9	679	4.2
1	668	3.8	650	4.0
2	614	3.5	590	3.6
3	622	3.5	577	3.5
4	573	3.3	595	3.6
5	470	2.7	466	2.9
6	663	3.8	576	3.5
7	618	3.5	551	3.4
8	529	3.0	498	3.1
9	554	3.2	498	3.1
10	540	3.1	571	3.5
11	437	2.5	496	3.0
12	496	2.8	545	3.3
13	532	3.0	496	3.0
14	505	2.9	489	3.0
15	372	2.1	322	2.0
16	339	1.9	309	1.9
17	314	1.8	331	2.0
18	309	1.8	298	1.8
19	288	1.6	271	1.7
20	295	1.7	284	1.7
21	283	1.6	214	1.3
22	286	1.6	247	1.5
23	292	1.7	220	1.4
24	300	1.7	220	1.3
25	306	1.7	242	1.5
26	287	1.6	211	1.3
27	264	1.5	240	1.5
28	284	1.6	208	1.3
29	257	1.5	202	1.2
30	237	1.4	217	1.3
31	222	1.3	218	1.3
32	205	1.2	235	1.4
33	227	1.3	191	1.2
34	189	1.1	209	1.3
35	158	0.9	225	1.4
36	140	0.8	156	1.0
37	172	1.0	148	0.9
38	168	1.0	167	1.0
39	133	0.8	121	0.7
40	107	0.6	120	0.7
41	114	0.6	90	0.6
42	129	0.7	114	0.7
43	128	0.7	94	0.6
44	104	0.6	103	0.6
45	99	0.6	99	0.6
46	106	0.6	95	0.6
47	89	0.5	75	0.5
48	93	0.5	79	0.5
49	95	0.5	82	0.5
50	96	0.5	97	0.6
51	78	0.4	52	0.3
52	87	0.5	54	0.3
53	102	0.6	58	0.4
54	70	0.4	69	0.4
55	79	0.4	60	0.4
56	54	0.3	53	0.3
57	80	0.5	40	0.2
58	75	0.4	36	0.2
59	83	0.5	40	0.2
60	71	0.4	63	0.4
61	42	0.2	45	0.3
62	50	0.3	68	0.4
63	57	0.3	52	0.3
64	38	0.2	32	0.2
65	58	0.3	53	0.3
66	30	0.2	32	0.2
67	48	0.3	27	0.2
68	51	0.3	31	0.2
69	42	0.2	32	0.2
70+	353	2.0	379	2.3
Don't know/missing	4	0.0	5	0.0
Total	17,551	100.0	16,314	100.0

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), by five-year age groups, Zambia 2007

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percent	
10-14	2,510	na	na	na
15-19	1,622	1,556	21.8	95.9
20-24	1,456	1,384	19.4	95.0
25-29	1,398	1,358	19.1	97.2
30-34	1,081	1,052	14.8	97.3
25-39	770	747	10.5	97.0
40-44	582	559	7.8	96.0
45-49	482	469	6.6	97.3
50-54	433	na	na	na
15-49	7,390	7,124	100.0	96.4

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the Household Questionnaire.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-64, interviewed men age 15-59, and percentage of eligible men who were interviewed (weighted), by five-year age groups, Zambia 2007

Age group	Household population of men age 10-64	Interviewed men age 15-54		Percentage of eligible men interviewed
		Number	Percent	
10-14	2,596	na	na	na
15-19	1,531	1,423	21.7	92.9
20-24	1,186	1,079	16.4	91.0
25-29	1,103	987	15.0	89.5
30-34	1,071	959	14.6	89.5
25-39	817	727	11.1	88.9
40-44	520	481	7.3	92.5
45-49	431	395	6.0	91.8
50-54	331	303	4.6	91.5
55-59	230	210	3.2	91.2
60-64	259	na	na	na
15-59	7,219	6,563	100.0	90.9

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of men and interviewed men are household weights. Age is based on the Household Questionnaire.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Zambia 2007

Subject	Reference group	Percentage with information missing	Number of cases
Birth date	Births in past 15 years		
Month only		0.80	16,104
Month and year		0.02	16,104
Age at death	Deceased children born in the past 15 years	0.00	2,114
Age/date at first union[1]	Ever-married women	0.76	5,290
	Ever-married men	0.52	3,943
Respondent's education	All women	0.00	7,146
	All men	0.41	6,500
Diarrhoea in past 2 weeks	Living children 0-59 months	0.72	15,925
Anthropometry	Living children age 0-59 months (from household questionnaire)		
Height		5.17	6,240
Weight		4.37	6,240
Height or weight		5.18	6,240
Syphilis testing	All interviewed respondents age 15-49 consenting to syphilis testing		
Women		23.80	1,664
Men		25.05	1,529
HIV testing	All interviewed respondents age 15-49 consenting to HIV testing		
Women		0.66	5,751
Men		0.64	5,194

[1] Both year and age missing

Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), Zambia 2007

Calendar year	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
	L	D	T	L	D	T	L	D	T	L	D	T
2007	671	38	709	100.0	100.0	100.0	98.1	68.9	96.3	na	na	na
2006	1,282	107	1,390	100.0	100.0	100.0	97.8	127.3	99.8	na	na	na
2005	1,202	105	1,306	100.0	99.2	99.9	99.8	119.8	101.3	98.4	87.3	97.4
2004	1,160	132	1,292	100.0	100.0	100.0	92.3	128.4	95.5	100.8	106.3	101.3
2003	1,100	144	1,245	100.0	100.0	100.0	103.1	151.1	107.7	104.2	111.9	105.1
2002	951	126	1,077	99.9	100.0	99.9	91.6	106.0	93.2	93.9	87.3	93.1
2001	927	144	1,070	99.5	91.6	98.4	83.4	133.3	88.8	89.4	82.5	88.4
2000	1,121	222	1,343	99.3	93.1	98.2	90.9	140.9	97.7	129.4	148.6	132.2
1999	807	156	962	98.7	96.3	98.3	88.1	107.7	91.0	82.0	79.3	81.5
1998	847	170	1,017	99.5	96.5	99.0	87.1	112.5	90.9	102.7	108.2	103.6
2003-2007	5,415	526	5,941	100.0	99.8	100.0	98.1	126.4	100.4	na	na	na
1998-2002	4,653	817	5,470	99.4	95.2	98.8	88.3	121.0	92.6	na	na	na
1993-1997	3,639	723	4,362	99.3	95.6	98.7	103.4	103.5	103.4	na	na	na
1988-1992	2,310	515	2,825	99.2	95.6	98.6	93.4	98.1	94.3	na	na	na
< 1988	2,395	677	3,072	98.9	97.9	98.7	104.7	104.4	104.6	na	na	na
All	18,412	3,258	21,670	99.5	96.7	99.0	96.8	110.4	98.7	na	na	na

[1] Both year and month of birth given
[2] (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively
[3] [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x
na = Not applicable

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Zambia 2007

	Number of years preceding the survey				Total
Age at death (days)	0-4	5-9	10-14	15-19	0-19
<1	68	68	41	24	201
1	32	30	16	10	89
2	15	13	8	6	42
3	20	14	5	6	46
4	16	12	2	1	32
5	4	4	1	1	10
6	1	4	2	1	8
7	15	25	17	15	72
8	2	2	0	1	5
9	2	1	0	1	4
10	0	6	1	0	7
12	3	1	0	0	3
13	0	0	0	0	1
14	22	20	17	10	70
15	1	0	0	0	1
16	2	1	0	0	2
17	1	0	0	0	1
20	2	1	0	0	2
21	13	4	6	4	26
24	0	0	0	0	0
25	0	0	1	0	1
27	1	2	0	2	5
28	0	0	1	0	1
29	1	0	2	0	2
30	0	2	0	0	2
Total 0-30	220	209	121	83	632
Percent early neonatal[1]	71.1	69.9	62.8	60.0	67.7

[1] ≤6 days/≤30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, Zambia 2007

Age at death (months)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1[a]	220	209	121	83	632
1	29	34	31	18	112
2	21	29	18	7	75
3	23	36	22	5	86
4	23	31	23	21	98
5	12	26	14	12	64
6	19	25	38	20	102
7	14	12	28	7	61
8	17	31	14	18	80
9	19	39	22	25	104
10	18	10	9	7	44
11	12	15	6	6	38
12	21	30	39	28	119
13	2	11	6	5	24
14	4	6	2	11	23
15	3	3	5	3	14
16	2	5	3	2	12
17	0	3	2	2	8
18	6	7	4	8	25
19	3	4	4	4	16
20	3	6	7	1	17
21	3	1	2	2	8
22	1	0	1	1	2
23	0	0	2	3	5
24+	0	0	0	0	0
1 Year	32	58	43	30	163
Total 0-11	424	498	345	229	1,496
Percent neonatal[1]	51.8	42.0	35.0	36.0	42.3

[1] Under one month/under one year
[a] Includes deaths under one month reported in days

NUTRITIONAL STATUS OF CHILDREN: 2007 ZDHS DATA ACCORDING TO THE NCHS/CDC/WHO INTERNATIONAL REFERENCE POPULATION

Appendix D

Table D.1 Nutritional status of children

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Zambia 2007

	Height-for-age			Weight-for-height				Weight-for-age				
Background characteristic	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Age in months												
<6	2.0	11.7	(0.3)	0.9	4.0	15.9	0.7	0.3	2.0	9.2	0.4	484
6-8	4.5	19.3	(0.8)	0.3	4.1	15.4	0.4	0.7	8.2	4.1	(0.4)	284
9-11	9.4	28.6	(1.0)	2.3	12.0	7.2	(0.2)	3.9	21.6	0.8	(1.0)	301
12-17	14.7	40.6	(1.6)	1.1	7.8	4.7	(0.3)	4.7	26.7	1.0	(1.3)	578
18-23	27.7	56.7	(2.1)	0.5	6.3	4.6	(0.2)	4.2	28.5	1.9	(1.3)	613
24-35	17.4	40.7	(1.6)	1.2	4.7	2.7	(0.1)	4.1	22.0	1.0	(1.1)	1,136
36-47	16.5	43.0	(1.7)	0.5	2.3	2.4	(0.0)	1.7	17.8	0.3	(1.1)	1,097
48-59	18.1	43.5	(1.8)	0.8	3.1	3.3	(0.1)	2.8	18.7	0.6	(1.1)	1,088
Sex												
Male	17.3	41.4	(1.6)	0.9	5.1	4.7	(0.0)	3.2	20.8	1.4	(1.0)	2,770
Female	14.4	37.0	(1.4)	0.9	4.4	5.7	(0.0)	2.7	17.8	2.1	(0.9)	2,812
Birth interval in months[2]												
First birth	15.6	38.9	(1.5)	1.0	4.7	4.9	(0.0)	2.4	17.0	1.7	(1.0)	934
<24	19.7	44.1	(1.8)	1.0	3.9	6.4	0.1	4.2	22.1	1.1	(1.1)	603
24-47	16.1	38.8	(1.6)	0.8	4.8	5.4	(0.0)	3.1	19.2	1.7	(1.0)	2,676
48+	13.7	37.2	(1.3)	1.0	5.7	5.4	(0.0)	2.3	18.6	2.8	(0.8)	904
Size at birth[2]												
Very small	37.2	61.9	(2.1)	3.4	7.6	3.7	(0.4)	14.9	38.9	0.0	(1.7)	73
Small	22.0	44.6	(1.7)	1.1	5.8	3.9	(0.3)	3.9	26.8	0.8	(1.3)	464
Average or larger	15.0	38.1	(1.5)	0.8	4.7	5.7	0.0	2.7	17.9	2.0	(0.9)	4,521
Missing	22.0	47.6	(1.6)	0.0	3.8	0.0	(0.2)	2.6	19.6	0.0	(1.0)	59
Mother's interview status												
Interviewed	16.0	39.2	(1.5)	0.9	4.8	5.4	(0.0)	3.0	19.1	1.8	(1.0)	5,118
Not interviewed but in household	15.3	41.6	(1.5)	1.3	6.7	1.0	(0.3)	5.3	24.7	0.5	(1.2)	130
Not interviewed, and not in the household[4]	13.1	39.3	(1.4)	0.8	2.9	3.1	(0.0)	1.4	20.5	1.2	(0.9)	333
Missing	0.0	0.0	0.9	0.0	0.0	0.0	(0.6)	0.0	0.0	0.0	(0.1)	1
Mother's nutritional status[5]												
Thin (BMI<18.5)	21.9	47.4	(1.8)	0.9	7.3	3.0	(0.3)	6.4	32.7	1.3	(1.4)	397
Normal (BMI 18.5-24.9)	16.1	39.4	(1.6)	1.0	4.9	5.4	(0.0)	3.0	19.2	1.5	(1.0)	3,892
Overwieght/obese (BMI ≥25)	12.4	34.5	(1.3)	0.3	3.4	6.3	0.2	1.2	11.8	3.5	(0.6)	870
Missing	19.2	41.5	(1.6)	1.7	7.3	1.3	(0.4)	8.7	30.1	0.8	(1.3)	81
Residence												
Urban	12.2	33.1	(1.3)	0.7	3.8	5.1	0.0	2.4	16.5	2.4	(0.8)	1,594
Rural	17.3	41.7	(1.6)	1.0	5.1	5.2	(0.0)	3.1	20.4	1.5	(1.0)	3,988

Continued…

Table D.1—*Continued*

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	
Province												
Central	19.0	45.7	(1.7)	0.9	4.8	6.9	0.0	1.5	20.0	1.2	(1.0)	535
Copperbelt	16.0	37.3	(1.5)	0.2	2.6	3.4	(0.0)	1.7	19.2	1.4	(0.9)	761
Eastern	17.8	44.1	(1.7)	0.4	3.9	7.6	0.2	2.1	17.1	1.7	(0.9)	857
Luapula	26.8	50.4	(1.9)	1.6	5.0	9.5	0.2	3.5	21.8	1.9	(1.0)	489
Lusaka	9.6	31.4	(1.2)	0.1	2.4	5.4	0.1	2.7	13.7	3.5	(0.7)	622
Northern	15.4	42.3	(1.6)	1.2	6.3	4.2	(0.2)	4.3	22.2	2.1	(1.1)	916
Northwestern	15.4	38.8	(1.5)	1.1	7.7	3.0	(0.3)	5.9	26.6	0.7	(1.2)	370
Southern	12.0	29.8	(1.4)	1.1	4.2	3.3	(0.1)	3.5	17.1	1.5	(1.0)	615
Western	10.5	30.7	(1.1)	2.4	8.5	2.9	(0.3)	2.1	18.6	1.0	(1.0)	417
Mother's education[6]												
No education	17.0	37.7	(1.5)	1.0	6.3	5.2	(0.1)	4.6	23.5	2.2	(1.0)	723
Primary	17.8	42.2	(1.6)	0.9	4.8	5.4	(0.0)	3.2	20.1	1.5	(1.0)	3,333
Secondary	11.3	33.1	(1.3)	0.9	4.3	5.3	0.0	1.7	14.5	1.7	(0.8)	1,067
More than secondary	2.5	18.1	(0.8)	0.6	2.4	4.1	0.1	0.5	10.9	7.1	(0.4)	124
Missing	0.0	100.0	(2.8)	0.0	0.0	0.0	1.3	0.0	0.0	0.0	(1.2)	2
Wealth quintile												
Lowest	16.1	41.5	(1.6)	0.8	5.7	5.5	(0.0)	2.8	20.6	1.0	(1.0)	1,330
Second	19.8	44.0	(1.7)	0.9	5.3	4.6	(0.1)	3.4	21.5	1.4	(1.1)	1,256
Middle	17.4	42.1	(1.6)	1.3	4.8	6.0	(0.0)	3.4	21.2	2.1	(1.0)	1,206
Fourth	13.1	35.3	(1.5)	0.9	3.8	4.7	0.0	3.2	16.7	1.3	(0.9)	1,006
Highest	10.2	28.1	(1.1)	0.3	3.4	5.0	0.0	1.3	13.9	3.4	(0.7)	783
Total	15.8	39.2	(1.5)	0.9	4.7	5.2	(0.0)	2.9	19.3	1.7	(1.0)	5,581

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO Child Growth Standards. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight

[1] Includes children who are below -3 standard deviations (SD) from the International Reference Population median

[2] Excludes children whose mothers were not interviewed

[3] First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval

[4] Includes children whose mothers are deceased

[5] Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10.

[6] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire

PERSONS INVOLVED IN THE 2007 ZAMBIA DEMOGRAPHIC AND HEALTH SURVEY

Appendix ***E***

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BRIDGET HANDIYA	FEMALE INTERVIEWER
MOONGA FELISTERS	FEMALE INTERVIEWER
BONAVENTURE CHISHIMBA	MALE INTERVIEWER
CHARLES MITI	MALE INTERVIEWER
RAPHEAL BANDA	MALE INTERVIEWER
CHISHIKO KAWEWE	MEDICAL LAB TECHNICIAN

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LEONARD KASONDE	MALE INTERVIEWER
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MWAPE S KABANGO	MEDICAL LAB TECHNICIAN

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QUESTIONNAIRES

APPENDIX *F*

2007 ZAMBIA DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD QUESTIONNAIRE
WITH HIV/AIDS

IDENTIFICATION

LOCALITY NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . [ ][ ][ ]

HOUSEHOLD NUMBER . . . . . [ ][ ][ ]

PROVINCE . . . . . [ ]

URBAN/RURAL (URBAN = 1, RURAL = 2) . . . . . [ ]

LUSAKA = 1/ OTHER CITY = 2/TOWN = 3/VILLAGE = 4 . . . . . [ ]

IS THIS HOUSEHOLD SELECTED FOR SYPHILIS TESTING?
(YES=1, NO=2) [ ]

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY [ ][ ]
				MONTH [ ][ ]
				YEAR [ ][ ][ ][ ]
INTERVIEWER'S NAME				INT. NUMBER [ ][ ][ ]
RESULT*				RESULT [ ]
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS [ ]
TIME				

*RESULT CODES:

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD [ ][ ]

TOTAL ELIGIBLE WOMEN [ ][ ]

TOTAL ELIGIBLE MEN [ ][ ]

LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE [ ][ ]

LANGUAGE OF QUESTIONNAIRE: **ENGLISH** **0 1**

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____	[ ][ ]	[ ][ ]
DATE _____ [ ][ ]	DATE _____ [ ][ ]		

HH 1

Introduction and Consent

Hello. My name is _____ and I am working with Ministry of Health in collaboration with Central Statistical Office (CSO). We are conducting a national survey about various health issues. We would very much appreciate your participation in this survey. The interview usually takes between 30 and 60 minutes to complete. Whatever information you will provide will be kept strictly confidential and will not be shown to other persons.

As part of the survey we would first like to ask some questions about your household. All of the answers you give will be confidential.

Participation in the survey is completely voluntary. If we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope you will participate in the survey since your views are important.

If you have any questions, you may contact the ZDHS Survey Coordinator at _____. This person will only be available for a limited time.
GIVE INFORMATION TO RESPONDENT.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer:_____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

HOUSEHOLD SCHEDULE

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	IF AGE 15 OR OLDER: MARITAL STATUS	ELIGIBILITY			
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-32 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	What is (NAME'S) current marital status? 1 = MARRIED 2 = LIVING TOGETHER 3 = DIVORCED 4 = SEPARATED 5 = WIDOWED 6 = NEVER-MARRIED	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF WOMAN SELECTED FOR DOMESTIC VIOLENCE QUESTIONS IN Q. 33.	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9A)	(10)	(11)
01			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		01	01	01	01
02			1 2	1 2	1 2			02	02	02	02
03			1 2	1 2	1 2			03	03	03	03
04			1 2	1 2	1 2			04	04	04	04
05			1 2	1 2	1 2			05	05	05	05
06			1 2	1 2	1 2			06	06	06	06
07			1 2	1 2	1 2			07	07	07	07
08			1 2	1 2	1 2			08	08	08	08
09			1 2	1 2	1 2			09	09	09	09
10			1 2	1 2	1 2			10	10	10	10

(2A) 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 ☐ → ADD TO TABLE NO ☐

2B) Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here YES ☐ → ADD TO TABLE NO ☐

2C) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? YES ☐ → ADD TO TABLE NO ☐

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = NIECE/NEPHEW BY BLOOD
10 = NIECE/NEPHEW BY MARRIAGE
11 = OTHER RELATIVE
12 = ADOPTED/FOSTER/ STEPCHILD
13 = NOT RELATED
98 = DON'T KNOW

							IF AGE 15 OR OLDER				
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY			
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-32 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	What is (NAME'S) current marital status? 1 = MARRIED 2 = LIVING TOGETHER 3 = DIVORCED 4 = SEPARATED 5 = WIDOWED 6 = NEVER-MARRIED	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF WOMAN SELECTED FOR DOMESTIC VIOLENCE QUESTIONS IN Q. 33.	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9A)	(10)	(11)
			M F	Y N	Y N	IN YEARS					
11			1 2	1 2	1 2			11	11	11	11
12			1 2	1 2	1 2			12	12	12	12
13			1 2	1 2	1 2			13	13	13	13
14			1 2	1 2	1 2			14	14	14	14
15			1 2	1 2	1 2			15	15	15	15
16			1 2	1 2	1 2			16	16	16	16
17			1 2	1 2	1 2			17	17	17	17
18			1 2	1 2	1 2			18	18	18	18
19			1 2	1 2	1 2			19	19	19	19
20			1 2	1 2	1 2			20	20	20	20

TICK HERE IF CONTINUATION SHEET USED ☐

(2A) 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 ☐ → ADD TO TABLE NO ☐

2B) Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here YES ☐ → ADD TO TABLE NO ☐

2C) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? YES ☐ → ADD TO TABLE NO ☐

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = NIECE/NEPHEW BY BLOOD
10 = NIECE/NEPHEW BY MARRIAGE
11 = OTHER RELATIVE
12 = ADOPTED/FOSTER/STEPCHILD
13 = NOT RELATED
98 = DON'T KNOW

	IF AGE 15-59 YEARS	IF AGE 0-17 YEARS										
LINE NO.	SICK PERSON	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS										
	Has (NAME) been very sick for at least 3 months during the past 12 months, that is (NAME) was too sick to work or do normal activities?	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	**IF MOTHER NOT LISTED IN HOUSEHOLD** Has (NAME)'s mother been very sick for at least 3 months during the past 12 months, that is she was too sick to work or do normal activities?	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	**IF FATHER NOT LISTED IN HOUSEHOLD** Has (NAME)'s father been very sick for at least 3 months during the past 12 months, that is he was too sick to work or do normal activities?	**MOTHER AND/OR FATHER DEAD/ SICK** CIRCLE LINE NUMBER IF CHILD'S MOTHER AND/OR FATHER HAS DIED (Q.13 OR 16=NO) OR BEEN SICK (Q.12, Q.15 OR Q18=YES).	**YEAR OF MOTHER'S AND/OR FATHER' S DEATH** IF CHILD'S MOTHER HAS DIED, ASK YEAR OF DEATH AND RECORD IN THE BOXES.	IF CHILD'S FATHER HAS DIED, ASK YEAR OF DEATH AND RECORD IN THE BOXES.	**BOTH PARENTS ALIVE** IF YES TO Q.13 AND Q.16 (BOTH ALIVE), CIRCLE '1'. FOR ALL OTHER CASES, CIRCLE '2'.
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(19A)		(20)
	Y N DK	Y N DK		Y N DK	Y N DK		Y N DK				
01	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	01			1 2 GO TO 23
02	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	02			1 2 GO TO 23
03	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	03			1 2 GO TO 23
04	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	04			1 2 GO TO 23
05	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	05			1 2 GO TO 23
06	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	06			1 2 GO TO 23
07	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	07			1 2 GO TO 23
08	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	08			1 2 GO TO 23
09	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	09			1 2 GO TO 23
10	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	10			1 2 GO TO 23

	IF AGE 15-59 YEARS	IF AGE 0-17 YEARS										
LINE NO.	SICK PERSON	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS										
	Has (NAME) been very sick for at least 3 months during the past 12 months, that is (NAME) was too sick to work or do normal activities?	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	**IF MOTHER NOT LISTED IN HOUSEHOLD** Has (NAME)'s mother been very sick for at least 3 months during the past 12 months, that is she was too sick to work or do normal activities?	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	**IF FATHER NOT LISTED IN HOUSEHOLD** Has (NAME)'s father been very sick for at least 3 months during the past 12 months, that is he was too sick to work or do normal activities?	**MOTHER AND/OR FATHER DEAD/ SICK** CIRCLE LINE NUMBER IF CHILD'S MOTHER AND/OR FATHER HAS DIED (Q.13 OR 16=NO) OR BEEN SICK (Q.12, Q.15 OR Q18=YES).	**YEAR OF MOTHER'S AND/OR FATHER' S DEATH** IF CHILD'S MOTHER HAS DIED, ASK YEAR OF DEATH AND RECORD IN THE BOXES.	 IF CHILD'S FATHER HAS DIED, ASK YEAR OF DEATH AND RECORD IN THE BOXES.	**BOTH PARENTS ALIVE** IF YES TO Q.13 AND Q.16 (BOTH ALIVE), CIRCLE '1'. FOR ALL OTHER CASES, CIRCLE '2'.
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(19A)	(19A)	(20)
	Y N DK	Y N DK		Y N DK	Y N DK		Y N DK				
11	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	11			1 2 GO TO 23
12	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	12			1 2 GO TO 23
13	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	13			1 2 GO TO 23
14	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	14			1 2 GO TO 23
15	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	15			1 2 GO TO 23
16	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	16			1 2 GO TO 23
17	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	17			1 2 GO TO 23
18	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	18			1 2 GO TO 23
19	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	19			1 2 GO TO 23
20	1 2 8	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	20			1 2 GO TO 23

