Zambia

Demographic and Health Survey

2001-2002

World Summit for Children Indicators, Zambia 2001-2002

Childhood mortality	Infant mortality rate	95 per 1,000
	Under-five mortality rate	168 per 1,000
	Maternal mortality rate	729 per 100,000
Childhood undernutrition	Percent stunted (children under 5 years)	46.8
	Percent wasted (children under 5 years)	5.0
	Percent underweight (children under 5 years)	28.1
Clean water supply	Percent of households with safe water supply[1]	51.3
Sanitary excreta disposal	Percent of households with flush toilets, pit toilet/latrine	70.2
Basic education	Proportion of children reaching grade 5[2]	87.7
	Net primary school attendance rate[2]	67.1
	Proportion of children entering primary school[2]	25.7
Family planning	Contraceptive prevalence rate (any method, currently married women)	34.2
	Contraceptive prevalence rate (any method, all women)	24.6
Antenatal care	Percent of women who received antenatal care from a health professional[3]	93.4
Delivery care	Percent of births in the 5 years preceding the survey attended by a health professional	43.4
Low birth weight	Percent of births in the 5 years preceding the survey at low birth weight[4]	10.7
Iodised salt intake	Percent of households that use iodised salt[5]	79.8
Vitamin A supplements	Percent of children age 6-59 months who received a vitamin A dose in the 6 months preceding the survey	67.4
	Percent of women age 15-49 who received a vitamin A dose in the 2 months after delivery[3]	27.5
Exclusive breastfeeding	Percent of youngest children under 6 months who are exclusively breastfed	40.1
Continued breastfeeding	Percent of children age 12-15 months still breastfeeding	96.8
	Percent of children age 20-23 months still breastfeeding	55.5
Timely complementary feeding	Percent of youngest children age 6-9 months receiving breast milk and complementary foods	87.4
Vaccinations	Percent of children age 12-23 months with BCG vaccination	94.0
	Percent of children age 12-23 months with at least 3 DPT vaccinations	80.0
	Percent of children age 12-23 months with at least 3 polio vaccinations	80.2
	Percent of children age 12-23 months with measles vaccination	84.4
	Percent of mothers who received at least 2 tetanus toxoid vaccinations during pregnancy[3]	26.7
Oral rehydration therapy (ORT)	Percent of children age 0-59 months with diarrhoea in the 2 weeks preceding the survey who received oral rehydration salts (ORS)	53.2
Home management of diarrhoea	Percent of children age 0-59 months with diarrhoea in the 2 weeks preceding the interview who took more fluids than usual and continued eating somewhat less, the same or more food	28.3
Treatment of ARI	Percent of children age 0-59 months with acute respiratory infection (ARI) in the 2 weeks preceding the survey who were taken to a health provider	69.1
Treatment of illness	Percent of children age 0-59 months with diarrhea, fever and/or ARI in the two weeks preceding the survey who were taken to a health provider	60.3
Children in especially difficult situations	Percent of children with at least one parent dead[2]	16.2
	Percent of children who do not live with either biological parent[2]	15.0
Use of impregnated bednets	Percentage of children 0-59 months who slept under an impregnated bednet on the previous night[6]	9.8
Malaria treatment	Percent of children age 0-59 months with a fever in the 2 weeks preceding the survey who were treated with an anti-malarial drug	51.9
HIV/AIDS	Percent of women age 15-49 who correctly stated 2 ways of avoiding HIV infection[7]	66.3
	Percent of women age 15-49 who correctly identified 2 misconceptions about HIV/AIDS[8]	43.3
	Percent of women age 15-49 who believe that AIDS can be transmitted from mother to child during pregnancy, delivery and breastfeeding	55.4
	Percent of women age 15-49 who know of a place to get tested for the AIDS virus	64.4
	Percent of women age 15-49 who have been tested for the AIDS virus	9.4

[1]Piped water or protected well water
[2]Based on de jure children
[3]For the last live birth in the five years preceding the survey
[4]For children without a reported birth weight, the proportion with low birth weight is assumed to be the same as the proportion with low birth weight in each birth size category among children who have a reported birth weight.
[5]15 parts per million or more
[6] Refers to ever-impregnated bednets
[7] Having sex with only one partner who has no other partners and using a condom every time they have sex
[8]They say that AIDS cannot be transmitted through mosquito bites and that a healthy-looking person can have the AIDS virus.

Zambia
Demographic and Health Survey
2001-2002

Central Statistical Office
Lusaka, Zambia

Central Board of Health
Lusaka, Zambia

ORC Macro
Calverton, Maryland, USA

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Additional information about the ZDHS may be obtained from the Central Statistical Office, P.O. Box 31908, Lusaka, Tel: 260-1-251377/85; fax: 260-1253468. Additional information about the MEASURE *DHS*+ project may be obtained by contacting: MEASURE *DHS*+, ORC Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (telephone 301-572-0200; fax 301-572-0999; e-mail: reports@macroint.com; internet: www.measuredhs.com).

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ERRATA

Central Statistical Office [Zambia], Central Board of Health [Zambia], and ORC Macro. 2003. *Zambia Demographic and Health Survey 2001-2002.* Calverton, Maryland, USA: Central Statistical Office, Central Board of Health, and ORC Macro.

Inside front cover, World Summit for Children Indicators – The maternal mortality rate should be **729 per 100,000,** not 729 per 1,000.

Page 59, Table 4.3, column 3 (ZDHS 1992) – The fertility rate for age group 20-24 should be **294** instead of 204.

Page 60, Figure 4.4 – The data point for age group 20-24 from the 1992 survey should be **294** instead of 204.

Page 66, paragraph 3, line 1 – Change 6 years to **2 years.**

Page 176, Table 11.9 – The table title should say ...vitamin A supplements in **the six months** preceding the survey, instead of in the day or night preceding the survey.

Page 213, Table 13.13 – The column headings for men should refer to the **past 3 months** instead of the past month.

PREFACE

The Zambia Demographic and Health Surveys is an important part of the surveillance system providing indicators for the strategic management and monitoring of the health sector in Zambia. Indicators from the surveys show the current status and trends in important areas of health care delivery such as environmental health, reproductive health, maternal health, child health, sexually transmitted infections and HIV/AIDS. The surveys are also a major source of information about health seeking behaviour regarding individuals and communities. Fertility and mortality indicators, which gauge the overall health status of the population are also provided by the surveys.

Three Demographic and Health Surveys have been carried out in Zambia, the first in 1992, the second in 1996, and the most recent in 2001-2002. Institutional collaboration has been the hallmark of the implementation of these surveys. As in the previous surveys, the Central Board of Health mobilised resources for the 2001-2002 ZDHS while the Central Statistical Office played the key role in the implementation of the survey. Other participating institutions were the Tropical Diseases Research Centre, which was in charge of syphilis and HIV testing; the University Teaching Hospital, which made important contributions towards the development of the syphilis and HIV testing protocol; the National Food and Nutrition Commission, which was responsible for the nutrition components; and the University of Zambia Demography Division, which assisted with the training of field staff.

Key people in the implementation of the 2001-2002 ZDHS were Mr David Diangamo, Director of Census and Statistics; Dr Musonda Rosemary Sunkutu, Director of Public Health and Research in the Central Board of Health; Mr Bornwell Sikateyo, Manager for Health Management Information Systems in the Central Board of Health; Mr Kumbutso Dzekedzeke, Survey Co-ordinator from the Central Statistical Office; Mr Patrick Mumba Chewe, Assistant Survey Co-ordinator from the Central Statistical Office; Dr Rosemary Musonda, Deputy Director at the Tropical Diseases Research Centre; and Ms Arlinda Zhuzhuni, Project Manager from ORC Macro.

A number of donors contributed towards the survey costs. The Government of Japan provided vehicles for the survey teams in addition to providing financial support for other components of the survey. Part of the support from the Government of Japan was channelled through the United Nations Development Programme. Other donors who contributed were the U.S. Agency for International Development, which provided financial and technical support through ORC Macro, the United Nations Population Fund, and the Danish Agency for International Development.

We owe an immense gratitude to the Field Coordinators, Interviewers, Nurse/Nurse Counsellors, Laboratory Technicians, Supervisors, Field Editors, Provincial Statistical Officers, and Drivers for their hard work and dedication. We have printed a list of names in Appendix D as a sign of our appreciation for their help and kindness. We are also grateful to all the respondents for their patience and generosity with their time.

It will only be worth the effort to have compiled all the indicators in this report if stakeholders in the health sector use them to improve health care delivery and efforts to prevent the spread of HIV and other infectious diseases in Zambia.

Dr. Ben U. Chirwa
Director General
Central Board of Health

SUMMARY OF FINDINGS

The 2001-2002 Zambia Demographic and Health Survey (ZDHS) was carried out by the Central Statistical Office and the Central Board of Health. It is a nationally representative sample of 7,658 women age 15-49 and 2,145 men age 15-59. The principal objective of the survey was to provide data to policymakers and planners on the population and health situation in Zambia. Most of the information collected in the 2001-2002 ZDHS represents updated estimates of basic demographic and health indicators covered in the 1992 ZDHS and 1996 ZDHS surveys. Specifically, the 2001-2002 ZDHS collected detailed information on fertility and family planning, child mortality and maternal mortality, maternal and child health and nutritional status, and knowledge, awareness and behaviour regarding HIV/AIDS and other sexually transmitted infections. New features of the 2001-2002 ZDHS include the collection of information on violence against women and testing of individuals for HIV and syphilis.

FERTILITY

Survey results indicate that the total fertility rate (TFR) in Zambia is 5.9. This means that at current fertility levels, the average Zambian woman who is at the beginning of her childbearing years will give birth to 5.9 children by the end of her reproductive period. Results from the 2001-2002 ZDHS show that fertility is highest in Northern province (6.9 births per woman) and lowest in Lusaka (4.3 births per woman). Education has a marked effect on fertility, with uneducated women having three and one-half more births than women with at least some secondary education (7.4 births versus 3.9 births).

Zambia's fertility continues to decline although comparatively slowly. The TFR has declined from a level of 6.5 births per woman in 1992 and 6.1 births per woman in 1996 to the current level of 5.9. Despite the decline, fertility in Zambia remains one of the highest in sub-Saharan Africa.

A drop in urban childbearing is the principal reason for overall decline in fertility levels. Between the 1992 and 2001-2002 surveys, the urban TFR fell by 1.5 births, from a rate of 5.8 to 4.3 births per woman. In contrast, the rural TFR remained essentially stable over this period (7.1 and 6.9 births per woman, respectively). Women who have at least some secondary education experienced a steady decline in fertility, with the TFR for such women dropping by one birth over the period covered by the three ZDHS surveys.

The length of the interval between births influences the overall fertility level, as well as the health status of the mother and child. There is now a new international consensus that the optimal interval between births is at least 36 months. In Zambia, 41 percent of births occur at least 36 months after a previous birth. Although 16 percent of births occur less than 24 months after a previous birth, this is an improvement from 1996 when almost one in five births (19 percent) occurred less than two years after a previous birth. The median birth interval is 33 months, 3 months shorter than the "safe" birth interval. This represents a one-month increase from the 1996 ZDHS median birth interval (32 months).

Childbearing begins early in Zambia. By age 18 almost half of women age 45-49 have had their first birth. Most women typically become mothers before the age of 20, with 60 to 70 percent of women in all age groups having given birth by that age. The median age at first birth for women age 25-49 is 18.7 years. Three in ten teenage women (age 15-19) have begun childbearing, with 26 percent having had a child and 6 percent pregnant with their first child.

A comparison of the data from the 1996 and 2001-2002 ZDHS surveys indicates that there has been an increase in the median duration of postpartum amenorrhoea from 11.5 months to 13.3 months. There has been little change in the median duration of sexual abstinence or insusceptibility to the risk of pregnancy following childbirth.

FAMILY PLANNING

Knowledge of contraceptive methods is almost universal in Zambia, with 98 percent of all women and men knowing at least one method of family planning. The male condom and the pill are the most widely known methods among both women and men. Knowledge of family planning methods has increased steadily over the last decade. For example, knowledge of at least one contraceptive method has increased among women from 89 percent in 1992 to 96 percent in 1996 to the current level of 98 percent. Since 1996, the mean number of family planning methods known has increased from 5.3 to 6.8 for women and from 5.0 to 6.1 for men.

Mass media are important sources of information on family planning. Almost half of women (49 percent) and six in ten men (62 percent) have heard or seen a family planning message on the radio, television or in a newspaper/magazine. Radio is the most frequent source of family planning messages for both women (46 percent) and men (57 percent).

The 2001-2002 ZDHS data indicate that 70 percent of currently married women and 81 percent of currently married men have used a family planning method at least once in their lifetime. There is a noticeable discrepancy between ever use and current use, with slightly more than one-third of currently married women (34 percent) currently using some method of contraception. Modern methods of contraception are more commonly used than traditional methods; almost one-fourth of currently married women use modern methods (23 percent) compared with about one in ten who use traditional methods (12 percent). The pill is the most widely used modern method (12 percent), while withdrawal is the most popular traditional method (5 percent).

Six in ten women currently using modern methods obtain their method from the public sector (61 percent), 20 percent from the private medical sector, and 17 percent from other sources such as shops and community-based agents.

Contraceptive use in Zambia has increased over the past decade from 15 percent in 1992 to 26 percent in 1996 and 34 percent in 2001-2002. Considering specific methods, the largest gains in use during the ten-year period are observed for contraceptive pills and injectables.

The large majority of currently married women who know of family planning approve of its use (87 percent). Moreover, two-thirds of married women who know of a contraception method believe their husband approves of family planning.

The majority of currently married women (71 percent) and currently married men (58 percent) either want to space their next child or want no more children, and thus have a potential need for family planning. In Zambia, almost one in three currently married women has an unmet need for family planning (27 percent) – 17 percent for spacing their next birth and 11 percent for limiting births. If the unmet need for family planning of all currently married women who say they want to space or limit their births were met, the contraceptive prevalence rate in Zambia would increase from 34 to 62 percent.

MATERNAL HEALTH

Use of professional maternity care is common in Zambia: more than nine in ten mothers who had a live birth in the five years preceding the survey received antenatal care from a health professional; only 2 percent received antenatal care from a traditional birth attendant or other person. Almost three-quarters of these women had four or more antenatal care visits during their pregnancy (72 percent).

Among mothers who received antenatal care, over three-fourths were given at least one tetanus toxoid injection during pregnancy for their most recent birth (75 percent). Over the past 10 years, there has been a decrease in the proportion of women who received at least one tetanus toxoid injection during their most recent pregnancy, from 81 percent in 1992 and 85 percent in 1996 to the current level of 75 percent. The 2001-2002 ZDHS data show that seven in ten mothers receive iron tablets, syrup or folic acid during pregnancy. Ninety-four percent of mothers have their height measured during antenatal care visits, while 25 percent are weighed. Eighty-seven percent of mothers had their blood pressure measured during their antenatal care, and urine and blood sampling was done for 25 and 44 percent of mothers, respectively.

The 2001-2002 ZDHS results show that slightly more than four in ten births are delivered in a health facility. A similar proportion are delivered by a health professional: 39 percent by a nurse/midwife and the remaining 5 percent by a doctor or clinical officer. Almost four in ten births are delivered with assistance from a relative or friend. A comparison between the three ZDHS surveys shows a steady decline in the proportion of births that are delivered in a health facility, from 51 percent in 1992 and 47 percent in 1996 to the current level of 44 percent.

Postnatal care is not common in Zambia. Less than one in four women who deliver outside a health facility receive postnatal care (23 percent).

The 2001-2002 ZDHS collected data allowing measurement of maternal mortality. The maternal mortality ratio during the seven-year period prior to the 2001-2002 ZDHS was estimated at 729 maternal deaths per 100,000 live births. This represents a rise from 649 maternal deaths per 1000,000 live births estimated from the 1996 ZDHS.

Child Health

At current mortality levels, one in six Zambian children die before the fifth birthday, (under-five mortality rate of 168 deaths per 1,000 birth), with slightly more than half of these deaths occurring during the first year of life (infant mortality rate of 95 deaths per 1,000 births). A comparison of the three ZDHS surveys, however, shows that mortality among young children has declined from the fairly stable levels observed in the late 1980s and early to mid-1990s. Infant mortality, which had shown a modest increase from 107 to 109 deaths per 1,000 births between the 1992 and 1996 surveys, fell to 95 deaths per 1,000 births in the 2001-2002 ZDHS. Under-five mortality is 15 percent lower now than it was five to nine years ago, with the pace of decline very similar to the decline in infant mortality over the same time period (13 percent).

Early childhood mortality is consistently lower in urban areas than in rural areas. Maternal education is strongly correlated with childhood mortality. Infant mortality is 32 percent lower and under-five mortality 48 percent lower among mothers with some secondary education than among uneducated mothers.

Survival of children is strongly associated with proper immunisation and treatment of childhood illnesses. According to the World Health Organization, a child is considered fully vaccinated if he or she has received a BCG vaccine, three doses of DPT vaccine, at least three doses of polio vaccine, and one dose of measles vaccine. Only 57 percent of Zambian children are fully vaccinated by 12 months of age; however, 70 percent of children 12-23 months are fully vaccinated, with only 3 percent of children not having received any vaccine.

Looking at coverage for specific vaccines, 94 percent of children 12-23 months received the BCG vaccine, 84 percent received measles vaccine, and 80 percent received the recommended three doses of DPT and polio vaccines.

Comparing the three ZDHS surveys, there was a substantial rise in vaccination coverage in the early to mid-1990s. In contrast, between 1996 and 2001-2002, there was an 11 percent decline in the proportion of children 12-23 months who are fully immunised.

Vitamin A is a micronutrient found in very small quantities in some foods. It is considered essential for normal sight, growth, and development. Zambia has recently introduced a programme of vitamin A supplementation for children 6 to 72 months through health services and community campaigns. Data from the 2001-2002 ZDHS show that two-thirds of children 6-59 months are reported to have received a vitamin A supplement in the previous 6 months.

Fifteen percent of children under five years of age had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey. Seven out of ten children with ARI symptoms were taken to a health facility or provider for treatment.

Forty-three percent of children under five were reported to have been ill with fever and/or convulsions in the two-week period preceding the survey. Among these children, more than half took antimalarial drugs (52 percent) and almost four in ten took antimalarial drugs the same or next day (37 percent).

According to mothers' reports, around 20 percent of children under age five had diarrhoea at some time in the two weeks before the survey. Slightly more than four in ten children who were ill with diarrhoea were taken to a health facility (43 percent). Mothers reported that almost two-thirds of children with diarrhoea (67 percent) were treated with some form of oral rehydration therapy; more than half (53 percent) were given a solution prepared with oral rehydration salts (ORS); and four in ten were given increased fluids. Twenty-one percent of children with diarrhoea did not receive any type of treatment.

Breastfeeding and Nutrition

Breastfeeding is nearly universal in Zambia: 98 percent of children born in the five years preceding the survey were breastfed. More than half of infants are put to breast within an hour of delivery and 90 percent are breastfed within the first day. The median duration of breastfeeding is 21 months, a slight increase from 1996 (20 months).

Despite the high prevalence of breastfeeding in Zambia, the majority of infants are not exclusively breastfed for the first six months of life. Only four in ten infants under 6 months of age are exclusively breastfed in Zambia. Complementary feedings starts early; more than one-third of children under 6 months of age are given complementary foods.

According to the 2001-2002 ZDHS findings, the level of malnutrition among children under five is significant, with almost half of Zambian children (47 percent) stunted (short for their age), 5 percent wasted (thin for their age), and more than one-fourth underweight (28 percent). Generally, children who live in rural areas and children of uneducated mothers are more likely to be malnourished than other children.

The nutritional status of women is another issue of importance. The mean height of Zambian women is 158 cm. Only 2 percent of women are shorter than the critical height of 145 cm. Fifteen percent of women fall below the cut-off of 18.5 for the body mass index (BMI) - an indicator used to measure the level of chronic energy deficiency among adults. In general, very young women (age 15-19) and rural women are more likely than other women to suffer from chronic energy deficiency.

Women's Status and Violence against Women

The 2001-2002 ZDHS provides information on the status of women in Zambia, and on physical and sexual violence against women. Overall, more than one in ten women age 15-49 have no education (12 percent) and women are generally less educated than men. Four in ten women in Zambia are illiterate.

More than half of women were working at the time of the survey (55 percent). Most women work seasonally (53 percent). Agriculture is the predominant sector of the economy, employing 54 percent of women in the 12 months preceding the survey. Forty-two percent of all working women in Zambia are either paid in kind or not paid at all. Women working in the non-agricultural sector are more likely to earn cash than women working in agriculture. Among currently married women who earn cash for their work, 41 percent report that they alone make decisions about how their earnings will be used and 32 percent report that they decide jointly with their husband.

Women in the 2001-2002 ZDHS were asked about their beliefs on wife-beating. A large majority of women (85 percent) believe that a husband is justified in beating his wife for at least one reason. Almost eight in ten women believe that a husband is justified in beating his wife if she goes out with another man. A slightly smaller proportion agree that if a woman neglects her children (61 percent), or argues with her husband (52 percent), then he is justified in beating her.

The 2001-2002 ZDHS found that more than half of women report having experienced beatings or physical mistreatment since the age of 15, and almost one in four women (24 percent) experienced physical violence in the 12 months preceding the survey. Among physically abused women currently in union, almost eight in ten report their current husband/partner as a perpetrator of the violence, while among never-married women who experienced physical abuse, the mother or father is the most commonly reported perpetrator (35 percent).