	IF AGE 0-17 YEARS		IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS				IF AGE 5-17 YEARS			IF AGE 0-4 YEARS
LINE NO.	BROTHERS AND SISTERS		EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE				BASIC MATERIAL NEEDS			BIRTH REGIS-TRATION
	Does (NAME) have any brothers or sisters under age 18 who have the same mother and the same father?	Do any of these brothers and sisters under age 18 not live in this household?	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest grade (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the (2007) school year?	During this/that school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	Did (NAME) attend school at any time during the previous school year, that is, (2006)	During that school year, what level and grade did (NAME) attend? SEE CODES BELOW.	Does (NAME) have a blanket? (EITHER SHARED OR OWNED)	Does (NAME) have a pair of shoes?	Does (NAME) have at least two sets of clothes?	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
	Y N DK	Y N	Y N	LEVEL GRADE	Y N	LEVEL GRADE	Y N	LEVEL GRADE	Y N DK	Y N DK	Y N DK	
01	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
02	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
03	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
04	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
05	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
06	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
07	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
08	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
09	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
10	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	

CODES FOR Qs. 24, 26, AND 28: EDUCATION

LEVEL
0 = NURSERY/ KINDERGATERN
1 = PRIMARY
2 = SECONDARY
3 = HIGHER
8 = DON'T KNOW

GRADE
00 = LESS THAN 1 YEAR COMPLETED
(USE '00' FOR Q. 24 ONLY. THIS CODE IS NOT ALLOWED FOR QS. 26 AND 28)
98 = DON'T KNOW

	IF AGE 0-17 YEARS		IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS				IF AGE 5-17 YEARS			IF AGE 0-4 YEARS
LINE NO.	BROTHERS AND SISTERS		EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE				BASIC MATERIAL NEEDS			BIRTH REGIS-TRATION
	Does (NAME) have any brothers or sisters under age 18 who have the same mother and the same father?	Do any of these brothers and sisters under age 18 not live in this household?	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest grade (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the (2007) school year?	During this/that school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	Did (NAME) attend school at any time during the previous school year, that is, (2006)	During that school year, what level and grade did (NAME) attend? SEE CODES BELOW.	Does (NAME) have a blanket? (EITHER SHARED OR OWNED)	Does (NAME) have a pair of shoes?	Does (NAME) have at least two sets of clothes?	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
	Y N DK	Y N	Y N	LEVEL GRADE	Y N	LEVEL GRADE	Y N	LEVEL GRADE	Y N DK	Y N DK	Y N DK	
11	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
12	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
13	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
14	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
15	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
16	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
17	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
18	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
19	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	
20	1 2 8 GO TO 23	1 2	1 2 GO TO 29		1 2 GO TO 27		1 2 GO TO 29		1 2 8	1 2 8	1 2 8	

CODES FOR Qs. 24, 26, AND 28: EDUCATION

LEVEL	GRADE
0 = NURSERY/ KINDERGATERN	00 = LESS THAN 1 YEAR COMPLETED (USE '00' FOR Q. 24 ONLY. THIS CODE IS NOT ALLOWED FOR QS. 26 AND 28)
1 = PRIMARY	98 = DON'T KNOW
2 = SECONDARY	
3 = HIGHER	
8 = DON'T KNOW	

TABLE FOR SELECTION OF WOMEN FOR THE DOMESTIC VIOLENCE QUESTIONS

33 LOOK AT THE LAST DIGIT OF THE QUESTIONNAIRE NUMBER ON THE COVER PAGE. THIS IS THE NUMBER OF THE **ROW** YOU SHOULD GO TO.
CHECK THE TOTAL NUMBER OF ELIGIBLE WOMEN ON THE COVER SHEET OF THE HOUSEHOLD QUESTIONNAIRE. THIS IS THE NUMBER OF THE **COLUMN** YOU SHOULD GO TO.
FIND THE BOX WHERE THE ROW AND THE COLUMN MEET AND CIRCLE THE NUMBER THAT APPEARS IN THE BOX. THIS NUMBER IS USED TO IDENTIFY WHETHER THE FIRST ('1'), SECOND ('2'), THIRD ('3'), ETC. ELIGIBLE WOMAN LISTED IN THE HOUSEHOLD SCHEDULE WILL BE ASKED THE DOMESTIC VIOLENCE QUESTIONS.
CIRCLE THE LINE NUMBER FOR THIS WOMAN IN COLUMN 9A.

FOR EXAMPLE, IF THE QUESTIONNAIRE NUMBER IS '36716', GO TO ROW '6'.
IF THERE ARE THREE ELIGIBLE WOMEN IN THE HOUSEHOLD, GO TO COLUMN '3'.
FIND THE BOX WHERE ROW '6' AND COLUMN '3' MEET. THE NUMBER IN THAT BOX ('2') INDICATES THAT THE SECOND ELIGIBLE WOMAN IN THE HOUSEHOLD LISTING SHOULD BE ASKED THE DOMESTIC VIOLENCE QUESTIONS.
SUPPOSE THE LINE NUMBERS OF THE THREE WOMEN ARE '02', '03', AND '07'. THE WOMAN TO BE ASKED THE DOMESTIC VIOLENCE QUESTIONS IS THE SECOND ONE, I.E., THE WOMAN ON LINE '03'.

LAST DIGIT OF THE QUESTIONNAIRE NUMBER (ROW)	TOTAL NUMBER OF ELIGIBLE WOMEN IN HOUSEHOLD (COLUMN)							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	What is the **main** source of drinking water for members of your household?	**PIPED WATER** PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 COMMUNAL TAP . . . . . 13 **WATER FROM OPEN WELL** OPEN WELL IN YARD/PLOT . . . . . 21 OPEN PUBLIC WELL/ BOREHOLE . . . . . 32 **COVERED WELL/BOREHOLE** PROTECTED WELL/BOREHOLE IN YARD/PLOT . . . . . 42 PROTECTED PUBLIC WELL . . . . . 51 **SURFACE WATER** SPRING . . . . . 71 RIVER/STREAM . . . . . 72 POND/LAKE/DAM . . . . . 73 RAINWATER . . . . . 81 TANKER TRUCK . . . . . 91 CART WITH SMALL TANK . . . . . 92 BOTTLED WATER . . . . . 93 OTHER _____ 96 (SPECIFY)	→ 106 → 103 → 103 → 103
102	What is the **main** source of water used by your household for other purposes such as cooking and handwashing?	**PIPED WATER** PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 COMMUNAL TAP . . . . . 13 **WATER FROM OPEN WELL** OPEN WELL IN YARD/PLOT . . . . . 21 OPEN PUBLIC WELL/ BOREHOLE . . . . . 32 **COVERED WELL/BOREHOLE** PROTECTED WELL/BOREHOLE IN YARD/PLOT . . . . . 42 PROTECTED PUBLIC WELL . . . . . 51 **SURFACE WATER** SPRING . . . . . 71 RIVER/STREAM . . . . . 72 POND/LAKE/DAM . . . . . 73 RAINWATER . . . . . 81 TANKER TRUCK . . . . . 91 CART WITH SMALL TANK . . . . . 92 BOTTLED WATER . . . . . 93 OTHER _____ 96 (SPECIFY)	→ 106
103	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	→ **106**
104	How long does it take to go there, get water, and come back?	MINUTES . . . . . ☐☐☐ ON PREMISES . . . . . 996 DON'T KNOW 998	
105	Who usually goes to this source to fetch the water for your household?	ADULT WOMAN/WOMEN . . . . . 1 ADULT MAN/MEN . . . . . 2 FEMALE CHILD UNDER 15 YEARS OLD . . . . . 3 MALE CHILD UNDER 15 YEARS OLD . . . . . 4 OTHER _____ 6 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
106	Do you do anything to the water to make it safer to drink?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 108A
107	What do you usually do to make the water safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL . . . . . A ADD BLEACH/CHLORINE/CLORIN B STRAIN THROUGH A CLOTH . . . . . C USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.) . . . . . D SOLAR DISINFECTION . . . . . E LET IT STAND AND SETTLE . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
108A	How do you store your drinking water?	CLOSED CONTAINER/JERRY CAN . . . . . 1 OPEN CONTAINER/BUCKET . . . . . 2 OTHER _____ 6 (SPECIFY)	
108B	Have you ever seen or heard of a product called *Clorin*--- a liquid that is sold in a bottle and can be used to make water safe to drink?	YES . . . . . 1 NO 2	→ **108E**
108C	Where have you seen or heard messages about *Clorin?* Any other? CIRCLE ALL MENTIONED	RADIO . . . . . A TELEVISION . . . . . B SHOP . . . . . C LEAFLETS/BOOKLETS . . . . . D POSTER . . . . . E COMMUNITY-BASED AGENT . . . . . F OTHER _____ X (SPECIFY)	
108D	Is your household water currently treated with *Clorin* from a bottle?	YES . . . . . 1 NO 2	
108E	What kind of toilet facility do members of your household usually use?	**FLUSH OR POUR FLUSH TOILET** FLUSH TO PIPED SEWER SYSTEM . . . . . 11 FLUSH TO SEPTIC TANK . . . . . 12 FLUSH TO PIT LATRINE . . . . . 13 FLUSH TO SOMEWHERE ELSE . . . 14 FLUSH, DON'T KNOW WHERE . . . 15 **PIT LATRINE** VENTILATED IMPROVED PIT LATRINE . . . . . 21 PIT LATRINE WITH SLAB . . . . . 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT . . . . . 23 COMPOSTING TOILET . . . . . 31 BUCKET TOILET . . . . . 41 **HANGING TOILET/HANGING** LATRINE . . . . . 51 NO FACILITY/BUSH/FIELD . . . . . 61 OTHER _____ 96 (SPECIFY)	→ **111**
109	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	→ **111**
110	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . 0 ☐ 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	
111	Does your household have: Electricity? A radio? A television? A mobile telephone? A non-mobile telephone? A refrigerator? A bed? A Chair? A Table? A Cupboard? A Sofa? A Clock? A fan? A sewing machine? A Cassette player? A plough? A grain grinder? A VCR/DVD? A tractor? A vehicle? A Hammer mill?	YES NO ELECTRICITY . . . . . 1 2 RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 MOBILE TELEPHONE . . . . . 1 2 NON-MOBILE TELEPHONE . . 1 2 REFRIGERATOR . . . . . 1 2 BED . . . . . 1 2 CHAIR . . . . . 1 2 TABLE . . . . . 1 2 CUPBOARD . . . . . 1 2 SOFA . . . . . 1 2 CLOCK . . . . . 1 2 FAN . . . . . 1 2 SEWING MACHINE . . . . . 1 2 CASSETTE PLAYER . . . . . 1 2 PLOUGH . . . . . 1 2 GRAIN GRINDER . . . . . 1 2 VCR/DVD . . . . . 1 2 TRACTOR . . . . . 1 2 VEHICLE . . . . . 1 2 HAMMER MILL 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
112	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 SOLAR POWER . . . . . 02 LIQUID PROPANE GAS (LPG) . . . . . 03 NATURAL GAS . . . . . 04 BIOGAS . . . . . 05 KEROSENE . . . . . 06 COAL, LIGNITE . . . . . 07 CHARCOAL . . . . . 08 WOOD . . . . . 09 STRAW/SHRUBS/GRASS . . . . . 10 AGRICULTURAL CROP . . . . . 11 ANIMAL DUNG . . . . . 12 NO FOOD COOKED IN HOUSEHOLD . . . . . 95 OTHER _____ 96 (SPECIFY)	→ 115 → 117
113	In this household, is food cooked on an open fire, an open stove or a closed stove? PROBE FOR TYPE.	OPEN FIRE . . . . . 1 OPEN STOVE/BRAZIER . . . . . 2 CLOSED STOVE WITH CHIMNEY . . . 3 OTHER _____ 6 (SPECIFY)	→ 115
114	Does this (fire/stove) have a chimney, a hood, or neither of these?	CHIMNEY . . . . . 1 HOOD . . . . . 2 NEITHER 3	
115	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE . . . . . 1 IN A SEPARATE BUILDING . . . . . 2 OUTDOORS . . . . . 3 OTHER _____ 6 (SPECIFY)	→ 117
116	Do you have a separate room which is used as a kitchen?	YES . . . . . 1 NO 2	
117	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	**NATURAL FLOOR** EARTH/SAND . . . . . 11 DUNG . . . . . 12 **RUDIMENTARY FLOOR** WOOD PLANKS . . . . . 21 PALM/BAMBOO/LEEDS . . . . . 22 **FINISHED FLOOR** PARQUET OR POLISHED WOOD . . . . . 31 VINYL (PVC) OR ASPHALT STRIPS . 32 CERAMIC/TERRAZO TILES . . . . . 33 CONCRETE CEMENT . . . . . 34 CARPET . . . . . 35 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
118	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	**NATURAL ROOFING** NO ROOF . . . . . 11 THATCH/PALM LEAF . . . . . 12 **RUDIMENTARY ROOFING** RUSTIC MAT . . . . . 21 PALM/BAMBOO . . . . . 22 WOOD PLANKS . . . . . 23 CARDBOARD . . . . . 24 **FINISHED ROOFING** METAL/IRON SHEETS . . . . . 31 WOOD . . . . . 32 CALAMINE/CEMENT FIBER (ASBESTORS) . . . . . 33 CERAMIC TILES/HARVEY TILES . . . 34 CEMENT . . . . . 35 ROOFING SHINGLES . . . . . 36 MUD TILES . . . . . 37 OTHER _____ 96 (SPECIFY)	
119	MAIN MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	**NATURAL WALLS** NO WALLS . . . . . 11 CANE/PALM/TRUNKS . . . . . 12 MUD . . . . . 13 **RUDIMENTARY WALLS** BAMBOO/POLE WITH MUD . . . . . 21 STONE WITH MUD . . . . . 22 PLYWOOD . . . . . 23 CARDBOARD . . . . . 24 REUSED WOOD . . . . . 25 **FINISHED WALLS** CEMENT . . . . . 31 STONE WITH LIME/CEMENT . . . . . 32 BRICKS . . . . . 33 CEMENT BLOCKS . . . . . 34 WOOD PLANKS . . . . . 35 OTHER _____ 96 (SPECIFY)	
120	How many rooms in this household are used for sleeping?	ROOMS . . . . . ☐☐	
121	Does any member of this household own: A watch? A bicycle? A motorcycle or motor scooter? An animal-drawn cart? A car or truck? A boat with a motor? A banana boat?	YES NO WATCH . . . . . 1 2 BICYCLE . . . . . 1 2 MOTORCYCLE/SCOOTER . . . . 1 2 ANIMAL-DRAWN CART . . . . . 1 2 CAR/TRUCK . . . . . 1 2 BOAT WITH MOTOR . . . . . 1 2 BANANA BOAT 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
122	Does any member of this household own any agricultural land?	YES . . . . . 1 NO 2	→ 124
123	How much of agricultural land do members of this household own?	LIMA . . . . . 1 ☐☐ ACRES . . . . . 2 ☐☐ HECTARES . . . . . 3 ☐☐ 95 OR MORE HECTARES . . . . . 995 DON'T KNOW 998	
124	Does this household own any livestock, herds, other farm animals, or poultry?	YES . . . . . 1 NO 2	→ 126
125	How many of the following animals does this household own? IF NONE, ENTER '00'. IF MORE THAN 95, ENTER '95'. IF UNKNOWN, ENTER '98'.		
	Traditional cattle?	TRADITIONAL . . . . . ☐☐	
	Dairy cattle	DAIRY . . . . . ☐☐	
	Beef cattle	BEEF . . . . . ☐☐	
	Horses, donkeys, or mules?	HORSES/DONKEYS/MULES . . . . . ☐☐	
	Goats?	GOATS . . . . . ☐☐	
	Sheep?	SHEEP . . . . . ☐☐	
	Pigs?	PIGS . . . . . ☐☐	
	Chickens?	CHICKENS . . . . . ☐☐	
	Other Poultry?	OTHER POULTRY . . . . . ☐☐	
	Other Livestock?	OTHER LIVESTOCK . . . . . ☐☐	
126	Does any member of this household have a bank account?	YES . . . . . 1 NO 2	
127	Does your household have any mosquito nets that can be used while sleeping?	YES . . . . . 1 NO 2	→ 137A
128	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS . . . . . ☐	

		NET #1	NET #2	NET #3
129	ASK THE RESPONDENT TO SHOW YOU THE NETS IN THE HOUSEHOLD. IF MORE THAN 3 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED . . . . . 1 NOT OBSERVED . 2 OTHER_____ 6 (SPECIFY)	OBSERVED . . . . . 1 NOT OBSERVED . 2 OTHER_____ 6 (SPECIFY)	OBSERVED . . . . . 1 NOT OBSERVED . 2 OTHER_____ 6 (SPECIFY)
129A	Where did you get this net from?	ANC . . . . . 1 COMMERCIAL SHOP 2 HEALTH CENTRE . . . 3 COMMUNITY BASED AGENT . . . . . 4 OTHER_____ 6 (SPECIFY)	ANC . . . . . 1 COMMERCIAL SHOP 2 HEALTH CENTRE . . . 3 COMMUNITY BASED AGENT . . . . . 4 OTHER_____ 6 (SPECIFY)	ANC . . . . . 1 COMMERCIAL SHOP 2 HEALTH CENTRE . . . 3 COMMUNITY BASED AGENT . . . . . 4 OTHER_____ 6 (SPECIFY)
130	How many months ago did your household obtain the mosquito net? IF LESS THAN ONE MONTH, RECORD '00'.	MONTHS AGO . . . . . [ ][ ] 37 OR MORE MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . . . [ ][ ] 37 OR MORE MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . . . [ ][ ] 37 OR MORE MONTHS AGO . . . 95 NOT SURE 98
131	OBSERVE OR ASK THE BRAND/ TYPE OF MOSQUITO NET.	'PERMANENT' NET PermaNET . . . . . 11 OLICET . . . . . 12 OTHER/ DK BRAND . . . . . 16 (SKIP TO 135) 'PRETREATED' NET K-0NET . . . . . 21 SAFENITE . . . . . 22 OTHER/ DK BRAND . . . . . 26 (SKIP TO 133) OTHER _____ 31 (SPECIFY) DK BRAND 98	'PERMANENT' NET PermaNET . . . . . 11 OLICET . . . . . 12 OTHER/ DK BRAND . . . . . 16 (SKIP TO 135) 'PRETREATED' NET K-0NET . . . . . 21 SAFENITE . . . . . 22 OTHER/ DK BRAND . . . . . 26 (SKIP TO 133) OTHER _____ 31 (SPECIFY) DK BRAND 98	'PERMANENT' NET PermaNET . . . . . 11 OLICET . . . . . 12 OTHER/ DK BRAND . . . . . 16 (SKIP TO 135) 'PRETREATED' NET K-0NET . . . . . 21 SAFENITE . . . . . 22 OTHER/ DK BRAND . . . . . 26 (SKIP TO 133) OTHER _____ 31 (SPECIFY) DK BRAND 98
132	When you got the net, was it treated with an insecticide to kill or repel mosquitos?	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8
133	Since you got the mosquito net, was it ever soaked or dipped in a liquid to kill or repel mosquitos?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 135) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 135) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 135) NOT SURE 8
134	How many months ago was the net last soaked or dipped? IF LESS THAN ONE MONTH, RECORD '00'.	MONTHS AGO . . . . . [ ][ ] 25 OR MORE MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . . . [ ][ ] 25 OR MORE MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . . . [ ][ ] 25 OR MORE MONTHS AGO . . . 95 NOT SURE 98
135	Did anyone sleep under this mosquito net last night?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 137) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 137) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 137) NOT SURE 8

		NET #1	NET #2	NET #3
136	Who slept under this mosquito net last night? RECORD THE PERSON'S LINE NUMBER FROM THE HOUSEHOLD SCHEDULE.	NAME_____ LINE NO. . . . . ☐☐ NAME_____ LINE NO. . . . . ☐☐ NAME_____ LINE NO. . . . . ☐☐ NAME_____ LINE NO. . . . . ☐☐	NAME_____ LINE NO. . . . . ☐☐ NAME_____ LINE NO. . . . . ☐☐ NAME_____ LINE NO. . . . . ☐☐ NAME_____ LINE NO. . . . . ☐☐	NAME_____ LINE NO. . . . . ☐☐ NAME_____ LINE NO. . . . . ☐☐ NAME_____ LINE NO. . . . . ☐☐ NAME_____ LINE NO. . . . . ☐☐
137		GO BACK TO 129 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 137A.	GO BACK TO 129 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 137A.	GO TO 129 IN FIRST COLUMN OF A NEW QUESTIONNAIRE; OR, IF NO MORE NETS, GO TO 137A.

137A	In the last twelve months, has your house been sprayed to kill mosquitoes?	YES . . . . . 1 NO . . . . . 2 → 138
137B	Who sprayed?	MINISTRY OF HEALTH(e.g NMCC) . . . . . A COUNCIL . . . . . B MINES . . . . . C SELF . . . . . D OTHER_____ X (SPECIFY)
138	ASK RESPONDENT FOR A TEASPOONFUL OF COOKING SALT. TEST SALT FOR IODINE (POTASIUM IODATE). RECORD PPM (PARTS PER MILLION)	0 PPM (NO IODINE) . . . . . 1 25 PPM . . . . . 2 50 PPM . . . . . 3 75 PPM AND ABOVE . . . . . 4 NO SALT IN HH . . . . . 5 SALT NOT TESTED _____ 6 (SPECIFY REASON)

SUPPORT FOR SICK PEOPLE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		
201	CHECK QUESTIONS 7 AND 12 IN THE HOUSEHOLD SCHEDULE: NUMBER OF SICK PEOPLE AGE 15-59 ☐☐ AT LEAST ONE ☐ ↓ NONE ☐ → 301			
202	ENTER IN QUESTION 203 THE LINE NUMBER AND NAME OF EACH SICK PERSON AGE 15-59, BEGINNING WITH THE FIRST SICK PERSON LISTED IN QUESTION 12 IN THE HOUSEHOLD SCHEDULE. IF THERE ARE MORE THAN 3 SICK PEOPLE, USE ADDITIONAL QUESTIONNAIRE(S). READ THE INTRODUCTION THAT FOLLOWS. THEN ASK QUESTIONS 204-215 AS APPROPRIATE FOR EACH OF THE PERSONS AGE 15-59 REPORTED AS HAVING BEEN VERY SICK. You told me that in your household one (some) of the members of your household has(ve) been sick for at least three of the past 12 months. We are interested in learning about the care and support that may have been received for [that/each of those persons]. First I would like to ask you about any formal, organized help or support that your household may have been given for [that/each of those] person(s) for which you did not have to pay. By formal, organized support I mean help provided by someone working for a program. This program could be government, private, religious, charity, or community based.			
203	NAME AND LINE NUMBER FROM COLUMNS 1 AND 2 OF THE HOUSEHOLD SCHEDULE	1ST SICK PERSON NAME _____ LINE NO. ... ☐☐	2ND SICK PERSON NAME _____ LINE NO. ... ☐☐	3RD SICK PERSON NAME _____ LINE NO. ... ☐☐
204	Now I would like to ask you about any support you received for (NAME). In the last 12 months, has your household received any medical support for (NAME), such as medical care, supplies or medicine, for which you did not have to pay?	YES ..... 1 NO ..... 2 (SKIP TO 206) ← DK 8	YES ..... 1 NO ..... 2 (SKIP TO 206) ← DK 8	YES ..... 1 NO ..... 2 (SKIP TO 206) ← DK 8
205	Did your household receive any of this medical support at least once a month while (NAME) was sick?	YES ..... 1 NO ..... 2 DK 8	YES ..... 1 NO ..... 2 DK 8	YES ..... 1 NO ..... 2 DK 8
206	In the last 12 months, has your household received any emotional or psychological support for (NAME), such as companionship, counseling from a trained counselor, or spiritual support, for which you did not have to pay?	YES ..... 1 NO ..... 2 (SKIP TO 208) ← DK 8	YES ..... 1 NO ..... 2 (SKIP TO 208) ← DK 8	YES ..... 1 NO ..... 2 (SKIP TO 208) ← DK 8
207	Did your household receive any of this emotional or psychological support in the past 30 days?	YES ..... 1 NO ..... 2 DK 8	YES ..... 1 NO ..... 2 DK 8	YES ..... 1 NO ..... 2 DK 8
208	In the last 12 months, has your household received any material support for (NAME), such as clothing, food, or financial support, for which you did not have to pay?	YES ..... 1 NO ..... 2 (SKIP TO 210) ← DK 8	YES ..... 1 NO ..... 2 (SKIP TO 210) ← DK 8	YES ..... 1 NO ..... 2 (SKIP TO 210) ← DK 8
209	Did your household receive any of this material support in the past 30 days?	YES ..... 1 NO ..... 2 DK 8	YES ..... 1 NO ..... 2 DK 8	YES ..... 1 NO ..... 2 DK 8
210	In the last 12 months, has your household received any social support for (NAME), such as help in household work, training for a caregiver, or legal services, for which you did not have to pay?	YES ..... 1 NO ..... 2 (SKIP TO 212A) ← DK 8	YES ..... 1 NO ..... 2 (SKIP TO 212A) ← DK 8	YES ..... 1 NO ..... 2 (SKIP TO 212A) ← DK 8
211	Did your household receive any of this social support in the past 30 days?	YES ..... 1 NO ..... 2 DK 8	YES ..... 1 NO ..... 2 DK 8	YES ..... 1 NO ..... 2 DK 8

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		
		1ST SICK PERSON NAME _____	2ND SICK PERSON NAME _____	3RD SICK PERSON NAME _____
212A	ASK SICK PERSON OR CARETAKER Now I would like to ask about health problems (NAME) may have recently had. In the last 30 days, has (NAME) had severe pain, mild pain, or no pain at all?	SEVERE . . . . . 1 MILD . . . . . 2 NOT AT ALL . 3 (SKIP TO 214) ←	SEVERE . . . . . 1 MILD . . . . . 2 NOT AT ALL . 3 (SKIP TO 214) ←	SEVERE . . . . . 1 MILD . . . . . 2 NOT AT ALL . 3 (SKIP TO 214) ←
212B	ASK SICK PERSON OR CARETAKER In the last 30 days, has (NAME) been bed ridden?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
213	ASK SICK PERSON OR CARETAKER When (NAME) was in pain, was he/she able to reduce or stop the pain most of the time, some of the time, or not at all?	MOST TIME . 1 SOME TIME . 2 NOT AT ALL . 3	MOST TIME . 1 SOME TIME . 2 NOT AT ALL . 3	MOST TIME . 1 SOME TIME . 2 NOT AT ALL . 3
214	ASK SICK PERSON OR CARETAKER In the last 30 days, did (NAME) suffer from nausea, coughing, diarrhea, or constipation?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 216) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO 216) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO 216) ←
214A	ASK SICK PERSON OR CARETAKER Was this problem (were any of these problems) ever severe?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
215	ASK SICK PERSON OR CARETAKER Was (NAME) able to reduce or stop this (these) problem(s) most of the time, some of the time, or not at all?	MOST TIME . 1 SOME TIME . 2 NOT AT ALL . 3	MOST TIME . 1 SOME TIME . 2 NOT AT ALL . 3	MOST TIME . 1 SOME TIME . 2 NOT AT ALL . 3
216		GO BACK TO 204 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF ADDITIONAL QUESTIONNAIRE(S); IF THERE ARE NO MORE SICK PEOPLE, GO TO 301.		

SUPPORT FOR PERSONS WHO HAVE DIED

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
301	Now I would like to ask you a few more questions about your household. Think back over the past 12 months. Has any usual member of your household died in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 401
302	How many household members died in the last 12 months?	NUMBER OF DEATHS	
303	ASK 304-322 AS APPROPRIATE FOR EACH PERSON WHO DIED. IF THERE WERE MORE THAN 3 DEATHS, USE ADDITIONAL QUESTIONNAIRE(S).		

		NAME 1ST DEATH	NAME 2ND DEATH	NAME 3RD DEATH
304	What was the name of the person who died (most recently/before him/her)?	_____	_____	_____
305	Was (NAME) male or female?	MALE . . . . . 1 FEMALE 2	MALE . . . . . 1 FEMALE 2	MALE . . . . . 1 FEMALE 2
306	How old was (NAME) when (he/she) died?	AGE . ☐☐	AGE . ☐☐	AGE . ☐☐
307	CHECK 306: AGE OF PERSON AT DEATH	<15 (SKIP TO 318) 60+ (SKIP TO 318) 15-59	<15 (SKIP TO 318) 60+ (SKIP TO 318) 15-59	<15 (SKIP TO 318) 60+ (SKIP TO 318) 15-59
308	Was (NAME) very sick for at least three of the 12 months before (he/she) died, that is (NAME) was too sick to work or do normal activities?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 318) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 318) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 318) DK 8
309	I would like to ask you about any formal, organized help or support that your household may have received for [NAME] before (he/she) died, for which you did not have to pay. By formal, organized support I mean help provided by someone working for a program. This program could be government, private, religious, charity, or community based.			
310	In the last 12 months, did your household receive any medical supplies for (NAME), such as medical care, supplies or medicine, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312) DK 8
311	Did your household receive any of this medical support at least once a month while (NAME) was sick?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
312	In the last 12 months, did your household receive any emotional or psychological support for (NAME), such as companionship, counseling from a trained counselor, or spiritual support for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 314) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 314) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 314) DK 8
313	Did your household receive any of this emotional or psychological support in the last 30 days before (NAME)'s death?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
314	In the last 12 months, did your household receive any material support for (NAME), such as clothing, food, or financial support, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 316) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 316) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 316) DK 8
315	Did your household receive any of this material support in the last 30 days before (NAME)'s death?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
316	In the last 12 months, did your household receive any social support for (NAME), such as help in household work, training for a caregiver, or legal services, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 318) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 318) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 318) DK 8
317	Did your household receive any of this social support in the last 30 days before (NAME)'s death?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8

		NAME 1ST DEATH	NAME 2ND DEATH	NAME 3RD DEATH
318	Now I would like to ask about the health problems (NAME) may have had. In the 30 days before (NAME) died, did he/she have severe pain, mild pain, or no pain at all?	SEVERE . . . . . 1 MILD . . . . . 2 NOT AT ALL . 3 (SKIP TO 320)	SEVERE . . . . . 1 MILD . . . . . 2 NOT AT ALL . 3 (SKIP TO 320)	SEVERE . . . . . 1 MILD . . . . . 2 NOT AT ALL . 3 (SKIP TO 320)
319	When (NAME) was in pain, was he/she able to reduce or stop the pain most of the time, some of the time, or not at all?	MOST TIME 1 SOME TIME 2 NOT AT ALL . 3	MOST TIME 1 SOME TIME 2 NOT AT ALL . 3	MOST TIME 1 SOME TIME 2 NOT AT ALL . 3
320	In the 30 days before (NAME) died, did he/she suffer from nausea, coughing, diarrhea, or constipation?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 322)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 322)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 322)
320A	Was this problem (were any of these problems) ever severe?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
321	Was (NAME) able to reduce or stop the problems he/she had most of the time, some of the time or not at all?	MOST TIME 1 SOME TIME 2 NOT AT ALL . 3	MOST TIME 1 SOME TIME 2 NOT AT ALL . 3	MOST TIME 1 SOME TIME 2 NOT AT ALL . 3
322		GO BACK TO 304 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF ADDITIONAL QUESTIONNAIRE(S); IF NO MORE DEATHS, GO TO 401.		

SUPPORT FOR ORPHANS AND VULNERABLE CHILDREN

NO.	QUESTIONS AND FILTERS	SKIP
401	CHECK COLUMN 7 IN THE HOUSEHOLD SCHEDULE: **ANY CHILD AGE 0-17?** AT LEAST ONE CHILD AGE 0-17 ☐ ↓ NO CHILD AGE 0-17 ☐ → 501	
402	CHECK COLUMN 12 IN THE HOUSEHOLD SCHEDULE: **ANY SICK ADULT AGE 15-59 WHO IS VERY SICK?** NO SICK ADULT AGE 15-59 ☐ ↓ AT LEAST ONE SICK ADULT AGE 15-59 ☐ → GO TO 406. CHECK QUESTION 7 IN THE HOUSEHOLD SCHEDULE AND LIST THE NAME(S), LINE NUMBER(S) AND AGE(S) OF ALL PERSONS AGE 0-17 YEARS.	
403	CHECK 306 IN THE PREVIOUS SECTION: **ANY ADULT AGE 15-59 WHO DIED IN PAST 12 MONTHS?** NO ADULT DEATH AGE 15-59 IN 306 ☐ ↓ AT LEAST ONE ADULT DEATH AGE 15-59 IN 306 ☐ → GO TO 406. CHECK QUESTION 7 IN THE HOUSEHOLD SCHEDULE AND LIST THE NAME(S), LINE NUMBER(S) AND AGE(S) OF ALL PERSONS AGE 0-17 YEARS.	
404	CHECK COLUMN 19 IN THE HOUSEHOLD SCHEDULE: **ANY CHILD WHOSE MOTHER AND/OR FATHER HAS DIED OR WHOSE MOTHER AND/OR FATHER IS NOT LISTED IN THE HOUSEHOLD SCHEDULE AND IS VERY SICK?** AT LEAST ONE CHILD WHOSE MOTHER AND/OR FATHER HAS DIED/IS NOT LISTED IN THE HOUSEHOLD SCHEDULE AND HAS BEEN VERY SICK ☐ ↓ NO CHILD WHOSE MOTHER AND/OR FATHER HAS DIED OR IS NOT LISTED IN HOUSEHOLD SCHEDULE AND HAS BEEN VERY SICK ☐ → 501	

405	RECORD NAMES, LINE NUMBERS AND AGES OF CHILDREN AGE 0-17 FOR ALL CHILDREN WHO ARE IDENTIFIED IN COLUMN 19 AS HAVING A MOTHER AND/OR FATHER WHO HAS DIED OR HAS BEEN SICK FOR AT LEAST THREE MONTHS.				
406		1ST CHILD	2ND CHILD	3RD CHILD	4TH CHILD
	NAME FROM COLUMN 2	NAME _____	NAME _____	NAME _____	NAME _____
	LINE NUMBER FROM COLUMN 1	LINE NO. ☐☐	LINE NO. ☐☐	LINE NO. ☐☐	LINE NO. ☐☐
	AGE FROM COLUMN 7	AGE ☐☐	AGE ☐☐	AGE ☐☐	AGE ☐☐
407	I would like to ask you about any formal, organized help or support for children that your household may have received for which you did not have to pay. By formal, organized support I mean help provided by someone working for a program. This program could be government, private, religious, charity, or community based.				
408	Now I would like to ask you about the support your household received for (NAME). In the last 12 months, has your household received any medical support for (NAME), such as medical care, supplies or medicine, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
409	In the last 12 months, has your household received any emotional or psychological support for (NAME), such as companionship, counseling from a trained counselor, or spiritual support, which you received at home and for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8
410	Did your household receive any of this emotional or psychological support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
411	In the last 12 months, has your household received any material support for (NAME), such as clothing, food, or financial support, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8
412	Did your household receive any of this material support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
413	In the last 12 months, has your household received any social support for (NAME) such as help in household work, training for a caregiver, or legal services for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8
414	Did your household receive any of this social support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
415	CHECK 406: AGE OF CHILD	AGE 0-4 (SKIP TO 417) AGE 5-17	AGE 0-4 (SKIP TO 417) AGE 5-17	AGE 0-4 (SKIP TO 417) AGE 5-17	AGE 0-4 (SKIP TO 417) AGE 5-17
416	In the last 12 months, has your household received any support for (NAME'S) schooling, such as allowance, free admission, books or supplies, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
417		GO BACK TO 408 FOR NEXT CHILD; OR, IF NO MORE CHILDREN, GO TO 501.			

NO.	CODING CATEGORIES				
		5TH CHILD	6TH CHILD	7TH CHILD	8TH CHILD
406	NAME FROM COLUMN 2 LINE NUMBER FROM COLUMN 1 AGE FROM COLUMN 7	NAME _____ LINE NO. . . . ☐☐ AGE . ☐☐	NAME _____ LINE NO. . . . ☐☐ AGE . ☐☐	NAME _____ LINE NO. . . . ☐☐ AGE . ☐☐	NAME _____ LINE NO. . . . ☐☐ AGE . ☐☐
408	Now I would like to ask you about the support your household received for (NAME). In the last 12 months, has your household received any medical support for (NAME), such as medical care, supplies or medicine, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
409	In the last 12 months, has your household received any emotional or psychological support for (NAME), such as companionship, counseling from a trained counselor, or spiritual support, which you received at home and for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8
410	Did your household receive any emotional or psychological support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
411	In the last 12 months, has your household received any material support for (NAME), such as clothing, food, or financial support, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8
412	Did your household receive any material support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
413	In the last 12 months, has your household received any social support for (NAME) such as help in household work, training for a caregiver, or legal services for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8
414	Did your household receive any social support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
415	CHECK 406: AGE OF CHILD	AGE 0-4 (SKIP TO 417) ← AGE 5-17 ↓	AGE 0-4 (SKIP TO 417) ← AGE 5-17 ↓	AGE 0-4 (SKIP TO 417) ← AGE 5-17 ↓	AGE 0-4 (SKIP TO 417) ← AGE 5-17 ↓
416	In the last 12 months, has your household received any support for (NAME'S) schooling, such as allowance, free admission, books or supplies, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
417		GO BACK TO 408 FOR NEXT CHILD; OR, IF NO MORE CHILDREN, GO TO 501.			

WEIGHT AND HEIGHT MEASUREMENT FOR CHILDREN AGE 0-5 YEARS

501	CHECK COLUMN 11. RECORD THE LINE NUMBER AND AGE FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 502. IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S). CHECK COLUMN 11 IN THE HOUSEHOLD SCHEDULE: **ANY CHILD 0-5?** AT LEAST ONE CHILD AGE 0-5 ☐ ↓ NO CHILD AGE 0-5 ☐ → 515			
		CHILD 1	CHILD 2	CHILD 3
502	LINE NUMBER FROM COLUMN 11 NAME FROM COLUMN 2	LINE NUMBER . . . ☐☐ NAME _____	LINE NUMBER . . . ☐☐ NAME _____	LINE NUMBER . . . ☐☐ NAME _____
503	What is (NAME'S) birth date? IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK DAY, MONTH AND YEAR.	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐
504	CHECK 503: CHILD BORN IN JANUARY 2002 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)	YES . . . . . 1 NO . . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)	YES . . . . . 1 NO . . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)
505	WEIGHT IN KILOGRAMS	KG. . . . ☐☐.☐	KG. . . . ☐☐.☐	KG. . . . ☐☐.☐
506	HEIGHT IN CENTIMETERS FOR CHILDREN AGED 24 MONTHS AND BELOW, MEASURE HEIGHT IN LYING POSITION	CM. ☐☐☐.☐	CM. ☐☐☐.☐	CM. ☐☐☐.☐
507	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2
508	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER _____ 6 (SPECIFY)	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER _____ 6 (SPECIFY)	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER _____ 6 (SPECIFY)
509		GO BACK TO 503 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE ADDITIONAL QUESTIONNAIRE(S); IF NO MORE CHILDREN, GO TO 515.		

WEIGHT AND HEIGHT MEASUREMENT FOR CHILDREN AGE 0-5 YEARS

		CHILD 4	CHILD 5	CHILD 6
502	LINE NUMBER FROM COLUMN 11 NAME FROM COLUMN 2	LINE NUMBER . . . ☐☐ NAME _____	LINE NUMBER . . . ☐☐ NAME _____	LINE NUMBER . . . ☐☐ NAME _____
503	What is (NAME'S) birth date? IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK DAY, MONTH AND YEAR.	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐
504	CHECK 503: CHILD BORN IN JANUARY 2002 OR LATER	YES . . . . . 1 NO . . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)	YES . . . . . 1 NO . . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)	YES . . . . . 1 NO . . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 515)
505	WEIGHT IN KILOGRAMS	KG. . . . ☐☐.☐	KG. . . . ☐☐.☐	KG. . . . ☐☐.☐
506	HEIGHT IN CENTIMETERS FOR CHILDREN AGED 24 MONTHS AND BELOW, MEASURE HEIGHT IN LYING POSITION	CM. ☐☐☐.☐	CM. ☐☐☐.☐	CM. ☐☐☐.☐
507	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2
508	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER _____ 6 (SPECIFY)	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER _____ 6 (SPECIFY)	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER _____ 6 (SPECIFY)
509		GO BACK TO 503 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF ADDITIONAL QUESTIONNAIRE(S); IF NO MORE CHILDREN, GO TO 515.		

TICK HERE IF CONTINUED IN ANOTHER QUESTIONNAIRE. ☐

WEIGHT AND HEIGHT MEASUREMENT, HIV AND SYPHLIS TESTING FOR WOMEN AGE 15-49

515 CHECK COLUMN 9. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE WOMEN IN 516.
IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S).

A FINAL OUTCOME FOR THE HIV TEST PROCEDURE MUST RECORDED IN 527 FOR EACH ELIGIBLE WOMAN.

		WOMAN 1	WOMAN 2	WOMAN 3
516	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
517	WEIGHT IN KILOGRAMS	KG. . . . . [ ][ ][ ].[ ]	KG. . . . . [ ][ ][ ].[ ]	KG. . . . . [ ][ ][ ].[ ]
518	HEIGHT IN CENTIMETERS	CM. . . . . [ ][ ][ ].[ ]	CM. . . . . [ ][ ][ ].[ ]	CM. . . . . [ ][ ][ ].[ ]
519	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER _____ 6 (SPECIFY)	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER _____ 6 (SPECIFY)	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER _____ 6 (SPECIFY)
520	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 523)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 523)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 523)
521	MARITAL STATUS: CHECK COLUMN 8.	CODE 6 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 523)	CODE 6 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 523)	CODE 6 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 523)
522	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]

		WOMAN 1	WOMAN 2	WOMAN 3
	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
523	PREGNANT STATUS ASK: Are you pregnant?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
524	READ THE HIV TEST CONSENT STATEMENT. FOR NEVER-IN-UNION WOMEN AGE 15-17, ASK CONSENT FROM PARENT/ OTHER ADULT IDENTIFIED IN 522 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)
525	CHECK 524 AND PREPARE EQUIPMENT AND SUPPLIES FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S). A FINAL OUTCOME FOR THE HIV TEST PROCEDURE MUST BE RECORDED IN FOR EACH ELIGIBLE WOMAN EVEN IF SHE WAS NOT PRESENT, REFUSED, OR COULD NOT BE TESETD FOR SOME OTHER REASON			
526	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
527	OUTCOME OF HIV TEST PROCEDURE	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
528	CHECK 527: SAMPLE COLLECTED?	FILTER PAPER . . . . . 1 NO SAMPLE 2	FILTER PAPER . . . . . 1 NO SAMPLE 2	FILTER PAPER . . . . . 1 NO SAMPLE 2

CONSENT STATEMENT FOR HIV TEST

READ CONSENT STATEMENT TO EACH FEMALE RESPONDENT. CIRCLE CODE '1' IN FIELD 524
IF RESPONDENT CONSENTS TO THE HIV TEST AND CODE '3' IF SHE REFUSES.

FOR NEVER-MARRIED WOMEN AGE 15-17 YEARS, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 522) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 524 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

As part of the survey we are asking people all over the country to give a few drops of blood for an HIV test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Zambia.

For the HIV test, we need a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

No name will be attached so we will not be able to tell you the test results. No one else will be able to know the test results either.

If you want to know whether you have HIV, I can provide you with a list of nearby facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.

Will you (NAME OF ADOLESCENT) take the HIV test?

		WOMAN 1	WOMAN 2	WOMAN 3
	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
529	CHECK 527: OUTCOME OF HIV TEST	BLOOD TAKEN → ; BLOOD NOT TAKEN → GO TO NEXT WOMAN	BLOOD TAKEN → ; BLOOD NOT TAKEN → GO TO NEXT WOMAN	BLOOD TAKEN → ; BLOOD NOT TAKEN → GO TO NEXT WOMAN
530	READ THE CONSENT STATEMENT FOR ADDITIONAL TESTS. FOR NEVER-IN UNION WOMEN AGE 15-17, ASK CONSENT FROM PARENT/ OTHER ADULT IDENTIFIED IN 522 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)
531	ADDITIONAL TESTS	CHECK 530: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 530: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 530: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.

CONSENT STATEMENT FOR ADDITIONAL TESTS

READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN 530 IF RESPONDENT CONSENTS TO THE ADDITIONAL TESTS AND CODE 3' IF SHE REFUSES.

FOR NEVER-MARRIED WOMEN AGE 15-17 YEARS, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 522) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 530 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

We ask you to allow the Ministry of Health and Central Statistical Office to store part of the blood sample at the laboratory to be used for testing or research in the future. At this time we are not certain about what tests might be done.

The blood sample will not have any name or other data attached that could identify (you/NAME OF ADOLESCENT). You do not have to agree. If you do not want the blood sample stored for later use, (you/NAME OF ADOLESCENT) can still participate in the HIV and syphilis testing in this survey. Will you allow us to keep the blood sample stored for later testing or research?

528A CHECK COVER OF HOUSEHOLD QUESTIONNAIRE TO DETERMINE IF HOUSEHOLD SELECTED FOR SYPHILIS TESTING.

HOUSEHOLD SELECTED FOR SYPHILIS TESTING ☐ ↓

HOUSEHOLD NOT SELECTED FOR SYPHILIS TESTING ☐ → 536

		WOMAN 1	WOMAN 2	WOMAN 3
	LINE NUMBER (QUESTION 9) NAME (QUESTION 2)	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
532	READ THE SYPHILIS TEST CONSENT STATEMENT. FOR NEVER-IN-UNION WOMEN AGE 15-17, ASK CONSENT FROM PARENT/ OTHER ADULT IDENTIFIED IN 522 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)
533	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
534	OUTCOME OF SYPHILIS TEST PROCEDURE	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
535	CHECK 534: OUTCOME OF SYPHILIS TEST	BLOOD TAKEN ↓ / BLOOD NOT TAKEN ↓ GO TO NEXT WOMAN	BLOOD TAKEN ↓ / BLOOD NOT TAKEN ↓ GO TO NEXT WOMAN	BLOOD TAKEN ↓ / BLOOD NOT TAKEN ↓ GO TO NEXT WOMAN

CONSENT STATEMENT FOR SYPHILIS TEST

READ CONSENT STATEMENT TO EACH FEMALE RESPONDENT. CIRCLE CODE '1' IN 532 IF RESPONDENT CONSENTS TO THE SYPHILIS TEST AND CODE '3' IF SHE REFUSES.

FOR NEVER-MARRIED WOMEN AGE 15-17 YEARS ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 522) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 532 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

As part of the survey we are asking people all over the country to give a small amount of blood for a syphilis test. Syphilis can cause serious problems if it is not treated. The results from this survey will help the government to develop programs to prevent and treat syphilis.

For the syphilis test, we need a small amount of blood from your arm. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested tonight and if you want to know the test result, I will be back tomorrow to give you the result if you tell me when you will be here. If the test shows you have syphilis, we would provide free treatment for you and your partner(s) at home or at the nearest health cetner. No one will know the results of your test except for you and me.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.

Will you (NAME OF ADOLESCENT) to take the syphilis test?

Will you an d(NAME OF ADOLESCENT) want to know th etest result and to be treated if (NAME OF ADOLESCENT) has syphilis?

HIV AND SYPHILIS TESTING FOR MEN AGE 15-59

536 CHECK COLUMN 10. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE MEN IN 537.
IF THERE ARE MORE THAN THREE MEN, USE ADDITIONAL QUESTIONNAIRE(S).

A FINAL OUTCOME FOR THE HIV TEST PROCEDURE MUST RECORDED IN 544 FOR EACH ELIGIBLE MAN.

		MAN 1	MAN 2	MAN 3
537	LINE NUMBER (COLUMN 10) NAME (COLUMN 2)	LINE NUMBER . . . . . . NAME _____	LINE NUMBER . . . . . . NAME _____	LINE NUMBER . . . . . . NAME _____
538	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 541)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 541)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 541)
539	MARITAL STATUS: CHECK COLUMN 8.	CODE 6 (NEVER IN UNION) . . . . . 1 OTHER _____ 6 (GO TO 541)	CODE 6 (NEVER IN UNIO . . . . . 1 OTHER _____ 6 (GO TO 541)	CODE 6 (NEVER IN UNION . . . . . 1 OTHER _____ 6 (GO TO 541)
540	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT .	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT .	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT .
541	READ THE HIV TEST CONSENT STATEMENT. FOR NEVER-IN-UNION MEN AGE 15-17, ASK CONSENT FROM PARENT/ OTHER ADULT IDENTIFIED IN 540 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSEI . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)

542	CHECK 541 AND PREPARE EQUIPMENT AND SUPPLIES FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S). A FINAL OUTCOME OF THE HIV TEST PROCEDURE MUST BE RECORDED IN 544 FOR EACH ELIGIBLE MAN EVEN IF HE WAS NOT PRESENT, REFUSED, OR COULD NOT BE TESTED FOR SOME OTHER REASON.			
543	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
544	OUTCOME OF HIV TEST PROCEDURE	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
545	CHECK 544: SAMPLE COLLECTED?	FILTER PAPER . . . . . 1 NO SAMPLE 2	FILTER PAPER . . . . . 1 NO SAMPLE 2	FILTER PAPER . . . . . 1 NO SAMPLE 2

CONSENT STATEMENT FOR HIV TEST

READ CONSENT STATEMENT TO EACH MALE RESPONDENT. CIRCLE CODE '1' IN 541 IF RESPONDENT CONSENTS TO THE HIV TEST AND CODE '3' IF HE REFUSES.