Overall, 15 percent of women report having experienced sexual violence by a man and 8 percent reported such experience in the 12 months preceding the survey. Among ever-married women who ever experienced sexual violence, the current husband/partner is reportedly the most common perpetrator of such violence (37 percent). More than four in ten never-married women report their current boyfriend as the perpetrator of sexual violence.

HIV/AIDS and STI-related Knowledge and Behaviour

General awareness of HIV/AIDS is nearly universal among men and women of reproductive age in Zambia. A large majority of respondents (79 percent of women and 76 percent of men) know someone personally who has HIV/AIDS or has died of AIDS.

Given the high levels of HIV/AIDS awareness, it is not surprising that 78 percent of women and 86 percent of men know two or more effective ways to avoid HIV infection. More specifically, 72 percent of women and 79 percent of men mention the use of the condom as a specific way to avoid HIV infection, while 82 percent of women and 86 percent of men mention limiting the number of sexual partners/staying faithful to one partner – all of which are considered to be programmatically important ways of avoiding HIV/AIDS. Respondents who live in urban areas and those with more education are more likely to know about HIV/AIDS and ways to avoid getting infected with HIV.

Knowledge of ways that HIV can be transmitted is important in preventing the spread of the disease in a population. Most women recognize that the HIV virus can be transmitted from a mother to a child during pregnancy (79 percent), during delivery (65 percent), and by breastfeeding (71 percent). Almost eight in ten women and men know that a healthy-looking person can have the AIDS virus.

Overall, only 9 percent of women and 14 percent of men have been tested for HIV. The more educated women and men and those living in urban areas are more likely to have been tested for HIV than other respondents. Roughly two-thirds of women and men who have not been tested for AIDS say they want to be tested.

One in ten women and men do not know of any sexually transmitted infections (STIs) other than HIV. Only 3 percent of women and 5 percent of men who have ever had sex reported having an STI or symptoms associated with an STI in the 12 months before the survey. More than half of women and men who had an STI in the 12 months preceding the survey sought advice or treatment from a clinic, hospital, or private doctor. Twenty-two percent of women and 32 percent of men with an STI or associated symptoms did not inform their partner, and one in three women and men with an STI took no action to protect their partner.

Syphilis and HIV Testing

The 2001-2002 ZDHS was the first nationally representative survey in Zambia to include voluntary syphilis and HIV testing. Syphilis test results were linked to the ZDHS interview data with precautions taken to ensure confidentiality of the respondents. HIV testing was carried out anonymously and the test results could not be linked to the respondent's individual information, except for age, sex, residence (urban-rural), and province.

Overall, 6 percent of women and 8 percent of men age 15-49 in Zambia tested positive for syphilis. The syphilis prevalence rate is slightly higher among urban residents of Copperbelt and Lusaka than among those living in rural areas and other provinces. Sixty-three percent of men and 28 percent of women who were found to be syphilis positive have used a condom at some time in their life.

The 2001-2002 ZDHS data on HIV testing found that of the individuals tested, 16 percent were HIV positive. Women are more likely to be HIV-positive than men (18 percent and 13 percent, respectively). Overall, the proportion HIV-positive rises with age from a level of 5 percent among respondents 15-19 to 25 percent among those 30-34, before dropping to 17 percent among those age 45-49. HIV prevalence is more than twice as high in urban areas as in rural areas (23 percent and 11 percent, respectively).

ZAMBIA

Lake Tanganyika
Tanzania
Lake Mweru
LUAPULA
Kasama
Democratic Republic of Congo
NORTHERN
Mansa
Lake Bangweulu
Angola
Solwezi
NORTH-WESTERN
Ndola
COPPERBELT
Malawi
Chipata
EASTERN
Kabwe
CENTRAL
Mongu
LUSAKA
Lusaka
Mozambique
WESTERN
SOUTHERN
Zimbabwe
Lake Kariba
Livingstone
Namibia
Botswana

INTRODUCTION 1

Kumbutso Dzekedzeke and Chanda Mulenga

1.1 History, Geography, and Economy

History

Historical and archaeological evidence indicates that by the year 1500, much of modern Zambia was occupied by Bantu-speaking horticulturalists, farming people who were ancestors of the present inhabitants. In the late nineteenth century, various parts of what was to become Northern Rhodesia were administered by the British South Africa Company. In 1924, the British Colonial Office assumed responsibility for administering the territory, and 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. The Federation was, however, dissolved in 1963. In October 1964, Zambia gained political independence and adopted a multiparty system of government. In December 1972, Zambia became a one-party state. The current multiparty system was implemented in 1991.

Geography

Zambia is a land-locked country covering an area of 752,612 square kilometres (about 2.5 percent of Africa). It shares borders 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. 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. Four of ten Zambians live in urban areas.

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.

Among the main river water sources in Zambia are 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.

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 has been dominated by parastatal organisations, while private businesses have predominated in construction and agriculture sectors. Since 1991, with the introduction of a liberalised market-oriented economy, the parastatals have been privatised and, in some cases, liquidated.

Copper mining is 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.

The 1980s marked the start of the first phase of implementing Structural Adjustment Programmes (SAP) amidst a stagnating economy. However, the SAP failed to substantially alter the economy and increased the poverty of the majority of Zambians. Currently, around 73 percent of Zambians are classified as poor. Poverty is more prevalent in rural areas than urban areas (83 percent and 56 percent, respectively). 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 of the people (Republic of Zambia, 1992).

1.2 POPULATION

The 1980, 1990, and 2000 national censuses reported total populations of 5.7 million, 7.8 million and 10.3 million, respectively, with a growth rate of 2.9 percent per annum in 2000 (see Table 1.1). During the 1990-2000 intercensal period, the growth rates varied by province, ranging from 1.3 percent in Copperbelt province to 4.3 percent in Northern province.

Table 1.1 Demographic characteristics

Selected demographic indicators, Zambia, 1980, 1990, and 2001

	Census year		
Indicator	1980	1990	2000
Population (millions)	5.7	7.8	10.3[a]
Density (pop./sq. km.)	7.5	10.4	13.7
Percent urban	39.9	38	36
Total fertility rate	7.2	6.7	6.0
Completed family size (women age 45-49)	6.6	7.1	6.8
Infant mortality rate	97	123	110
Life expectancy at birth			
Male	50.4	46.1	47.5
Female	52.5	47.6	51.7

[a] Adjusted preliminary estimate from the 2000 National Census

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

The population density in Zambia increased from 7.5 people per square kilometre in 1980 to 10.4 in 1990 and 13.7 in 2000. The average density in 2000 ranged from 65 people per square kilometre in Lusaka province to 5 people per square kilometre in North-Western province. In addition to being the most densely populated provinces, Lusaka and Copperbelt are also the most urbanised.

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 36 percent in 2000. The proportion of the urban population varies by province, from 91 percent in Copperbelt province to 9 percent in Eastern province (CSO, 2002b).

Total fertility rates estimated from the 1969 and 1980 censuses are in the neighbourhood of 7.0 births per woman. The rate declined to 6.7 births per woman in 1990 and to 6.0 in 2000. 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. Zambian women live, on average, 4 years longer than men. Mortality levels are highest in

Luapula followed by Western and Eastern provinces, with Lusaka, Copperbelt and North-Western provinces experiencing the lowest mortality rates (data not shown). Life expectancy at birth ranged from 44 years in Western Province to 56 years in North-Western province (CSO, 2002b). 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 in the late 1970s, after which it increased to 123 in the late 1980s. In the late 1990s, it declined again to 110 although this level is still higher than that experienced in the late 1970s.

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

For the first decade and a half after independence, Zambia did not view the high rate of population growth as a development problem. The results of the 1980 Population and Housing Census exposed 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 which 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 original population policy was revised in December 1996. New objectives of the policy take account of concerns regarding HIV/AIDS, poverty, and gender issues. Among the objectives of the revised policy are:

1. To ensure that population issues and other development concerns are mutually integrated in the planning and implementation processes so as to attain development;

2 To ensure that all couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so in order to enhance the health of families;

3. To contribute to the reduction of maternal, infant and child mortality in order to increase life expectancy;

4. To contribute to the reduction of HIV/AIDS and other sexually transmitted infections so as to improve the general health status of the population;

5. To improve the population's access to appropriate, affordable and high-quality reproductive health services including family planning and sexual health in order to have a healthy nation;

6. To promote and maintain equal access to education for both sexes at all levels in order to raise literacy levels.

The objectives of the policy will be achieved through related policies and strategic frameworks such as the Reproductive Health Policy and the Gender Policy. Institutions from all sectors are involved in implementing activities for the strategic frameworks.

1.4 Health Priorities and Programmes

The Government's commitment to the objective of improving the quality of life of all Zambians is demonstrated through its efforts to improve health care delivery by reforming the health sector. In 1991, the Government of the Republic of Zambia articulated radical health policy reforms characterised by a move from a strongly centralised 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.

To ensure that the PHC programme operates efficiently in addressing the main health problems of the individual, the family, and the community, the health service has been decentralised, with the responsibility of planning, implementing, monitoring, and managing PHC programmes falling to the districts. The integrated health plans developed out of the District Health Boards' Basic Health Programme constitute the PHC package.

The reformulated PHC programme aims, among other things, to deal with the main health problems in the community, focusing on the needs of the underserved, high-risk, and vulnerable groups. Thus, attention is paid to the rural and peri-urban areas where the health needs of the people are greatest, with particular emphasis placed on maternal and child care, family planning, nutrition, control of communicable diseases (e.g., diarrhoea, cholera, dysentery, sexually transmitted infections, HIV/AIDS, malaria, etc.), immunisation, and environmental sanitation in order to secure adequate health care for all Zambians.

The health reforms established the government's commitment to improve the health of the population by progress towards the achievement of the following targets by the year 2000:

- To reduce the percentage of underweight children (0-5 years) from 23 to 18 percent;
- To bring under control 80 percent of tuberculosis cases;
- To increase accessibility to and acceptability of family planning services and appropriate use of information in order to increase family planning use;
- To improve the quality of, access to and utilisation of maternal and child health services in order to reduce maternal deaths and complications;
- To reduce the incidence of sexually transmitted infections (STIs), AIDS, and reproductive tract infections;
- To reduce the incidence of induced abortions in order to reduce maternal complications and deaths;
- To 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.

1.4 Strategic Framework to Combat the National HIV/AIDS Epidemic

Once the first case of AIDS was diagnosed in Zambia in 1984, the government realised that HIV/AIDS required behavioural interventions as well as care and support. The National AIDS Prevention and Control Programme was formally established in 1986 with assistance from the WHO Global Programme on AIDS.

Consistent with the evolving epidemic, three national plans have been developed to respond to the HIV/AIDS epidemic. In 1987, an emergency short-term plan was developed to ensure safe blood and blood product supplies. In 1993, the Second Medium Term plan (1993-1998) was launched. This plan acknowledged that the initial response to HIV/AIDS was inadequate to contain a problem that was more than just medical in nature. It further acknowledged that the first plan did not incorporate in its planning process a mechanism for intersectoral coordination and collaboration. It was therefore decided that the cross-cutting and multi-dimensional nature of the HIV/AIDS epidemic needed a broad and multisectoral response. Thus, to ensure a coordinated, nationalised response, the AIDS, STI and TB programmes were integrated. The integrated programmes sought to foster political commitment at the highest level, develop intersectoral approaches encompassing all government ministries, the private sector and civil society, increase access to STI care, strengthen condom promotion and distribution, develop effective AIDS impact mitigation strategies, and control TB.

In the current national Strategic Framework 2001-2003, a combination of interventions are being implemented to (National HIV/AIDS/TB Council, 2000):

1. Reduce HIV/AIDS transmission, mainly focussing on children, youth, women and high risk populations; and

2. Reduce the socio-economic impact of HIV/AIDS on individuals and families at the workplace, in the homes and on the whole Zambian society.

The interventions include:

1. Information, education and communication to inform the general public about HIV/AIDS;
2. Condom promotion and distribution;
3. Early and effective diagnosis and treatment of sexually transmitted infections;
4. Blood screening;
5. Counselling and testing;
6. Special programmes for orphans, widows and widowers;
7. Support for persons living with AIDS;
8. Advocacy for the introduction of non-discriminatory practices and laws.

1.6 Objectives and Organisation of the Survey

Objectives

The Zambia Demographic and Health Survey (ZDHS) is a nationally representative sample survey of women and men of reproductive age designed to provide information on fertility, family planning, child survival and health of children.

The primary objectives of the ZDHS are:

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

Organisation

The 2001-2002 ZDHS was conducted by the Central Statistical Office (CSO) and the Central Board of Health (CBoH). ORC Macro of Calverton, Maryland provided technical assistance to the project through its contract with the U.S. Agency for International Development (USAID). Funding for the survey was supplied by ORC Macro (from USAID), the Government of Japan through a trust fund managed by the United Nations Development Programme (UNDP) and through bilateral agreements between the Government of the Republic
of Zambia and the United Nations Population Fund (UNFPA), and the Danish International Development Agency (DANIDA).

1.7 Sample Design

The sample for the 2001-2002 Zambia Demographic and Health Survey covered the population resid-

ing in private households in the country. A representative probability sample of approximately 8,000 households was selected for the ZDHS. This sample was constructed in such a manner as to allow for separate estimates for key indicators for each of the 9 provinces in Zambia. As a result, the ZDHS sample is not self-weighting at the national level.

A list of Standard Enumeration Areas (SEAs) prepared for the 2000 Population Census constituted the frame for the ZDHS sample selection. A total of 320 clusters (100 urban and 220 rural) were selected from this frame. In general, the ZDHS clusters included only one SEA; however, in order to achieve the minimum cluster size of 85 households, 34 clusters comprised two SEAs. The final stage of selection involved the systematic sampling of households from a list of all households that was prepared for each of the selected SEAs.

All women age 15-49 who were either permanent residents of the households in the ZDHS sample or visitors present in the household on the night before the survey were eligible to be interviewed in the survey. In addition, in a subsample of one-third of all the households selected for the ZDHS, all men age 15-59 were eligible to be interviewed if they were either permanent residents or visitors present in the household on the night before the survey. Finally, all women and men (approximately 2,500 of each) living in the households selected for the men's survey and eligible for the DHS interview were asked to voluntarily give blood for syphilis and HIV testing.

1.8 QUESTIONNAIRES

Three questionnaires were used for the 2001-2002 ZDHS: the Household Questionnaire, the Women's Questionnaire and the Men's Questionnaire. The contents of these questionnaires were based on the model questionnaires developed by the MEASURE *DHS*+ programme for use in countries with low levels of contraceptive use. The questionnaires are reproduced in Appendix E.

In consultation with technical institutions, local and international organisations, the CSO modified the DHS model questionnaires to reflect relevant issues in population, family planning and other health issues in Zambia. A series of questionnaire design meetings were organised by the CSO with the assistance of ORC Macro, and the inputs generated in these meetings were used to produce the first draft of the ZDHS questionnaires. These questionnaires were translated from English into the seven major languages, namely Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja, and Tonga.

The Household Questionnaire was used to list all the usual members and visitors in the selected households. Some basic information was collected on the characteristics of each person listed, including his or her age, sex, education, and relationship to the head of the household. The main purpose of the Household Questionnaire was to identify women and men who were eligible for the individual interview. The Household Questionnaire collected information on characteristics of the household's dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor of the house, ownership of various durable goods, and ownership and use of mosquito nets. The Household Questionnaire was also used to record height and weight measurements of women 15-49 and children under the age of 6, and, where syphilis and HIV testing was conducted, to record the respondents' consent to the testing. In order to maintain confidentiality, separate forms were used for recording the results of the syphilis and HIV testing.

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

- Background characteristics (education, residential history, media exposure, etc.)
- 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
- Woman's work and husband's background characteristics

- Infant and child feeding practices
- Childhood mortality

- Awareness and behaviour regarding AIDS and other sexually transmitted infections (STIs)
- Adult mortality including maternal mortality.

The Women's Questionnaire included a series of questions to obtain information on women's experience of domestic violence. These questions were administered to one woman per household. In households with two or more eligible women, special procedures were followed in order to ensure the random selection of this woman.

The Men's Questionnaire was administered to all men age 15-59 living in every third household in the 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 reproductive history or questions on maternal and child health, nutrition, or maternal mortality.

1.9 Syphilis and HIV Testing

In households selected for the male survey, the ZDHS involved the collection of blood specimens from all eligible women and men who voluntarily consented to the syphilis and HIV testing. The initial protocol for the blood specimen collection and testing as well as modifications made in the protocol during the course of the study were reviewed and approved by both the Institutional Review Board of ORC Macro and the Ethical Review Committee of the University of Zambia which approves research studies on human subjects conducted in Zambia.

For the syphilis and HIV testing activities, a nurse/nurse counselor and a laboratory technician were added to each of the 12 ZDHS field teams. The nurse/nurse counselors and laboratory technicians were recruited from the health facilities under the district health management boards with the assistance of the CBoH and had experience in blood collection and testing, respectively. According to the initial protocol, syphilis testing was done in the field by the laboratory technician, using a qualitative Rapid Plasma Reagin (RPR) as a screening test and the Abbott test strip Determine as the confirmatory test. 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 counselor for penicillin-allergic cases. Treatment was also offered to the partners of individuals who tested positive.

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. An effort was also made to ensure follow-up care for respondents (and their partners, whenever possible) who were tested and found to be positive but who were not at home when the nurse/nurse counselor returned to provide treatment. To facilitate the follow-up care, respondents (and their partners, whenever possible) were asked at the time they gave a blood specimen to consent to have their names, contact information, and test results given to the nearest health facility in the event that the subjects were unavailable for treatment during the survey.

The syphilis testing protocol was modified in January 2002 at the request of the CBoH. Although the Determine test had shown a high degree of accuracy in other settings, it was not considered appropriate to use as the confirmatory test in the ZDHS because it had not been validated and/or officially approved for use in Zambia. In the revised protocol, RPR was still performed in the field by the lab technician as a screening test for syphilis. The major change was that no confirmatory test was performed in the field. Instead, all RPR-reactive blood samples were collected in cryo vials, frozen in liquid nitrogen tanks and transported to the Tropical Diseases Research Centre (TDRC) in Ndola for syphilis confirmatory testing using Treponema Pallidum Haemaglutination Assay (TPHA).

Under the revised protocol, respondents testing positive on the RPR test were not treated in the field. Rather, subjects testing positive on the RPR were advised of their status and they (and their partners if the

subjects agreed) received a referral letter(s) to an appropriate local health facility for follow-up diagnosis and treatment. At the end of the fieldwork for each ZDHS sample point, the nurse/nurse counselor counted up the

number of RPR-positive subjects and dropped off a sufficient number of benzathine penicillin doses and syringes at the designated health centre closest to the sample point with instructions to health centre staff to use the supplies to treat ZDHS subjects. Again, as part of the informed consent process, the respondent was asked for his/her consent for the interviewing team to give contact information to a designated health facility for follow-up in case the respondent was not found at home at the time of result notification. To ensure that all confirmed positive cases would be adequately treated, the CBoH asked that the results of the TPHA testing be provided to the District Health Management Teams (DHMTs). The DHMTs and local health centre staff were instructed to conduct follow-ups in such a way as to minimise the loss of subject confidentiality.

The HIV testing in the ZDHS was anonymous and unlinked to the other variables collected in the survey except for sex, age and geographical location of the respondent. If a respondent consented to HIV testing, the laboratory technician prepared a dried blood spot (DBS) sample on a filter paper card from the venous blood specimen. Each DBS sample was given a serial identification number that was not related to survey identifiers for the respondent. The DBS samples from a cluster were then placed in Ziploc bags and transported to TDRC in Ndola for HIV testing. At TDRC, the DBS samples were first eluted and then screened using the Wellcozyme HIV 1&2 GACELISA. All the positive samples and 10 percent of the negative samples were re-tested using BIONOR HIV 1&2. Any discordant cases were tested with Western Blot.

HIV tests vary in their sensitivity, that is, their ability to correctly identify all cases with the virus and specificity, that is, their ability to avoid falsely identifying cases as having the virus when they do not. The DHS protocol employed three tests in order to reduce errors that might be introduced in the results by a single test's performance in detecting false positive or false negative cases. Specifically, the confirmatory testing with BIONOR (which has a reported sensitivity of nearly 100 percent and a specificity of 98 percent) of all positive samples and of 10 percent of the negative samples was aimed at detecting errors resulting from the initial testing with GACELISA, which has a somewhat lower reported sensitivity (97 percent) and specificity (96 percent). The third step of testing the discordant cases with Western Blot was the final effort to reduce the number of false positive or false negative cases to a minimum.

A total of 3,961 samples were collected in the ZDHS, of which 710 tested positive using the GACELISA. When these positive samples were retested using BIONOR, 570 tested positive and 140 tested negative. Western Blot was then performed for the 140 samples for which the results were discordant, i.e., the GACELISA result was positive and the BIONOR result was negative. Only one of the samples was confirmed as positive and 139 were confirmed as negative with Western Blot.

As an additional quality control measure 10 percent of the total number of samples found to be negative with the GACELISA test were also tested with BIONOR. Of the 325 negative samples retested, only two were found to be positive on BIONOR. These discordant cases were then tested with Western Blot and the result was considered as final.