FOR NEVER-MARRIED MEN AGE 15-17 YEARS ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 540) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 541 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

As part of the survey we are asking people all over the country to give a few drops of blood for an HIV test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Zambia.

For the HIV test, we need a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

No name will be attached so we will not be able to tell you the test results. No one else will be able to know the test results either.

If you want to know whether you have HIV, I can provide you with a list of nearby facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.

Will you (NAME OF ADOLESCENT) take the HIV test?

546	CHECK 544 OUTCOME OF HIV TEST	BLOOD TAKEN → BLOOD NOT TAKEN → GO TO NEXT MAN	BLOOD TAKEN → BLOOD NOT TAKEN → GO TO NEXT MAN	BLOOD TAKEN → BLOOD NOT TAKEN → GO TO NEXT MAN
547	READ THE CONSENT STATEMENT FOR ADDITIONAL TESTS WITH LEFT OVER BLOOD. FOR NEVER-IN-UNION MEN AGE 15-17, ASK CONSENT FROM PARENT/ OTHER ADULT IDENTIFIED IN 540 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)
548	ADDITIONAL TESTS	CHECK 547: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 547: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 547: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.

CONSENT STATEMENT FOR ADDITIONAL TESTS

READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN 547 IF RESPONDENT CONSENTS TO THE ADDITIONAL TESTS AND CODE 3' IF SHE REFUSES.

FOR NEVER-MARRIED MEN AGE 15-17 YEARS, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 540) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 547 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

We ask you to allow the Ministry of Health and Central Statistical Office to store part of the blood sample at the laboratory to be used for testing or research in the future. At this time we are not certain about what tests might be done.

The blood sample will not have any name or other data attached that could identify (you/NAME OF ADOLESCENT). You do not have to agree. If you do not want the blood sample stored for later use, (you/NAME OF ADOLESCENT) can still participate in the HIV and syphilis testing in this survey. Will you allow us to keep the blood sample stored for later testing or research?

528A CHECK COVER OF HOUSEHOLD QUESTIONNAIRE TO DETERMINE IF HOUSEHOLD SELECTED FOR SYPHILIS TESTING.

HOUSEHOLD SELECTED FOR SYPHILIS TESTING ☐ → HOUSEHOLD NOT SELECTED FOR SYPHILIS TESTING ☐ → END

		MAN 1	MAN 2	MAN 3
	LINE NUMBER (QUESTION 10) NAME (QUESTION 2)	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
549	READ THESYPHILIS TEST CONSENT STATEMENT. FOR NEVER-IN-UNION MEN AGE 15-17, ASK CONSENT FROM PARENT/ OTHER ADULT IDENTIFIED IN 540 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN)
550	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
551	OUTCOME OF SYPHILIS TEST PROCEDURE	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	BLOOD TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
552	CHECK 550: OUTCOME OF SYPHILIS TEST	BLOOD TAKEN ☐ → BLOOD NOT TAKEN ☐ → GO TO NEXT MAN	BLOOD TAKEN ☐ → BLOOD NOT TAKEN ☐ → GO TO NEXT MAN	BLOOD TAKEN ☐ → BLOOD NOT TAKEN ☐ → GO TO NEXT MAN

CONSENT STATEMENT FOR SYPHILIS TEST

READ CONSENT STATEMENT TO EACH MALE RESPONDENT. CIRCLE CODE '1' IN 549 IF RESPONDENT CONSENTS TO THE SYPHILIS TEST AND CODE '3' IF HE REFUSES.

FOR NEVER-MARRIED MEN AGE 15-17 YEARS ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 540) BEFORE ASKING THE ADOLESCENT FOR HIS CONSENT. CIRCLE CODE '2' IN 549 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

As part of the survey we are asking people all over the country to give a small amount of blood for a syphilis test. Syphilis can cause serious problems if it is not treated. The results from this survey will help the government to develop programs to prevent and treat syphilis.

For the syphilis test, we need a small amount of blood from your arm. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested tonight and if you want to know the test result, I will be back tomorrow to give you the result if you tell me when you will be here. If the test shows you have syphilis, we would provide free treatment for you and your partner(s) at home or at the nearest health cetner. No one will know the results of your test except for you and me.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.

Will you (NAME OF ADOLESCENT) to take the syphilis test?

Will you an d(NAME OF ADOLESCENT) want to know th etest result and to be treated if (NAME OF ADOLESCENT) has syphilis?

2007 ZAMBIA DEMOGRAPHIC AND HEALTH SURVEY
WOMAN'S QUESTIONNAIRE
WITH HIV/AIDS

MINISTRY OF HEALTH/CENTRAL STATISTICAL OFFICE

IDENTIFICATION

LOCALITY NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . [ ][ ][ ]

HOUSEHOLD NUMBER . . . . . [ ][ ][ ]

PROVINCE . . . . . [ ]

URBAN/RURAL (URBAN=1, RURAL=2) . . . . . [ ]

LUSAKA=1, OTHER CITY=2, TOWN=3, VILLAGE=4 . . . . . [ ]

NAME AND LINE NUMBER OF WOMAN _____ [ ][ ]

IS WOMAN SELECTED FOR QUESTIONS ON DOMESTIC VIOLENCE (SECTION 12)? (YES=1, NO=2) [ ]

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY [ ][ ]
				MONTH [ ][ ]
				YEAR [ ][ ][ ][ ]
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER [ ][ ][ ]
RESULT*	_____	_____	_____	RESULT [ ]
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS [ ]
TIME	_____	_____		

*RESULT CODES:

1	COMPLETED	4	REFUSED	7	OTHER _____ (SPECIFY)
2	NOT AT HOME	5	PARTLY COMPLETED		
3	POSTPONED	6	INCAPACITATED		

LANGUAGE OF QUESTIONNAIRE** **ENGLISH** **0 1**

LANGUAGE OF INTERVIEW** . . . . . [ ][ ]

RESPONDENT'S LOCAL LANGUAGE** . . . . . [ ][ ]

TRANSLATOR USED (1=NOT AT ALL; 2=SOMETIME; 3=ALL THE TIME . . . . . [ ]

LANGUAGE CODES: 01 ENGLISH, 02 BEMBA, 03 KAONDE, 04 LOZI, 05 LUNDA, 06 LUVALE, 07 NYANJA, 08 TONGA, 09 OTHER

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____	[ ][ ]	[ ][ ]
DATE _____ [ ][ ]	DATE _____ [ ][ ]		

W-1

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with MOH in conjuction with Central Statistical Office (CSO). We are conducting a national survey that asks women (and men) about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The interview usually takes between 30 and 60 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important.
At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→ 104
103	Just before you moved here, did you live in Lusaka, another city, in a town, or in a village?	LUSAKA . . . . . 1 OTHER CITY . . . . . 2 TOWN . . . . . 3 VILLAGE 4	
104	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	NUMBER OF TRIPS . . . . . [ ][ ] NONE 00	→ 106
105	In the last 12 months, have you been away from your home community for more than one month at a time?	YES . . . . . 1 NO 2	
106	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
107	How old were you at your last birthday? COMPARE AND CORRECT 106 AND/OR 107 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
108	Have you ever attended school?	YES . . . . . 1 NO 2	→ 112
109	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER 3	
110	What is the highest grade you completed at that level?	GRADE/FORM/YEAR . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	CHECK 109: PRIMARY ☐ → SECONDARY OR HIGHER ☐ → 115		
112	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE. . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
113	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	
114	CHECK 112: CODE '2', '3' OR '4' CIRCLED ☐ → CODE '1' OR '5' CIRCLED ☐ → 116		
115	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
116	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
117	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
118	What is your religion?	CATHOLIC . . . . . 1 PROTESTANT. . . . . 2 MUSLIM . . . . . 3 OTHER _____ 6 (SPECIFY)	
119	What tribe do you belong to?	_____ ☐☐	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES . . . . . 1 NO 2	→ 206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . ☐☐ DAUGHTERS AT HOME . . . . . ☐☐	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . ☐☐ DAUGHTERS ELSEWHERE . ☐☐	
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO 2	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . ☐☐ GIRLS DEAD . . . . . ☐☐	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL . . . . . ☐☐	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES ☐ ↓ NO ☐ → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS ☐ ↓ NO BIRTHS ☐ →		→ 226

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.
RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.
(IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE).

212 What name was given to your (first/next) baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (NEXT BIRTH)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	
02	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
03	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
04	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
05	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
06	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
07	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

212 What name was given to your next baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
08	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
09	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
10	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
11	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
12	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

222	Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES, RECORD BIRTH(S) IN TABLE.	YES . . . . . 1 NO 2

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

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

CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED. ☐

FOR EACH BIRTH SINCE JANUARY 2002: MONTH AND YEAR OF BIRTH ARE RECORDED. ☐

FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. ☐

FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. ☐

FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS. ☐

224 CHECK 215 AND ENTER THE NUMBER OF BIRTHS IN 2002 OR LATER.
IF NONE, RECORD '0' AND SKIP TO 226. ☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
225	FOR EACH BIRTH SINCE JANUARY 2002, ENTER 'B' IN THE MONTH OF BIRTH IN THE CALENDAR. WRITE THE NAME OF THE CHILD TO THE LEFT OF THE 'B' CODE. FOR EACH BIRTH, ASK THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY. (NOTE: THE NUMBER OF 'P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.)		
226	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	→ 229
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS	
228	At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 LATER . . . . . 2 NOT AT ALL 3	
229	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	→ 237
230	When did the last such pregnancy end?	MONTH . . . . . YEAR	
231	CHECK 230: LAST PREGNANCY ENDED IN JAN. 2002 OR LATER ↓ LAST PREGNANCY ENDED BEFORE JAN. 2002 →		→ 237
232	How many months pregnant were you when the last such pregnancy ended? ENTER 'T' IN THE CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF MONTHS.	MONTHS	
233	Since January 2002, have you had any other pregnancies that did not result in a live birth?	YES . . . . . 1 NO 2	→ 235
234	ASK THE DATE AND THE DURATION OF PREGNANCY FOR EACH EARLIER NON-LIVE BIRTH PREGNANCY BACK TO JANUARY 2002 ENTER 'T' IN THE CALENDAR IN THE MONTH THAT EACH PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.		
235	Did you have any miscarriages, abortions or stillbirths that ended before 2002?	YES . . . . . 1 NO 2	→ 237
236	When did the last such pregnancy that terminated before 2002 end?	MONTH . . . . . YEAR	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
237	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ] IN MENOPAUSE/ HAS HAD HYSTERECTOMY . . . 994 BEFORE LAST BIRTH . . . . . 995 NEVER MENSTRUATED 996	
238	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 301
239	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)? CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had a partner who had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	PILL Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
05	INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
06	IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
07	MALE CONDOM Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
09	LACTATIONAL AMENORRHEA METHOD (LAM) Up to 6 months after childbirth, a woman can use a method that requires that she breastfeeds frequently, day and night, and that her menstrual period has not returned.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
10	RHYTHM METHOD Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
11	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
12	EMERGENCY CONTRACEPTION As an emergency measure after unprotected sexual intercourse, women can take special pills at any time within five days to prevent pregnancy.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
13	STANDARD DAYS METHOD (CYCLE BEADS) A woman's monthly cycle is monitored using beads to check for the fertile window, which is several days before ovulation and a few hours after.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
14	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 NO . . . . . 2 _____ (SPECIFY) _____ (SPECIFY)	YES . . . . . 1 NO 2
303	CHECK 302: NOT A SINGLE "YES" (NEVER USED) → ; AT LEAST ONE "YES" (EVER USED) → 307		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 306
305	ENTER '0' IN THE CALENDAR IN EACH BLANK MONTH.		→ 333
306	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
307	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN	
308	CHECK 302 (01): WOMAN NOT STERILIZED ☐ ↓ WOMAN STERILIZED ☐ →		→ 311A
309	CHECK 226: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐ →		→ 322
310	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 322
311 311A	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD ON LIST. CIRCLE 'A' FOR FEMALE STERILIZATION.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B PILL . . . . . C IUD . . . . . D INJECTABLES . . . . . E IMPLANTS . . . . . F MALE CONDOM . . . . . G FEMALE CONDOM . . . . . H DIAPHRAGM . . . . . I FOAM/JELLY . . . . . J LACTATIONAL AMEN. METHOD . . . . . K RHYTHM METHOD . . . . . L WITHDRAWAL . . . . . M OTHER _____ X (SPECIFY)	→ 316 → 312 → 315 → 311B → 315 → 313 → 313 → 315 → 315 → 319A
311B	What name/type of injectables are you using?	NORIGYNON (2 MONTHS) . . . . . 1 NORISTERAT (2 MONTHS) . . . . . 2 DEPO PROVERA (3 MONTHS) . . . . . 3 OTHER _____ 6 (SPECIFY)	→ 315
312	What brand of pills are you using? ASK TO SEE THE PACKAGE IF RESPONDENT DOES NOT REMEMBER NAME OF BRAND.	SAFE PLAN . . . . . 01 MICROGYNON. . . . . 02 MICROLUT . . . . . 03 EUGYNON . . . . . 04 LOGYNON . . . . . 05 NORDETTE . . . . . 06 ORALCON F . . . . . 07 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 314

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
313	What brand name of the condoms did you use? ASK TO SEE THE PACKAGE IF RESPONDENT DOES NOT REMEMBER NAME OF BRAND.	MAXIMUM CLASSIC . . . . . 01 MAXIMUM SCENTED . . . . . 02 ROUGH RIDER . . . . . 03 DUREX . . . . . 04 CARE FEMALE CONDOM 05 FEMIDOM . . . . . 06 REALITY . . . . . 07 PUBLIC SECTOR: UNBRANDED (WHITE COLOUR FOIL) 08 OTHER _____ . . . 96 (SPECIFY) DON'T KNOW 98	
314	How many (pill cycles/condoms) did you get the last time?	NUMBER OF PILL CYCLES/CONDOMS ... [ ][ ][ ] DON'T KNOW 998	
315	The last time you obtained (HIGHEST METHOD ON LIST IN 311), how much did you pay in total, including the cost of the method and any consultation you may have had?	COST [ ][ ][ ][ ][ ][ ] FREE . . . . . 999995 DON'T KNOW 999998	→ 319A
316	In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . 21 PRIVATE DOCTOR'S OFFICE . . . 23 MOBILE CLINIC . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
317	CHECK 311/311A: CODE 'A' CIRCLED → Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation? CODE 'B' CIRCLED → Before the sterilization operation, was your husband/partner told that he would not be able to have any (more) children because of the operation?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
318	How much did you (your husband/partner) pay in total for the sterilization, including any consultation you (he) may have had?	COST [ ][ ][ ][ ][ ][ ] FREE . . . . . 999995 DON'T KNOW 999998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
319	In what month and year was the sterilization performed?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	→ 320
319A	Since what month and year have you been using (CURRENT METHOD) without stopping? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	
320	CHECK 319/319A, 215 AND 230: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 319/319A — YES ☐ → GO BACK TO 319/319A, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION). — NO ☐		
321	CHECK 319/319A: YEAR IS 2002 OR LATER ☐ → ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING. THEN CONTINUE TO 322. YEAR IS 2001 OR EARLIER ☐ → ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO JANUARY 2002. THEN SKIP TO → 331		
322	I would like to ask you some questions about the times you or your partner may have used a method to avoid getting pregnant during the last few years. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 2002 USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. ENTER METHOD USE CODE OR '0' FOR NONUSE IN EACH BLANK MONTH. ILLUSTRATIVE QUESTIONS: * When was the last time you used a method? Which method was that? * When did you start using that method? How long after the birth of (NAME)? * How long did you use the method then?		
323	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 MALE CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER METHOD 96	→ 333 → 326 → 335 → 324A → 324A → 335 → 335

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
324	Where did you obtain (CURRENT METHOD) when you started using it?	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 HEALTH POST . . . . . 13 OTHER PUBLIC _____ 16 (SPECIFY)	
324A	Where did you learn to use the lactational amenorrhea/rhythm method? IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/SURGERY . . 21 MISSION HOSPITAL/CLINIC . . . . . 22 PHARMACY . . . . . 23 PRIVATE DOCTOR . . . . . 24 WORK PLACE . . . . . 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER SOURCE SHOP . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 OTHER _____ 96 (SPECIFY)	
325	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 MALE CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD 12	→ 332 → 329
326	You obtained (CURRENT METHOD FROM 323) from (SOURCE OF METHOD FROM 316 OR 324) in (DATE FROM 319/319A). At that time, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 328
327	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 329
328	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
329	CHECK 323: CODE '01' CIRCLED → At that time, were you told about other methods of family planning that you could use? CODE '01' NOT CIRCLED → When you obtained (CURRENT METHOD) from (SOURCE OF METHOD FROM 316 OR 324) were you told about other methods of family planning that you could use?	YES . . . . . 1 NO 2	→ 331
330	Were you ever told by a health or family planning worker about other methods of family planning that you could use?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
331	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 MALE CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER METHOD 96	→ 335 → 335
332	Where did you obtain (CURRENT METHOD) the last time? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE) _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 HEALTH POST . . . . . 13 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/SURGERY . . 21 MISSION HOSPITAL/CLINIC . . . . . 22 PHARMACY . . . . . 23 PRIVATE DOCTOR . . . . . 24 WORK PLACE . . . . . 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER SOURCE SHOP . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 OTHER _____ 96 (SPECIFY)	→ 335

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
333	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	→ 335
334	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B FAMILY PLANNING CLINIC . . . . . C MOBILE CLINIC . . . . . D FIELDWORKER . . . . . E OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . G MISSION HOSPITAL/CLINIC . . . . . H PHARMACY . . . . . I PRIVATE DOCTOR . . . . . J COMMUNITY WORKPLACE . . . . . K WORKPLACE . . . . . L MOBILE CLINIC . . . . . M FIELDWORKER . . . . . N OTHER PRIVATE MEDICAL _____ O (SPECIFY) OTHER SOURCE SHOP . . . . . P CHURCH . . . . . Q FRIEND/RELATIVE . . . . . R OTHER _____ X (SPECIFY)	
335	In the last 12 months, were you visited by a fieldworker who talked to you about family planning?	YES . . . . . 1 NO 2	
336	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES . . . . . 1 NO 2	→ 401
337	Did any staff member at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	

SECTION 4. PREGNANCY AND POSTNATAL CARE & BREASTFEEDING

401	CHECK 224: ONE OR MORE BIRTHS IN 2002 OR LATER ☐ ↓ NO BIRTHS IN 2002 OR LATER ☐ → 576			
402	CHECK 215: ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2002 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately.)			
403	LINE NUMBER FROM 212	LAST BIRTH LINE NO. ☐☐	NEXT-TO-LAST BIRTH LINE NO. ☐☐	SECOND-FROM-LAST BIRTH LINE NO. ☐☐
404	FROM 212 AND 216	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓
405	At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 (SKIP TO 407) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 407)	THEN . . . . . 1 (SKIP TO 432) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 432)	THEN . . . . . 1 (SKIP TO 432) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 432)
406	How much longer would you have liked to wait?	MONTHS . .1 ☐☐ YEARS . .2 ☐☐ DON'T KNOW 998	MONTHS . .1 ☐☐ YEARS . .2 ☐☐ DON'T KNOW 998	MONTHS . .1 ☐☐ YEARS . .2 ☐☐ DON'T KNOW 998
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	HEALTH PERSONNEL DOCTOR . . . . . A CLINICAL OFFICER B NURSE/MIDWIFE . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . D OTHER _____ (SPECIFY) X NO ONE . . . . . Y (SKIP TO 414)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
408	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S))	HOME YOUR HOME . . . . . A OTHER HOME . . . . . B PUBLIC SECTOR GOVT. HOSPITAL C GOVT. HEALTH CENTER . . . . . D GOVT. HEALTH POST . . . . . E OTHER PUBLIC _____ F (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ SURGERY . . . . G MISSION HOSPITAL/ CLINIC . . . . . H WORK PLACE . . . . I OTHER PRIVATE MED. _____ J (SPECIFY) OTHER _____ X (SPECIFY)		
409	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . ☐☐ DON'T KNOW 98		
410	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES . ☐☐ DON'T KNOW 98		
411	As part of your antenatal care during this pregnancy, were any of the following done at least once?	YES NO		
	Were you weighed?	WEIGHT . . . 1 2		
	Was your height measured?	HEIGHT . . . 1 2		
	Was your blood pressure measured?	BP 1 2		
	Did you give a urine sample?	URINE 1 2		
	Did you give a blood sample?	BLOOD . . . 1 2		
411A	During this pregnancy were you offered counselling and testing for the virus that causes AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
412	During (any of) your antenatal care visit(s), were you told about the signs of pregnancy complications?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 414) ← DON'T KNOW 8		
413	Were you told where to go if you had any of these complications?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
413A	Did you discuss a birth preparedness plan with a health provider including: Where you will deliver the baby What you will do if a complication arises Who will be there to help you during birth	YES NO 1 2 1 2 1 2		
414	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 417) DON'T KNOW 8		
415	During this pregnancy, how many times did you get this tetanus injection?	TIMES . . . . . [ ] DON'T KNOW 8		
416	CHECK 415:	2 OR MORE TIMES → (SKIP TO 421) OTHER →		
417	At any time before this pregnancy, did you receive any tetanus injections, either to protect yourself or another baby?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 421) DON'T KNOW 8		
418	Before this pregnancy, how many other times did you receive a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES . . . . . [ ] DON'T KNOW 8		
419	In what month and year did you receive the last tetanus injection before this pregnancy?	MONTH . . . [ ][ ] DK MONTH . . . . . 98 YEAR [ ][ ][ ][ ] (SKIP TO 421) DK YEAR 9998		
420	How many years ago did you receive that tetanus injection?	YEARS AGO . . . . . [ ][ ]		
421	During this pregnancy, were you given or did you buy any iron tablets or iron syrup or folic acid? SHOW TABLETS/SYRUP.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 423) DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
422	During the whole pregnancy, for how many days did you take the tablets or syrup? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	DAYS . ☐☐☐ DON'T KNOW 998		
423	During this pregnancy, did you take any drug for intestinal worms?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
424	During this pregnancy, did you have difficulty with your vision during daylight?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
425	During this pregnancy, did you suffer from night blindness	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
426	During this pregnancy, did you take any drugs to keep you from getting malaria?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 432) DON'T KNOW 8		
427	What drugs did you take? RECORD ALL MENTIONED. IF TYPE OF DRUG IS NOT DETERMINED, SHOW TYPICAL ANTIMALARIAL DRUGS TO RESPONDENT.	SP/FANSIDAR . . . . . A CHLOROQUINE . . . . . B COARTEM . . . . . C OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z		
428	CHECK 427: DRUGS TAKEN FOR MALARIA PREVENTION.	CODE 'A' CIRCLED ☐ CODE A' NOT CIRCLED ☐ (SKIP TO 431A)		
429	How many times did you take (SP/Fansidar) during this pregnancy?	TIMES . . . . . ☐☐		
430	CHECK 407: ANTENATAL CARE FROM HEALTH PERSONNEL DURING THIS PREGNANCY	CODE 'A', B' OR 'C' CIRCLED ☐ OTHER ☐ (SKIP TO 431A)		
431	Did you get the (SP/Fansidar) during any antenatal care visit, during another visit to a health facility or from another source?	ANTENATAL VISIT . . 1 ANOTHER FACILITY VISIT . . . . . 2 OTHER SOURCE _____ 6 Specify		
431A	Did you use the birth plan?	YES . . . . . 1 NO 2		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
432	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8
433	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 435) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 435) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 435) ← DON'T KNOW 8
434	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 ☐☐.☐☐☐ KG FROM RECALL 2 ☐☐.☐☐☐ DON'T KNOW . 9.998	KG FROM CARD 1 ☐☐.☐☐☐ KG FROM RECALL 2 ☐☐.☐☐☐ DON'T KNOW . 9.998	KG FROM CARD 1 ☐☐.☐☐☐ KG FROM RECALL 2 ☐☐.☐☐☐ DON'T KNOW . 9.998
435	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD ALL MENTIONED. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	HEALTH PERSONNEL DOCTOR . . . . . A CLINICAL OFFICER . B NURSE/MIDWIFE . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND . E OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A CLINICAL OFFICER . B NURSE/MIDWIFE . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND . E OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A CLINICAL OFFICER . B NURSE/MIDWIFE . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND . E OTHER _____ X (SPECIFY) NO ONE . . . . . Y

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
436	Where did you give birth to (NAME)? IF SOURCE IS HOSPITAL HEALTH CENTRE OR CLINIC WRITE THE NAME OF THE PLACE PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE _____ (NAME OF PLACE - LAST BIRTH) _____ (NAME OF PLACE - NEXT TO LAST) _____ (NAME OF PLACE SECOND FROM - LAST BIRTH)	HOME YOUR HOME . . . . . 11 (SKIP TO 443) ← OTHER HOME . . . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 31 MISSION HOSPITAL/ CLINIC . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 443) ←	HOME YOUR HOME . . . . 11 (SKIP TO 444) ← OTHER HOME . . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 31 MISSION HOSPITAL/ CLINIC . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 444) ←	HOME YOUR HOME . . . . . 11 (SKIP TO 444) ← OTHER HOME . . . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 31 MISSION HOSPITAL/ CLINIC . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 444) ←
437	How long after (NAME) was delivered did you stay there? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 ☐☐ DAYS 2 ☐☐ WEEKS 3 ☐☐ DON'T KNOW 998	HOURS 1 ☐☐ DAYS 2 ☐☐ WEEKS 3 ☐☐ DON'T KNOW 998	HOURS 1 ☐☐ DAYS 2 ☐☐ WEEKS 3 ☐☐ DON'T KNOW 998
438	Was (NAME) delivered by caesarean section?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
439	Before you were discharged after (NAME) was born, did any health care provider check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 442) ←	YES . . . . . 1 (SKIP TO 455) ← NO 2	YES . . . . . 1 (SKIP TO 455) ← NO 2