Finally, the availability of the serum samples collected for syphilis testing allowed for a comparison of the results of testing using dried blood spots versus testing using serum for the same subjects. In this exercise, which was designed to validate the use of the dried blood spot approach, both plasma and dried blood spots samples were tested for HIV for a total of 505 respondents. Discordant results were obtained in only 3 cases; in all the discordant cases, the outcome of the plasma test was negative while the DBS test positive. Overall, 118 samples were positive for HIV on the plasma test and 121 samples were positive on the DBS.

The HIV and syphilis test results were entered on special forms by either the field or laboratory personnel involved in the testing. These forms were sent to CSO in Lusaka where the data were entered and processed separately from the DHS questionnaires. The syphilis test results were then linked to the individual DHS records in a special data file. Another data file was created for the HIV test data. Since the HIV testing was anonymous, the HIV testing results could not be linked to DHS interview data. Thus, the HIV data file

includes information only on the age, sex, and residence (urban-rural and province) for each of the individuals tested.

1.10 Pretest Activities, Training, and Fieldwork

The ZDHS involved a number of activities to address various methodological and ethical concerns raised by the inclusion of HIV and syphilis testing as well as to pilot the ZDHS questionnaires. A total of three formal pretests were conducted during this phase of the survey. The training and fieldwork for the first pretest took place May 14-25, 2001. In addition to pretesting the survey questionnaires, the pretest included syphilis and HIV testing using a simple finger prick procedure from which blood spots were collected on filter paper. Four medical laboratory technicians, nine female interviewers, seven male interviewers, and six nurse counselors, were trained, forming seven teams, one for each local language. The pretest fieldwork was conducted in four areas, three urban and one rural. In total, 65 household questionnaires, 79 women's questionnaires and 106 men's questionnaires were completed in the course of three days. A total of 81 persons were identified as eligible for the blood collection. Of these, 52 persons voluntarily agreed to give a sample of blood.

After the first pretest was completed, it was decided that venous rather than capillary blood samples should be collected to be consistent with existing syphilis testing protocols in Zambia. To pilot all of the testing procedures, a second pretest was carried out July 18-24, 2001. Four medical laboratory technicians, five female interviewers and five male interviewers took part in the second pretest. The staff was selected from those individuals who had participated in the first pretest. In the second pretest, 130 questionnaires (38 household, 57 women's and 35 men's questionnaires) were administered. Sixty-nine persons were selected for the venous blood collection. Out of these, 67 (32 males and 35 females) agreed to have their blood tested. In the second pretest, RPR was used as the screening test for syphilis and Abbot Determine test strip as the confirmatory test. The pretest included follow-up treatment or referral for those who tested positive for syphilis. The laboratory technicians also tested the procedures for obtaining dried blood spots from the venous blood samples for later HIV testing.

Using the same staff who took part in the second pretest, a third pretest of the HIV/syphilis protocol was conducted July 26 though August 1, 2001. This pretest focused mainly on gaining additional experience with the informed consent statement in a variety of settings. Five areas were covered, three high-density areas (low income earners areas) and two low-density areas (high income earners areas). In the third pretest, 98 households and 286 individuals were covered. More than 85 percent of respondents agreed to HIV and syphilis testing.

In addition to the three pretests, an additional field exercise was conducted as part of the ZDHS to validate the use of dried blood spots for the HIV testing. In this study, matched DBS and plasma samples were collected and tested. The results of the testing of the matched DBS and plasma samples were similar, leading to the decision to collect DBS samples.

A total of 88 interviewers and 36 nurse/nurse counselors and laboratory technicians participated in the main survey training that took place August 20 through September 16, 2001. All participants were trained in interviewing techniques and the contents of the ZDHS questionnaires. The training was conducted following the standard DHS training procedures, including class presentations, mock interviews, and tests using the Women's Questionnaire. Special training was given to interviewers on the collection of the domestic violence data, especially on issues relating to informed consent and privacy. Male participants were additionally trained on the content of the men's questionnaire. The nurse/nurse counselors were trained to use the scales and height boards to collect anthropometric measurements of women and young children. All of the interviewers were trained in taking height and weight measurements so that they could assist the nurse/nurse counselors in performing these tasks.

During the last week of the training, the nurse/nurse counselors and laboratory technicians, who already had experience in blood collection and testing, were separated and trained on the specific procedures for drawing blood samples in the field and on syphilis testing using RPR. Additionally, they received training specifically focused on the internationally accepted procedures to minimise risk ("universal precautions") and

confidentiality.

Finally, in addition to the classroom instruction, the ZDHS training included practice interviews using the questionnaire in English and the participants' local languages.

Data collection for the 2001-2002 ZDHS took place over a seven-month period from November 2001 to May 2002. Twelve interviewing teams carried out data collection. Each team consisted of one team supervisor, one field editor, three to four female interviewers, one male interviewer, one nurse/nurse counselor, one lab technician, and one driver. Six staff assigned from the CSO coordinated and supervised fieldwork activities. They were assisted by staff from the TDRC and the University of Zambia Demography Division. ORC Macro participated in field supervision for interviews, height and weight measurements, and blood collection and testing.

1.11 Data Processing

The processing of the ZDHS results began shortly after the fieldwork commenced. Completed questionnaires were returned periodically from the field to CSO offices in Lusaka, where they were entered and edited by data processing personnel who were specially trained for this task. The concurrent processing of the data was an advantage because CSO was able to advise field teams of problems detected during the data entry. TDRC provided the results of the syphilis and HIV testing to CSO for entry and editing. The data entry and editing phase of the survey was completed in August 2002.

1.12 Response Rates

Table 1.2 shows response rates for the 2001-2002 ZDHS. Response rates are a source of concern because high non-response may affect the reliability of the results. A total of 8,050 households were selected in the sample, of which 7,260 were found at the time of the fieldwork. The shortfall is largely due to some structures being vacant. Of the 7,260 existing households, 7,126 were successfully interviewed, yielding a household response rate of 98 percent.

In the households interviewed in the survey, a total of 7,944 eligible women were identified; interviews were completed with 7,658 of these women, yielding a response rate of 96 percent. With regard to the male survey results, 2,418 eligible men were identified in the subsample of households selected for the male survey, of which 2,145 were successfully interviewed, yielding a response rate of 89 percent. The response rates are lower for the urban than for rural sample, especially for men.

Table 1.2 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence, Zambia 2001-2002

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households selected	2,167	5,883	8,050
Households occupied	2,059	5,201	7,260
Households interviewed	2,013	5,113	7,126
Household response rate	97.8	98.3	98.2
Interviews with women			
Number of eligible women	2,650	5,294	7,944
Number of eligible women interviewed	2,551	5,107	7,658
Eligible woman response rate	96.3	96.5	96.4
Interviews with men			
Number of eligible men	814	1,604	2,418
Number of eligible men interviewed	689	1,456	2,145
Eligible man response rate	84.6	90.8	88.7

Compared with the 1996 ZDHS, there has been a slight decline in response rates. In the 1996 survey, the response rates were 99 percent for households, 97 percent for women, and 91 percent for men (CSO, MOH, and Macro International, 1997).

The principal reason for non-response among both eligible men and women was the failure to find individuals at home despite repeated visits to the household. The substantially lower response rate for men reflects

the more frequent and longer absences of men from the household, principally related to their employment and life style.

CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS

2

Patrick Mumba Chewe

The purpose of this chapter is to provide a descriptive summary of some demographic and socio-economic characteristics of the population in the sampled households. Also examined are environmental conditions, such as housing facilities and household characteristics. This information on the characteristics of the households and the individual women and men interviewed is essential for the interpretation of survey findings.

In the 2001-2002 ZDHS a household was defined as a person or a group of persons, related or unrelated, who live together in the same dwelling unit and share a common source of food. The Household Questionnaire was used to collect information on all usual residents and visitors who spent the night preceding the survey in the household. This method of data collection allows the analysis of either de jure (usual residents) or de facto (those who are there at the time of the survey) populations.

2.1 POPULATION BY AGE AND SEX

Age and sex are important demographic variables and are the primary basis of demographic classification in vital statistics, censuses, and surveys. They are also very important variables in the study of mortality, fertility, and nuptiality. The distribution of the de facto household population in the 2001-2002 ZDHS survey is shown in Table 2.1 by five-year age groups, according to sex and urban-rural residence while Figure 2.1 shows the population pyramid by sex for Zambia. The data show that there are slightly more women than men in Zambia, with women constituting 51 percent and men constituting 49 percent. There is no

Table 2.1 Household population by age, sex, and residence

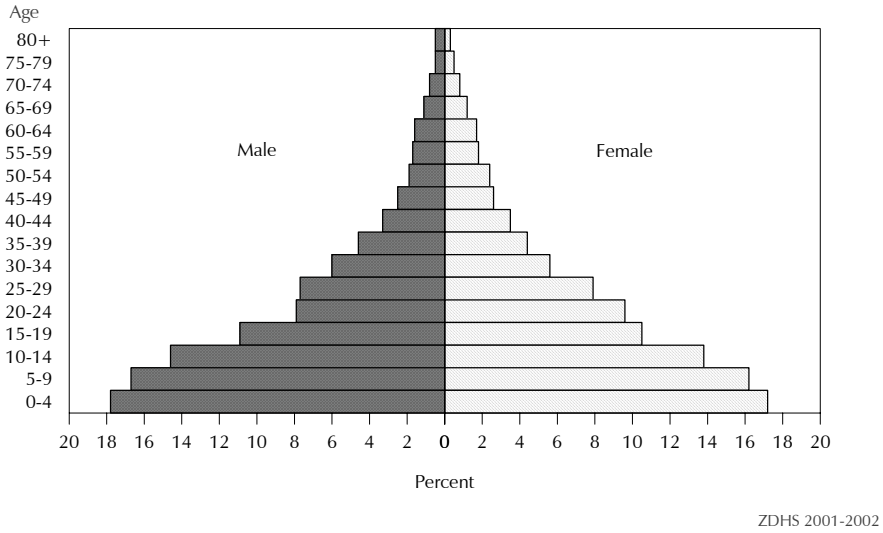
Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Zambia 2001–2002

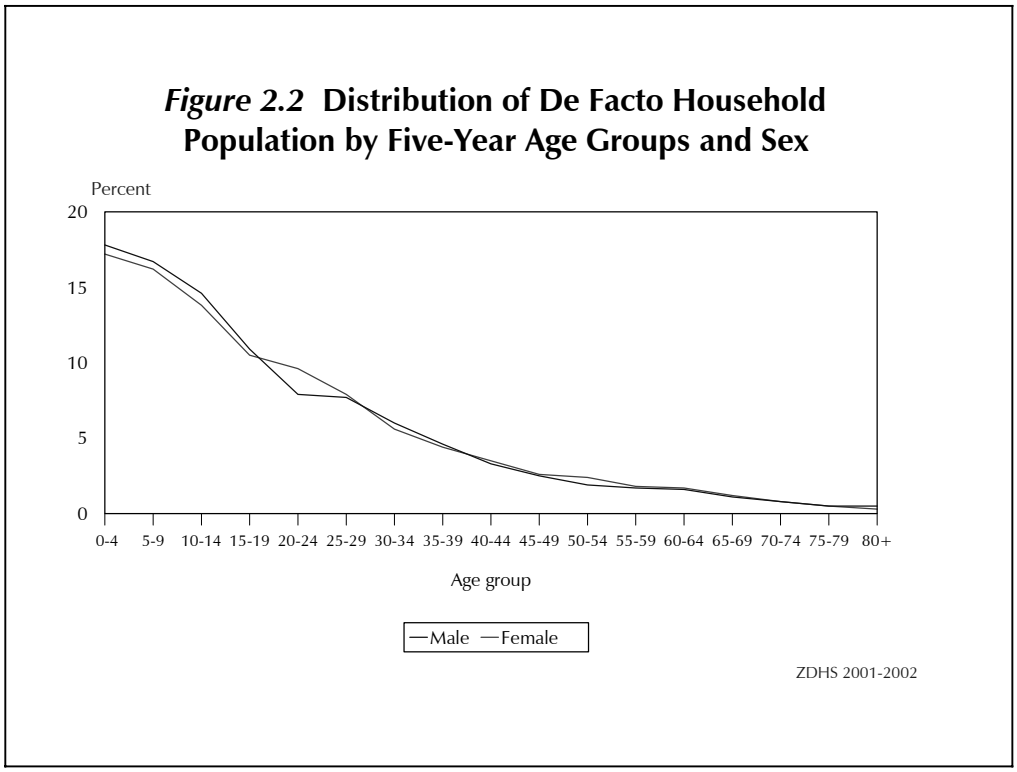
	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	15.7	14.6	15.1	18.9	18.7	18.8	17.8	17.2	17.5
5-9	16.1	17.1	16.6	17.0	15.7	16.3	16.7	16.2	16.4
10-14	14.1	13.8	13.9	14.9	13.9	14.3	14.6	13.8	14.2
15-19	10.5	12.2	11.4	11.2	9.6	10.4	10.9	10.5	10.7
20-24	9.7	11.2	10.4	6.8	8.6	7.8	7.9	9.6	8.7
25-29	9.1	9.4	9.3	6.8	7.0	6.9	7.7	7.9	7.8
30-34	8.1	6.3	7.2	4.8	5.2	5.0	6.0	5.6	5.8
35-39	4.7	4.2	4.5	4.5	4.5	4.5	4.6	4.4	4.5
40-44	3.3	3.5	3.4	3.3	3.5	3.4	3.3	3.5	3.4
45-49	2.7	2.6	2.6	2.4	2.7	2.6	2.5	2.6	2.6
50-54	2.0	1.6	1.8	1.8	2.9	2.4	1.9	2.4	2.2
55-59	1.4	1.2	1.3	1.8	2.2	2.0	1.7	1.8	1.7
60-64	1.1	0.9	1.0	2.0	2.1	2.0	1.6	1.7	1.7
65-69	0.7	0.8	0.7	1.4	1.4	1.4	1.1	1.2	1.2
70-74	0.3	0.4	0.3	1.0	1.0	1.0	0.8	0.8	0.8
75-79	0.2	0.2	0.2	0.7	0.6	0.7	0.5	0.5	0.5
80 +	0.2	0.2	0.2	0.6	0.4	0.5	0.5	0.3	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	6,416	6,591	13,007	11,395	11,808	23,202	17,811	18,399	36,209

variation in sex composition of the population by urban-rural residence from what is observed at the national level. The age distribution of the Zambian population is typical of high fertility/high mortality populations which show a higher proportion of younger persons in the overall population (see Figure 2.1). The population under age 15 constitutes 48 percent of the total population, while the older age groups are very small. This type of age structure has a built-in momentum for the growth of the country's population. The implication is that the population growth rate will remain high for some time because the young population will eventually reach the reproductive age.

A feature worth noting in the population distribution is the gap between males and females at age 20-24 in the ZDHS sample (Figure 2.2). The gap indicates that there are more women than men in this age group.

Figure 2.1 **Population Pyramid**





2.2 HOUSEHOLD COMPOSITION

Information about the composition of households, specifically the sex of the head of the household and size of the household, is presented in Table 2.2. These characteristics are important because they are associated with aspects of household welfare. Female-headed households are, for example, typically poorer than male-headed households. Where households are large, there is generally greater crowding, which is associated with unfavourable health conditions. The proportion of female-headed households increased from 1992 (13 percent) to 1996 (20 percent) and has remained the same since 1996.

In the 2001-2002 ZDHS, the average household size was 5.2 persons, compared with 5.4 persons in the 1996 ZDHS and 5.6 persons in the 1992 ZDHS. This shows a modest decline over the period. Table 2.2 further shows that the average household size is larger in urban areas (5.5 persons) than in rural areas (5.1 persons). The proportion of households with more than nine persons is higher in urban areas (14 percent) than in rural areas (10 percent).

Table 2.2 Household composition

Percent distribution of households by sex of head of household and by household size, according to residence, Zambia 2001-2002

Characteristic	Residence: Urban	Residence: Rural	Total
Sex of head of household			
Male	79.8	76.1	77.4
Female	20.2	23.9	22.6
Total	100.0	100.0	100.0
Number of usual members			
1	5.9	6.8	6.5
2	8.4	9.6	9.2
3	12.0	13.2	12.8
4	13.7	15.8	15.1
5	14.0	14.9	14.6
6	13.8	12.9	13.2
7	10.1	9.7	9.8
8	8.4	7.1	7.5
9+	13.8	10.0	11.3
Total	100.0	100.0	100.0
Number of households	2,437	4,689	7,126
Mean size	5.5	5.1	5.2

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

2.3 CHILDREN'S LIVING ARRANGEMENTS AND PARENTAL SURVIVAL

Table 2.3 takes into account parental survival status in looking at children's living arrangements. Several aspects of the table are of interest, particularly the extent of orphanhood, i.e., the proportion of children who have lost one or both parents. The AIDS epidemic is a major factor contributing to orphanhood.

Table 2.3 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 15 by children's living arrangements and survival status of parents, according to background characteristics, Zambia 2001-2002

Background characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with either parent				Missing information on father/mother	Total	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead			
Age												
0-1	75.2	20.0	2.4	0.3	0.2	1.1	0.2	0.1	0.1	0.4	100.0	2,737
2-4	70.4	14.7	4.1	1.7	0.6	5.7	0.9	0.8	0.5	0.5	100.0	3,690
5-9	61.1	9.8	6.6	3.5	1.3	8.9	2.1	3.0	3.0	0.8	100.0	6,096
10-14	49.0	7.4	8.9	4.3	1.8	12.4	3.2	5.5	6.1	1.4	100.0	5,265
Sex												
Male	62.2	11.5	6.3	3.1	1.1	7.2	1.8	2.9	3.0	0.7	100.0	8,878
Female	61.0	11.9	5.9	2.6	1.2	8.9	1.9	2.8	2.9	1.0	100.0	8,910
Residence												
Urban	60.5	10.1	7.9	3.9	1.2	7.6	1.5	2.8	3.5	1.0	100.0	6,070
Rural	62.2	12.5	5.2	2.4	1.1	8.3	2.1	2.9	2.6	0.8	100.0	11,719
Province												
Central	58.0	11.7	6.2	2.5	1.2	8.8	2.6	4.7	3.8	0.5	100.0	1,349
Copperbelt	64.3	8.8	7.7	3.3	0.7	7.3	1.6	2.3	3.3	0.8	100.0	3,217
Eastern	65.4	12.2	3.8	1.9	1.0	8.2	1.7	2.1	2.5	1.1	100.0	2,374
Luapula	62.6	10.6	6.5	2.0	1.0	10.3	2.3	2.0	1.8	0.9	100.0	1,400
Lusaka	60.0	9.9	7.7	3.4	1.3	8.6	1.6	3.2	3.4	0.8	100.0	2,315
Northern	67.6	10.7	6.0	1.6	1.4	5.2	1.4	2.3	3.0	0.7	100.0	2,559
North-Western	59.8	13.7	6.4	3.8	1.0	9.0	1.5	1.9	1.9	1.0	100.0	968
Southern	58.0	12.5	4.7	3.0	1.2	10.0	1.8	4.8	3.4	0.6	100.0	2,081
Western	50.7	20.1	5.4	5.2	1.7	7.4	3.1	2.9	2.2	1.3	100.0	1,525
Total	61.6	11.7	6.1	2.9	1.1	8.1	1.9	2.9	2.9	0.9	100.0	17,789

There has not been a measurable change in the proportion of children under the age of 15 living with both their natural parents between the 1996 ZDHS (62 percent) and the 2001-2002 ZDHS (62 percent). Overall, 18 percent of children under the age of 15 live with only their mothers compared with 19 percent in the 1996 ZDHS, 4 percent live with only their fathers compared with 5 percent in the 1996 ZDHS, while 16 percent are fostered or not living with either parent. Results from the 2001-2002 ZDHS show that fathers of 12 percent of the children under the age of 15 are dead, mothers of 6 percent are dead and both parents of 3 percent are dead.

Table 2.3 shows that the proportion of children living with both parents declines with age. Three-fourths of children under age two live with both parents, compared with less than half of those age 10-14. Western province has the smallest proportion of children under the age of 15 living with both parents (51 percent), while Northern province has the largest proportion (68 percent).

2.4 EDUCATIONAL LEVEL OF HOUSEHOLD POPULATION

Education is a key determinant of the lifestyle and status an individual enjoys in a society. Studies consistently show that educational attainment has a substantial effect on reproductive behaviour, contraceptive use, fertility, infant and child mortality, morbidity, and attitudes and awareness related to family health and hygiene.

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, someone may choose to further his/her education by either going to the university for 4 to 7 years, depending on the field of study, and obtain a degree or attending a vocational or technical institute for a two to three-year certificate/diploma course. The main goal is for the nation to meet its human resource requirement in the socio-economic and political sectors thereby leading to national development. The Government of the Republic of Zambia has recently (2002) declared free education for all for grades 1-7 (primary education). This change in policy was motivated by an effort to make free education accessible so that literacy rates will improve.

2.4.1 Educational Attainment of the Household Population

During the 2001-2002 ZDHS survey, information on educational attainment was collected for every member of the household age 5 and over. The results are presented in Table 2.4 and Figure 2.3. Data on the educational attainment among youth suggest that there has been progress in achieving the goal of universal education.

Table 2.4 shows the percent distribution of the de facto male and female population age 6 and over, by the highest level of education attained, according to selected background characteristics. Overall, more females than males have no education (25 percent and 18 percent, respectively). More than four in ten (42 percent of males and 45 percent of females) have some primary education. The proportion of males who completed primary and secondary education is slightly higher than the respective proportion of females. Figure 2.3 and Table 2.4 show that the proportions of persons with no education are markedly higher among those in the 6-9 age group (many of whom have not yet started school) and among those age 50 and above.

There are urban-rural differences in educational attainment. Seven percent of males in urban areas and 2 percent in rural areas have attained more than a secondary level of education, compared with 4 percent of females in urban areas and 1 percent in rural areas. About 32 percent of females and 23 percent of males in rural areas have no education. In urban areas, 13 percent of females and 9 percent of males have no education. Results from past DHS surveys in Zambia indicate that the proportion of children attending school has decreased slightly over the 10-year period between the surveys. 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 had never attended school; and in 2001-2002, 14 percent of males and 15 percent of females age 10-14 had never attended school.

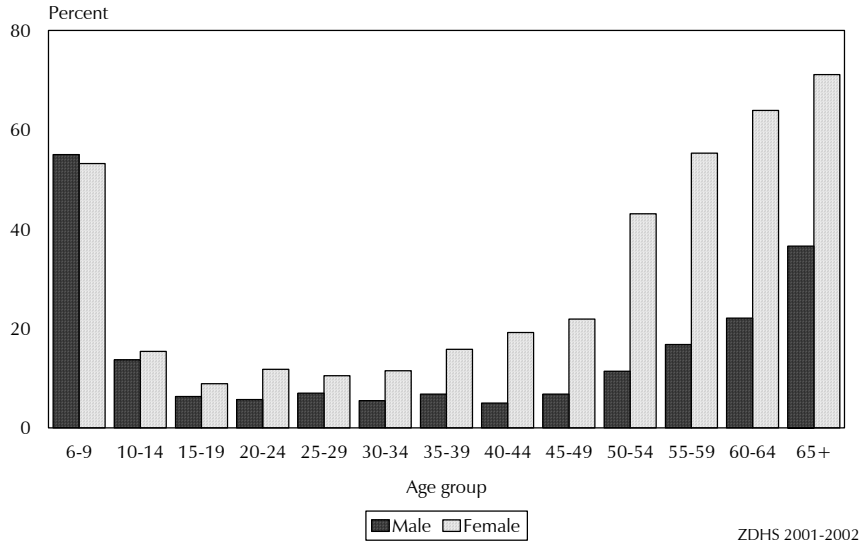
Table 2.4 Educational attainment of household population

Percent distribution of the de facto female and male household population age six and over by highest level of education completed, according to background characteristics, Zambia 2001-2002

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median number of years
MALE										
Age										
6-9	55.0	43.9	0.0	0.0	0.0	0.0	1.1	100.0	2,396	0.0
10-14	13.7	79.3	4.3	2.2	0.0	0.0	0.5	100.0	2,597	2.5
15-19	6.3	46.6	18.9	25.8	2.0	0.1	0.2	100.0	1,948	5.8
20-24	5.7	26.3	21.6	28.4	14.2	3.5	0.3	100.0	1,399	6.8
25-29	7.0	24.4	21.8	26.5	13.8	6.3	0.3	100.0	1,365	6.8
30-34	5.5	19.2	22.5	27.5	13.6	11.3	0.4	100.0	1,071	7.5
35-39	6.8	19.0	27.5	27.8	9.8	9.0	0.0	100.0	812	6.9
40-44	5.0	17.0	34.7	24.6	9.5	8.5	0.6	100.0	590	6.8
45-49	6.8	21.1	26.0	29.2	5.3	10.6	1.0	100.0	452	6.8
50-54	11.4	24.3	21.1	26.0	5.7	11.3	0.3	100.0	338	6.6
55-59	16.8	39.0	16.0	15.6	4.5	8.0	0.0	100.0	295	5.2
60-64	22.1	44.0	13.6	11.7	2.8	4.8	1.1	100.0	292	3.7
65+	36.6	46.0	7.8	5.7	1.1	1.8	1.0	100.0	523	1.9
Residence										
Urban	8.9	33.0	14.4	24.8	11.2	7.2	0.5	100.0	5,198	6.5
Rural	22.8	46.5	14.8	11.5	2.2	1.6	0.5	100.0	8,878	3.3
Province										
Central	15.8	44.2	14.7	17.4	3.6	4.0	0.2	100.0	1,056	4.7
Copperbelt	8.8	34.9	15.7	24.1	9.2	7.0	0.2	100.0	2,790	6.4
Eastern	30.2	42.4	11.1	10.1	3.5	1.8	0.8	100.0	1,880	2.1
Luapula	22.8	48.3	14.9	10.7	1.3	2.0	0.0	100.0	1,052	3.3
Lusaka	10.8	33.0	15.7	21.3	11.5	6.9	0.9	100.0	1,997	6.4
Northern	18.3	45.5	16.0	14.4	3.6	1.8	0.4	100.0	1,915	4.1
North-Western	23.1	46.7	9.5	15.8	2.1	2.6	0.2	100.0	669	3.2
Southern	17.5	44.2	18.6	14.4	3.3	1.6	0.4	100.0	1,573	4.1
Western	23.9	48.8	11.2	10.6	3.4	0.8	1.2	100.0	1,145	2.9
Total	17.7	41.5	14.7	16.4	5.5	3.7	0.5	100.0	14,077	4.5
FEMALE										
Age										
6-9	53.2	45.6	0.1	0.0	0.0	0.0	1.1	100.0	2,401	0.0
10-14	15.4	76.7	5.3	2.1	0.0	0.0	0.5	100.0	2,543	2.7
15-19	8.9	41.6	17.8	29.2	2.1	0.1	0.2	100.0	1,938	5.9
20-24	11.8	34.4	19.1	23.5	8.1	2.9	0.1	100.0	1,759	6.2
25-29	10.5	35.0	20.9	23.8	4.3	5.3	0.1	100.0	1,448	6.2
30-34	11.5	35.8	23.3	21.8	2.9	4.5	0.3	100.0	1,022	6.1
35-39	15.8	36.4	24.5	17.7	1.9	3.2	0.5	100.0	811	5.7
40-44	19.2	35.3	25.9	13.8	1.9	4.0	0.0	100.0	644	5.4
45-49	21.9	44.9	18.2	9.2	0.9	4.8	0.2	100.0	487	3.8
50-54	43.1	39.6	6.7	5.3	0.6	3.8	0.8	100.0	444	0.8
55-59	55.3	36.9	3.7	1.6	0.0	1.6	1.0	100.0	330	0.0
60-64	63.9	30.9	1.9	0.8	0.0	1.8	0.7	100.0	307	0.0
65+	71.1	26.5	1.0	0.2	0.1	0.2	0.9	100.0	518	0.0
Residence										
Urban	12.9	38.5	17.0	22.4	4.6	4.3	0.3	100.0	5,417	5.8
Rural	31.6	48.9	10.2	7.6	0.7	0.5	0.5	100.0	9,237	2.0
Province										
Central	21.6	48.5	12.5	13.0	2.1	2.4	0.1	100.0	1,074	3.7
Copperbelt	15.4	38.2	18.5	20.5	3.4	3.6	0.4	100.0	2,824	5.5
Eastern	36.4	45.5	7.0	7.7	1.3	1.3	0.6	100.0	1,940	1.3
Luapula	28.5	55.3	9.1	6.0	0.6	0.4	0.0	100.0	1,147	2.0
Lusaka	15.1	40.4	17.1	18.1	4.3	4.4	0.6	100.0	1,973	5.2
Northern	28.5	48.4	9.9	10.8	1.3	0.5	0.6	100.0	2,033	2.6
North-Western	32.7	47.1	7.6	10.3	1.1	1.0	0.2	100.0	726	1.9
Southern	22.2	46.8	15.9	12.1	1.5	1.0	0.5	100.0	1,621	3.4
Western	33.5	45.7	9.0	9.5	1.2	0.4	0.8	100.0	1,317	1.8
Total	24.7	45.0	12.7	13.0	2.1	1.9	0.5	100.0	14,655	3.2

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

Figure 2.3 **Percent Distribution of De Facto Household Population with No Education by Age and Sex**



2.4.2 School Attendance Rates

The 2001-2002 ZDHS collected information on school attendance among the population 5-24 years that allows calculation of net attendance ratios (NARs) and gross attendance ratios (GARs). The NAR for primary school is the percentage of the primary-school-age (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. The GAR for primary school is the total number of primary school students, of any age, expressed as the percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students up to an age limit of 24 years, expressed as the percentage of the official secondary-school-age population. The GAR is almost always higher than the NAR because the GAR includes participation by those who are older or younger than the official range for that level. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.

Table 2.5 presents the NARs and GARs by urban-rural residence and province, according to sex for primary and secondary school.

Results show that the overall NAR for primary schools is 78 percent in urban areas compared with 61 percent in rural areas. The GAR is also higher in urban areas than in rural areas (98 percent versus 87 percent). Figure 2.4 shows that the NAR for males and females is 67 percent while the GAR for males is 97 percent and that of females is 85 percent. At secondary school, the average NAR is 22 percent. The NAR is higher for females than males at secondary school (23 percent for females with 21 percent for males).

Table 2.5 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de jure household population by level of schooling and sex, according to background characteristics, Zambia 2001-2002

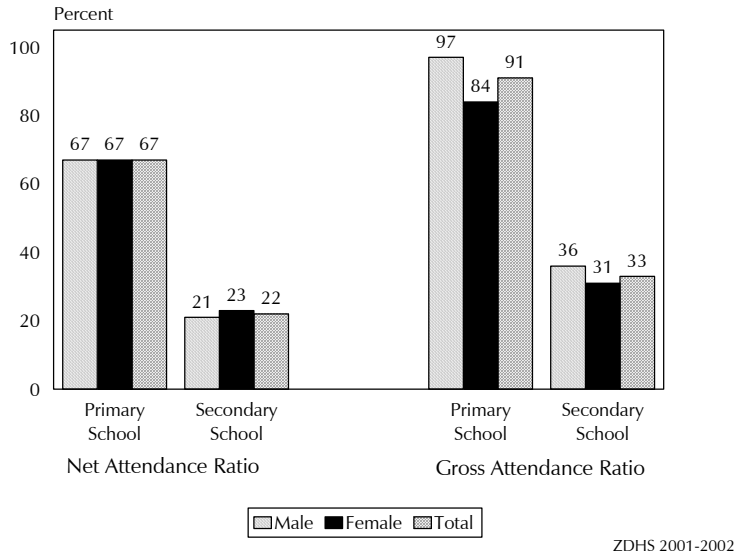
Background characteristic	Net attendance ratio[1]			Gross attendance ratio[2]			Gender Parity Index[3]
	Male	Female	Total	Male	Female	Total	
PRIMARY SCHOOL							
Residence							
Urban	77.5	78.3	77.9	101.3	95.2	98.2	0.94
Rural	61.6	60.3	60.9	95.2	78.9	87.2	0.83
Province							
Central	71.9	71.1	71.5	108.3	95.2	102.0	0.88
Copperbelt	78.9	73.0	75.9	102.4	87.2	94.6	0.85
Eastern	53.0	55.7	54.3	77.1	72.8	75.0	0.94
Luapula	56.9	55.7	56.3	85.6	72.0	79.1	0.84
Lusaka	74.3	76.0	75.2	100.7	95.2	97.9	0.94
Northern	63.0	60.8	61.9	102.5	78.0	90.2	0.76
North-Western	75.3	77.5	76.4	117.3	106.3	111.8	0.91
Southern	67.8	72.1	70.0	100.8	88.3	94.4	0.88
Western	60.2	55.8	58.0	90.0	75.6	83.0	0.84
Total	67.2	66.9	67.1	97.4	84.9	91.2	0.87
SECONDARY SCHOOL							
Residence							
Urban	36.0	38.1	37.1	61.4	51.8	56.3	0.84
Rural	13.0	12.6	12.8	23.1	17.3	20.4	0.74
Province							
Central	17.9	19.3	18.6	37.8	26.2	31.7	0.69
Copperbelt	33.8	39.1	36.5	56.1	50.6	53.3	0.90
Eastern	14.9	15.1	15.0	27.5	25.2	26.4	0.92
Luapula	12.1	6.4	9.2	19.5	8.9	14.1	0.46
Lusaka	28.9	25.1	27.0	52.6	35.7	43.8	0.68
Northern	16.4	21.0	18.5	30.3	27.6	29.1	0.91
North-Western	27.6	23.9	25.9	46.5	33.3	40.4	0.72
Southern	14.5	19.4	16.7	23.8	26.2	24.9	1.10
Western	11.5	13.0	12.2	15.3	17.5	16.4	1.14
Total	20.6	22.5	21.5	35.8	30.7	33.3	0.86

[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 is the ratio of the GAR for females to the GAR for males.

Figure 2.4 **Net and Gross Attendance Ratios by Sex**



Provincial differentials show low net attendance ratios in Eastern, Luapula, and Western provinces. The NAR is higher for females than males in Eastern, Lusaka, North-Western, and Southern provinces. At secondary school level, the NAR is higher for females than males in all provinces except Luapula, Lusaka, and North-Western provinces.

The Gender Parity Index represents the ratio of the GAR for females to the GAR for males. It is presented for both the primary and secondary level and offers a summary measure of the extent to which there are gender differences in attendance rates. A GPI less than 1 indicates that a smaller proportion of females than males attend school. Overall, the Gender Parity Index is less than 1 for both primary school (0.9) and secondary school (0.9). For primary school, the index is 0.9 in urban areas and 0.8 in rural areas, compared with 0.8 and 0.7, respectively, at the secondary level.

2.4.3 Grade Repetition and Dropout Rates

By asking about the grade or standard that primary school age children were attending during the previous school year, it is possible to calculate dropout rates and repetition rates (see Table 2.6).

Repetition and dropout rates are important in assessing how students are progressing through the primary system. The repetition rate represents the percentage of children reported to have been in a given grade during the prior school year who are in the same grade during the current school year, i.e., the percentage of students who are repeating the grade. The dropout rate represents the percentage of children reported to have been in school during the prior school year who are not currently attending school.

Overall, repetition and dropping out of school is high in Zambia at grade 7. Table 2.6 shows that repetition is highest at grade 7 and grade 1 (7 percent). Repetition rate at grade seven is higher in rural areas (11 percent) than in urban areas (4 percent).

The highest dropout rate is 17 percent for grade 7, compared with 5 percent for grade 6 and 4 percent for grade 4 and grade 5. This is understandable, since grade 7 marks the end of primary school.

Provincial differentials indicate that Luapula province has the highest repetition rate for all primary school grades (1-7) followed by Northern province. The high repetition rate in Luapula province may explain the low dropout rate in this province.

Table 2.6 Grade repetition and dropout rates

Repetition and dropout rates for the de jure household population age 5-24 years by school grade, according to background characteristics, Zambia 2001-2002

Background characteristic	School grade						
	1	2	3	4	5	6	7
	REPETITION RATE[1]						
Sex							
Male	6.1	6.1	5.7	5.1	2.7	3.6	9.0
Female	7.8	6.5	2.6	2.5	3.5	5.0	4.7
Residence							
Urban	1.8	3.4	2.2	0.9	1.2	1.0	3.6
Rural	9.6	8.0	5.6	5.8	4.7	7.2	10.5
Province							
Central	4.3	5.1	2.9	3.6	5.7	3.8	12.9
Copperbelt	1.4	1.9	0.8	0.8	0.8	0.9	2.8
Eastern	8.1	7.7	4.1	0.0	0.0	(5.6)	(4.2)
Luapula	27.7	18.9	17.6	(24.5)	(10.8)	(23.5)	*
Lusaka	2.0	4.5	0.8	1.0	0.0	1.1	5.5
Northern	14.8	13.9	11.1	11.8	10.9	13.3	12.3
North-Western	5.6	8.1	7.8	2.4	4.5	3.1	4.2
Southern	0.7	1.7	0.0	0.0	2.0	0.0	5.5
Western	3.5	1.2	2.4	0.0	(0.0)	(0.0)	*
Total	6.9	6.3	4.3	3.9	3.1	4.2	6.9
	DROPOUT RATE[2]						
Sex							
Male	1.2	3.7	2.1	3.2	4.3	3.9	18.7
Female	3.2	2.4	3.5	4.9	2.9	5.8	15.1
Residence							
Urban	1.5	1.9	1.8	3.9	2.0	4.2	13.4
Rural	2.4	3.8	3.3	4.1	5.1	5.2	20.7
Province							
Central	0.6	0.0	0.0	3.6	4.1	1.9	12.9
Copperbelt	6.1	7.6	4.9	7.3	5.8	6.8	19.8
Eastern	2.0	5.6	4.1	6.0	2.6	(5.6)	(12.5)
Luapula	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	*
Lusaka	2.0	1.5	2.5	3.0	0.9	3.4	17.8
Northern	1.3	1.1	1.9	2.1	1.7	4.8	15.1
North-Western	0.5	0.0	1.2	0.8	0.0	1.0	1.4
Southern	1.4	2.6	4.7	6.1	9.1	7.7	(29.1)
Western	0.9	1.2	1.2	0.0	(2.2)	(2.4)	*
Total	2.1	3.1	2.8	4.0	3.7	4.7	17.0

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] 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.

2.5 HOUSING CHARACTERISTICS AND HOUSEHOLD POSSESSIONS

The physical characteristics of households are important in assessing the general socioeconomic status of the population. ZDHS respondents were asked about their household environment, including access to electricity, sources of drinking water, time to water sources, type of toilet facilities and floor materials, and possession of various durable goods. This information is summarised in Tables 2.7 and 2.8.

The proportion of households with electricity is 45 percent in urban areas and 3 percent in rural areas with a combined proportion of 17 percent nationwide (Figure 2.5). The data show that there has been no improvement in electrification during the 1990s, with less than one in five households having electricity. There has been some increase in urban areas, from 39 to 45 percent of households between 1992 and 2001-2002.

Source of Drinking Water

Water quality has a strong impact on the health of household members, especially young children. A household's source of drinking water is important because potentially fatal diseases, including typhoid, cholera, and dysentery, are prevalent in unprotected sources. Sources of water expected to be relatively free of these diseases are piped water and water drawn from protected wells and deep boreholes. Other sources, like unprotected wells and surface water (rivers, streams, ponds, and lakes), are more likely to carry disease-causing agents.

The most common sources of drinking water for Zambian households are open wells, protected wells, public taps, rivers and streams. In urban areas most drinking water comes from piped sources. In rural areas most of the water comes from public wells, rivers, and streams. This pattern is similar to findings from the 1992 and 1996 ZDHS surveys.

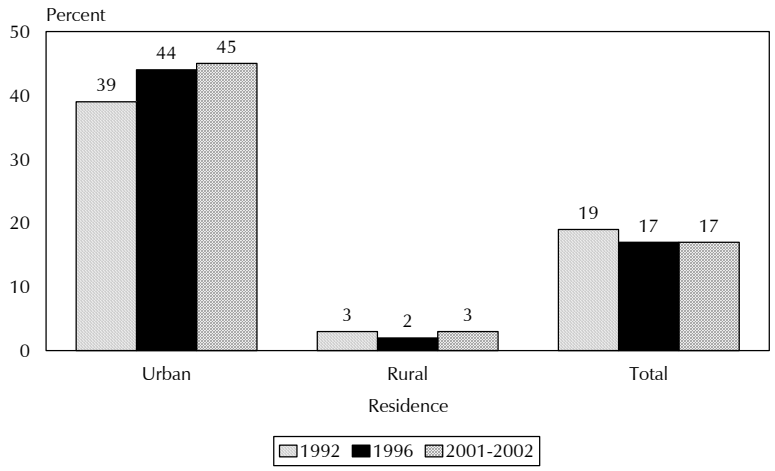
On average, households in urban areas take less than 2 minutes to reach their source of water, compared with 10 minutes for rural households. Seventy-eight percent of households in urban areas take less than 15 minutes to reach their source of drinking water compared with 50 percent of households in rural areas.

Table 2.7 Household characteristics

Percent distribution of households by household characteristics, according to residence, Zambia 2001–2002

Household characteristic	Residence		
	Urban	Rural	Total
Electricity			
Yes	45.1	2.9	17.4
No	54.9	97.0	82.6
Total	100.0	100.0	100.0
Source of drinking water			
Piped into dwelling	19.3	1.0	7.3
Piped into yard/plot	22.8	1.3	8.6
Communal tap	38.2	4.2	15.8
Piped to neighbour	1.3	0.0	0.5
Open well in yard/plot	2.9	3.3	3.1
Open public well	4.8	36.2	25.5
Open well at neighbour	0.5	0.2	0.3
Protected well in yard/plot	2.9	2.2	2.5
Protected public well	5.2	22.5	16.6
Spring	0.0	2.1	1.4
River/Stream	0.9	23.2	15.6
Pond/Lake/Dam	0.7	3.5	2.6
Rainwater	0.0	0.1	0.1
Tanker truck	0.1	0.0	0.0
Bottled water	0.1	0.0	0.0
Other	0.3	0.1	0.1
Total	100.0	100.0	100.0
Time to water source			
Percentage <15 minutes	78.4	49.9	59.7
Median time to source (minutes)	1.3	9.9	9.4
Sanitation facilities			
Flush toilet	42.3	1.9	15.7
Traditional pit latrine	49.9	54.6	53.0
Ventilated improved pit latrine	2.5	1.0	1.5
No facility/Bush/Field	4.9	42.5	29.6
Other	0.1	0.0	0.0
Missing	0.3	0.0	0.1
Total	100.0	100.0	100.0
Flooring material			
Earth/Mud/Dung	18.0	86.4	63.0
Wood planks	0.1	0.1	0.1
Parquet/Wood tiles	0.3	0.0	0.1
Brick	0.1	0.1	0.1
Terrazzo/Ceramic tiles	1.3	0.1	0.5
Concrete/Cement	71.2	12.8	32.8
Carpet	5.7	0.3	2.2
Other	3.3	0.1	1.2
Missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
Number of households	2,437	4,689	7,126

Figure 2.5 **Trends in Percentage of Households with Electricity by Residence, Zambia 1992-2002**



Sanitation Facilities

Most households in Zambia (53 percent) use traditional pit latrines: 50 percent in urban areas and 55 percent in rural areas. Flush toilets are mainly found in urban areas and are used by 42 percent of households compared with 2 percent in rural areas. Overall, one in three households in Zambia have no toilet facilities. This problem is more common in rural areas (43 percent) than in urban areas (5 percent).