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
440	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 DAYS 2 WEEKS 3 DON'T KNOW 998		
441	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 CLINICAL OFFICER ... 12 NURSE/MIDWIFE . 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT . 21 COMMUNITY/VILLAGE HEALTH WORKER . . . . . 22 OTHER _____ 96 (SPECIFY) (SKIP TO 453)		
442	After you were discharged, did any health care provider or a traditional birth attendant check on your health?	YES . . . . . 1 (SKIP TO 445) NO . . . . . 2 (SKIP TO 453)	YES . . . . . 1 (SKIP TO 455) NO 2	YES . . . . . 1 (SKIP TO 455) NO 2
443	Why didn't you deliver in a health facility? PROBE: Any other reason? RECORD ALL MENTIONED.	COST TOO MUCH . . A FACILITY NOT OPEN . B TOO FAR/ NO TRANS-PORTATION C DON'T TRUST FACILITY/POOR QUALITY SERVICE D NO FEMALE PROVID-ER AT FACILITY . . E HUSBAND/FAMILY DID NOT ALLOW . . F NOT NECESSARY . . G NOT CUSTOMARY . . H OTHER _____ (SPECIFY) X		
444	In the two months after (NAME) was born, did any health care provide or a traditional birth attendant check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 449)	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
445	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 DAYS 2 WEEKS 3 DON'T KNOW 998		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
446	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 CLINICAL OFFICER ... 12 NURSE/MIDWIFE . . 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT . 21 COMMUNITY/VILLAGE HEALTH WORKER . . . . . 22 OTHER_____ 96 (SPECIFY)		
447	Where did this first check take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . . . 11 OTHER HOME . . . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 31 MISSION HOSPITAL/ CLINIC . . . . . 32 OTHER PRIVATE MED._____ 36 (SPECIFY) OTHER_____ 96 (SPECIFY)		
448	CHECK 442:	YES ☐ (SKIP TO 453) NOT ASKED ☐		
449	In the two months after (NAME) was born, did any health care provider or a traditional birth attendant check on his/her health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 453) DON'T KNOW 8		
450	How many hours, days or weeks after the birth of (NAME) did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 ☐☐ DAYS 2 ☐☐ WEEKS 3 ☐☐ DON'T KNOW 998		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
451	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 CLINICAL OFFICER ... 12 NURSE/MIDWIFE . . 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT . 21 COMMUNITY/VILLAGE HEALTH WORKER . . . . . 22 OTHER_____ 96 (SPECIFY)		
452	Where did this first check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . . . 11 OTHER HOME . . . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 31 MISSION HOSPITAL/ CLINIC . . . . . 32 OTHER PRIVATE MED._____ 36 (SPECIFY) OTHER_____ 96 (SPECIFY)		
453	In the first two months after delivery, did you receive a vitamin A dose (like this/any of these)? SHOW CAPSULES	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
454	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 456) NO . . . . . 2 (SKIP TO 457)		
455	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 459)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 459)
456	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
457	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREG-NANT → PREGNANT OR UNSURE (SKIP TO 459)		
458	Have you begun to have sexual intercourse again since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 460)		
459	For how many months after the birth of (NAME) did you not have sexual intercourse?	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98
460	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 467)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 467)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 467)
461	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . . . 000 HOURS 1 ☐☐ DAYS 2 ☐☐		
462	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 464)		
463	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) . A PLAIN WATER . . . . . B SUGAR OR GLUCOSE WATER . . . . . C GRIPE WATER . . . . . D SUGAR-SALT-WATER SOLUTION . . . . . E FRUIT JUICE . . . . . F INFANT FORMULA . G TEA/INFUSIONS . . . . . H HONEY . . . . . I OTHER _____ X (SPECIFY)		
464	CHECK 404: IS CHILD LIVING?	LIVING → (SKIP TO 466) DEAD		
465	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 468) NO 2		
466	For how many months did you breastfeed (NAME)?	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ STILL BF . . . . . 95 DON'T KNOW 98	MONTHS . . . ☐☐ STILL BF . . . . . 95 DON'T KNOW 98

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
467	CHECK 404: IS CHILD LIVING?	LIVING ☐ → (SKIP TO 470) DEAD ☐ → (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING ☐ → (SKIP TO 470) DEAD ☐ → (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING ☐ → (SKIP TO 470) DEAD ☐ → (GO BACK TO 40 IN NEXT-TO-LAS COLUMN OF NEW QUESTIONNAIRE; OR IF NO MORE BIRTHS GO TO 501
468	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS . ☐☐		
469	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS . ☐☐		
470	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
471		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501.

SECTION 5. CHILD IMMUNIZATION AND HEALTH AND CHILD'S AND WOMAN'S NUTRITION

501 ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2002 OR LATER.
ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH.
(IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
502	LINE NUMBER FROM 212	LINE NUMBER	LINE NUMBER	LINE NUMBER . . . . .
503	FROM 212 AND 216	NAME LIVING / DEAD (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 573)	NAME LIVING / DEAD (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 573)	NAME LIVING / DEAD (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 573)
504	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . . . 2 (SKIP TO 508) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . . . 2 (SKIP TO 508) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . . . 2 (SKIP TO 508) NO CARD 3
505	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 (SKIP TO 508) NO 2	YES . . . . . 1 (SKIP TO 508) NO 2	YES . . . . . 1 (SKIP TO 508) NO 2

506 (1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD.
(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.
(3) IF MORE THAN TWO VITAMIN 'A' DOSES, RECORD DATES FOR MOST RECENT AND SECOND MOST RECENT DOSES.

	LAST BIRTH DAY	LAST BIRTH MONTH	LAST BIRTH YEAR	NEXT-TO-LAST BIRTH DAY	NEXT-TO-LAST BIRTH MONTH	NEXT-TO-LAST BIRTH YEAR	SECOND-FROM-LAST BIRTH DAY	SECOND-FROM-LAST BIRTH MONTH	SECOND-FROM-LAST BIRTH YEAR
BCG				BCG			BCG		
OPV 0				OPV 0			OPV 0		
OPV 1				OPV1			OPV1		
OPV 2				OPV2			OPV2		
OPV 3				OPV3			OPV3		
OPV 4				OPV4			OPV4		
DPT 1				DPT1			DPT1		
DPT 2				DPT2			DPT2		
DPT 3				DPT3			DPT3		
DPT-HepB+Hib 1				DHH1			DHH1		
DPT-HepB+Hib 2				DHH2			DHH2		
DPT-HepB+Hib 2				DHH3			DHH3		
MEASLES				MEA			MEA		
VITAMIN A1 (MOST RECENT)				VIT A1			VIT A1		
VITAMIN A2 (2nd MOST RECENT)				VIT A2			VIT A2		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
507	Has (NAME) received any vaccinations that are not recorded on this card, including vaccinations received in a national immunization day campaign? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO 0-4, DPT 1-3, AND/OR MEASLES VACCINES.	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) NO . . . . . 2 (SKIP TO 510) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) NO . . . . . 2 (SKIP TO 510) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) NO . . . . . 2 (SKIP TO 510) DON'T KNOW 8
508	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512) DON'T KNOW 8
509	Please tell me if (NAME) received any of the following vaccinations:			
509A	A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
509B	Polio vaccine, that is, drops in the mouth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509E) DON'T KNOW 8
509C	Was the first polio vaccine received in the first two weeks after birth or later?	FIRST 2 WEEKS . . . 1 LATER 2	FIRST 2 WEEKS . . . 1 LATER 2	FIRST 2 WEEKS . . . 1 LATER 2
509D	How many times was the polio vaccine received?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES . . . . .
509E	A DPT vaccination, that is, an injection given in the thigh or buttocks, sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509G) DON'T KNOW 8
509F	How many times was a DPT vaccination received?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES . . . . .
509G	A measles injection or that is, a shot in the arm at the age of 9 months or older - to prevent him/her from getting measles?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
510	Were any of the vaccinations (NAME) received during the last two years given as part of a national immunization day campaign?	YES . . . . . 1 NO . . . . . 2 NO VACCINATION IN THE LAST 2 YRS. 3 DON'T KNOW . . . 8	YES . . . . . 1 NO . . . . . 2 NO VACCINATION IN THE LAST 2 YRS. 3 DON'T KNOW . . . 8	YES . . . . . 1 NO . . . . . 2 NO VACCINATION IN THE LAST 2 YRS. 3 DON'T KNOW . . . 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
512	CHECK 506: DATE SHOWN FOR VITAMIN A DOSE	DATE FOR MOST RECENT VITAMIN A DOSE ☐ NO CARD/ CODE '44' FOR MOST RECENT VITAMIN A DOSE (SKIP TO 514) ☐	DATE FOR MOST RECENT VITAMIN A DOSE ☐ NO CARD/ CODE '44' FOR MOST RECENT VITAMIN A DOSE (SKIP TO 514) ☐	DATE FOR MOST RECENT VITAMIN A DOSE ☐ NO CARD/ CODE '44' FOR MOST RECENT VITAMIN A DOSE (SKIP TO 514) ☐
513	According to (NAME)'s health card, he/she received a vitamin A dose (like this/any of these) in (MONTH AND YEAR OF MOST RECENT DOSE FROM CARD). Has (NAME) received another vitamin A dose since then? SHOW COMMON TYPES OF CAPSULES.	YES . . . . . 1 (SKIP TO 515) NO . . . . . 2 (SKIP TO 517) DON'T KNOW 8	YES . . . . . 1 (SKIP TO 515) NO . . . . . 2 (SKIP TO 517) DON'T KNOW 8	YES . . . . . 1 (SKIP TO 515) NO . . . . . 2 (SKIP TO 517) DON'T KNOW 8
514	HAS (NAME) ever received a vitamin A dose (like this/ any of these)? SHOW COMMON TYPES OF CAPSULES.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 517) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 517) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 517) DON'T KNOW 8
515	Did (NAME) receive a vitamin A dose within the last six months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
517	Has (NAME) taken any drug for intestinal worms in the last six months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
518	Has (NAME) had diarrhea in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 533) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 533) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 533) DON'T KNOW 8
519	Was there any blood in the stools?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
520	Now I would like to know how much (NAME) was given to drink during the diarrhea (including breastmilk). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8
521	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8
522	Did you seek advice or treatment for the diarrhea from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 527)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 527)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 527)
523	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C OTHER PUBLIC _____ D (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/ SURGERY . . . . E MISSION HOSPITAL /CLINIC . . . F PHARMACY . . . G PRIVATE DOCTOR . . . . . H COMMUNITY-BASED AGENT . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER SOURCE SHOP . . . . . K TRADITIONAL PRACTITIONER L OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C OTHER PUBLIC _____ D (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/ SURGERY . . . . E MISSION HOSPITAL /CLINIC . . . F PHARMACY . . . G PRIVATE DOCTOR . . . . . H COMMUNITY-BASED AGENT . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER SOURCE SHOP . . . . . K TRADITIONAL PRACTITIONER L OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C OTHER PUBLIC _____ D (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/ SURGERY . . . . E MISSION HOSPITAL /CLINIC . . . F PHARMACY . . . G PRIVATE DOCTOR . . . . . H COMMUNITY-BASED AGENT . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER SOURCE SHOP . . . . . K TRADITIONAL PRACTITIONER L OTHER _____ X (SPECIFY)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
524	CHECK 523:	TWO OR MORE CODES CIRCLED / ONLY ONE CODE CIRCLED (SKIP TO 526)	TWO OR MORE CODES CIRCLED / ONLY ONE CODE CIRCLED (SKIP TO 526)	TWO OR MORE CODES CIRCLED / ONLY ONE CODE CIRCLED (SKIP TO 526)
525	Where did you first seek advice or treatment? USE LETTER CODE FROM 523.	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐
526	How many days after the diarrhea began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS . . . . . ☐☐	DAYS . . . . . ☐☐	DAYS . . . . . ☐☐
527	Does (NAME) still have diarrhea?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
528	Was he/she given any of the following to drink at any time since he/she started having the diarrhea:	YES NO DK	YES NO DK	YES NO DK
	a) A fluid made from a special packet called [LOCAL NAME FOR ORS PACKET]?	FLUID FROM ORS PKT . . 1 2 8	FLUID FROM ORS PKT . . 1 2 8	FLUID FROM ORS PKT . . 1 2 8
	b) A pre-packaged ORS liquid?	ORS LQD . . 1 2 8	ORS LQD . . 1 2 8	ORS LQD . . 1 2 8
	c) A government-recommended homemade fluid?	HOMEMADE FLUID . . . 1 2 8	HOMEMADE FLUID . . . 1 2 8	HOMEMADE FLUID . . . 1 2 8
529	Was anything (else) given to treat the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 533) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 533) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 533) DON'T KNOW 8
530	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY) C UNKNOWN PILL OR SYRUP . . . D INJECTION ANTIBIOTIC . . . . . E NON-ANTIBIOTIC . F UNKNOWN INJECTION . . . G (IV) INTRAVENOUS . H HOME REMEDY/ HERBAL MED-ICINE . . . . . I OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY) C UNKNOWN PILL OR SYRUP . . . D INJECTION ANTIBIOTIC . . . . . E NON-ANTIBIOTIC . F UNKNOWN INJECTION . . . G (IV) INTRAVENOUS . H HOME REMEDY/ HERBAL MED-ICINE . . . . . I OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY) C UNKNOWN PILL OR SYRUP . . . D INJECTION ANTIBIOTIC . . . . . E NON-ANTIBIOTIC . F UNKNOWN INJECTION . . . G (IV) INTRAVENOUS . H HOME REMEDY/ HERBAL MED-ICINE . . . . . I OTHER _____ X (SPECIFY)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
533	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
534	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537) DON'T KNOW 8
535	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 538) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 538) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 538) DON'T KNOW 8
536	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 538)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 538)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 538)
537	CHECK 533: HAD FEVER?	YES ☐ NO OR DK ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	YES ☐ NO OR DK ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	YES ☐ NO OR DK ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)
538	Now I would like to know how much (NAME) was given to drink (including breastmilk) during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8
539	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
540	Did you seek advice or treatment for the illness from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 545)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 545)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 545)
541	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE THE NAME OF THE PLACE. NAME OF PLACE(S) LAST-BIRTH NAME OF PLACE(S) NEXT TO LAST-BIRTH NAME OF PLACE(S) NEXT TO SECOND LAST-BIRTH	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C OTHER PUBLIC _____ D (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/ SURGERY . . . . E MISSION HOSPITAL /CLINIC . . . . . F PHARMACY . . . . G PRIVATE DOCTOR . . . . . H COMMUNITY-BASED AGENTS . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER SOURCE SHOP . . . . . K TRADITIONAL PRACTITIONER L OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C OTHER PUBLIC _____ D (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/ SURGERY . . . . E MISSION HOSPITAL /CLINIC . . . . . F PHARMACY . . . . G PRIVATE DOCTOR . . . . . H COMMUNITY-BASED AGENTS . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER SOURCE SHOP . . . . . K TRADITIONAL PRACTITIONER L OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C OTHER PUBLIC _____ D (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/ SURGERY . . . . E MISSION HOSPITAL /CLINIC . . . . . F PHARMACY . . . . G PRIVATE DOCTOR . . . . . H COMMUNITY-BASED AGENTS . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER SOURCE SHOP . . . . . K TRADITIONAL PRACTITIONER L OTHER _____ X (SPECIFY)
542	CHECK 541:	TWO OR MORE CODES CIRCLED / ONLY ONE CODE CIRCLED (SKIP TO 544)	TWO OR MORE CODES CIRCLED / ONLY ONE CODE CIRCLED (SKIP TO 544)	TWO OR MORE CODES CIRCLED / ONLY ONE CODE CIRCLED (SKIP TO 544)
543	Where did you first seek advice or treatment? USE LETTER CODE FROM 541.	FIRST PLACE . . .	FIRST PLACE . . .	FIRST PLACE . . .
544	How many days after the illness began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS	DAYS	DAYS . . . . .
545	Is (NAME) still sick with a (fever/ cough)?	FEVER ONLY . . . . . 1 COUGH ONLY . . . 2 BOTH FEVER AND COUGH . . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW . . . 8	FEVER ONLY . . . . . 1 COUGH ONLY . . . 2 BOTH FEVER AND COUGH . . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW . . . 8	FEVER ONLY . . . . . 1 COUGH ONLY . . . 2 BOTH FEVER AND COUGH . . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW . . . 8
546	At any time during the illness, did (NAME) take any drugs for the illness?	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
547	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . . D COARTEM . . . . . E ARINATE . . . . . F OTHER ANTI-MALARIAL _____ . . . G (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . H INJECTION . . . I OTHER DRUGS ASPRIN . . . . . J PARACETAMOL (PANADOL) . . . . K ACETA-MINOPHEN . . . L IBUPROFEN . . . M OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . . D COARTEM . . . . . E ARINATE . . . . . F OTHER ANTI-MALARIAL _____ . . . G (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . H INJECTION . . . I OTHER DRUGS ASPRIN . . . . . J PARACETAMOL (PANADOL) . . . . K ACETA-MINOPHEN . . . L IBUPROFEN . . . M OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . . D COARTEM . . . . . E ARINATE . . . . . F OTHER ANTI-MALARIAL _____ . . . G (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . H INJECTION . . . I OTHER DRUGS ASPRIN . . . . . J PARACETAMOL (PANADOL) . . . . K ACETA-MINOPHEN . . . L IBUPROFEN . . . M OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z
548	CHECK 547: ANY CODE A-I CIRCLED?	YES ☐ NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	YES ☐ NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	YES ☐ NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)
549	Did you already have (NAME OF DRUG FROM 547) at home when the child became ill? ASK SEPARATELY FOR EACH OF THE DRUGS 'A' THROUGH 'I' THAT THE CHILD IS RECORDED AS HAVING TAKEN IN 547. IF YES FOR ANY DRUG, CIRCLE CODE FOR THAT DRUG. IF NO FOR ALL DRUGS, CIRCLE 'Y'.	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . . D COARTEM . . . . . E ARINATE . . . . . F OTHER ANTI-MALARIAL _____ . . . G (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . H INJECTION . . . I NO DRUGS AT HOME Y DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . . D COARTEM . . . . . E ARINATE . . . . . F OTHER ANTI-MALARIAL _____ . . . G (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . H INJECTION . . . I NO DRUGS AT HOME Y DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . . D COARTEM . . . . . E ARINATE . . . . . F OTHER ANTI-MALARIAL _____ . . . G (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . H INJECTION . . . I NO DRUGS AT HOME Y DON'T KNOW . . . . . Z

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
550	CHECK 547: ANY CODE A-G CIRCLED?	YES ☐ NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	YES ☐ NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	YES ☐ NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)
551	CHECK 547: SP/FANSIDAR ('A') GIVEN	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 554)	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 554)	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 554)
552	How long after the fever started did (NAME) first take SP/Fansidar?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
553	For how many days did (NAME) take the (SP/Fansidar? IF 7 DAYS OR MORE, RECORD 7.	DAYS . . . . . ☐☐ DON'T KNOW . . . 8	DAYS . . . . . ☐☐ DON'T KNOW . . . 8	DAYS . . . . . ☐☐ DON'T KNOW . . . 8
554	CHECK 547: CHLOROQUINE ('B') GIVEN	CODE 'B' CIRCLED ☐ CODE 'B' NOT CIRCLED ☐ (SKIP TO 557)	CODE 'B' CIRCLED ☐ CODE 'B' NOT CIRCLED ☐ (SKIP TO 557)	CODE 'B' CIRCLED ☐ CODE 'B' NOT CIRCLED ☐ (SKIP TO 557)
555	How long after the fever started did (NAME) first take chloroquine?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
556	For how many days did (NAME) take the chloroquine? IF 7 DAYS OR MORE, RECORD 7.	DAYS . . . . . ☐☐ DON'T KNOW . . . 8	DAYS . . . . . ☐☐ DON'T KNOW . . . 8	DAYS . . . . . ☐☐ DON'T KNOW . . . 8
557	CHECK 547: AMODIAQUINE ('C') GIVEN	CODE 'C' CIRCLED ☐ CODE 'C' NOT CIRCLED ☐ (SKIP TO 560)	CODE 'C' CIRCLED ☐ CODE 'C' NOT CIRCLED ☐ (SKIP TO 560)	CODE 'C' CIRCLED ☐ CODE 'C' NOT CIRCLED ☐ (SKIP TO 560)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
558	How long after the fever started did (NAME) first take Amodiaquine?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
559	For how many days did (NAME) take the Amodiaquine? IF 7 DAYS OR MORE, RECORD 7.	DAYS . . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . . ☐ DON'T KNOW . . . 8
560	CHECK 547: QUININE ('D') GIVEN	CODE 'D' CIRCLED ☐ → (SKIP TO 563) CODE 'D' NOT CIRCLED ☐	CODE 'D' CIRCLED ☐ → (SKIP TO 563) CODE 'D' NOT CIRCLED ☐	CODE 'D' CIRCLED ☐ → (SKIP TO 563) CODE 'D' NOT CIRCLED ☐
561	How long after the fever started did (NAME) first take quinine?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
562	For how many days did (NAME) take the quinine? IF 7 DAYS OR MORE, RECORD 7.	DAYS . . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . . ☐ DON'T KNOW . . . 8
563	CHECK 547: COARTEM	CODE 'E' CIRCLED ☐ → (SKIP TO 566) CODE 'E' NOT CIRCLED ☐	CODE 'E' CIRCLED ☐ → (SKIP TO 566) CODE 'E' NOT CIRCLED ☐	CODE 'E' CIRCLED ☐ → (SKIP TO 566) CODE 'E' NOT CIRCLED ☐
564	How long after the fever started did (NAME) first take COARTEM	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
565	For how many days did (NAME) take the COARTEM (COMBINATION WITH ARTEMISININ)? IF 7 DAYS OR MORE, RECORD 7.	DAYS . . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . . ☐ DON'T KNOW . . . 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
566	CHECK 547: ARINATE ('F') GIVEN	CODE 'F' CIRCLED / CODE 'F' NOT CIRCLED (SKIP TO 569)	CODE 'F' CIRCLED / CODE 'F' NOT CIRCLED (SKIP TO 569)	CODE 'F' CIRCLED / CODE 'F' NOT CIRCLED (SKIP TO 569)
567	How long after the fever started did (NAME) first take ARINATE	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
568	For how many days did (NAME) take the ARINATE IF 7 DAYS OR MORE, RECORD 7.	DAYS . . . . . [ ] DON'T KNOW . . . 8	DAYS . . . . . [ ] DON'T KNOW . . . 8	DAYS . . . . . [ ] DON'T KNOW . . . 8
569	CHECK 547: OTHER ANTIMALARIAL ('G') GIVEN	CODE 'G' CIRCLED / CODE 'G' NOT CIRCLED (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	CODE 'G' CIRCLED / CODE 'G' NOT CIRCLED (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)	CODE 'G' CIRCLED / CODE 'G' NOT CIRCLED (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573)
570	How long after the fever started did (NAME) first take (OTHER ANTIMALARIAL)?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
571	For how many days did (NAME) take the (OTHER ANTIMALARIAL)? IF 7 DAYS OR MORE, RECORD 7.	DAYS . . . . . [ ] DON'T KNOW . . . 8	DAYS . . . . . [ ] DON'T KNOW . . . 8	DAYS . . . . . [ ] DON'T KNOW . . . 8
572		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573.	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573.	GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
573	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2002 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓ NONE ☐ → 576		
574	The last time (NAME OF YOUNGEST CHILD) passed stools, what was done to dispose of the stools?	CHILD USED TOILET OR LATRINE . . . 01 PUT/RINSED INTO TOILET OR LATRINE . . . . . 02 PUT/RINSED INTO DRAIN OR DITCH . . . . . 03 THROWN INTO GARBAGE . . . . . 04 BURIED . . . . . 05 LEFT IN THE OPEN . . . . . 06 OTHER _____ 96 (SPECIFY)	
575	CHECK 528(a) AND 528(b), ALL COLUMNS: NO CHILD RECEIVED FLUID FROM ORS PACKET ☐ ↓ ANY CHILD RECEIVED FLUID FROM ORS PACKET ☐ → 577		
576	Have you ever heard of a special product called [LOCAL NAME FOR ORS PACKET] you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	
577	CHECK 215 AND 218, ALL ROWS: HAS AT LEAST ONE CHILD BORN IN 2004 OR LATER AND LIVING WITH HER ☐ ↓ DOES NOT HAVE ANY CHILDREN BORN IN 2004 OR LATER AND LIVING WITH HER ☐ → 601 RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 578) _____ (NAME)		
578	Now I would like to ask you about liquids or foods (NAME FROM 577) had yesterday during the day or at night. Did (NAME FROM 577) (drink/eat):	YES NO DK	
	Plain water?	PLAIN WATER 1 2 8	
	Commercially produced infant formula?	FORMULA 1 2 8	
	Any [BRAND NAME OF COMMERCIALLY FORTIFIED BABY FOOD, E.G., Vitaso and cerelac]? ASK TO SEE THE PACKET	BABY CEREAL 1 2 8	
	Any (other) porridge?	OTHER PORRIDGE. 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP

579 Now I would like to ask you about (other) liquids or foods that (NAME FROM 577)/you may have had yesterday during the day or at night. I am interested in whether your child/you had the item even if it was combined with other foods.