Type of Flooring

The type of material used for flooring is a proxy indicator of the economic level of the household as well as an indicator of potential exposure to disease-causing agents. Households in rural areas have poorer quality floors than those in urban areas as can be seen from Table 2.7. Results show that more households in rural areas have floors made of earth/mud/dung (86 percent) than in urban areas (18 percent), while more households in urban areas have floors made of concrete or cement (71 percent) than in rural areas (13 percent).

2.6 Household Durable Goods

Respondents were asked about ownership of particular household goods such as radios and television sets (to assess access to media), refrigerators (to assess food storage), telephones or cellular phones (to assess other means of communication), and modes of transport (bicycle, motorcycle, car). Ownership of these items is also indicative of the household's social and economic well-being. Results from Table 2.8 show that 42 percent of households own a radio, (61 percent in urban areas and 31 percent in rural areas) and 19 percent own a television (48 percent in urban areas and 4 percent in rural areas). Four percent own a telephone or cell phone (10 percent in urban areas and less than 1 percent in rural areas). Ten percent of households own a refrigerator. Televisions, refrigerators, and telephones or cell phones are mostly restricted to urban areas, presumably due to lack of electricity and/or financial resources in rural areas.

Thirty percent of households own a bicycle (20 percent in urban areas and 34 percent in rural areas), while only 3 percent own a car and less than one percent own a motorcycle. Among the household possessions listed above, the bicycle is the only possession that is more common in rural areas than in urban areas. It is striking that more than four in ten households possess none of the items asked about.

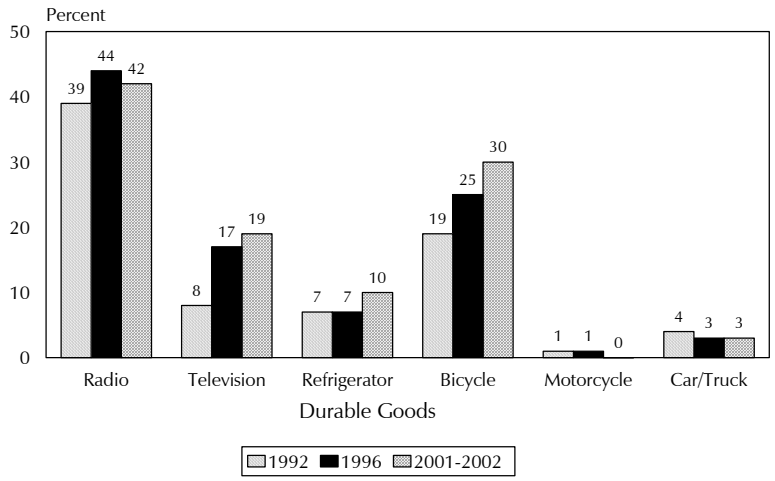
Figure 2.6 shows that possession of television and bicycle has been increasing over time, while possession of a radio and motorcycle declined between 1996 and 2001 and owning a car/truck remained at the same level between 1996 and 2001.

Table 2.8 Household durable goods

Percentage of households possessing various durable consumer goods, by residence, Zambia 2001–2002

Durable consumer goods	Residence		Total
	Urban	Rural	
Radio	60.8	31.4	41.5
Television	48.3	3.8	19.0
Telephone or cell phone	10.2	0.4	3.8
Refrigerator	26.0	1.3	9.7
Bicycle	20.4	34.2	29.5
Motorcycle	0.4	0.3	0.4
Car/truck	6.5	0.8	2.7
None of the above	28.2	52.0	43.9
Number of households	2,437	4,689	7,126

Figure 2.6 **Trends in Percentage of Households Owning Specific Durable Goods, Zambia 1992-2002**



2.7 ACCESS TO HEALTH CARE

The 2001-2002 ZDHS included two questions to ascertain difficulties in accessing medical care due to financial constraints. As part of the Household Questionnaire, respondents were asked if, in the last 12 months, any member had been denied care from a health facility because they could not pay and whether any member was unable to obtain prescribed medicine because they could not pay. Table 2.9 shows the percentage of households answering these questions affirmatively, by selected background characteristics. According to this table, 21 percent of households reported that a household member was denied care from a health facility because they were unable to pay (22 percent in urban areas and 20 percent in rural areas).

Western province (27 percent), Copperbelt (24 percent), and Lusaka province (23 percent) have the highest percentage of households where members were denied care from a health facility because they could not pay. Central province (15 percent) has the lowest proportion of such households.

In 23 percent of all households, members could not obtain medicine because they could not afford to pay (33 percent in urban areas and 17 percent in rural areas).

The highest proportion of households where members could not afford to pay for medicine is found in Lusaka (40 percent), followed by Copperbelt (28 percent) and Central province (23 percent). The lowest proportion is found in North-Western province (11 percent).

Table 2.9 Inability to pay for medical care

Percentage of households in which members were denied medical care or did not get prescribed medicine due to inability to pay, by background characteristics, Zambia 2001-2002

Background characteristic	Denied care from a health facility	Could not afford medicine	Number of house-holds
Residence			
Urban	22.1	32.5	2,437
Rural	20.0	17.2	4,689
Province			
Central	15.2	23.0	490
Copperbelt	23.5	27.7	1,221
Eastern	22.9	19.0	999
Luapula	17.8	19.8	652
Lusaka	23.2	39.8	976
Northern	15.6	12.8	1,028
North-Western	17.6	11.2	371
Southern	19.2	17.9	734
Western	26.7	21.0	656
Total	20.7	22.5	7,126

CHARACTERISTICS OF RESPONDENTS AND WOMEN'S CHARACTERISTICS

3

Sheila S. Mudenda

The objective of this chapter is to provide a demographic and socioeconomic profile of respondents in the 2001-2002 Zambia DHS. Information on the basic characteristics of women and men interviewed in the survey is essential for the interpretation of findings presented later in the report and can provide an approximate indication of the representativeness of the survey.

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 and earnings of women, decision making in the household and attitudes on women's position in relation to others in the household 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 2001-2002 ZDHS by key background characteristics, including age, marital status, urban-rural residence, place of residence, and educational level, are presented in Table 3.1. A high proportion of the respondents are youths (i.e., 15-24 years). The proportion in each age group tends to decrease with increasing age.

Table 3.1 shows that most of the respondents were married, although the proportion of married women is higher than that of men by almost 3 percentage points. Not surprisingly, about a quarter of female respondents had never been married compared with over a third (36 percent) of male respondents. Data in chapter 6 of this report affirm that men marry later (23 years) than women (18 years). Table 3.1 also shows that the proportion of female respondents who are divorced/separated at the time of the survey is higher than for male respondents (9 and 4 percent, respectively), presumably because men are more likely to remarry than women.

The majority (60 percent) of both women and men interviewed live in rural areas. The largest share of both female and male respondents is from the Copperbelt province (20 and 21 percent, respectively), with the smallest share recorded in North-Western province (5 percent and 4 percent, respectively).

Table 3.1 further shows that there are more educated men than women. For both sexes, the majority of those who have been to school have only completed primary school (58 percent of women and 51 percent of men). Only 5 percent of men report no education versus 12 percent of women. Forty-four percent of men have had at least some secondary education versus only 30 percent of women.

Table 3.1 also shows that the majority of women (75 percent) and men (72 percent) are Protestant, followed by Catholic (23 percent and 24 percent, respectively). The most common ethnic group among both women (36 percent) and men (35 percent) is Bemba, followed by Nyanja (17 percent each).

3.2 EDUCATIONAL ATTAINMENT

Educational attainment is generally one of the key indicators of the status of women. 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

Table 3.1 Background characteristics of respondents

Percent distribution of women 15-49 and men 15-59 by background characteristics, Zambia 2001-2002

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	23.7	1,811	1,806	21.4	459	475
20-24	21.7	1,664	1,648	16.1	346	346
25-29	18.0	1,376	1,361	16.8	361	353
30-34	12.7	972	972	13.1	281	277
35-39	10.0	766	778	11.2	241	244
40-44	7.9	601	606	8.1	174	170
45-49	6.1	467	487	5.3	113	113
50-54	na	na	na	4.6	100	94
55-59	na	na	na	3.3	71	73
Marital status						
Never married	24.8	1,897	1,851	36.4	782	787
Married	60.5	4,636	4,675	57.8	1,240	1,239
Living together	0.8	58	56	0.4	8	10
Divorced/separated	9.3	709	724	4.4	94	89
Widowed	4.7	358	352	1.0	21	20
Residence						
Urban	40.1	3,073	2,551	39.7	851	689
Rural	59.9	4,585	5,107	60.3	1,294	1,456
Province						
Central	7.3	562	891	7.7	165	276
Copperbelt	20.2	1,544	939	20.8	447	266
Eastern	12.1	926	894	12.5	268	256
Luapula	8.1	622	626	7.7	166	181
Lusaka	14.8	1,132	896	14.6	314	239
Northern	13.6	1,040	1,171	13.6	292	327
North-Western	4.6	354	881	4.3	93	238
Southern	10.6	814	707	10.8	232	205
Western	8.7	663	653	7.9	169	157
Education						
No education	12.1	925	1,002	5.0	108	116
Primary	58.0	4,439	4,534	51.3	1,100	1,161
Secondary	26.9	2,061	1,916	37.7	808	754
Higher	3.1	234	206	6.0	129	114
Religion						
Catholic	22.9	1,755	1,735	24.3	522	510
Protestant	75.1	5,750	5,748	72.0	1,545	1,551
Muslim	0.3	20	17	0.5	10	8
Other	1.5	116	143	2.9	63	70
Ethnic group						
Bemba	36.0	2,754	2,553	35.2	755	709
Tonga	14.9	1,138	1,088	15.0	321	316
North-Western	10.7	820	1,243	11.2	240	352
Baroste	7.8	601	587	7.7	166	154
Nyanja	16.6	1,268	1,163	16.5	354	325
Mambwe	6.0	461	446	6.3	136	127
Tumbuka	5.4	411	361	5.5	118	106
Other	2.7	205	216	2.5	54	55
Total	100	7,658	7,658	100.0	2,145	2,145

Note: Education categories refer to the highest level of education attended, whether or not that level was completed. Readers should note that the table includes information on both the weighted and unweighted numbers. Weighting was necessary because the sample was not allocated by province according to the actual distribution of the population; instead the sample was allocated in such a fashion as to provide a sufficient number of respondents for each province to allow provincial estimates to be calculated for most survey variables. It also is important to note that some subgroups shown include comparatively small numbers of respondents. In subsequent tabulations, figures will be not be shown for a subgroup if the unweighted number of cases for the subgroup falls below 25.
na = Not applicable

enrolment ratios suggest that education attainment is largely conditioned by a society's level of socio-economic development and that larger gender gaps in schooling are observed in regions with lower overall educational levels (ILO, 1995).

Table 3.2 provides an overview of the relationship between the respondents' level of education and other background characteristics. The data show that younger respondents, especially women, are more likely to have attended school than the older ones (92 and 89 percent of women age 15-19 and 20-24, respectively, compared with 78 percent of those age 45-49).

Table 3.2 shows that in contrast to women, higher proportions of male respondents complete secondary school, particularly at ages 20-24 and 25-29 years (22 and 23 percent of males compared with 11 and 10 percent of women, respectively). High dropouts of girls at primary and secondary levels may explain some of the differences in educational attainment between women and men. Measures to enhance retention of girls in school have been considered by the Zambian government. One such measure allows girls who drop out of school due to pregnancy to continue with their education after they have delivered.

Table 3.2 also shows that education attainment varies greatly with type of residence. Given the different socio-economic situations, respondents in rural areas have substantially lower educational attainment compared with their urban counterparts. For example, half of women in urban areas have attended or completed secondary school, compared with only 16 percent of rural women.

At the provincial level, rural provinces[1] have the highest proportion of respondents with no schooling, with Eastern province leading for both females and males (23 and 13 percent, respectively). The gender gap (the difference in percentage points between women and men) in the proportion reporting no schooling is 10 percent in Eastern province versus only 1 percent and 4 percent in Copperbelt and Lusaka provinces.

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

Table 3.2 Educational attainment by background characteristics

Percent distribution of women and men by highest level of schooling attended or completed, and median number of years of schooling, according to background characteristics, Zambia 2001-2002

Background characteristic	Highest level of schooling attended or completed						Total	Number	Median years of schooling
	No education	Some primary	Completed primary[1]	Some secon-dary	Completed secondary[2]	Higher			
WOMEN									
Age									
15-19	8.0	41.6	16.6	31.4	2.4	0.0	100.0	1,811	6.0
20-24	11.5	35.2	18.2	24.1	7.9	3.2	100.0	1,664	6.2
25-29	10.5	36.6	19.9	23.2	4.1	5.6	100.0	1,376	6.1
30-34	11.4	37.3	22.1	22.1	2.9	4.2	100.0	972	6.1
35-39	15.9	37.9	23.6	18.1	1.8	2.6	100.0	766	5.5
40-44	17.6	36.9	26.0	13.6	2.0	3.9	100.0	601	5.6
45-49	22.5	45.5	17.0	10.0	0.9	4.1	100.0	467	3.7
Residence									
Urban	3.7	21.9	24.0	36.6	7.5	6.3	100.0	3,073	7.0
Rural	17.7	49.2	16.8	14.1	1.3	0.9	100.0	4,585	4.2
Province									
Central	8.0	42.4	20.2	22.0	3.6	3.8	100.0	562	6
Copperbelt	3.3	23.2	26.3	35.7	6.0	5.5	100.0	1,544	6.8
Eastern	22.7	45.7	11.2	15.4	2.6	2.3	100.0	926	3.7
Luapula	14.7	58.6	14.2	10.7	1.1	0.6	100.0	622	3.7
Lusaka	7.6	24.9	25.8	28.6	6.7	6.5	100.0	1,132	6.7
Northern	14.4	46.9	15.8	19.6	2.4	0.9	100.0	1,040	5.0
North-Western	17.5	45.9	13.7	19.4	1.8	1.7	100.0	354	4.6
Southern	12.3	38.5	23.1	22.2	3.0	1.0	100.0	814	6.0
Western	19.4	45.2	15.8	16.8	2.1	0.6	100.0	663	4.0
Total	12.1	38.3	19.7	23.1	3.8	3.1	100.0	7,658	6.0
MEN									
Age									
15-19	4.0	45.5	18.4	28.0	4.0	0.0	100.0	459	6.0
20-24	3.9	26.9	16.3	30.8	19.5	2.5	100.0	346	7.5
25-29	6.5	25.9	20.8	23.7	16.2	6.9	100.0	361	6.8
30-34	6.0	24.0	22.1	28.2	8.8	11.0	100.0	281	6.9
35-39	6.7	19.5	25.3	30.1	8.3	10.1	100.0	241	6.9
40-44	2.8	19.8	39.5	24.1	6.1	7.8	100.0	174	6.7
45-49	3.1	18.8	25.5	38.8	3.5	10.3	100.0	113	7.6
50-54	6.9	29.5	25.5	21.3	6.0	10.7	100.0	100	6.5
55-59	5.9	50.6	10.5	20.9	5.8	6.3	100.0	71	5.3
Residence									
Urban	1.6	12.4	19.8	36.7	18.6	10.9	100.0	851	8.6
Rural	7.3	40.6	23.3	21.8	4.3	2.8	100.0	1,294	6.1
Province									
Central	5.1	35.1	19.2	27.9	6.9	5.8	100.0	165	6.5
Copperbelt	1.9	8.3	21.8	39.1	16.9	12.0	100.0	447	8.7
Eastern	12.5	34.0	21.1	21.9	5.1	5.5	100.0	268	6.2
Luapula	4.4	45.9	26.5	18.8	1.7	2.8	100.0	166	6.0
Lusaka	3.8	17.2	20.5	31.0	19.2	8.4	100.0	314	8.4
Northern	3.1	38.8	25.1	25.1	5.2	2.8	100.0	292	6.3
North-Western	7.1	42.4	13.0	28.6	4.2	4.6	100.0	93	6.0
Southern	2.9	34.6	26.8	25.4	7.3	2.9	100.0	232	6.5
Western	9.6	48.4	16.6	16.6	8.3	0.6	100.0	169	4.9
Total	5.0	29.4	21.9	27.7	10.0	6.0	100.0	2,145	6.7

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

3.3 LITERACY

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 planners, especially for health and family planning programmes, know how to best reach women and men with their messages. In the 2001-2002 ZDHS, literacy was established 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 test on literacy was only applied to respondents who had less than secondary education.

Table 3.3 shows that literacy levels are higher for men than women throughout all age groups. Over one-third (38 percent) of women and close to a fifth (18 percent) of men are illiterate. As expected, urban respondents have higher literacy levels (79 percent for women and 91 percent for men) than those in rural areas (48 percent for women and 76 percent for men).

Figure 3.1 indicates the extent to which those who are close to school age (15-24) are literate. It shows that literacy levels for youth are higher for males than for females. While almost six in ten women in both age groups are literate, the literacy level for men is higher for both age groups (71 percent for men age 15-19 and 83 percent for men age 20-24).

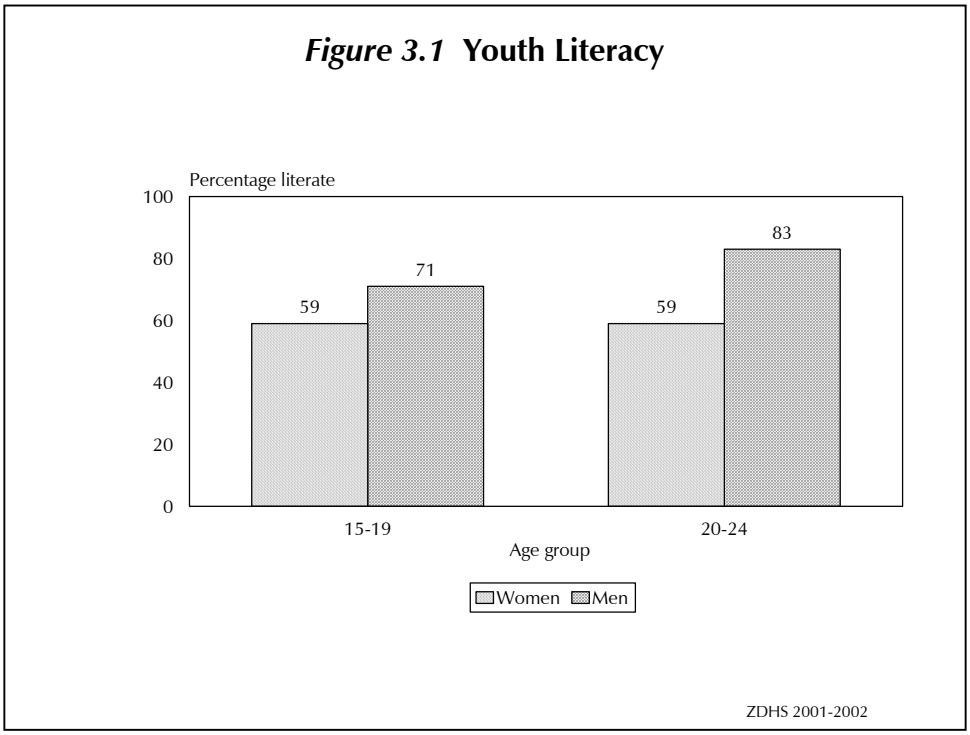
[2] The major language groups were Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja, and Tonga.