Did (NAME FROM 577)/you drink (eat):		CHILD YES	CHILD NO	CHILD DK	MOTHER YES	MOTHER NO	MOTHER DK
a) Milk such as tinned, powdered, or fresh animal milk?	a	1	2	8	1	2	8
b) Tea or coffee?	b	1	2	8	1	2	8
c) Any other liquids?	c	1	2	8	1	2	8
d) Bread, rice, noodles, or other foods made from grains?	d	1	2	8	1	2	8
e) Pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?	e	1	2	8	1	2	8
f) White potatoes, white yams, manioc, cassava, or any other foods made from roots?	f	1	2	8	1	2	8
g) Any dark green, leafy vegetables (eg pumpkin leaves or rape)?	g	1	2	8	1	2	8
h) Ripe mangoes, papayas, apricot, watermelon?	h	1	2	8	1	2	8
i) Any other fruits or vegetables? (E.g. carrots, bananas and tomato)	i	1	2	8	1	2	8
j) Liver, kidney, heart or other organ meats?	j	1	2	8	1	2	8
k) Any meat, such as beef, pork, lamb, goat, chicken, or duck?	k	1	2	8	1	2	8
l) Eggs?	l	1	2	8	1	2	8
m) Fresh or dried fish or shellfish?	m	1	2	8	1	2	8
n) Any foods made from beans, peas, lentils, or nuts?	n	1	2	8	1	2	8
o) Cheese, yogurt or other milk products?	o	1	2	8	1	2	8
p) Any oil, fats, or butter, or foods made with any of these?	p	1	2	8	1	2	8
q) Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits?	q	1	2	8	1	2	8
r) Any other solid or semi-solid food?	r	1	2	8	1	2	8

580 CHECK 578 (LAST 2 CATEGORIES) AND 579 (CATEGORIES d THROUGH r FOR CHILD):

AT LEAST ONE "YES' ☐

NOT A SINGLE "YES" ☐ → 601

581 How many times did (NAME FROM 577) eat solid, semisolid, or soft foods other than liquids yesterday during the day or at night?

IF 7 OR MORE TIMES, RECORD '7'.

NUMBER OF TIMES . . . . . ☐

DON'T KNOW 8

SECTION 6. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Are you currently married or living together with a man as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A MAN . . . . . 2 NO, NOT IN UNION 3	→ 604
602	Have you ever been married or lived together with a man as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A MAN . . . . . 2 NO 3	→ 617
603	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 609
604	Is your husband/partner living with you now or is he staying elsewhere?	LIVING WITH HER . . . . . 1 STAYING ELSEWHERE 2	
605	RECORD THE HUSBAND'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO.	
606	Does your husband/partner have other wives or does he live with other women as if married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 609
607	Including yourself, in total, how many wives or partners does your husband live with now as if married?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . . . DON'T KNOW 98	
608	Are you the first, second, … wife/partner?	RANK	
609	Have you been married or lived with a man only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	→ 611
610	CHECK 603: IS RESPONDENT CURRENTLY WIDOWED? NOT ASKED OR CURRENTLY DIVORCED/ SEPARATED → 615 CURRENTLY WIDOWED → 613		
611	CHECK 603: IS RESPONDENT CURRENTLY WIDOWED? CURRENTLY WIDOWED → 613 NOT ASKED CURRENTLY DIVORCED/ SEPARATED → 615		
612	How did your previous marriage or union end?	DEATH . . . . . 1 DIVORCE . . . . . 2 SEPARATION 3	→ 615
613	To whom did most of your late husband's property go?	RESPONDENT . . . . . 1 OTHER WIFE . . . . . 2 SPOUSE'S CHILDREN . . . . . 3 SPOUSE'S FAMILY . . . . . 4 NO PROPERTY . . . . . 5 OTHER _____ 6 (SPECIFY)	→ 615
614	Did you receive any of your late husband's assets or valuables?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
615	CHECK 609: MARRIED/ LIVED WITH A MAN ONLY ONCE → In what month and year did you start living with your husband/partner? MARRIED/ LIVED WITH A MAN MORE THAN ONCE → Now I would like to ask about when you started living with your first husband/partner. In what month and year was that?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	→ 617
616	How old were you when you first started living with him?	AGE . . . . . ☐☐	
617	**CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.**		
618	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS . . . . . ☐☐ FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER 95	→ 621 → 621
619	CHECK 107: AGE 15-24 → AGE 25-49	☐	→ 641
620	Do you intend to wait until you get married to have sexual intercourse for the first time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	→ 641
621	CHECK 107: AGE 15-24 → AGE 25-49	☐	→ 625A
622	The first time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DON'T REMEMBER . . . 8	
623	How old was the person you first had sexual intercourse with?	AGE OF PARTNER . . . . . ☐☐ DON'T KNOW 98	→ 625A
624	Was this person older than you, younger than you, or about the same age as you?	OLDER . . . . . 1 YOUNGER . . . . . 2 ABOUT THE SAME AGE . . . . . 3 DON'T KNOW/DON'T REMEMBER . . . 8	→ 625A
625	Would you say this person was ten or more years older than you or less than ten years older than you?	TEN OR MORE YEARS OLDER . . . . . 1 LESS THAN TEN YEARS OLDER . . . 2 OLDER, UNSURE HOW MUCH 3	
625A	Now I would like to ask you some questions about your recent sexual activity. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question.		
626	When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS. WHEN IS LESS THAN A DAY RECORD "00"	DAYS AGO . . . . . 1 ☐☐ WEEKS AGO . . . . . 2 ☐☐ MONTHS AGO . . . . . 3 ☐☐ YEARS AGO . . . . . 4 ☐☐	→ 628 → 640

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
627	When was the last time you had sexual intercourse with this person?		DAYS . 1 WEEKS 2 MONTHS 3	DAYS . 1 WEEKS 2 MONTHS 3
628	The last time you had sexual intercourse with this (second/third) person, was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 630)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 630)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 630)
629	Did you use a condom every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
630	What was your relationship to this (second/third) person with whom you had sexual intercourse? IF BOYFRIEND: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	HUSBAND . . . . . 1 (SKIP TO 636) LIVE-IN PARTNER . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 SEX WORKER . . . . . 5 OTHER _____ 6 (SPECIFY)	HUSBAND . . . . . 1 (SKIP TO 636) LIVE-IN PARTNER . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 SEX WORKER . . . . . 5 OTHER _____ 6 (SPECIFY)	HUSBAND . . . . . 1 (SKIP TO 636) LIVE-IN PARTNER . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 SEX WORKER . . . . . 5 OTHER _____ 6 (SPECIFY)
631	For how long (have you had/did you have) a sexual relationship with this person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON ONCE, RECORD '01' DAYS.	DAYS . 1 MONTHS 2 YEARS 3	DAYS . 1 MONTHS 2 YEARS 3	DAYS . 1 MONTHS 2 YEARS 3
632	CHECK 107:	AGE 15-24 / AGE 25-49 (SKIP TO 636)	AGE 15-24 / AGE 25-49 (SKIP TO 636)	AGE 15-24 / AGE 25-49 (SKIP TO 636)
633	How old is this person?	AGE OF PARTNER (SKIP TO 636) DON'T KNOW 98	AGE OF PARTNER (SKIP TO 636) DON'T KNOW 98	AGE OF PARTNER (SKIP TO 636) DON'T KNOW 98
634	Is this person older than you, younger than you, or about the same age?	OLDER . . . . . 1 YOUNGER . . . . . 2 SAME AGE . . . . . 3 DON'T KNOW . . . 8 (SKIP TO 636)	OLDER . . . . . 1 YOUNGER . . . . . 2 SAME AGE . . . . . 3 DON'T KNOW . . . 8 (SKIP TO 636)	OLDER . . . . . 1 YOUNGER . . . . . 2 SAME AGE . . . . . 3 DON'T KNOW . . . 8 (SKIP TO 636)
635	Would you say this person is ten or more years older than you or less than ten years older than you?	TEN OR MORE YEARS OLDER . 1 LESS THAN TEN YEARS OLDER . 2 OLDER, UNSURE HOW MUCH . . . 3	TEN OR MORE YEARS OLDER . 1 LESS THAN TEN YEARS OLDER . 2 OLDER, UNSURE HOW MUCH . . . 3	TEN OR MORE YEARS OLDER . 1 LESS THAN TEN YEARS OLDER . 2 OLDER, UNSURE HOW MUCH . . . 3

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
636	The last time you had sexual intercourse with this(second/third) person, did you or this person drink alcohol?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 638)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 638)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 639)
637	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4
638	Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 627 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 640)	YES . . . . . 1 (GO BACK TO 627 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 640)	
639	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'			NUMBER OF PARTNERS LAST 12 MONTHS . . . ☐☐ DON'T KNOW . . . 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
640	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'	NUMBER OF PARTNERS IN LIFETIME . . . . . [ ][ ] DON'T KNOW 98	
641	Do you know of a place where a person can get male condoms?	YES . . . . . 1 NO 2	→ 644
642	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C OTHER PUBLIC _____ (SPECIFY) D PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/SURGERY . . E MISSION HOSPITAL/CLINIC . . . . . F PHARMACY . . . . . G PRIVATE DOCTOR . . . . . H COMMUNITY BASED AGENT . . . . . I OTHER PRIVATE MEDICAL _____ (SPECIFY) J OTHER SOURCE SHOP . . . . . K FRIENDS/RELATIVES . . . . . L OTHER _____ (SPECIFY) X	
643	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
644	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	→ 701
645	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C OTHER PUBLIC _____ D (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/SURGERY . . E MISSION HOSPITAL/CLINIC . . . . . F PHARMACY . . . . . G PRIVATE DOCTOR . . . . . H COMMUNITY BASED AGENT . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER SOURCE SHOP . . . . . K FRIENDS/RELATIVES . . . . . L OTHER _____ X (SPECIFY)	
646	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO 2	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 311/311A: CODE A OR B NOT CIRCLED: NEITHER STERILIZED CODE A OR B CIRCLED: HE OR SHE STERILIZED		→ 713
702	CHECK 226: NOT PREGNANT OR UNSURE: Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? PREGNANT: Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT . 3 UNDECIDED/DON'T KNOW AND PREGNANT . . . . . 4 UNDECIDED/DON'T KNOW AND NOT PREGNANT OR UNSURE 5	→ 704 → 713 → 709 → 708
703	CHECK 226: NOT PREGNANT OR UNSURE: How long would you like to wait from now before the birth of (a/another) child? PREGNANT: After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT 994 AFTER MARRIAGE . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	→ 708 → 713 → 708
704	CHECK 226: NOT PREGNANT OR UNSURE PREGNANT		→ 709
705	CHECK 310: USING A CONTRACEPTIVE METHOD? NOT ASKED NOT CURRENTLY USING CURRENTLY USING		→ 713
706	CHECK 703: NOT ASKED 24 OR MORE MONTHS OR 02 OR MORE YEARS 00-23 MONTHS OR 00-01 YEAR		→ 709

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
707	CHECK 702: WANTS TO HAVE A/ANOTHER CHILD You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy. Can you tell me why you are not using a method? Any other reason? WANTS NO MORE/ NONE You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy. Can you tell me why you are not using a method? Any other reason? RECORD ALL REASONS MENTIONED.	NOT MARRIED . . . . . A FERTILITY-RELATED REASONS NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY . D SUBFECUND/INFECUND . . . . . E POSTPARTUM AMENORRHEIC . . . F BREASTFEEDING . . . . . G FATALISTIC . . . . . H OPPOSITION TO USE RESPONDENT OPPOSED . . . . . I HUSBAND/PARTNER OPPOSED . J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N METHOD-RELATED REASONS HEALTH CONCERNS . . . . . O FEAR OF SIDE EFFECTS . . . . . P LACK OF ACCESS/TOO FAR . . . . . Q COSTS TOO MUCH . . . . . R INCONVENIENT TO USE . . . . . S INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . T OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
708	CHECK 310: USING A CONTRACEPTIVE METHOD? NOT ASKED NO, NOT CURRENTLY USING YES, CURRENTLY USING → 713		
709	Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 → 711 DON'T KNOW . . . . . 8 → 713	
710	Which contraceptive method would you prefer to use?	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . . . 11 NATURAL FAMILY PLANNING (RHYTHM METHOD) . . . . . 12 WITHDRAWAL . . . . . 13 CYCLE BEADS . . . . . 14 OTHER _____ 96 (SPECIFY) UNSURE 98	713

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
711	What is the main reason that you think you will not use a contraceptive method at any time in the future?	NOT MARRIED . . . . . 11 FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX . . . 22 MENOPAUSAL/HYSTERECTOMY 23 SUBFECUND/INFECUND . . . . . 24 WANTS AS MANY CHILDREN AS POSSIBLE . . . . . 26 OPPOSITION TO USE RESPONDENT OPPOSED . . . . . 31 HUSBAND/PARTNER OPPOSED 32 OTHERS OPPOSED . . . . . 33 RELIGIOUS PROHIBITION . . . . . 34 LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . 41 KNOWS NO SOURCE . . . . . 42 METHOD-RELATED REASONS HEALTH CONCERNS . . . . . 51 FEAR OF SIDE EFFECTS . . . . . 52 LACK OF ACCESS/TOO FAR . . . 53 COSTS TOO MUCH . . . . . 54 INCONVENIENT TO USE . . . . . 55 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	713
712	Would you ever use a contraceptive method if you were married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
713	CHECK 216: HAS LIVING CHILDREN ☐ → If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ → If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 → 715 NUMBER . . . . . ☐☐ OTHER _____ 96 → 715 (SPECIFY)	
714	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	
715	In the last few months have you heard about family planning: On the radio? On the television? In a newspaper or magazine?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE . . . 1 2	
716A	In the last six months, have you listened to the following programmes on the radio? Your Health Matters Sister Evalina Our Neighbourhood Other health related programmes	YES NO YOUR HEALTH MATTERS . . . . . 1 2 SISTER EVALINA . . . . . 1 2 OUR NEIGHBOURHOOD . . . . . 1 2 OTHER _____ 1 2 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
716B	In the last six months, have you seen any of the following programmes on television? Your Health Matters Soul City Insight Other health related programmes	YES NO YOUR HEALTH MATTERS . . . . . 1 2 SOUL CITY . . . . . 1 2 INSIGHT . . . 1 2 OTHER _____ 1 2 (SPECIFY)	
717	CHECK 601: YES, CURRENTLY MARRIED YES, LIVING WITH A MAN NO, NOT IN UNION → 801		
718	CHECK 311/311A: CODE B, G, OR M CIRCLED → 720 NO CODE CIRCLED → 722 OTHER		
719	Does your husband/partner know that you are using a method of family planning?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
720	Would you say that using contraception is mainly your decision, mainly your husband's/partner's decision, or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY HUSBAND/PARTNER . . . . . 2 JOINT DECISION . . . . . 3 OTHER _____ 6 (SPECIFY)	
721	CHECK 311/311A: CODE A OR B NOT CIRCLED NEITHER STERILIZED CODE A OR B CIRCLED HE OR SHE STERILIZED → 801		
722	Does your husband/partner want the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 601 AND 602: CURRENTLY MARRIED/ LIVING WITH A MAN ↓ FORMERLY MARRIED/ LIVED WITH A MAN → 803 NEVER MARRIED AND NEVER LIVED WITH A MAN → 807		
802	How old was your husband/partner on his last birthday?	AGE IN COMPLETED YEARS ☐☐	
803	Did your (last) husband/partner ever attend school?	YES . . . . . 1 NO . . . . . 2 → 806	
804	What was the highest level of school he attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER . . . . . 3 DON'T KNOW . . . . . 8 → 806	
805	What was the highest (grade/form/year) he completed at that level? (GRADE/FORM/YEAR IS EQUAL TO NUMBER OF COMPLETED YEARS SPENT IN SCHOOL)	GRADE . . . . . ☐☐ DON'T KNOW 98	
806	CHECK 801: CURRENTLY MARRIED/ LIVING WITH A MAN ↓ What is your husband's/partner's occupation? That is, what kind of work does he mainly do? FORMERLY MARRIED/ LIVED WITH A MAN ↓ What was your (last) husband's/ partner's occupation? That is, what kind of work did he mainly do?	_____ ☐☐ _____ _____	
807	Aside from your own housework, have you done any work in the last seven days?	YES . . . . . 1 NO . . . . . 2 → 811	
808	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. In the last seven days, have you done any of these things or any other work?	YES . . . . . 1 NO . . . . . 2 → 811	
809	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave or any other such reason?	YES . . . . . 1 NO . . . . . 2 → 811	
810	Have you done any work in the last 12 months?	YES . . . . . 1 NO . . . . . 2 → 818	
811	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
812	CHECK 811: WORKS IN AGRICULTURE ↓ DOES NOT WORK IN AGRICULTURE → 814		
813	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
814	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
815	Do you usually work at home or away from home?	HOME . . . . . 1 AWAY 2	
816	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . 2 ONCE IN A WHILE 3	
817	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
818	CHECK 601: CURRENTLY MARRIED/LIVING WITH A MAN ☐ ↓ NOT IN UNION ☐ →		827
819	CHECK 817: CODE 1 OR 2 CIRCLED ☐ ↓ OTHER ☐ →		822
820	Who usually decides how the money that you earn will be used: you, your husband/partner, or you and your husband/partner jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 OTHER _____ 6 (SPECIFY)	
821	Would you say that the money that you earn is more than what your husband/partner earns, less than what he earns, or about the same?	MORE THAN HIM . . . . . 1 LESS THAN HIM . . . . . 2 ABOUT THE SAME . . . . . 3 HUSBAND/PARTNER DOESN'T BRING IN ANY MONEY . . . . . 4 DON'T KNOW 8	→ 823
822	Who usually decides how your husband's/partner's earnings will be used: you, your husband/partner, or you and your husband/partner jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 HUSBAND/PARTNER HAS NO EARNINGS . . . . . 4 OTHER _____ 6 (SPECIFY)	
823	Who usually makes decisions about health care for yourself: you, your husband/partner, you and your husband/partner jointly, or someone else?	RESPONDENT = 1 HUSBAND/PARTNER = 2 RESPONDENT & HUSBAND/PARTNER JOINTLY = 3 SOMEONE ELSE = 4 OTHER = 6 1 2 3 4 6	
824	Who usually makes decisions about making major household purchases?	1 2 3 4 6	
825	Who usually makes decisions about making purchases for daily household needs?	1 2 3 4 6	
826	Who usually makes decisions about visits to your family or relatives?	1 2 3 4 6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
827	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)		PRES./ LISTEN.	PRES./ NOT LISTEN.	NOT PRES.	
		CHILDREN < 10	1	2	3	
		HUSBAND	1	2	3	
		OTHER MALES	1	2	3	
		OTHER FEMALES . . .	1	2	3	
828	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:		YES	NO	DK	
	If she goes out without telling him?	GOES OUT	1	2	8	
	If she neglects the children?	NEGL. CHILDREN . . .	1	2	8	
	If she argues with him?	ARGUES	1	2	8	
	If she refuses to have sex with him?	REFUSES SEX	1	2	8	
	If she burns the food?	BURNS FOOD	1	2	8	

SECTION 9. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 942
902	Can people reduce their chances of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
903	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
904	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
905	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
906	Can people reduce their chance of getting the AIDS virus by not having sexual intercourse at all?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
908	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
908A	Do you think your risk of getting infected with HIV is low, medium or high, or do you have no risk at all?	LOW . . . . . 1 MEDIUM . . . . . 2 HIGH . . . . . 3 NO RISK . . . . . 4 OTHER . . . . . 6 DON'T KNOW 8	
909	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	
910	CHECK 909: AT LEAST ONE 'YES' ☐ OTHER ☐		→ 912
911	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
912	Have you heard about special antiretroviral drugs (USE LOCAL NAME) that people infected with the AIDS virus can get from a doctor or a nurse to help them live longer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
913	CHECK 208 AND 215: NO BIRTHS ☐ LAST BIRTH SINCE JANUARY 2004 ☐ LAST BIRTH BEFORE JANUARY 2004 ☐		→ 922 → 922
914	CHECK 407 FOR LAST BIRTH: HAD ANTENATAL CARE ☐ NO ANTENATAL CARE ☐		→ 922
914A	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
915	During any of the antenatal visits for your last birth, did anyone talk to you about: Babies getting the AIDS virus from their mother? Things that you can do to prevent getting the AIDS virus? Getting tested for the AIDS virus?	YES NO DK AIDS FROM MOTHER 1 2 8 THINGS TO DO . 1 2 8 TESTED FOR AIDS . 1 2 8	
916	Were you offered a test for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
917	I don't want to know the results, but were you tested for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	→ 922
918	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
919	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 10 GOVT. HEALTH CENTER . . . . . 11 STAND-ALONE VCT CENTER . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 FIELDWORKER . . . . . 15 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 20 MISSION HOSPITAL/CLINIC . . . . . 21 STAND-ALONE VCT CENTER . . . 22 MOBILE CLINIC . . . . . 23 COMMUNITY/FIELDWORKER . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY)	
920	Have you been tested for the AIDS virus since that time you were tested during your pregnancy?	YES . . . . . 1 NO 2	→ 923
921	When was the last time you were tested for the AIDS virus?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	→ 929
922	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→ 927
923	When was the last time you were tested?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	
924	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST . . . . . 1 OFFERED AND ACCEPTED . . . . . 2 REQUIRED 3	
925	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
926	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 10 GOVT. HEALTH CENTER . . . . . 11 STAND-ALONE VCT CENTER . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 FIELDWORKER . . . . . 15 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 20 MISSION HOSPITAL/CLINIC . . . . . 21 STAND-ALONE VCT CENTER . . . 22 MOBILE CLINIC . . . . . 23 COMMUNITY/FIELDWORKER . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY)	→ 929
927	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 929
928	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B STAND-ALONE VCT CENTER . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE CLINIC . . . . . E COMMUNITY/FIELDWORKER . . . . . F OTHER PUBLIC _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . H MISSION HOSPITAL/CLINIC . . . . . I STAND-ALONE VCT CENTER . . . J MOBILE CLINIC . . . . . K COMMUNITY/FIELDWORKER . . . . . L OTHER PRIVATE MEDICAL _____ M (SPECIFY) OTHER _____ X (SPECIFY)	
929	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
930	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
931	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
932	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DON'T KNOW 8	
933	Do you personally know someone who has been denied health services in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 938