Table 3.3 Literacy

Percent distribution of women and men by level of schooling attended and by level of literacy, and percent literate, according to background characteristics, Zambia 2001-2002

Background characteristic	Secondary school or higher	No schooling or primary school: Can read whole sentence	Can read part of sentence	Cannot read at all	No card with required language	Don't know/ missing	Total	Number	Percent literate[1]
WOMEN									
Age									
15-19	33.8	14.6	10.3	40.1	0.8	0.4	100.0	1,811	58.7
20-24	35.1	16.1	8.0	39.1	1.3	0.4	100.0	1,664	59.2
25-29	33.0	20.7	9.5	35.7	1.1	0.0	100.0	1,376	63.2
30-34	29.2	24.0	10.3	35.2	1.1	0.1	100.0	972	63.6
35-39	22.5	27.5	9.4	39.2	1.3	0.0	100.0	766	59.5
40-44	19.5	33.7	9.7	35.8	0.5	0.7	100.0	601	63.0
45-49	14.9	32.8	10.1	41.1	0.8	0.2	100.0	467	57.8
Residence									
Urban	50.4	19.3	9.2	19.4	1.4	0.3	100.0	3,073	78.8
Rural	16.3	22.4	9.7	50.7	0.8	0.2	100.0	4,585	48.4
Province									
Central	29.4	27.3	8.0	34.9	0.4	0.0	100.0	562	64.6
Copperbelt	47.2	22.7	8.8	19.3	1.8	0.2	100.0	1,544	78.7
Eastern	20.4	16.0	11.4	52.0	0.2	0.0	100.0	926	47.8
Luapula	12.5	23.5	5.3	58.6	0.0	0.2	100.0	622	41.2
Lusaka	41.7	17.9	10.7	26.6	2.6	0.6	100.0	1,132	70.3
Northern	22.9	17.9	12.4	46.5	0.1	0.3	100.0	1,040	53.2
North-Western	22.9	18.3	12.1	46.2	0.1	0.3	100.0	354	53.3
Southern	26.2	24.9	10.5	36.1	1.7	0.7	100.0	814	61.5
Western	19.6	24.7	4.6	51.0	0.2	0.0	100.0	663	48.9
Total	30.0	21.1	9.5	38.1	1.0	0.3	100.0	7,658	60.6
MEN									
Age									
15-19	32.0	22.1	16.6	28.7	0.4	0.2	100.0	459	70.7
20-24	52.9	18.7	11.4	17.0	0.0	0.0	100.0	346	83.0
25-29	46.7	19.6	13.5	19.9	0.0	0.3	100.0	361	79.8
30-34	47.9	27.0	10.9	14.2	0.0	0.0	100.0	281	85.8
35-39	48.5	28.7	6.6	15.2	0.0	1.0	100.0	241	83.8
40-44	37.9	39.8	12.3	9.4	0.7	0.0	100.0	174	89.9
45-49	52.6	32.2	6.7	8.6	0.0	0.0	100.0	113	91.4
50-54	38.1	29.7	18.7	13.5	0.0	0.0	100.0	100	86.5
55-59	33.0	44.1	9.8	13.0	0.0	0.0	100.0	71	87.0
Residence									
Urban	66.2	15.5	8.7	9.4	0.0	0.2	100.0	851	90.5
Rural	28.8	32.2	14.7	23.8	0.2	0.2	100.0	1,294	75.7
Province									
Central	40.6	25.4	18.5	15.6	0.0	0.0	100.0	165	84.4
Copperbelt	68.0	13.9	9.4	8.3	0.4	0.0	100.0	447	91.4
Eastern	32.4	23.0	17.2	27.3	0.0	0.0	100.0	268	72.7
Luapula	23.2	44.2	8.3	24.3	0.0	0.0	100.0	166	75.7
Lusaka	58.6	16.3	12.1	12.6	0.0	0.4	100.0	314	87.0
Northern	33.0	32.7	15.6	18.3	0.0	0.3	100.0	292	81.3
North-Western	37.4	31.9	10.9	19.7	0.0	0.0	100.0	93	80.3
Southern	35.6	33.2	10.7	19.5	0.5	0.5	100.0	232	79.5
Western	25.5	33.1	8.3	32.5	0.0	0.6	100.0	169	66.9
Total	43.7	25.6	12.4	18.1	0.1	0.2	100.0	2,145	81.6

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



3.4 ACCESS TO MASS MEDIA

The 2001-2002 ZDHS collected information on the exposure of respondents to the various common print and electronic media. Respondents were asked how often they read a newspaper, listened to the radio, or watched television in a week. This information is useful in determining the media channels to use in disseminating family planning and health services to target audiences.

Table 3.4 shows distinct patterns of exposure to different forms of mass media. The highest proportion of respondents (44 percent of women and 65 percent of men) listen to the radio at least once a week, followed by one in four women and one in three men who watch television once a week. It is apparent that print media is least utilised by both women and men. This is particularly true for women (11 percent) compared with men (24 percent).

Comparison between the 1996 ZDHS and 2001-2002 ZDHS reveals a general decline in media use for both women and men. The decline is more pronounced for the print media, which could be explained by the declining economic situation in the country. The Living Conditions Monitoring Survey (LCMS) data for 1998 indicate that poverty levels have remained high (with 73 percent of the population being poor), indicating a possible squeeze on the respondents' purchasing power. Chances are that with less money, a larger proportion of expenditures are directed towards food-related purchases.

Table 3.4 indicates that more than half of women have no access to any type of media, compared with about one-third of men. Women and men in rural areas have substantially lower access to all forms of media (less than 3 percent for both) than their urban counterparts (16 percent and 39 percent, respectively). It is apparent from Table 3.4 that education has a major impact on access to any of the specified media. For instance, weekly reading of a newspaper by women increases from a negligible proportion (under 1 percent) among those with no education to 65 percent among women with higher education. A similar pattern prevails for men, although, with generally higher proportions than women at all education levels.

Table 3.4 Exposure to mass media

Percentage of women and men who usually read a newspaper at least once a week, watch television at least once a week, and listen to the radio at least once a week, by background characteristics, Zambia 2001-2002

Background characteristic	Type of mass media exposure: Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media	No mass media	Number of women/ men
WOMEN						
Age						
15-19	10.7	28.2	44.2	7.2	49.5	1,811
20-24	11.3	25.9	45.2	7.3	49.3	1,664
25-29	12.7	25.7	44.3	8.0	49.5	1,376
30-34	10.8	27.2	47.0	8.4	48.8	972
35-39	8.9	21.0	41.3	5.4	54.9	766
40-44	8.8	21.0	40.2	6.5	55.7	601
45-49	6.4	13.5	32.6	3.8	63.8	467
Residence						
Urban	21.1	55.0	65.1	16.2	24.8	3,073
Rural	3.6	4.8	29.0	0.9	69.0	4,585
Province						
Central	8.9	22.4	44.1	5.6	51.4	562
Copperbelt	16.5	52.3	62.1	11.8	26.4	1,544
Eastern	5.5	6.5	31.2	2.5	67.0	926
Luapula	1.6	1.8	22.8	0.0	75.7	622
Lusaka	26.6	60.4	70.5	21.8	21.2	1,132
Northern	6.1	9.2	33.3	3.2	64.2	1,040
North-Western	3.1	5.4	34.8	0.6	62.9	354
Southern	5.7	9.2	35.5	1.8	60.7	814
Western	4.1	4.7	20.2	1.1	77.2	663
Education						
No education	0.1	3.8	19.3	0.0	80.1	925
Primary	3.6	16.1	36.3	1.8	59.5	4,439
Secondary	24.3	47.6	65.2	16.6	25.8	2,061
Higher	65.3	75.6	83.8	50.2	4.3	234
Total	10.6	24.9	43.5	7.1	51.3	7,658
MEN						
Age						
15-19	14.7	33.7	56.0	11.3	39.0	459
20-24	30.3	40.6	73.2	22.3	22.5	346
25-29	26.6	29.2	67.2	17.6	27.2	361
30-34	29.8	38.3	69.5	24.9	27.8	281
35-39	25.8	31.1	65.7	17.9	30.4	241
40-44	21.1	31.2	61.9	14.8	34.5	174
45-49	22.7	35.5	60.1	15.8	33.0	113
50-54	20.4	31.0	66.2	13.1	28.9	100
55-59	7.9	18.1	52.7	4.2	43.1	71
Residence						
Urban	49.2	69.4	82.2	38.5	9.6	851
Rural	6.5	10.1	53.0	2.9	44.9	1,294
Province						
Central	23.2	32.2	75.4	13.0	20.3	165
Copperbelt	47.7	70.3	84.2	38.3	9.0	447
Eastern	5.5	7.4	50.0	1.2	49.2	268
Luapula	3.3	4.4	60.8	0.6	38.7	166
Lusaka	52.7	71.1	81.2	41.8	7.9	314
Northern	5.5	10.4	51.4	3.1	46.2	292
North-Western	8.4	8.8	53.8	2.5	44.1	93
Southern	11.7	22.9	51.2	7.3	43.4	232
Western	8.9	7.0	45.2	5.1	54.1	169
Education						
No education	0.0	10.7	37.4	0.0	56.1	108
Primary	6.2	17.9	53.3	3.8	43.7	1,100
Secondary	42.0	51.8	79.2	29.9	14.4	808
Higher	73.6	72.3	92.4	63.4	4.5	129
Total	23.5	33.6	64.6	17.0	30.9	2,145

3.5 MEN'S EMPLOYMENT

Male respondents were asked a number of questions to elicit their employment status at the time of the survey, the continuity of their employment in the 12 months prior to the survey and, if they were not employed at all in the prior 12 months, the principal activity in which they were involved during the period.

Table 3.5 presents information relating to men's employment during the 12 month period prior to the survey. In all, 79 percent of men were employed in the last 12 months while 21 percent were unemployed. Younger men are markedly less likely to be employed than men age 25 and older. This reflects the fact that many are still in school as well as problems youth may have in finding work. Employment levels of men in rural areas are higher (82 percent) than those of their urban counterparts (75 percent). The men most likely to have been employed in the last 12 months are divorced, separated or widowed men (83 percent), and those who have never been to school (91 percent). Among educated men, the likelihood of having been employed in the last 12 months is highest for those with higher education (88 percent). One in ten men were unemployed at the time of the survey, although they were employed in the 12 months prior to the survey.

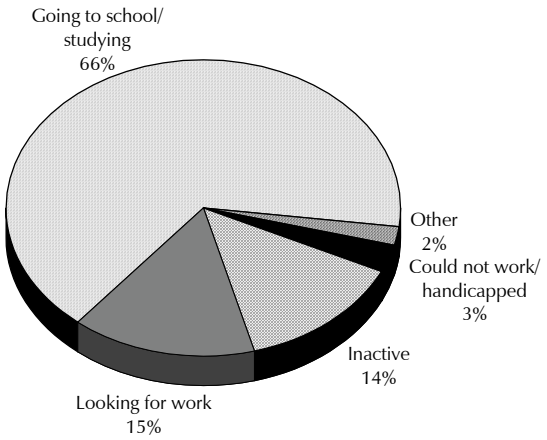
Table 3.5 Employment status: men

Percent distribution of men by employment status, according to background characteristics, Zambia 2001-2002

Background characteristic	Employed in the 12 months preceding the survey: Currently employed	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the last 12 months	Missing/ don't know	Total	Number of men
Age						
15-19	26.3	6.9	66.1	0.7	100.0	459
20-24	61.1	16.5	22.4	0.0	100.0	346
25-29	80.6	13.5	5.9	0.0	100.0	361
30-34	89.8	7.7	2.5	0.0	100.0	281
35-39	82.6	12.2	5.2	0.0	100.0	241
40-44	86.8	10.7	2.6	0.0	100.0	174
45-49	80.6	13.1	6.3	0.0	100.0	113
50-54	85.5	7.5	7.0	0.0	100.0	100
55-59	78.8	11.4	9.8	0.0	100.0	71
Marital status						
Never married	63.0	8.8	28.1	0.2	100.0	589
Married or living together	69.0	12.5	18.3	0.1	100.0	1,325
Divorced/separated/widowed	74.3	8.3	16.8	0.5	100.0	231
Residence						
Urban	61.4	13.7	24.7	0.1	100.0	851
Rural	72.2	9.3	18.3	0.2	100.0	1,294
Province						
Central	68.8	5.1	26.1	0.0	100.0	165
Copperbelt	59.0	16.9	24.1	0.0	100.0	447
Eastern	78.1	5.5	16.4	0.0	100.0	268
Luapula	85.6	1.1	13.3	0.0	100.0	166
Lusaka	66.1	7.9	25.9	0.0	100.0	314
Northern	77.7	2.4	19.3	0.6	100.0	292
North-Western	53.4	13.0	33.2	0.4	100.0	93
Southern	53.7	35.6	10.2	0.5	100.0	232
Western	71.3	5.7	22.9	0.0	100.0	169
Education						
No education	84.4	6.3	9.3	0.0	100.0	108
Primary	70.2	10.9	18.6	0.3	100.0	1,100
Secondary	60.8	12.3	26.9	0.0	100.0	808
Higher	80.1	8.1	11.8	0.0	100.0	129
Total	67.9	11.0	20.9	0.2	100.0	2,145

Figure 3.2 shows the distribution of men not employed in the 12 months prior to the survey by current activity. Of the unemployed, two in three are students, while the rest are mostly looking for work or are simply inactive (15 and 14 percent, respectively).

Figure 3.2 **Distribution of Unemployed Men by Current Activity**



ZDHS 2001-2002

Men who reported being employed during the 12-month period prior to the survey were asked about the principal occupation and the type of earnings (i.e., cash, kind or unpaid) that they received. Table 3.6 looks at the main occupation among men who were employed during the 12-month period before the survey. It shows that over half (51 percent) of working men were employed in the agricultural sector, 18 percent in sales and services, and 16 percent in skilled manual jobs. The rest work mostly in domestic service and professional/technical/managerial jobs (6 percent each).

As expected, Table 3.6 shows that the majority of employed men in rural areas work in agriculture, whereas those in urban areas are mostly in non-agricultural occupations of sales and services (34 percent) and skilled manual work (32 percent). This pattern is also distinct amongst the provinces, with more men engaged in agriculture occupations in rural provinces: Luapula (79 percent), Northern (77 percent), Eastern (75 percent) and Western (74 percent). Lusaka province has the highest proportion (12 percent) of professional, technical and managerial workers as well as of domestic servants. The data indicate that education has a strong impact on one's occupation. Men with no or primary education are engaged more in agricultural activities and those with higher education take up more professional/ managerial jobs.

Table 3.6 Occupation: men

Percent distribution of men employed in the 12 months preceding the survey by occupation, according to background characteristics, Zambia 2001-2002

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Un-skilled manual	Domestic service	Agri-culture	Don't know/ missing	Total	Number of men
Age										
15-19	0.0	0.0	23.9	11.1	0.4	4.1	54.5	6.1	100.0	152
20-24	0.9	1.0	32.2	9.0	1.9	9.4	43.7	1.8	100.0	268
25-29	4.5	0.4	19.7	16.4	1.4	8.4	49.3	0.0	100.0	339
30-34	7.0	1.7	14.9	18.1	3.5	6.8	47.3	0.8	100.0	274
35-39	7.3	1.0	13.7	18.8	1.1	4.3	53.0	0.7	100.0	229
40-44	9.4	0.4	13.6	16.3	0.0	5.1	55.2	0.0	100.0	169
45-49	10.8	0.0	11.6	21.6	0.0	3.3	51.7	1.1	100.0	106
50-54	9.6	1.2	6.6	22.4	0.0	3.6	56.6	0.0	100.0	93
55-59	5.2	0.0	5.5	19.4	0.0	1.4	68.5	0.0	100.0	64
Marital status										
Never married	2.4	0.6	31.6	10.5	2.0	8.2	41.1	3.6	100.0	389
Married or living together	6.8	0.8	12.4	17.7	1.2	5.5	55.2	0.4	100.0	1,203
Divorced/separated/widowed	1.3	1.1	34.4	18.1	0.9	6.2	37.4	0.6	100.0	102
Residence										
Urban	9.2	1.3	33.7	31.8	3.1	13.1	7.2	0.6	100.0	640
Rural	3.3	0.4	8.7	6.6	0.3	1.9	77.4	1.4	100.0	1,055
Province										
Central	3.9	0.5	26.0	8.3	2.0	7.4	45.6	6.4	100.0	122
Copperbelt	5.9	0.5	28.7	32.2	4.5	7.9	19.8	0.5	100.0	339
Eastern	6.1	1.4	7.0	7.5	0.0	2.3	74.8	0.9	100.0	224
Luapula	4.5	0.0	8.3	4.5	0.6	1.9	79.0	1.3	100.0	144
Lusaka	12.4	2.3	35.6	25.4	1.1	15.8	7.3	0.0	100.0	232
Northern	1.9	0.0	9.2	7.6	0.4	3.1	77.1	0.8	100.0	234
North-Western	5.7	0.0	9.5	10.8	1.3	3.8	68.4	0.6	100.0	62
Southern	3.8	1.1	14.2	16.4	0.0	3.8	59.0	1.6	100.0	207
Western	2.5	0.0	8.3	9.9	0.0	5.0	74.4	0.0	100.0	130
Education										
No education	0.0	0.0	18.3	6.7	0.0	0.0	75.0	0.0	100.0	98
Primary	0.5	0.0	16.1	11.5	0.8	3.6	65.8	1.7	100.0	892
Secondary	3.7	1.5	23.5	23.8	2.6	11.0	33.1	0.7	100.0	590
Higher	58.4	3.5	5.7	20.2	0.3	5.9	5.9	0.0	100.0	114
Total	5.5	0.8	18.1	16.1	1.3	6.2	50.9	1.1	100.0	1,694

Table 3.7 looks at the form of earnings received by men who were employed during the 12-month period before the survey, according to whether the work they performed was in the agricultural or non-agricultural sector. Among employed men in agriculture, over half (56 percent) report that they are not paid, reflecting the fact that many are self-employed. More than eight in ten (84 percent) employed men in non-agricultural occupations receive cash payment for their work.

Table 3.7 Type of earnings: men

Percent distribution of men employed in the 12 months preceding the survey by type of earnings, according to type of employment (agricultural or non-agricultural), Zambia 2001-2002

Type of earnings	Agri-cultural work	Non-agri-cultural work	Total
Cash only	9.7	83.9	45.4
Cash and in-kind	26.7	5.9	16.4
In-kind only	7.4	1.6	4.5
Not paid	56.2	8.5	33.2
Missing	0.0	0.1	0.5
Total	100.0	100.0	100
Number of men	862	813	1,694

Note: Total includes 19 men with missing information on type of employment who are not shown separately

3.6 WOMEN'S EMPLOYMENT

The 2001-2002 ZDHS also collected information relating to women's employment. The measurement of women's employment is particularly difficult because some of the activities that women do, especially work on family farms, family businesses, or in the informal sector are often not perceived by women themselves as employment and hence are not reported as such. To avoid underestimating women's employment, the ZDHS asked women several questions to ascertain their employment status. First women were asked, "Aside from your own housework, are you currently working?" Women who answered "no" to this question were then asked, "As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business, or work on the family farm or in the family business. Are you currently doing any of these things or any other work?"

It should, however, be recognised that major obstacles standing in the way of women's gaining access to employment with the same opportunities as men are caused by a number of factors, the "most significant being inequality in respect of access to education, discrimination in employment and occupation, which leads to categorisation 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). Information on women's participation in decision-making also was collected in the 2001-2002 and is presented later in this chapter.

3.6.1 Employment Status

Table 3.8 shows the percent distribution of women by employment status during the 12 months preceding the survey. Fifty-seven percent of women were employed in the 12 months preceding the survey, compared with 79 percent of men (Table 3.5). Employment levels in the last 12 months are higher for women in rural areas than for their urban counterparts (63 percent and 49 percent, respectively). This pattern is also generally true for employed men, although their proportions for men in both rural and urban areas are higher than those for women. Table 3.8 shows that the proportion of women employed in the last 12 months tends to increase with age and number of living children.

The data indicate that women who are divorced, separated, or widowed have the highest employment rates, followed by those in marital union (72 percent versus 62 percent). Although never-married women and men are the least likely to be employed, the proportion for women is much lower (37 percent) than for men (72 percent) (Table 3.5).

Table 3.8 Employment status: women

Percent distribution of women by employment status, according to background characteristics, Zambia 2001-2002

Background characteristic	Employed in the 12 months preceding the survey: Currently employed	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the last 12 months	Missing/ don't know	Total	Number of women
Age						
15-19	32.7	2.5	64.8	0.0	100.0	1,811
20-24	49.9	3.4	46.6	0.1	100.0	1,664
25-29	62.3	3.1	34.7	0.0	100.0	1,376
30-34	65.6	2.4	32.0	0.0	100.0	972
35-39	70.5	2.3	27.2	0.0	100.0	766
40-44	66.3	2.1	31.6	0.0	100.0	601
45-49	68.6	2.1	29.3	0.0	100.0	467
Marital status						
Never married	33.8	2.8	63.4	0.0	100.0	1,897
Married or living together	60.0	2.4	37.6	0.0	100.0	4,694
Divorced/separated/widowed	67.6	3.9	28.5	0.0	100.0	1,067
Number of living children						
0	36.2	3.0	60.8	0.0	100.0	2,067
1-2	57.1	2.7	40.2	0.0	100.0	2,431
3-4	63.6	2.5	33.9	0.1	100.0	1,578
5+	65.6	2.6	31.8	0.0	100.0	1,582
Residence						
Urban	45.9	3.1	51.0	0.0	100.0	3,073
Rural	60.3	2.4	37.2	0.0	100.0	4,585
Province						
Central	70.0	1.0	29.0	0.0	100.0	562
Copperbelt	44.9	3.4	51.7	0.0	100.0	1,544
Eastern	20.8	1.6	77.6	0.0	100.0	926
Luapula	91.1	1.1	7.8	0.0	100.0	622
Lusaka	49.1	3.7	47.2	0.0	100.0	1,132
Northern	73.5	0.9	25.5	0.1	100.0	1,040
North-Western	42.7	15.7	41.7	0.0	100.0	354
Southern	39.0	1.1	59.8	0.0	100.0	814
Western	81.5	1.8	16.7	0.0	100.0	663
Education						
No education	57.6	2.0	40.3	0.0	100.0	925
Primary	57.9	2.6	39.4	0.0	100.0	4,439
Secondary	43.4	3.2	53.4	0.0	100.0	2,061
Higher	76.5	2.5	21.0	0.0	100.0	234
Total	54.5	2.7	42.7	0.0	100.0	7,658

3.6.2 Occupation

Table 3.9 shows the occupations reported by women employed in the 12-month period before the survey. As observed with employed men, the majority of employed women (54 percent) work in agriculture. This is followed by one-fourth who are employed in sales and services occupations and one in ten in domestic services. A major difference is observed amongst women and men in skilled manual occupations (5 percent and 16 percent, respectively).