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
934	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
935	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
936	CHECK 933, 934, AND 935: NOT A SINGLE 'YES' ☐ ↓ AT LEAST ONE 'YES' ☐ →		938
937	Do you personally know someone who has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
938	Do you agree or disagree with the following statement: People with the AIDS virus should be ashamed of themselves.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW 8	
939	Do you agree or disagree with the following statement: People with the AIDS virus should be blamed for bringing the disease into the community.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW 8	
940	Should children aged 12-14 be taught about using a condom to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
941	Should children aged 12-14 be taught to wait until they get married to have sexual intercourse in order to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
941A	Some individuals would choose not to go for HIV testing. Why in your opinion is this so? (CIRCLE ALL THAT ARE MENTIONED) (MORE THAN ONE ANSWER IS POSSIBLE)	FEEL THEY ARE NOT AT RISK . . . . A FEAR OF RESULTS . . . . . B FEAR OF STIGMA/DISCRIMINATION . . C DON'T KNOW WHERE TO GO . . . . D OTHER _____ X (SPECIFY)	
942	CHECK 901: HEARD ABOUT AIDS ☐ ↓ Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS ☐ ↓ Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
943	CHECK 618: HAS HAD SEXUAL INTERCOURSE ☐ ↓ HAS NOT HAD SEXUAL INTERCOURSE ☐ →		951
944	CHECK 942: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ ↓ NO ☐ →		946
945	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
946	Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
947	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
948	CHECK 945, 946, AND 947: HAS HAD AN INFECTION (ANY 'YES') ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW →		951
949	The last time you had (PROBLEM FROM 945/946/947), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 951
950	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B STAND-ALONE VCT CENTER . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE CLINIC . . . . . E FIELDWORKER . . . . . F OTHER PUBLIC _____ (SPECIFY) G PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . H MISSION HOSPITAL/CLINIC . . . . . I STAND-ALONE VCT CENTER . . . J MOBILE CLINIC . . . . . K COMMUNITY/FIELDWORKER . . . . . L OTHER PRIVATE MEDICAL _____ (SPECIFY) M OTHER SOURCE SHOP . . . . . N OTHER _____ (SPECIFY) X	
951	Husbands and wives do not always agree on everything. If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in refusing to have sex with him?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
952	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
953	Is a wife justified in refusing to have sex with her husband when she is tired or not in the mood?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
954	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with other women?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
955	CHECK 601: CURRENTLY MARRIED/ LIVING WITH A PARTNER ↓ NOT IN UNION →		958
956	Can you say no to your husband/partner if you do not want to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	
957	Could you ask your husband/partner to use a condom if you wanted him to?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
958	Do you believe that young men should wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
959	Do you think that most young men you know wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
960	Do you believe that men who are not married and are having sex should only have sex with one partner?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
961	Do you think that most men you know who are not married and are having sex, have sex with only one partner?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
962	Do you believe that married men should only have sex with their wives?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
963	Do you think that most married men you know have sex only with their wives?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
964	Do you believe that young women should wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
965	Do you think that most young women you know wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
966	Do you believe that women who are not married and are having sex should only have sex with one partner?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
967	Do you think that most women you know who are not married and are having sex, have sex with only one partner?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
968	Do you believe that married women should only have sex with their husbands?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
969	Do you think that most married women you know have sex only with their husbands?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 10. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1001	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 1005
1002	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
1003	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1004	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1004A	If a member of your family got tuberculosis, would you care for them?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1005	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 1009
1006	Among these injections, how many were administered by a trained health worker (doctor, a nurse, a dentist, or any other health worker)? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 1009
1007	The last time you had an injection given to you by a trained health worker where did you go to get the injection? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 20 MISSION HOSPITAL/CLINIC . . . . . 21 DENTAL CLINIC/OFFICE . . . . . 22 PHARMACY . . . . . 23 OFFICE OR HOME OF NURSE/ HEALTH WORKER . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER PLACE AT HOME . . . . . 31 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1008	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1009	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 1011
1010	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES	
1011	Do you currently smoke or use any other type of tobacco?	YES . . . . . 1 NO 2	→ 1012A
1012	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF . . . . . C OTHER _____ X (SPECIFY)	
1012A	Do you drink alcohol?	YES . . . . . 1 NO 2	→ 1013
1012B	In the last one week how many days did you drink?	NUMBER OF DAYS	
1013	Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?	BIG PROB-LEM / NOT A BIG PROB-LEM	
	Getting permission to go?	PERMISSION TO GO . . . 1 2	
	Getting money needed for treatment?	GETTING MONEY 1 2	
	The distance to the health facility?	DISTANCE 1 2	
	Having to take transport?	TAKING TRANSPORT . . . 1 2	
	Not wanting to go alone?	GO ALONE 1 2	
	Concern that there may not be a female health provider?	NO FEMALE PROV. . . . 1 2	
	Concern that there may not be any health provider?	NO PROVIDER . . . 1 2	
	Concern that there may be no drugs available?	NO DRUGS . . . 1 2	
1014	Are you covered by any health insurance/scheme?	YES . . . . . 1 NO 2	→ 1016
1015	What type of health insurance/scheme? RECORD ALL MENTIONED.	MUTUAL HEALTH ORGANIZATION/ COMMUNITY-BASED HEALTH INSURANCE . . . . . A HEALTH INSURANCE THROUGH EMPLOYER . . . . . B SOCIAL SECURITY . . . . . C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE. D LOW COST PRE-PAYMENT SCHEME E HIGH COST PRE-PAYMENT SCHEME F OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1016	CHECK 217: (YOUNGEST) CHILD IS AGE 0-17 ☐ OTHER ☐		→ 1018
1017	Now I would like to ask you about your own child(ren) who (is/are) under the age of 18. Have you made arrangements for someone to care for (him/her/them) in the event that you fall sick or are unable to care for (him/her/them)?	YES . . . . . 1 NO 2	
1018	Besides your own child/children, are you the primary caregiver for any children under the age of 18?	YES . . . . . 1 NO 2	→ 1101
1019	Have you made arrangements for someone to care for this child/these children in the event that you fall sick or are unable to care for (him/her/them)?	YES . . . . . 1 NO 2	

SECTION 11. MATERNAL AND ADULT MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1101	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. How many children did your mother give birth to, including you?	NUMBER OF BIRTHS TO NATURAL MOTHER	
1102	CHECK 1101: TWO OR MORE BIRTHS ☐ ↓ ONLY ONE BIRTH (RESPONDENT ONLY) ☐ →		1201
1103	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS	

		(1)	(2)	(3)	(4)	(5)	(6)
1104	What was the name given to your oldest (next oldest) brother or sister?	_____	_____	_____	_____	_____	_____
1105	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
1106	Is (NAME) still alive?	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (2))	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (3))	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (4))	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (5))	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (6))	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (7))
1107	How old is (NAME)?	☐☐ GO TO (2)	☐☐ GO TO (3)	☐☐ GO TO (4)	☐☐ GO TO (5)	☐☐ GO TO (6)	☐☐ GO TO (7)
1108	How many years ago did (NAME) die?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
1109	How old was (NAME) when he/she died?	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (2)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (3)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (4)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (5)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (6)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (7)
1110	Was (NAME) pregnant when she died?	YES . . . 1 (GO TO 1113) NO . . . 2 DK . . . 8	YES . . . 1 (GO TO 1113) NO . . . 2 DK . . . 8	YES . . . 1 (GO TO 1113) NO . . . 2 DK . . . 8	YES . . . 1 (GO TO 1113) NO . . . 2 DK . . . 8	YES . . . 1 (GO TO 1113) NO . . . 2 DK . . . 8	YES . . . 1 (GO TO 1113) NO . . . 2 DK . . . 8
1111	Did (NAME) die during childbirth?	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2
1112	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1113	Was (NAME)'S death due to an accident or violence?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2

IF NO MORE BROTHERS OR SISTERS, GO TO 1201

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES					SKIP
1104	What was the name given to your oldest (next oldest) brother or sister?	(7) _____	(8) _____	(9) _____	(10) _____	(11) _____	(12) _____
1105	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
1106	Is (NAME) still alive?	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (8))	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (9))	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (10))	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (11))	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (12))	YES . . . 1 NO . . . 2 (GO TO 1108) DK . . . 8 (GO TO (13))
1107	How old is (NAME)?	GO TO (8)	GO TO (9)	GO TO (10)	GO TO (11)	GO TO (12)	GO TO (13)
1108	How many years ago did (NAME) die?						
1109	How old was (NAME) when he/she died?	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [8]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (9)	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (10)	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (11)	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (12)	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (13)
1110	Was (NAME) pregnant when she died?	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2
1111	Did (NAME) die during childbirth?	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2	YES . . . 1 (GO TO 1113) NO . . . 2
1112	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1113	Was (NAME)'S death due to an accident or violence?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2

IF NO MORE BROTHERS OR SISTERS, GO TO 1201

TICK HERE IF CONTINUATION SHEET USED ☐

SECTION 12. DOMESTIC VIOLENCE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1201	CHECK FRONT COVER: WOMAN SELECTED FOR THIS SECTION? YES NO →		1232
1202	CHECK FOR PRESENCE OF OTHERS: DO NOT CONTINUE UNTIL EFFECTIVE PRIVACY IS ENSURED. PRIVACY OBTAINED . . . . . 1 PRIVACY NOT POSSIBLE . . . . . 2 →		1231
	READ TO THE RESPONDENT Now I would like to ask you questions about some other important aspects of a woman's life. I know that some of these questions are very personal. However, your answers are crucial for helping to understand the condition of women in Zambia. Let me assure you that your answers are completely confidential and will not be told to anyone and no one else will know that you were asked these questions.		
1203	CHECK 601: CURRENTLY MARRIED FORMERLY MARRIED (READ IN PAST TENSE) NEVER MARRIED →		1215

1204 — First, I am going to ask you about some situations which happen to some women. Please tell me if these apply to your relationship with your (last) husband?

	YES	NO	DK
a) He (is/was) jealous or angry if you (talk/talked) to other men? JEALOUS	1	2	8
b) He frequently (accuses/accused) you of being unfaithful? ACCUSES	1	2	8
c) He (does/did) not permit you to meet your female friends? NOT MEET FRIENDS	1	2	8
d) He (tries/tried) to limit your contact with your family? NO FAMILY	1	2	8
e) He (insists/insisted) on knowing where you (are/were) at all times? WHERE YOU ARE	1	2	8
f) He (does/did) not trust you with any money? MONEY	1	2	8

1205A — Now if you will permit me, I need to ask some more questions about your relationship with your (last) husband.

A (Does/did) your (last) husband ever:

1205B CHECK 603: ASK ONLY **IF RESPONDENT IS NOT A WIDOW**

How often did this happen during the **last 12 months**: often, only sometimes, or not at all?

			OFTEN	SOME-TIMES	NOT AT ALL
a)	say or do something to humiliate you in front of others?	YES 1 → / NO 2	1	2	3
b)	threaten to hurt or harm you or someone close to you?	YES 1 → / NO 2	1	2	3
c)	insult you or make you feel bad about yourself?	YES 1 → / NO 2	1	2	3

1206A	(Does/did) your (last) husband ever do any of the following things to you:		**1206B** CHECK 603: ASK ONLY **IF RESPONDENT IS NOT A WIDOW** How often did this happen during the **last 12 months**: often, only sometimes, or not at all?			
				OFTEN	SOME-TIMES	NOT AT ALL
	a) slap you?	YES 1 → NO 2		1	2	3
	b) twist your arm or pull your hair?	YES 1 → NO 2		1	2	3
	c) push you, shake you, or throw something at you?	YES 1 → NO 2		1	2	3
	d) punch you with his fist or with something that could hurt you?	YES 1 → NO 2		1	2	3
	e) kick you, drag you or beat you up?	YES 1 → NO 2		1	2	3
	f) try to choke you or burn you on purpose?	YES 1 → NO 2		1	2	3
	g) threaten or attack you with a knife, gun, or any other weapon?	YES 1 → NO 2		1	2	3
	h) physically force you to have sexual intercourse with him even when you did not want to?	YES 1 → NO 2		1	2	3
	i) force you to perform any sexual acts you did not want to?	YES 1 → NO 2		1	2	3
1207	CHECK 1206A (a-i): AT LEAST ONE 'YES' ☐ / NOT A SINGLE 'YES' ☐ →					1210
1208	How long after you first got married to your (last) husband did (this/any of these things) first happen? IF LESS THAN ONE YEAR, RECORD '00'.		NUMBER OF YEARS . . . . . ☐☐ BEFORE MARRIAGE 95			
1209	Did the following ever happen as a result of what your (last) husband did to you:					
	a) You had cuts, bruises or aches?		YES . . . . . 1 NO 2			
	b) You had severe burns?		YES . . . . . 1 NO 2			
	c) You had eye injuries, sprains, dislocations, or minor burns?		YES . . . . . 1 NO 2			
	d) You had deep wounds, broken bones, broken teeth, or any other serious injury?		YES . . . . . 1 NO 2			
1210	Have you ever hit, slapped, kicked, or done anything else to physically hurt your (last) husband at times when he was not already beating or physically hurting you?		YES . . . . . 1 NO . . . . . 2 →			1213
1211	CHECK 603: RESPONDENT IS **NOT** A WIDOW ☐ / RESPONDENT IS A WIDOW ☐ →					1213
1212	In the last 12 months, how often have you done this to your husband: often, only sometimes, or not at all?		OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3			
1213	Does (did) your husband drink alcohol?		YES . . . . . 1 NO . . . . . 2 →			1215
1214	How often does (did) he get drunk: often, only sometimes, or never?		OFTEN . . . . . 1 SOMETIMES . . . . . 2 NEVER 3			

1215	CHECK 201, 226, AND 229: EVER BEEN PREGNANT ☐ NEVER BEEN PREGNANT ☐ → 1218		
1216	Has any one ever hit, slapped, kicked, or done anything else to hurt you physically while you were pregnant?	YES . . . . . 1 NO . . . . . 2 → 1218	
1217	Who has done any of these things to physically hurt you while you were pregnant? Anyone else? RECORD ALL MENTIONED.	CURRENT HUSBAND/PARTNER . . . A MOTHER/STEP-MOTHER . . . . . B FATHER/STEP-FATHER . . . . . C SISTER/BROTHER . . . . . D DAUGHTER/SON . . . . . E OTHER RELATIVE . . . . . F FORMER HUSBAND/PARTNER . . . . G CURRENT BOYFRIEND . . . . . H FORMER BOYFRIEND . . . . . I MOTHER-IN-LAW . . . . . J FATHER-IN-LAW . . . . . K OTHER IN-LAW . . . . . L TEACHER . . . . . M EMPLOYER/SOMEONE AT WORK . N POLICE/SOLDIER . . . . . O OTHER _____ X (SPECIFY)	
1218	CHECK 601: ☐ NEVER MARRIED ☐ EVER MARRIED From the time you were 15 years old has anyone ever hit, slapped, kicked, or done anything else to hurt you physically? From the time you were 15 years old has anyone other than your (current/last) husband hit, slapped, kicked, or done anything else to hurt you physically?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER . . . . . 3 → 1221	
1219	Who has hurt you in this way? Anyone else? RECORD ALL MENTIONED.	MOTHER/STEP-MOTHER . . . . . A FATHER/STEP-FATHER . . . . . B SISTER/BROTHER . . . . . C DAUGHTER/SON . . . . . D OTHER RELATIVE . . . . . E FORMER HUSBAND . . . . . F CURRENT BOYFRIEND . . . . . G FORMER BOYFRIEND . . . . . H MOTHER-IN-LAW . . . . . I FATHER-IN-LAW . . . . . J OTHER IN-LAW . . . . . K TEACHER . . . . . L EMPLOYER/SOMEONE AT WORK . . . . . M POLICE/SOLDIER . . . . . N OTHER _____ X (SPECIFY)	
1220	In the last 12 months, how often have you been hit, slapped, kicked, or physically hurt by this/these person(s): often, only sometimes, or not at all?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3	
1221	At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER . . . . . 3 → 1224	
1222	How old were you the first time you were forced to have sexual intercourse or perform any other sexual acts?	AGE IN COMPLETED YEARS . . . ☐☐ DON'T KNOW 98	

W 66

1223	Who was the person who was forcing you at that time?	CURRENT HUSBAND . . . . . 01 FORMER HUSBAND . . . . . 02 CURRENT/FORMER BOYFRIEND . . . . 03 FATHER . . . . . 04 STEP-FATHER . . . . . 05 OTHER RELATIVE . . . . . 06 IN-LAW . . . . . 07 OWN FRIEND/ACQUAINTANCE . . . . . 08 FAMILY FRIEND . . . . . 09 TEACHER . . . . . 10 EMPLOYER/SOMEONE AT WORK . 11 POLICE/SOLDIER . . . . . 12 PRIEST/RELIGIOUS LEADER . . . . . 13 STRANGER . . . . . 14 OTHER _____ . 96 (SPECIFY)	
1224	CHECK 601: ☐ NEVER MARRIED ☐ EVER MARRIED In the last 12 months has anyone forced you to have sexual intercourse against your will? In the last 12 months, has anyone other than your (current/last) husband/ partner forced you to have sexual intercourse against your will?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	
1225	CHECK 1206A (a-i), 1218, 1221, AND 1224: AT LEAST ONE 'YES' ☐ NOT A SINGLE 'YES' ☐ →		1229
1226	Thinking about what you yourself have experienced among the different things we have been talking about, have you ever tried to seek help to stop the person(s) from doing this to you again?	YES . . . . . 1 NO . . . . . 2 → 1228	
1227	From whom have you sought help to stop this? Anyone else? RECORD ALL MENTIONED.	OWN FAMILY . . . . . A HUSBAND'S FAMILY . . . . . B CURRENT/LAST HUSBAND . . . . . C CURRENT/FORMER BOYFRIEND . D FRIEND . . . . . E NEIGHBOUR . . . . . F RELIGIOUS LEADER . . . . . G DOCTOR/MEDICAL PERSONNEL . H POLICE (e.g. Victim Support Unit)..... I LAWYER . . . . . J SOCIAL SERVICE ORGANIZATION (e.g YWCA) . K OTHER _____ X (SPECIFY)	1229
1228	Have you ever told any one else about this?	YES . . . . . 1 NO 2	
1229	As far as you know, did your father ever beat your mother?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

THANK THE RESPONDENT FOR HER COOPERATION AND REASSURE HER ABOUT THE CONFIDENTIALITY OF HER ANSWERS. FILL OUT THE QUESTIONS BELOW WITH REFERENCE TO THE DOMESTIC VIOLENCE MODULE ONLY.

1230	DID YOU HAVE TO INTERRUPT THE INTERVIEW BECAUSE SOME ADULT WAS TRYING TO LISTEN, OR CAME INTO THE ROOM, OR INTERFERED IN ANY OTHER WAY?		YES ONCE	YES, MORE THAN ONCE	NO
		HUSBAND	1	2	3
		OTHER MALE ADULT	1	2	3
		FEMALE ADULT	1	2	3
1231	INTERVIEWER'S COMMENTS / EXPLANATION FOR NOT COMPLETING THE DOMESTIC VIOLENCE MODULE				
1232	RECORD THE TIME.	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐			

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

INSTRUCTIONS:
ONLY ONE CODE SHOULD APPEAR IN ANY BOX.
ALL MONTHS SHOULD BE FILLED IN.

INFORMATION TO BE CODED FOR EACH COLUMN

BIRTHS, PREGNANCIES, CONTRACEPTIVE USE **

- B BIRTHS
- P PREGNANCIES
- T TERMINATIONS

- 0 NO METHOD
- 1 FEMALE STERILIZATION
- 2 MALE STERILIZATION
- 3 PILL
- 4 IUD
- 5 INJECTABLES
- 6 IMPLANTS
- 7 CONDOM
- 8 FEMALE CONDOM
- 9 DIAPHRAGM
- J FOAM OR JELLY
- K LACTATIONAL AMENORRHEA METHOD
- L RHYTHM METHOD
- M WITHDRAWAL
- X OTHER _____ (SPECIFY)

	12	DEC	01		
	11	NOV	02		
	10	OCT	03		
	09	SEP	04		
2	08	AUG	05		2
0	07	JUL	06		0
0	06	JUN	07		0
7	05	MAY	08		7
*	04	APR	09		*
	03	MAR	10		
	02	FEB	11		
	01	JAN	12		
	12	DEC	13		
	11	NOV	14		
	10	OCT	15		
	09	SEP	16		
2	08	AUG	17		2
0	07	JUL	18		0
0	06	JUN	19		0
6	05	MAY	20		6
*	04	APR	21		*
	03	MAR	22		
	02	FEB	23		
	01	JAN	24		
	12	DEC	25		
	11	NOV	26		
	10	OCT	27		
	09	SEP	28		
2	08	AUG	29		2
0	07	JUL	30		0
0	06	JUN	31		0
5	05	MAY	32		5
*	04	APR	33		*
	03	MAR	34		
	02	FEB	35		
	01	JAN	36		
	12	DEC	37		
	11	NOV	38		
	10	OCT	39		
	09	SEP	40		
2	08	AUG	41		2
0	07	JUL	42		0
0	06	JUN	43		0
4	05	MAY	44		4
*	04	APR	45		*
	03	MAR	46		
	02	FEB	47		
	01	JAN	48		
	12	DEC	49		
	11	NOV	50		
	10	OCT	51		
	09	SEP	52		
2	08	AUG	53		2
0	07	JUL	54		0
0	06	JUN	55		0
3	05	MAY	56		3
*	04	APR	57		*
	03	MAR	58		
	02	FEB	59		
	01	JAN	60		
	12	DEC	61		
	11	NOV	62		
	10	OCT	63		
	09	SEP	64		
2	08	AUG	65		2
0	07	JUL	66		0
0	06	JUN	67		0
2	05	MAY	68		2
*	04	APR	69		*
	03	MAR	70		
	02	FEB	71		
	01	JAN	72		

2007 ZAMBIA DEMOGRAPHIC AND HEALTH SURVEY
MEN'S QUESTIONNAIRE
WITH HIV/AIDS

MINISTRY OF HEALTH/CENTRAL STATISTICAL OFFICE

IDENTIFICATION

LOCALITY NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . [ ][ ][ ]

HOUSEHOLD NUMBER . . . . . [ ][ ][ ]

PROVINCE . . . . . [ ]

URBAN/RURAL (URBAN = 1, RURAL = 2) . . . . . [ ]

LUSAKA = 1 / OTHER CITY = 2 / TOWN = 3 / VILLAGE = 4 . . . . . [ ]

NAME AND LINE NUMBER OF MAN _____ [ ][ ]

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY [ ][ ]
				MONTH [ ][ ]
				YEAR [ ][ ][ ][ ]
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER [ ][ ]
RESULT*	_____	_____	_____	RESULT [ ]
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS [ ]
TIME	_____	_____		

*RESULT CODES:

1	COMPLETED	4	REFUSED	7	OTHER _____ (SPECIFY)
2	NOT AT HOME	5	PARTLY COMPLETED		
3	POSTPONED	6	INCAPACITATED		

LANGUAGE OF QESTIONNAIRE ** **ENGLISH** **0 1**

LANGUAGE OF INTERVIEW ** . . . . . [ ][ ]

RESPONDENT'S LOCAL LANGUAGE ** . . . . . [ ][ ]

TRANSLATOR USED (1=NOT AT ALL; 2=SOMETIME; 3=ALL THE TIME) . . . . . [ ]

LANGUAGE CODES:

01 ENGLISH	03 KAONDE	05 LUNDA	07 NYANJA	09 OTHER
02 BEMBA	04 LOZI	06 LUVALE	08 TONGA	

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____ [ ][ ]	DATE _____ [ ][ ]	[ ][ ]	[ ][ ]

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with Ministry of Health/CSO. We are conducting a national survey to ask men and women about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The interview usually takes about 20 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However,we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . ☐☐ ALWAYS . . . . . 95 VISITOR 96	→ 104
103	Just before you moved here, did you live in Lusaka, another city, in a town, or in a village?	LUSAKA . . . . . 1 OTHER CITY . . . . . 2 TOWN . . . . . 3 VILLAGE 4	
104	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	NUMBER OF TRIPS . . . . . ☐☐ NONE 00	→ 106
105	In the last 12 months, have you been away from your home community for more than one month at a time?	YES . . . . . 1 NO 2	
106	In what month and year were you born?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	
107	How old were you at your last birthday? COMPARE AND CORRECT 106 AND/OR 107 IF INCONSISTENT.	AGE IN COMPLETED YEARS ☐☐	
108	Have you ever attended school?	YES . . . . . 1 NO 2	→ 112
109	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
110	What is the highest (grade/form/year) you completed at that level?	GRADE	
111	CHECK 109: PRIMARY → SECONDARY OR HIGHER		→ 115
112	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE. . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
113	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	
114	CHECK 112: CODE '2', '3' OR '4' CIRCLED → CODE '1' OR '5' CIRCLED		→ 116
115	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
116	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
117	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
118	What is your religion?	CATHOLIC . . . . . 1 PROTESTANT . . . . . 2 MUSLIM . . . . . 3 OTHER _____ 6 (SPECIFY)	
119	What tribe do you belong to?	_____	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had during your life. I am interested in all of the children that are biologically yours, even if they are not legally yours or do not have your last name. Have you ever fathered any children with any woman?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters that you have fathered who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . . [ ][ ]	
206	Have you ever fathered a son or a daughter who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL CHILDREN . . . . . [ ][ ]	
209	CHECK 208: HAS HAD MORE THAN ONE CHILD ↓ HAS HAD ONLY ONE CHILD → 212 HAS NOT HAD ANY CHILDREN → 301		
210	Did all of the children you have fathered have the same biological mother?	YES . . . . . 1 NO 2	→ 212
211	In all, how many women have you fathered children with?	NUMBER OF WOMEN . . . . . [ ][ ]	
212	How old were you when your (first) child was born?	AGE IN YEARS . . . . . [ ][ ]	
212A	CHECK 203 AND 205: AT LEAST ONE LIVING CHILD ↓ NO LIVING CHILDREN → 301		
213	How many years old is your (youngest) child?	AGE IN YEARS . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
214	CHECK 213: (YOUNGEST) CHILD IS AGE 0-3 ☐ ↓ OTHER ☐ → 301		
215	What is the name of your (youngest) child? WRITE NAME OF (YOUNGEST) CHILD _____ (NAME OF (YOUNGEST) CHILD)		
216	When (NAME)'s mother was pregnant with (NAME) did she have any antenatal check-ups?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 218
217	Were you ever present during any antenatal check-up?	PRESENT . . . . . 1 NOT PRESENT 2	
218	Was (NAME) born in a hospital or health facility?	HOSPITAL/HEALTH FACILITY . . . . . 1 DON'T KNOW . . . . . 8 OTHER 6	→ 220
219	What was the main reason why (NAME)'s mother did not deliver in a hospital or health facility?	COST TOO MUCH . . . . . 01 FACILITY CLOSED . . . . . 02 TOO FAR/NO TRANSPORTATION . 03 DON'T TRUST FACILITY/POOR QUALITY SERVICE . . . . . 04 NO FEMALE PROVIDER . . . . . 05 NOT THE FIRST CHILD . . . . . 06 CHILD'S MOTHER DID NOT THINK IT WAS NECESSARY . . . . . 07 HE DID NOT THINK IT WAS NECESSARY . . . . . 08 FAMILY DID NOT THINK IT WAS NECESSARY . . . . . 09 SHORT LABOUR . . . . . 10 OTHER _____ 96 (SPECIFY) DON"T KNOW 98	
220	When a child has diarrhea, how much should he or she be given to drink: more than usual, the same amount as usual, less than usual, or should he or she not be given anything to drink at all?	MORE THAN USUAL . . . . . 1 ABOUT THE SAME . . . . . 2 LESS THAN USUAL . . . . . 3 NOTHING TO DRINK . . . . . 4 DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)? CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO . . . . . 2 →	
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO . . . . . 2 →	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	PILL Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO . . . . . 2 →	
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO . . . . . 2 →	
05	INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO . . . . . 2 →	
06	IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO . . . . . 2 →	
07	CONDOM Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO . . . . . 2 →	YES . . . . . 1 NO 2
08	FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO . . . . . 2 →	
09	LACTATIONAL AMENORRHEA METHOD (LAM) Up to 6 months after childbirth, a woman can use a method that requires that she breastfeeds frequently, day and night, and that her menstrual period has not returned.	YES . . . . . 1 NO . . . . . 2 →	YES . . . . . 1 NO 2
10	RHYTHM METHOD Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO . . . . . 2 →	YES . . . . . 1 NO 2
11	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO . . . . . 2 →	YES . . . . . 1 NO 2
12	EMERGENCY CONTRACEPTION As an emergency measure after unprotected sexual intercourse, women can take special pills at any time within five days to prevent pregnancy.	YES . . . . . 1 NO . . . . . 2 →	
13	STANDARD DAYS METHOD (CYCLE BEADS) A woman's monthly cycle is monitored using beads to check for the fertile window, which is several days before ovulation and a few hours after.	YES . . . . . 1 NO . . . . . 2 →	
14	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
303	In the last few months have you heard about family planning: On the radio? On the television? In a newspaper or magazine?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE 1 2	
304	In the last few months, have you discussed the practice of family planning with a health worker or health professional?	YES . . . . . 1 NO 2	
305	Now I would like to ask you about a woman's risk of pregnancy. From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 307
306	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
307	Do you think that a woman who is breastfeeding her baby can become pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
308	I will now read you some statements about contraception. Please tell me if you agree or disagree with each one. a) Contraception is women's business and a man should not have to worry about it. b) Women who use contraception may become promiscuous.	AGREE / DISAGREE / DK CONTRACEPTION WOMAN'S BUSINESS . 1 2 8 WOMAN MAY BECOME PROMISCUOUS . . . 1 2 8	
309	CHECK 301 (07) KNOWS MALE CONDOM YES ↓ NO →		→ 313
310	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	→ 313