Table 3.9 Occupation: women

Percent distribution of women employed in the 12 months preceding the survey by occupation, according to background characteristics, Zambia 2001-2002

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Un-skilled manual	Domestic service	Agri-culture	Don't know/ missing	Total	Number of women
Age										
15-19	0.8	0.5	25.4	1.9	0.0	5.9	65.1	0.5	100.0	638
20-24	2.1	1.6	27.2	3.8	0.7	11.5	52.3	0.7	100.0	887
25-29	6.4	2.5	27.6	6.3	0.0	12.1	44.8	0.3	100.0	899
30-34	5.6	1.9	22.8	5.5	0.8	11.7	50.5	1.2	100.0	661
35-39	3.6	0.9	24.1	4.7	0.0	9.9	56.1	0.7	100.0	557
40-44	3.7	2.5	22.5	5.7	0.3	8.2	56.7	0.5	100.0	412
45-49	6.5	0.9	20.1	3.3	0.2	10.3	58.1	0.6	100.0	330
Marital status										
Never married	6.6	2.7	31.2	3.4	0.5	8.5	46.6	0.5	100.0	694
Married or living together	3.3	1.3	22.0	5.1	0.3	9.7	57.7	0.6	100.0	2,927
Divorced/separated/widowed	4.1	1.8	30.6	3.6	0.2	14.0	44.8	0.8	100.0	763
Number of living children										
0	5.3	3.1	26.1	4.4	0.6	9.2	50.2	1.1	100.0	810
1-2	5.1	1.3	27.3	4.5	0.2	10.8	50.4	0.4	100.0	1,452
3-4	2.3	1.7	24.9	4.8	0.3	10.6	55.1	0.2	100.0	1,042
5+	3.1	0.7	21.1	4.6	0.3	10.0	59.3	0.8	100.0	1,079
Residence										
Urban	7.9	4.5	42.4	7.4	0.6	22.6	13.3	1.3	100.0	1,504
Rural	1.9	0.1	15.9	3.1	0.1	3.8	74.8	0.3	100.0	2,879
Province										
Central	4.1	1.4	21.8	4.3	0.2	5.4	62.4	0.5	100.0	400
Copperbelt	7.7	2.2	30.6	3.5	0.4	26.7	28.2	0.7	100.0	746
Eastern	13.5	1.0	35.5	7.5	1.0	8.0	33.5	0.0	100.0	207
Luapula	0.9	0.0	5.2	2.4	0.0	1.7	89.8	0.0	100.0	573
Lusaka	6.3	6.3	53.3	10.1	0.6	18.8	2.3	2.1	100.0	597
Northern	0.8	0.3	7.7	1.3	0.0	4.4	85.0	0.6	100.0	774
North-Western	2.9	0.2	11.7	2.3	0.0	3.7	78.8	0.4	100.0	207
Southern	4.6	1.1	38.7	8.8	0.7	10.2	35.6	0.4	100.0	327
Western	0.6	0.4	26.7	4.2	0.2	2.8	65.1	0.2	100.0	553
Education										
No education	0.2	0.0	19.3	1.6	0.0	3.1	75.6	0.2	100.0	552
Primary	0.3	0.3	24.2	3.8	0.2	8.4	62.0	0.7	100.0	2,687
Secondary	5.2	3.6	33.8	8.7	0.7	19.9	27.4	0.7	100.0	960
Higher	62.6	15.5	6.7	3.0	0.0	8.1	4.1	0.0	100.0	185
Total	4.0	1.6	25.0	4.6	0.3	10.3	53.7	0.6	100.0	4,384

Table 3.9 further shows that most working women (75 percent) in rural areas are engaged in agricultural activities compared with 13 percent in urban areas. A large majority (85 percent) of women in urban areas work in non-agricultural activities with 42 percent in sales and services followed by those in domestic service who constitute 23 percent. It is apparent from Table 3.9 that the likelihood of women's participation in professional, technical or managerial jobs, sales and services, and clerical increases with rising education levels.

3.6.3 Earnings, Type of Employer, and Continuity of Employment

It is commonly acknowledged that women's reproductive and domestic role (housework, food preparation, and caring for the young, old and disabled family members) is generally perceived to be their primary function, restricting their time and mobility for productive work (ILO, 1995). Most women are thus constrained to choose income-earning activities, which can be combined with child care and household work.

Table 3.10 presents information on women's employment status, the form of earnings and the continuity of employment. The table takes into account whether women are involved in agricultural or

non-agricultural occupations, since all of the employment variables shown in the table are strongly influenced by the sector in which a woman is employed.

According to the data in Table 3.10, most women engaged in agricultural work are self-employed (78 percent), work seasonally or part of the year (82 percent) and receive no payment for their work (63 percent). Table 3.10 further shows that a majority of women in non-agricultural activities earn cash only (81 percent), 63 percent work for themselves, and 59 percent work throughout the year.

Table 3.10 Employment characteristics: women

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 (agricultural or non-agricultural), Zambia 2001-2002

Employment characteristic	Agricultural work	Non-agricultural work	Total
Type of earnings			
Cash only	18.7	81.3	47.7
Cash and in-kind	16.0	4.4	10.6
In-kind only	2.2	1.1	1.7
Not paid	63.1	13.2	40.0
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	20.0	7.2	14.1
Employed by nonfamily member	2.1	29.5	14.8
Self-employed	77.8	63.2	71.1
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Continuity of employment			
Throughout the year	16.0	59.3	35.8
Seasonal/part of year	81.7	20.3	53.3
Once in a while	2.3	20.3	10.8
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of women	2,354	2,003	4,384

Note: Total includes 27 women with missing information on type of employment who are not shown separately

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

In the 2001-2002 ZDHS, employed women who earn cash were asked about who the main decision-maker is with regard to the use of their earnings. Further, they were asked about the proportion of household expenditures met by their earnings. Their answers to these questions provide some insight into the extent to which women have autonomy over their earnings and the relative importance of women's earnings. The latter information also has implications for the empowerment of women. It is expected that employment and earnings are more likely to empower women if they perceive their earnings as important for meeting the needs of their household.

Table 3.11 shows the percent distribution of 2001-2002 ZDHS respondents who earn cash for the work they do by the degree of control over the use of their earnings and the extent to which their earnings meet household expenditures. Almost six out of ten women decide by themselves how their earnings are to be spent. Close to one in every four working women said that the decisions are made jointly with someone else, whereas one in five reported that this decision is fully made by someone else.

Independent decision-making by women is more pronounced in urban (72 percent) than rural areas (39 percent) and notably increases with age: 49 percent of women age 15-19 compared with 59 percent of women age 45-49. Education has an impact on decision-making of women on the use of their earnings: 38 percent of women with no education decide independently on how earnings are to be used compared with 64 percent of women with higher education. In rural areas, decisions on the use of women's earnings are almost equally divided, with more than one-third made by the woman herself (39 percent), one-third made jointly (29 percent), and one-third by someone else (31 percent). At the provincial level, the highest proportions of women who decide for themselves how their earnings are spent are in Lusaka (77 percent) and Copperbelt (65 percent) and the lowest are in North-Western and Northern (35 percent each).

Regarding the use of women's earnings, Table 3.11 shows that a similar proportion of women reported that their earnings constitute "less than half" (39 percent) and "half or more" (38 percent) of household expenditures. Almost one in five women who work for cash say their earnings provide the entire household expenditure.

Table 3.11 Decision on use of earnings and contribution of earnings to household expenditures

Percent distribution of women employed in the 12 months preceding the survey receiving cash earnings by person who decides how earnings are to be used and by proportion of household expenditures met by earnings, according to background characteristics, Zambia 2001-2002

Background characteristic	Person who decides how earnings are used				Proportion of household expenditures met by earnings					
	Self only	Jointly[1]	Someone else only[2]	Total	Almost none/ none	Less than half	Half or more	All	Total	Number of women
Age										
15-19	48.9	15.3	35.8	100.0	12.8	40.0	30.0	17.2	100.0	278
20-24	53.8	21.0	25.0	100.0	6.8	41.7	37.9	13.3	100.0	538
25-29	56.3	22.5	21.1	100.0	4.7	37.9	41.8	15.5	100.0	591
30-34	58.5	26.0	15.5	100.0	4.1	40.2	38.5	17.2	100.0	389
35-39	55.8	25.3	19.0	100.0	3.6	32.9	43.1	20.5	100.0	341
40-44	56.8	27.8	15.1	100.0	1.3	38.7	37.9	21.3	100.0	231
45-49	59.3	24.7	16.0	100.0	3.4	39.1	32.4	25.1	100.0	186
Marital status										
Never married	73.4	6.5	20.1	100.0	11.9	42.9	31.2	13.7	100.0	370
Married or living together	40.7	32.4	26.8	100.0	4.6	39.3	40.5	15.4	100.0	1,692
Divorced/separated/widowed	93.0	2.8	4.0	100.0	3.1	34.1	36.1	26.7	100.0	492
Number of living children										
0	63.5	12.1	24.4	100.0	11.9	40.2	34.7	13.2	100.0	433
1-2	54.2	23.2	22.4	100.0	4.4	39.0	39.3	17.2	100.0	892
3-4	55.9	24.7	19.5	100.0	4.0	36.8	42.2	16.9	100.0	622
5+	51.3	28.6	20.0	100.0	3.6	39.6	35.6	21.0	100.0	607
Residence										
Urban	71.8	16.7	11.4	100.0	6.5	41.3	40.3	11.9	100.0	1,266
Rural	39.4	29.1	31.4	100.0	4.3	36.3	36.4	22.7	100.0	1,287
Province										
Central	50.3	13.5	36.2	100.0	5.4	40.6	36.7	17.3	100.0	247
Copperbelt	65.4	19.8	14.8	100.0	4.1	39.9	45.0	11.0	100.0	523
Eastern	53.7	22.2	24.1	100.0	4.9	19.1	41.4	34.6	100.0	168
Luapula	43.8	26.6	29.7	100.0	10.2	50.8	30.5	8.6	100.0	127
Lusaka	76.9	13.2	9.8	100.0	7.1	45.1	37.6	10.3	100.0	591
Northern	34.5	37.9	27.1	100.0	5.6	24.0	34.5	35.2	100.0	363
North-Western	35.4	45.1	19.5	100.0	7.0	29.8	34.5	28.7	100.0	144
Southern	44.8	30.0	25.1	100.0	1.0	51.7	38.9	8.4	100.0	234
Western	44.4	17.0	37.9	100.0	4.6	43.1	35.9	15.7	100.0	155
Education										
No education	38.0	27.5	34.4	100.0	7.1	34.6	34.5	23.5	100.0	255
Primary	53.7	21.7	24.5	100.0	4.8	41.1	36.7	17.4	100.0	1,417
Secondary	63.3	21.8	14.8	100.0	6.4	37.9	40.3	15.1	100.0	703
Higher	64.3	31.1	4.6	100.0	3.5	30.5	48.4	17.6	100.0	178
Total	55.5	22.9	21.4	100.0	5.4	38.8	38.3	17.4	100.0	2,553

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

Table 3.12 presents data on how decisions on use of women's earnings are made and the contribution of these earnings to household expenditures based on marital status. As expected, married women are less likely to make exclusive decisions on how to spend their earnings, compared with unmarried women (41 and 85 percent, respectively). Thirty-one percent of married women decide jointly with their husbands. It is notable that one in four married women who earn cash for their work say that their husbands alone decide how to spend their earnings.

Table 3.12 Women's control over earnings

Percent distribution of women who received cash earnings for work in the past 12 months by person who decides how earnings are used and marital status, according to proportion of household expenditures met by earnings, Zambia 2001-2002

	Currently married or living together							Not married[1]				
Contribution to household expenditures	Self only	Jointly with husband	Jointly with someone else	Husband only	Someone else only	Total	Number of women	Self only	Jointly with someone else	Someone else only	Total	Number of women
Almost none/none	57.4	20.1	1.6	17.6	3.2	100.0	78	83.8	6.8	9.4	100.0	59
Less than half	47.2	25.6	1.2	25.4	0.5	100.0	664	83.1	2.7	13.9	100.0	326
Half or more	37.1	31.7	1.3	29.7	0.3	100.0	686	85.9	3.9	10.3	100.0	293
All	28.9	47.4	0.3	22.8	0.2	100.0	261	86.0	7.5	6.5	100.0	182
Total	40.7	31.3	1.1	26.3	0.5	100.0	1,692	84.6	4.4	10.9	100.0	862

Note: Table excludes 4 women missing information on contribution to household expenditures.
[1] Never-married, divorced, separated, or widowed women

Table 3.12 further shows that among married women, the less their earnings provide toward household expenditures, the more likely they are to decide by themselves how to use their earnings. As the importance of their earnings increases, so does the likelihood that they make decisions jointly with their husbands. A majority of unmarried women make their own decisions, regardless of the degree of contribution to household expenditure.

3.7 WOMEN'S EMPOWERMENT

In addition to information on women's education, employment status, and control over earnings, the 2001-2002 ZDHS obtained information from both women and men on other measures of women's status and empowerment. In particular, questions were asked on women's roles in making household decisions, on acceptance of wife beating, and on opinions about when a wife should be able to refuse sex with her husband. These questions are used to define three different indicators of women's empowerment: (1) women's participation in decision-making, (2) degree of acceptance of wife beating, and (3) degree of acceptance of a wife's right to refuse sex with her husband.

The first measure—women's participation in decision-making—requires little explanation since the ability to make decisions about one's own life is of obvious importance to women's empowerment. The other two measures derive from the notion that gender equity is essential to empowerment. One of Zambia's policy measures to address women's participation in decision-making is to "encourage efforts by non-governmental organisations, trade unions and the private sector to achieve equality between women and men in their ranks, including equal participation in their decision-making bodies and in negotiations at all times" (GIDD, 2000)

Responses that indicate a view that the beating of wives by husbands is justified reflect a low status of women. Although such attitudes do not necessarily signify approval of men beating their wives, they do signify acceptance of norms that give men the right to discipline women with force. Similarly, beliefs about whether and when a woman can refuse sex with her husband reflect issues of gender equity regarding sexual rights and bodily integrity. Besides yielding an important measure of empowerment, information about women's attitudes toward sexual rights is useful for improving and monitoring reproductive health programmes that depend on women's willingness and ability to control their own sexual lives.

3.7.1 Women's Participation in Decision-making

Table 3.13 shows the percent distribution of women by the person that the woman says usually has the final say in making decisions in four areas: (1) the woman's own health care, (2) large household

purchases, (3) visits to family/friends, and (4) how many children to have and when. The results are presented by marital status. Women are considered to participate in decision-making if they make decisions alone or jointly with their husband or someone else.

Table 3.13 indicates that for married women, decision-making is highly dominated by husbands. Women report that husbands alone are responsible for decisions, particularly for making large household purchases (62 percent), visits to family/friends (56 percent), number of children to have and when (50 percent), and even the wife's own health care (47 percent). In contrast, the proportion of women who report that they alone have decision-making responsibility in these areas is much lower: own health care (30 percent), visits to family/friends (17 percent), large household purchases (11 percent), and number and timing of children (10 percent). As expected, unmarried women are more likely than married women to make decisions by themselves. However, because unmarried women tend to be younger than married women and are often living with their parents or other relatives, decisions are often made by others.

Table 3.13 Women's participation in decisionmaking

Percent distribution of women by person who has the final say in making specific decisions and marital status, according to type of decision, Zambia 2001-2002

	Currently married or living together							Not married[1]				
Type of decision	Self only	Jointly with husband	Jointly with someone else	Husband only	Someone else only	Decision not made/ not applicable	Total	Self only	Jointly with someone else	Someone else only	Decision not made/Not applicable	Total
Own health care	30.1	11.0	0.5	46.5	11.8	0.2	100.0	42.5	3.7	53.1	0.8	100.0
Large household purchases	11.3	25.1	0.1	61.7	1.6	0.2	100.0	29.8	3.6	60.8	5.7	100.0
Visits to family/friends	16.8	25.7	0.0	56.1	1.1	0.2	100.0	41.9	3.7	51.9	2.5	100.0
How many children to have and when	9.6	35.8	0.4	49.8	0.4	4.0	100.0	46.8	3.2	11.2	38.7	100.0

Note: Results are based on 4,694 women currently married or living together and 2,964 not married women.
[1] Never-married, divorced, separated, or widowed women

Table 3.14.1 presents information on the proportion of women involved alone or jointly in making the above-mentioned four decisions according to background characteristics. 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 3.14.1 shows that less than a fifth of women report taking part in decisions concerning all of the specified areas. It is apparent that women are most likely to report participating in decisions on the number of children to have and when to have them (47 percent), visits to family/friends (44 percent), their own health care (43 percent), and least likely to report participating in decisions in making large purchases (35 percent). Never-married women are least likely to report being involved in decision-making, particularly concerning making large purchases (13 percent) and visiting family/friends (27 percent). As mentioned earlier, this is probably because they are young and still live with parents/guardians who make most of the decisions. Women with no children are also less likely than those with children to participate in any or all of the specified decisions.

One might expect higher educational status to give women greater decision-making power within their households. However, Table 3.14.1 indicates that women with no education report having somewhat more say (21 percent) in all the specified decisions compared with women with primary and secondary schooling (16 and 17 percent, respectively). Women with higher education are the most likely to report having a say in all the specified decisions (37 percent), along with those who earn cash for their work (26 percent). However, participation in decision-making for women with higher education varies with the type of decision, whereas there is little distinction for those earning cash for their work.

Table 3.14.1 Women's participation in decision-making by background characteristics: women

Percentage of women who say that they alone or jointly have the final say in specific decisions, by background characteristics, Zambia 2001-2002

Background characteristic	Alone or jointly has final say in: Own health care	Making large purchases	Visits to family, relatives, friends	Number of children and when	All specified decisions	None of the specified decisions	Number of women
Age							
15-19	26.8	11.6	23.2	33.9	4.9	45.7	1,811
20-24	41.6	28.7	39.8	46.9	13.5	28.8	1,664
25-29	45.7	42.4	49.2	53.7	19.4	21.8	1,376
30-34	49.5	47.4	51.5	54.6	24.1	21.9	972
35-39	57.2	51.2	55.3	54.4	29.1	21.4	766
40-44	54.9	52.1	60.6	52.2	29.2	21.1	601
45-49	55.4	57.7	63.6	51.3	30.7	20.1	467
Marital status							
Never married	33.4	12.9	26.7	38.2	8.0	40.9	1,897
Married or living together	41.5	36.5	42.5	45.8	15.6	29.0	4,694
Divorced/separated/widowed	68.8	69.9	79.1	70.9	44.5	6.0	1,067
Number of living children							
0	30.9	16.2	27.3	35.6	7.0	41.4	2,067
1-2	46.3	38.1	46.8	52.2	18.7	23.9	2,431
3-4	47.6	43.4	50.0	51.4	22.5	25.0	1,578
5+	50.5	48.1	54.1	51.6	25.4	23.7	1,582
Residence							
Urban	46.8	37.2	47.2	48.4	17.3	23.8	3,073
Rural	40.9	34.1	41.4	46.8	18.0	32.1	4,585
Province							
Central	25.0	27.5	35.7	42.4	7.2	31.5	562
Copperbelt	34.7	34.9	46.2	44.5	13.2	30.4	1,544
Eastern	31.8	26.8	31.5	35.0	15.9	48.2	926
Luapula	30.7	23.6	38.0	40.1	9.1	36.1	622
Lusaka	58.7	37.8	45.4	45.8	18.2	19.4	1,132
Northern	52.1	37.1	48.4	56.6	23.5	22.6	1,040
North-Western	60.3	50.5	64.9	72.6	39.3	15.6	354
Southern	33.1	45.0	28.9	48.8	20.7	34.9	814
Western	70.0	38.7	63.4	56.0	22.8	13.9	663
Education							
No education	47.4	38.6	47.4	46.1	21.0	29.1	925
Primary	40.9	33.3	41.7	45.1	16.3	31.0	4,439
Secondary	42.9	35.1	43.1	50.8	17.2	26.6	2,061
Higher	75.3	63.6	71.3	68.3	36.6	4.7	234
Employment							
Not employed	36.6	26.3	35.2	42.0	13.2	36.0	3,476
Employed for cash	54.4	51.3	56.5	55.3	26.1	17.7	2,401
Employed not for cash	41.3	31.3	43.0	47.6	15.4	29.5	1,775
Total	43.3	35.3	43.7	47.4	17.7	28.8	7,658

Note: The total includes 6 women with missing data for employment.