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
311	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C OTHER PUBLIC _____ (SPECIFY) D PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/SURGER' . . . . . E MISSION HOSPITAL/CLINIC F PHARMACY . . . . . G PRIVATE DOCTOR . . . . . H COMMUNITY BASED AGENT . . . . . I OTHER PRIVATE MEDICAL _____ (SPECIFY) J OTHER SOURCE SHOP . . . . . K FRIENDS/RELATIVES . . . . . L OTHER _____ (SPECIFY) X	
312	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO 2	
313	CHECK 301 (08) KNOWS FEMALE CONDOM YES ☐ NO ☐ → 401		
314	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO . . . . . 2 → 401	
315	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C OTHER PUBLIC _____ (SPECIFY) D PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/SURGER' . . . . . E MISSION HOSPITAL/CLINIC . . . . . F PHARMACY . . . . . G PRIVATE DOCTOR . . . . . H COMMUNITY BASED AGENT . . . . . I OTHER PRIVATE MEDICAL _____ (SPECIFY) J OTHER SOURCE SHOP . . . . . K FRIENDS/RELATIVES . . . . . L OTHER _____ (SPECIFY) X	
316	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO 2	

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	Are you currently married or living together with a woman as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A WOMAN . . . . . 2 NO, NOT IN UNION 3	→ 404
402	Have you ever been married or lived together with a woman as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A WOMAN . . . . . 2 NO 3	→ 413
403	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 410
404	Is your wife/partner living with you now or is she staying elsewhere?	LIVING WITH HIM . . . . . 1 STAYING ELSEWHERE 2	
405	Do you have more than one wife or woman you live with as if married?	YES . . . . . 1 NO 2	→ 407
406	Altogether, how many wives do you have or other partners do you live with as if married?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . ☐☐	
407	CHECK 405: ONE WIFE/ PARTNER ☐↓ Please tell me the name of your wife (the woman you are living with as if married). MORE THAN ONE WIFE/ PARTNER ☐↓ Please tell me the name of each of your current wives (and/or of each woman you are living with as if married). RECORD THE NAME AND THE LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH WIFE AND LIVE-IN PARTNER. IF A WOMAN IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'. ASK 408 FOR EACH PERSON.	NAME _____ LINE NUMBER ☐☐ _____ ☐☐ _____ ☐☐ _____ ☐☐	408 How old was (NAME) on her last birthday? AGE ☐☐ ☐☐ ☐☐ ☐☐	
409	CHECK 407: ONE WIFE/ PARTNER ↓ MORE THAN ONE WIFE/ PARTNER ☐		→ 411B
410	Have you been married or lived with a woman only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	→ 411B
411 411B	In what month and year did you start living with your wife (partner)? Now I would like to ask a question about your first wife/partner. In what month and year did you start living with your first wife/ partner?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	→ 413

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
412	How old were you when you first started living with her?	AGE . . . . . ☐☐	
413	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
414	Now I would like to ask you some questions about sexual activity in order to gain a better understanding of some family life issue. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS . . . . . ☐☐ FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE/PARTNER 95	→ 416 → 416
415	Do you intend to wait until you get married to have sexual intercourse for the first time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	→ 501
416	CHECK 107: 15-24 YEARS OLD ☐ 25-59 YEARS OLD ☐		→ 421
417	The first time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DON'T REMEMBER . . . 8	
421	When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 ☐☐ WEEKS AGO . . . . . 2 ☐☐ MONTHS AGO . . . . . 3 ☐☐ YEARS AGO . . . . . 4 ☐☐	→ 423 → 435
421A	Now I would like to ask you some questions about your recent sexual activity. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question.		

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
422	When was the last time you had sexual intercourse with this person?		DAYS . 1 [ ][ ] WEEKS 2 [ ][ ] MONTHS 3 [ ][ ]	DAYS . 1 [ ][ ] WEEKS 2 [ ][ ] MONTHS 3 [ ][ ]
423	The last time you had sexual intercourse with this (second/third) person, was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 425)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 425)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 425)
424	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
425	What was your relationship to this (second/thirs) person with whom you had sexual intercourse? IF GIRLFRIEND Were you living together as if married? IF YES, CIRCLE '02' IF NO, CIRCLE '03'	WIFE . . . . . 1 (SKIP TO 427) LIVE-IN PARTNER . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 SEX WORKER . . . . . 5 OTHER _____ 6 (SPECIFY)	WIFE . . . . . 1 (SKIP TO 427) LIVE-IN PARTNER . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 SEX WORKER . . . . . 5 OTHER _____ 6 (SPECIFY)	WIFE . . . . . 1 (SKIP TO 427) LIVE-IN PARTNER . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 SEX WORKER . . . . . 5 OTHER _____ 6 (SPECIFY)
426	For how long (have you had/did you have) a sexual relationship with this person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON ONCE, RECORD '01' DAYS.	DAYS . 1 [ ][ ] MONTHS 2 [ ][ ] YEARS 3 [ ][ ]	DAYS . 1 [ ][ ] MONTHS 2 [ ][ ] YEARS 3 [ ][ ]	DAYS . 1 [ ][ ] MONTHS 2 [ ][ ] YEARS 3 [ ][ ]
427	The last time you had sexual intercourse with this (second/third) person did you or this person drink alcohol?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 429)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 429)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 430)
428	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4
429	Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 422 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 430A)	YES . . . . . 1 (GO BACK TO 422 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 430A)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
430	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'	NUMBER OF PARTNERS LAST 12 MONTHS . . . . . ☐☐ DON'T KNOW 98	
430A	CHECK 425 (ALL COLUMNS): AT LEAST ONE PARTNER IS A SEX WORKER ☐ ↓ NO PARTNERS ARE SEX WORKERS ☐ →		432
431	CHECK 425 AND 423 (ALL COLUMNS): CONDOM USED WITH EVERY SEX WORKER ☐ →		434
	OTHER ☐ →		435
432	In the last 12 months, did you pay anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 435
433	The last time you paid someone in exchange for having sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	→ 435
434	Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DK 8	
435	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
436	CHECK 423, MOST RECENT PARTNER (FIRST COLUMN): CONDOM USED ☐ ↓ NO CONDOM USED OR Q423 NOT ASKED ☐ →		441
437	You told me that a condom was used the last time you had sex. What brand name of the condoms did you use? ASK TO SEE THE PACKAGE IF RESPONDENT DOES NOT REMEMBER NAME OF BRAND.	MAXIMUM CLASSIC . . . . . 01 MAXIMUM SCENTED . . . . . 02 ROUGH RIDER . . . . . 03 DUREX . . . . . 04 CARE FEMALE CONDOM 05 FEMIDOM . . . . . 06 REALITY . . . . . 07 PUBLIC SECTOR: UNBRANDED (WHITE COLOUR FOIL) 08 OTHER SPECIFY _____ 96 (SPECIFY) DON'T KNOW 98	
439	How many condoms did you get the last time?	NUMBER OF CONDOMS . . . . . ☐☐☐ DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
440	From where did you obtain the condom the last time? PROBE TO IDENTIFY TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 FIELDWORKER . . . . . 14 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . 21 MISSION HOSPITAL/CLINIC . . . . . 22 PHARMACY . . . . . 23 PRIVATE DOCTOR . . . . . 24 COMMUNITY FIELDWORKER . . . 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER SOURCE SHOP . . . . . 31 CHURCH . . . . . 32 FRIENDS/RELATIVES . . . . . 33 OTHER _____ 96 (SPECIFY)	
441	CHECK 302 (02): RESPONDENT EVER STERILIZED NO ☐ YES ☐ → 501		
442	The last time you had sex did you or your partner use any method (other than a condom) to avoid or prevent a pregnancy?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 501
443	What method did you or your partner use? PROBE: Did you use any other method to prevent pregnancy? RECORD ALL MENTIONED.	FEMALE STERILIZATION . . . . . A PILL . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS . . . . . E FEMALE CONDOM . . . . . F DIAPHRAGM . . . . . G FOAM/JELLY . . . . . H NATURAL FAMILY PLANNING . . . . . I WITHDRAWAL . . . . . J CYCLE BEADS . . . . . K OTHER _____ X (SPECIFY)	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 407: ONE WIFE/ PARTNER ↓ — MORE THAN ONE WIFE/ PARTNER ↓ — NO ANSWER → 506		
502	CHECK 305: MAN NOT STERILIZED ↓ — MAN STERILIZED → 506		
503	(Is your wife (partner)/Are any of your wives (partners)) currently pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
504	CHECK 503: NO WIFE/PARTNER PREGNANT OR UNSURE ↓ — WIFE(WIVES)/ PARTNER(S) PREGNANT ↓ Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? Now I have some questions about the future. After the child(ren) you and your (wife (wives)/partner(s)) expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 COUPLE INFECUND . . . . . 3 WIFE (WIVES)/PARTNER(S) STERILIZED . . . . . 4 UNDECIDED/DON'T KNOW 8	→ 506
505	How long would you like to wait from now before the birth of (a/another) child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 SOON/NOW . . . . . 993 AFTER MARRIAGE . . . . . 995 OTHER _____ (SPECIFY) 996 DON'T KNOW 998	
506	CHECK 208: HAS LIVING CHILDREN ↓ — NO LIVING CHILDREN ↓ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . ☐☐ OTHER _____ (SPECIFY) 96	→ 601 → 601
507	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ (SPECIFY) 96	

SECTION 6. EMPLOYMENT AND GENDER ROLES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 603
602	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, or any other such reason?	YES . . . . . 1 NO 2	→ 604
603	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 613
604	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
605	CHECK 604: WORKS IN AGRICULTURE ☐↓ DOES NOT WORK IN AGRICULTURE ☐		→ 607
606	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
607	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
608	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . 2 ONCE IN A WHILE 3	
609	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
610	CHECK 407: ONE OR MORE WIVES/PARTNERS ☐↓ QUESTION NOT ASKED ☐		→ 613
611	CHECK 609: CODE 1 OR 2 CIRCLED ☐↓ OTHER ☐		→ 613
612	Who decides how the money you earn will be used: mainly you, mainly your (wife (wives)/partner(s)), or you and your (wife (wives)/partner(s)) jointly?	RESPONDENT . . . . . 1 WIFE(WIVES)/PARTNER(S) . . . . . 2 RESPONDENT AND WIFE (WIVES) PARTNER(S) JOINTLY . . . . . 3 OTHER _____ 6 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
613	In a couple, who do you think should have the greater say in each of the following decisions: the husband, the wife or both equally:	HUSB- AND = 1; WIFE = 2; BOTH EQUALLY = 3; DON'T KNOW = 8	
	a) making large household purchases?	a) 1 2 3 8	
	b) making small daily household purchases?	b) 1 2 3 8	
	c) deciding when to visit the wife's family or relatives?	c) 1 2 3 8	
	d) deciding what to do with the money she earns for her work?	d) 1 2 3 8	
	e) deciding how many children to have?	e) 1 2 3 8	
614	I will now read you some statements about pregnancy. Please tell me if you agree or disagree with them.	AGREE = 1; DISAGREE = 2; DK = 8	
	a) Childbearing is a woman's concern and there is no need for the father to get involved.	CHILDBEARING WOMAN'S CONCERN 1 2 8	
	b) It is crucial for the mother's and child's health that a woman have assistance from a doctor or nurse at delivery.	DOCTOR/NURSE'S ASSISTANCE CRUCIAL 1 2 8	
615	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES = 1; NO = 2; DK = 8	
	If she goes out without telling him?	GOES OUT 1 2 8	
	If she neglects the children?	NEGL. CHILDREN . . . 1 2 8	
	If she argues with him?	ARGUES 1 2 8	
	If she refuses to have sex with him?	REFUSES SEX 1 2 8	
	If she burns the food?	BURNS FOOD 1 2 8	
616	Do you think that if a woman refuses to have sex with her husband when he wants her to, he has the right to…	YES = 1; NO = 2; DON'T KNOW = 8	
	a) Get angry and reprimand her?	a) 1 2 8	
	b) Refuse to give her money or other means of support?	b) 1 2 8	
	c) Use force and have sex with her even if she doesn't want to?	c) 1 2 8	
	d) Go ahead and have sex with another woman?	d) 1 2 8	

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 733
702	Can people reduce their chances of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
703	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
704	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
705	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
706	Can people reduce their chance of getting the AIDS virus by not having sexual intercourse at all?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
708	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
708A	Do you think your risk of getting infected with HIV is low, medium or high, or do you have no risk at all?	LOW . . . . . 1 MEDIUM . . . . . 2 HIGH . . . . . 3 NO RISK . . . . . 4 OTHER . . . . . 6 DON'T KNOW 8	
709	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	
710	CHECK 709: AT LEAST ONE 'YES' ☐ ↓ OTHER ☐ → 712		
711	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
712	Have you heard about special antiretroviral drugs (USE LOCAL NAME) that people infected with the AIDS virus can get from a doctor or a nurse to help them live longer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
712A	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
713	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→ 718
714	When was the last time you were tested?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	
715	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST . . . . . 1 OFFERED AND ACCEPTED . . . . . 2 REQUIRED 3	
716	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
717	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 10 GOVT. HEALTH CENTER . . . . . 11 STAND-ALONE VCT CENTER . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 FIELDWORKER . . . . . 15 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 20 STAND-ALONE VCT CENTER . . . 21 PHARMACY . . . . . 22 MOBILE CLINIC . . . . . 23 FIELDWORKER . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY)	→ 720
718	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 720
719	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B STAND-ALONE VCT CENTER . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE CLINIC . . . . . E FIELDWORKER . . . . . F OTHER PUBLIC _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . H STAND-ALONE VCT CENTER . . . I PHARMACY . . . . . J MOBILE CLINIC . . . . . K FIELDWORKER . . . . . L OTHER PRIVATE MEDICAL _____ M (SPECIFY) OTHER _____ X (SPECIFY)	
720	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
721	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
722	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
723	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
724	Do you personally know someone who has been denied health services in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DK ANYONE WITH AIDS 8	→ 729
725	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
726	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
727	CHECK 724, 725, AND 726: AT LEAST ONE 'YES' → 729 OTHER		
728	Do you personally know someone who has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
729	Do you agree or disagree with the following statement: People with the AIDS virus should be ashamed of themselves.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW 8	
730	Do you agree or disagree with the following statement: People with the AIDS virus should be blamed for bringing the disease into the community.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW 8	
731	Should children age 12-14 be taught about using a condom to avoid getting the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
732	Should children age 12-14 be taught to wait until they get married to have sexual intercourse in order to avoid getting AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
732A	Some individuals would choose not to go for HIV testing. Why in your opinion is this so? (CIRCLE ALL THAT ARE MENTIONED) (MORE THAN ONE ANSWER IS POSSIBLE)	FEEL THEY ARE NOT AT RISK . . . . . A FEAR OF RESULTS . . . . . B FEAR OF STIGMA/DISCRIMINATION C DON'T KNOW WHERE TO GO . . . . . D OTHER _____ X (SPECIFY)	
733	CHECK 701: HEARD ABOUT AIDS: Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS: Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
734	CHECK 414: HAS HAD SEXUAL INTERCOURSE HAS NOT HAD SEXUAL INTERCOURSE → 742		
735	CHECK 733: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES NO → 737		
736	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
737	Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
738	Sometimes men have a sore or ulcer near their penis. During the last 12 months, have you had a sore or ulcer near your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
739	CHECK 736, 737, AND 738: HAS HAD AN INFECTION (ANY 'YES') ☐ ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐ →		→ 742
740	The last time you had (PROBLEM FROM 736/737/738), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 742
741	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S)) _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B STAND-ALONE VCT CENTER . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE CLINIC . . . . . E FIELDWORKER . . . . . F OTHER PUBLIC _____ (SPECIFY) G PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . H STAND-ALONE VCT CENTER . . . I PHARMACY . . . . . J MOBILE CLINIC . . . . . K FIELDWORKER . . . . . L OTHER PRIVATE MEDICAL _____ (SPECIFY) M OTHER SOURCE SHOP . . . . . N OTHER _____ (SPECIFY) X	
742	Husband and wives do not always agree in everything. If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in refusing to have sex with him?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
743	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
744	Is a wife justified in refusing to have sex with her husband when she is tired or not in the mood?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
745	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with other women?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
746	Do you believe that young men should wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
747	Do you think that most young men you know wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
748	Do you believe that men who are not married and are having sex should only have sex with one partner?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
749	Do you think that most men you know who are not married and are having sex have sex with only one partner?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
750	Do you believe that married men should only have sex with their wives?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
751	Do you think that most married men you know have sex only with their wives?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
752	Do you believe that young women should wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
753	Do you think that most young women you know wait until they are married to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
754	Do you believe that women who are not married and are having sex should only have sex with one partner?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
755	Do you think that most women you know who are not married and are having sex have sex with only one partner?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
756	Do you believe that married women should only have sex with their husbands?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
757	Do you think that most married women you know have sex only with their husbands?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Some men are circumcised. Are you circumcised?	YES . . . . . 1 NO 2	→ 804
802	At what age were you circumcised?	AGE CIRCUMCISED . . . . . [ ][ ] CIRCUMCISED AS AN INFANT . . . . . 95 DON'T KNOW 98	
802A	Why wre you circumcised?	TRADITIONAL CUSTOM A TREATMENT FOR DISEASE B HYGIENE C PREVENTION FROM A DISEASE D INCREASE SEXUAL PLEASURE E OTHER _____ X SPECIFYSPECIFY	
803	Who performed your circumsion?	HEALTH PROFESSIONAL DOCTOR 11 TRAINED NURSE/MIDWIFE 12 OTHER HEALTH PROFESSIONAL _____ (SPECIFY) 16 TRADITIONAL TRADITIONAL CIRCUMCISOR 21 OTHER TRADITIONAL _____ (SPECIFY) 26	
804	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . [ ][ ] NONE 00	→ 808
805	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . [ ][ ] NONE 00	→ 808
806	The last time you had an injection given to you by a health worker, where did you go to get the injection? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 OTHER PUBLIC _____ (SPECIFY) 16 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 20 MISSION HOSPITAL/CLINIC . . . . . 21 DENTAL CLINIC/OFFICE . . . . . 22 PHARMACY . . . . . 23 OFFICE OR HOME OF NURSE/ HEALTH WORKER . . . . . 24 OTHER PRIVATE MEDICAL _____ (SPECIFY) 26 OTHER PLACE AT HOME . . . . . 31 OTHER _____ (SPECIFY) 96	
807	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
808	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 810
809	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . [ ][ ]	
810	Do you currently smoke or use any other type of tobacco?	YES . . . . . 1 NO 2	→ 812

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
811	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF . . . . . C OTHER _____ X (SPECIFY)	
812	Do you drink alcohol?	YES . . . . . 1 NO 2	→ 814
813	In the past one week, on how many days did you drink beer?	NUMBER OF DAYS	
814	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 819
815	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
816	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
817	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
818	Would you care for someone with TB?	YES . . . . . 1 NO 2	
819	Are you covered by any health insurance/scheme?	YES . . . . . 1 NO 2	→ 821
820	What type of health insurance/scheme? RECORD ALL MENTIONED.	MUTUAL HEALTH ORGANIZATION/ COMMUNITY BASED HEALTH INSURANCE . . . . . A HEALTH INSURANCE THROUGH EMPLOYER . . . . . B SOCIAL SECURITY . . . . . C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE. D LOW-PREPAYMENT SCHEME . . . . . E HIGH-COST PREPAYMENT SCHEME . F OTHER _____ X (SPECIFY)	
821	CHECK 213: (YOUNGEST) CHILD IS AGE 0-17 ☐ OTHER ☐		→ 823
822	Now I would like to ask you about your own child(ren) who (is/are) under the age of 18. Have you made arrangements for someone to care for (him/her/them) in the event that you fall sick or are unable unable to care for (him/her/them)?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	
823	Besides your own child/children, are you the primary caregiver for any children under the age of 18?	YES . . . . . 1 NO 2	→ 901
824	Have you made arrangements for someone to care for this child/these children in the event that you fall sick or are unable to care for him/her/them?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	

SECTION 9. MATERNAL AND ADULT MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. How many children did your mother give birth to, including you?	NUMBER OF BIRTHS TO NATURAL MOTHER	
902	CHECK 901: TWO OR MORE BIRTHS ☐ ↓ ONLY ONE BIRTH (RESPONDENT ONLY) ☐ →		914
903	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS	

904	What was the name given to your oldest (next oldest) brother or sister?	(1) _____	(2) _____	(3) _____	(4) _____	(5) _____	(6) _____
905	Is (NAME) male or female?	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2
906	Is (NAME) still alive?	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (2))	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (3))	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (4))	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (5))	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (6))	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (7))
907	How old is (NAME)?	☐☐ GO TO (2)	☐☐ GO TO (3)	☐☐ GO TO (4)	☐☐ GO TO (5)	☐☐ GO TO (6)	☐☐ GO TO (7)
908	How many years ago did (NAME) die?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
909	How old was (NAME) when he/she died?	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (2)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (3)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (4)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (5)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (6)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (7)
910	Was (NAME) pregnant when she died?	YES . . . 1 (GO TO 913) NO . . . 2 DK . . . 8	YES . . . 1 (GO TO 913) NO . . . 2 DK . . . 8	YES . . . 1 (GO TO 913) NO . . . 2 DK . . . 8	YES . . . 1 (GO TO 913) NO . . . 2 DK . . . 8	YES . . . 1 (GO TO 913) NO . . . 2 DK . . . 8	YES . . . 1 (GO TO 913) NO . . . 2 DK . . . 8
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
912	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
913	Was (NAME)'S death due to an accident or violence?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2

IF NO MORE BROTHERS OR SISTERS, GO TO 914.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES					SKIP
904	What was the name given to your oldest (next oldest) brother or sister?	(7) _____	(8) _____	(9) _____	(10) _____	(11) _____	(12) _____
905	Is (NAME) male or female?	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2
906	Is (NAME) still alive?	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (8))	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (9))	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (10))	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (11))	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (12))	YES . . . 1 NO . . . 2 (GO TO 908) DK . . . 8 (GO TO (13))
907	How old is (NAME)?	☐☐ GO TO (8)	☐☐ GO TO (9)	☐☐ GO TO (10)	☐☐ GO TO (11)	☐☐ GO TO (12)	☐☐ GO TO (13)
908	How many years ago did (NAME) die?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
909	How old was (NAME) when he/she died?	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [8]	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (9)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (10)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (11)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (12)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (13)
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
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
912	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
913	Was (NAME)'S death due to an accident or violence?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2

IF NO MORE BROTHERS OR SISTERS, GO TO 914.

TICK HERE IF CONTINUATION SHEET USED . . . . . ☐

914	RECORD THE TIME.	HOURS . . . . . ☐☐ MINUTES . . . . . ☐☐

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____