The 2001-2002 ZDHS also sought men's opinions concerning women's participation in decision-making in the four specified areas. Table 3.14.2 shows the percent distribution of men who say that their wife or partner alone or jointly should have the greater say in making specific decisions.

Table 3.14.2 shows that one in four men are of the opinion that wives alone or jointly should not have the greater say in any of the specified decisions. The proportion of men who feel that women should have a say in none of the specified decisions is higher in rural than urban areas (32 percent and 15 percent, respectively). More than half of men are of the view that a wife or partner should decide by herself or jointly about the number of children to have and when to have them. Fewer men say that wives should have the greater say in decisions related to large household purchases and visits to family and friends (43 percent each).

As presented in Table 3.14.2, according to male respondents, the importance of the wife's role in decision-making increases with the level of the man's education. For instance, 37 percent of men with no education and 93 percent of those with higher education said a wife or partner should have a greater say in how she spends her own money. Amongst the provinces, the highest proportion of men who say wives should have the greater say in all specified decisions is in Eastern province (31 percent), while men in Luapula province are least likely to believe so (9 percent). Eastern province has the highest proportion of men (along with Western province) who say that women should have the final say in none of the specified decisions.

Table 3.14.2 Women's participation in decision-making by background characteristics: men

Percentage of men who say that their wife alone or jointly should have the final say in specific decisions, by background characteristics, Zambia 2001-2002

Background characteristic	Wife alone or jointly should have the greater say in: Making large purchases	Visits to family, relatives, friends	Number of children and when	How wife spends her money	All specified decisions	None of the specified decisions	Number of men
Age							
15-19	33.9	36.9	48.9	46.9	15.6	27.4	459
20-24	39.2	38.9	52.7	52.0	19.2	25.9	346
25-29	42.8	41.3	53.5	45.0	18.6	26.8	361
30-34	48.8	49.9	59.0	55.9	26.0	21.6	281
35-39	46.6	48.9	54.6	50.4	25.2	24.8	241
40-44	53.2	47.1	62.3	54.9	29.2	21.9	174
45-49	48.2	52.8	63.2	54.4	28.0	20.0	113
50-54	43.6	40.9	48.5	47.9	24.4	33.8	100
55-59	44.9	42.7	45.0	48.9	14.5	23.5	71
Marital status							
Never married	38.7	40.5	53.3	51.1	19.1	24.3	782
Married or living together	46.2	45.0	55.2	50.6	23.3	25.5	1,248
Divorced/separated/widowed	33.1	39.3	44.8	38.9	13.9	31.1	116
Number of living children							
0	37.9	39.5	52.1	50.2	18.7	26.0	861
1-2	43.4	45.3	53.0	49.4	20.7	24.5	447
3-4	51.0	48.9	56.5	52.3	26.4	24.0	336
5+	45.0	43.3	56.2	49.2	22.8	25.9	501
Residence							
Urban	52.0	52.4	64.2	61.5	28.8	14.7	851
Rural	36.7	36.9	47.2	42.6	16.3	32.3	1,294
Province							
Central	56.2	46.0	67.8	64.5	26.8	12.3	165
Copperbelt	45.9	52.3	64.3	52.6	25.9	15.4	447
Eastern	38.3	41.0	46.9	44.5	30.9	43.0	268
Luapula	28.2	38.1	49.7	49.2	8.8	26.5	166
Lusaka	55.6	47.7	59.8	68.6	27.2	13.8	314
Northern	39.4	40.1	47.1	44.0	15.9	26.6	292
North-Western	23.1	35.7	51.3	43.7	13.4	37.0	93
Southern	47.3	41.5	44.9	37.1	14.1	29.3	232
Western	29.3	26.8	43.3	36.9	12.7	42.7	169
Education							
No education	29.1	31.9	34.7	37.3	15.2	42.3	108
Primary	32.9	32.4	41.4	37.8	11.6	34.0	1,100
Secondary	50.8	52.0	67.7	61.8	27.9	15.3	808
Higher	87.7	87.6	90.6	92.5	67.0	0.7	129
Employment							
Not employed	42.3	44.1	53.5	53.3	19.6	22.0	688
Employed for cash	45.7	45.9	58.5	53.1	26.6	24.8	913
Employed not for cash	38.2	36.9	46.7	40.9	14.3	30.5	542
Total	42.8	43.1	53.9	50.1	21.3	25.3	2,145

Note: The total includes 6 women with missing data for employment.

3.7.2 Attitudes toward Wife Beating

The ZDHS collected information on the degree of acceptance of wife beating by asking whether a husband would be justified in beating his wife in each of the following five situations: if the wife goes out with another man; if she neglects the children; if she argues with him; if she refuses to have sex; and if she cooks bad food or food is late.

Tables 3.15.1 and 3.15.2 show the proportions of women and men who agreed that a husband would be justified in hitting or beating his wife for specific reasons. A high proportion of women agreeing that wife beating is acceptable is an indicator that women generally accept violence as part of male-female relationships. A low proportion agreeing indicates that the majority of women do not accept such violence and, thus, is an indicator that women are more "empowered."

Table 3.15.1 shows that many women find wife beating justified in certain circumstances. Over four in five women agree that at least one of the specified reasons is enough to justify wife beating.

Women's infidelity is the most likely reason to justify wife beating (79 percent), whereas bad or late food is the least likely (45 percent). It is not surprising that there is a high level of acceptance of the legitimacy of beatings because traditional norms teach women to accept, tolerate, and even rationalise battery. However, this norm hinders women's empowerment with consequences for their health. There is little difference between women in urban and rural areas (84 and 87 percent, respectively). Women in Luapula province constitute the highest proportion of women who say wife beating is justified for at least one of the reasons specified (95 percent), while Eastern province has the lowest proportion (59 percent). Except for Eastern and Lusaka provinces, 90 percent or more of women agree with one of the reasons justifying wife beating. Generally, women who have never married, highly educated women, and unemployed women are least likely to agree with any of the reasons for wife beating.

Tables 3.15.1 and 3.15.2 show that fewer men than women agree that wife beating is justified for at least one of the specified reasons (69 percent and 85 percent, respectively). Rural men are more likely to agree with wife beating for one of the specified reasons than their urban counterparts (72 versus 65 percent). Table 3.15.2 indicates that among educated men, those with higher education are least likely to accept wife beating (38 percent).

Table 3.15.1 Women's attitudes toward wife beating

Percentage of women who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Zambia 2001-2002

Background characteristic	Husband is justified in hitting or beating his wife if she: Cooks bad/ late food	Argues with him	Goes out with another man	Neglects the children	Refuses to have sex with him	Percentage who agree with at least one specified reason	Number of women
Age							
15-19	48.0	52.2	76.5	60.9	41.6	84.4	1,811
20-24	44.6	51.2	78.1	60.5	46.0	85.3	1,664
25-29	45.1	54.1	81.2	62.7	47.8	85.9	1,376
30-34	43.4	50.7	80.1	59.9	48.5	86.1	972
35-39	45.0	52.2	78.9	62.7	48.7	85.5	766
40-44	45.3	53.3	79.4	60.3	52.4	85.0	601
45-49	44.1	49.6	80.2	57.7	56.9	86.5	467
Marital status							
Never married	40.5	44.3	68.7	54.7	35.1	77.7	1,897
Married or living together	46.8	55.1	82.1	62.6	50.6	87.6	4,694
Divorced/separated/widowed	48.0	52.6	82.5	64.8	52.4	89.3	1,067
Number of living children							
0	41.8	46.0	70.7	55.0	37.6	79.2	2,067
1-2	45.6	54.1	81.4	63.4	48.4	87.4	2,431
3-4	47.8	54.0	81.6	63.2	50.9	87.7	1,578
5+	47.4	55.0	82.7	62.6	53.3	87.9	1,582
Residence							
Urban	39.2	46.3	78.5	57.8	42.7	83.5	3,073
Rural	49.6	55.9	79.1	63.0	50.0	86.6	4,585
Province							
Central	47.7	57.9	85.1	65.1	46.8	91.9	562
Copperbelt	45.7	54.6	85.3	65.2	49.4	89.5	1,544
Eastern	22.0	29.6	51.6	36.5	23.7	58.6	926
Luapula	66.0	68.8	90.9	72.2	70.8	95.2	622
Lusaka	30.7	35.8	73.3	51.2	35.3	77.5	1,132
Northern	56.4	59.3	89.2	72.6	58.9	92.7	1,040
North-Western	49.7	65.4	86.2	61.3	57.1	92.3	354
Southern	42.9	58.6	78.6	58.1	45.8	91.1	814
Western	65.1	58.0	74.9	72.7	49.5	89.7	663
Education							
No education	49.0	54.2	74.9	62.1	50.4	85.0	925
Primary	50.9	57.6	83.4	65.3	54.0	89.6	4,439
Secondary	36.2	44.0	75.5	55.2	35.0	81.3	2,061
Higher	7.5	9.9	38.4	24.0	8.2	42.5	234
Employment							
Not employed	39.4	47.8	75.0	55.6	40.7	81.6	3,476
Employed for cash	44.1	51.5	79.2	60.5	46.1	85.3	2,401
Employed not for cash	58.8	61.2	85.9	71.9	60.7	92.9	1,775
Number of decisions in which woman has final say[1]							
0	51.2	56.7	78.5	63.6	49.6	85.6	2,204
1-2	44.0	51.9	81.6	61.1	46.3	87.6	2,976
3-4	42.0	48.1	75.8	58.3	45.7	82.5	2,478
Total	45.4	52.1	78.8	60.9	47.0	85.4	7,658

Note: The total includes 6 women with missing data for employment.
[1] Either by herself or jointly with others

Table 3.15.2 Men's attitudes toward wife beating

Percentage of men who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Zambia 2001-2002

Background characteristic	Husband is justified in hitting or beating his wife if she: Cooks bad/ late food	Argues with him	Goes out with another man	Neglects the children	Refuses to have sex with him	Percentage who agree with at least one specified reason	Number of men
Age							
15-19	33.7	48.7	67.8	54.4	27.9	80.0	459
20-24	22.5	44.2	57.8	49.0	23.2	71.5	346
25-29	24.2	40.5	53.5	49.2	24.0	68.4	361
30-34	20.2	35.4	52.1	39.6	17.9	62.8	281
35-39	20.3	35.2	53.0	43.6	22.2	63.9	241
40-44	19.2	29.5	57.5	44.1	23.0	66.9	174
45-49	21.6	30.6	53.9	42.1	26.2	64.6	113
50-54	12.9	30.4	52.4	36.9	23.8	56.9	100
55-59	15.9	35.3	60.7	48.5	32.5	68.7	71
Marital status							
Never married	28.5	44.8	63.9	51.8	25.2	76.0	782
Married or living together	20.7	35.9	53.0	43.2	22.7	64.1	1,248
Divorced/separated/widowed	22.8	43.6	63.0	55.9	30.0	80.3	116
Number of living children							
0	27.8	44.0	62.7	51.9	24.4	75.3	861
1-2	23.9	36.7	53.1	42.2	24.2	65.8	447
3-4	20.1	39.3	54.2	45.0	21.6	67.4	336
5+	18.6	34.6	54.8	44.1	24.7	63.3	501
Residence							
Urban	15.2	33.6	50.6	42.4	16.0	65.0	851
Rural	29.2	43.4	62.1	50.0	29.2	72.1	1,294
Province							
Central	19.9	37.7	54.7	42.8	16.3	66.7	165
Copperbelt	16.2	35.0	56.8	53.4	16.2	71.8	447
Eastern	15.6	20.3	29.7	21.5	14.8	34.8	268
Luapula	26.0	40.3	68.0	60.2	33.1	81.2	166
Lusaka	15.5	33.9	45.2	34.3	18.0	59.8	314
Northern	39.4	57.2	69.4	68.2	37.9	84.7	292
North-Western	39.1	54.2	76.5	58.4	42.4	81.9	93
Southern	35.6	61.0	77.1	56.6	30.7	85.9	232
Western	20.4	25.5	61.1	29.3	25.5	69.4	169
Education							
No education	20.4	26.1	46.3	38.5	19.4	57.1	108
Primary	30.5	47.4	64.7	52.9	31.6	76.1	1,100
Secondary	17.9	35.0	53.6	44.0	17.8	66.6	808
Higher	4.1	12.0	29.7	22.8	2.4	38.1	129
Employment							
Not employed	29.0	44.9	64.7	51.3	24.6	77.2	688
Employed for cash	15.0	30.0	45.6	38.0	19.1	57.5	913
Employed not for cash	31.5	49.0	68.7	56.7	31.6	79.2	542
Number of decisions in which wife should have greater say[1]							
0	31.0	48.7	62.0	51.5	31.9	71.8	544
1-2	28.2	45.6	66.9	53.6	30.2	79.2	789
3-4	14.3	27.6	45.4	37.6	12.7	58.0	813
Total	23.6	39.5	57.5	47.0	24.0	69.3	2,145

[1] Either by herself or jointly with others

3.7.3 Attitudes toward Refusing Sex

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. To measure women's beliefs about sexual empowerment, respondents were asked whether a wife is justified in refusing to have sex with her husband under four circumstances: she is tired or not in the mood, she has recently given birth, she knows her husband has sex with other women, and she knows her husband has a sexually transmitted disease.

Table 3.16.1 presents data on how demographic and socio-economic background characteristics affect women's attitudes on this issue. The table also shows how this indicator of women's status varies with the other two indicators, namely with women's participation in decision-making and women's attitudes toward wife beating. It is worth noting that this indicator is also a measure of empowerment: the more reasons to refuse having sex with their husband, the higher their empowerment in terms of the belief in women's sexual rights.

Table 3.16.1 shows that slightly over half of women (53 percent) agree that husbands can be denied sex for all the specified reasons. The degree of agreement, however, varies, with reasons of recent childbirth and a husband who has a sexually transmitted infection (88 percent and 86 percent, respectively) being most widely accepted as reasons for refusing sexual relations. Least likely to agree with all of the reasons for refusing sex are younger women (45 percent), never-married women (48 percent), women with no children (47 percent), those who live in Central (42 percent) and Southern (42 percent) provinces, women with no education (48 percent), women who are employed but not for cash (50 percent) and those without a say in household decisions (48 percent). Women with more say in decision-making are more likely to feel a women is justified in refusing sexual relations with her husband for all the specified reasons than women with no say at all (57 percent versus 48 percent). Similarly, women who believe that wife beating is not justified for any of the specified reasons are more likely to agree that women are justified in refusing sex with their husbands for all of the reasons.

Table 3.16.2 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. The table shows that three in five men compared with one in two women (see Table 3.16.1) are of the view that a woman has a right to refuse to have sex with the husband for all the specified reasons. There are no marked variations between rural and urban areas.

Table 3.16.1 Women's attitudes toward wife refusing sex with husband

Percentage of women who believe that a wife is justified in refusing to have sex with her husband for specific reasons, by background characteristics, Zambia 2001-2002

Background characteristic	Wife is justified in refusing sex with her husband if she: Knows husband has a sexually transmitted disease	Knows husband has sex with other women	Has recently given birth	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	77.7	68.0	76.4	59.5	45.1	12.9	1,811
20-24	87.0	75.0	89.4	68.4	52.8	3.9	1,664
25-29	88.0	74.5	92.6	69.3	55.5	3.6	1,376
30-34	88.9	75.9	92.1	69.9	56.1	3.7	972
35-39	89.3	75.1	93.3	70.9	57.4	3.5	766
40-44	90.0	73.8	92.6	69.0	55.9	3.3	601
45-49	86.6	68.8	90.3	68.8	51.9	4.8	467
Marital status							
Never married	79.6	71.0	75.9	61.3	48.1	12.5	1,897
Married or living together	87.4	73.8	92.1	69.3	54.3	3.7	4,694
Divorced/separated/widowed	88.4	72.2	91.1	67.0	52.5	4.1	1,067
Number of living children							
0	79.8	70.4	77.0	61.1	47.1	11.6	2,067
1-2	87.2	72.9	91.2	68.5	52.5	4.0	2,431
3-4	88.2	75.2	93.0	70.1	56.3	3.5	1,578
5+	88.4	73.8	92.1	69.3	55.9	3.8	1,582
Residence							
Urban	87.5	76.0	87.3	66.2	53.4	5.2	3,073
Rural	84.4	70.8	88.3	67.5	52.0	6.4	4,585
Province							
Central	79.7	62.5	88.0	68.9	42.4	3.7	562
Copperbelt	88.8	75.3	88.8	65.8	51.0	3.1	1,544
Eastern	85.7	76.3	86.4	72.4	64.9	10.3	926
Luapula	79.9	63.3	77.3	62.8	48.2	15.7	622
Lusaka	90.1	80.0	89.7	67.9	58.0	5.1	1,132
Northern	84.9	73.9	89.2	60.4	49.4	5.8	1,040
North-Western	94.0	77.3	92.8	74.0	61.6	1.5	354
Southern	76.1	65.8	87.4	65.3	42.3	6.8	814
Western	89.6	72.9	91.0	71.7	54.7	2.0	663
Education							
No education	81.2	67.6	87.0	63.7	48.4	7.8	925
Primary	84.4	71.3	87.7	66.2	51.0	6.4	4,439
Secondary	89.1	77.0	88.2	68.3	55.5	4.6	2,061
Higher	96.2	87.8	94.4	83.4	72.0	0.9	234
Employment							
Not employed	84.7	73.0	85.6	65.8	51.7	6.9	3,476
Employed for cash	89.5	76.1	92.8	69.9	55.7	2.6	2,401
Employed not for cash	82.2	68.3	85.8	65.5	49.9	8.5	1,775
Number of decisions in which woman has final say[1]							
0	80.5	69.2	82.2	62.2	48.4	9.7	2,204
1-2	86.7	73.6	88.9	66.8	51.8	5.2	2,976
3-4	89.0	75.3	91.8	71.5	57.1	3.4	2,478
Number of reasons wife beating is justified							
0	81.7	72.5	79.5	71.2	61.0	14.2	1,120
1-2	87.6	73.6	89.1	67.3	52.8	4.8	2,128
3-4	84.9	71.1	89.6	64.0	47.3	4.2	2,407
5	86.7	74.5	89.4	67.9	53.8	4.6	2,002
Total	85.6	72.9	87.9	67.0	52.5	5.9	7,658

[1] Either by herself or jointly with others

Table 3.16.2 Men's attitudes toward wife refusing sex with husband

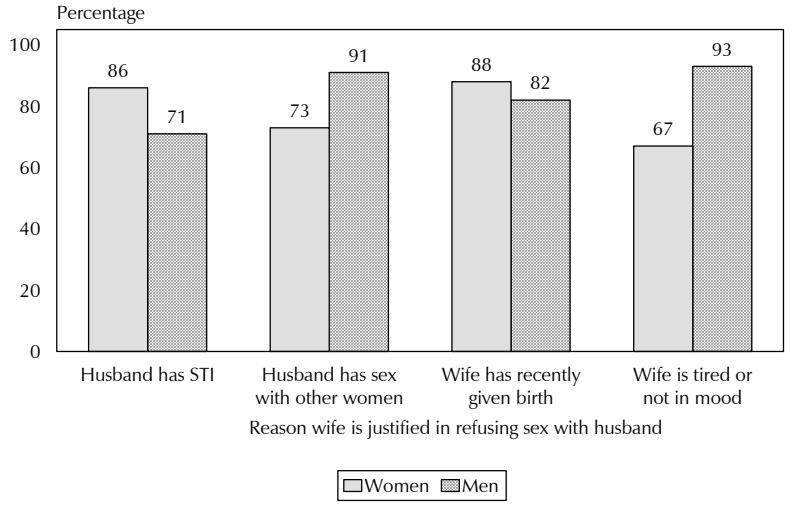
Percentage of men who believe that a wife is justified in refusing to have sex with her husband for specific reasons, by background characteristics, Zambia 2001-2002

Background characteristic	Wife is justified in refusing sex with her husband if she: Knows husband has a sexually transmitted disease	Knows husband has sex with other women	Has recently given birth	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 men
Age							
15-19	62.7	80.8	78.3	85.5	49.4	4.2	459
20-24	64.6	89.4	76.6	91.4	51.3	2.5	346
25-29	71.3	93.5	80.5	96.0	60.2	0.7	361
30-34	77.1	95.1	85.5	96.1	66.4	0.8	281
35-39	79.0	93.6	86.4	94.1	67.9	1.4	241
40-44	74.2	97.0	86.6	97.0	66.9	0.6	174
45-49	81.6	94.9	90.6	96.0	74.0	1.5	113
50-54	82.6	98.3	85.8	96.2	72.8	0.0	100
55-59	75.3	86.6	84.4	93.3	61.3	1.5	71
Marital status							
Never married	64.9	84.1	78.6	88.7	52.9	3.7	782
Married or living together	76.0	94.4	84.1	95.3	64.7	0.7	1,248
Divorced/separated/widowed	66.2	95.1	84.9	93.7	57.2	1.7	116
Number of living children							
0	66.5	84.9	77.9	89.3	53.3	3.2	861
1-2	71.0	95.3	82.6	95.9	60.6	1.0	447
3-4	74.4	92.8	86.2	94.3	64.7	1.6	336
5+	78.3	95.1	86.2	95.1	67.9	0.4	501
Residence							
Urban	73.1	90.4	83.1	93.3	61.0	1.7	851
Rural	70.3	90.8	81.5	92.5	59.4	1.9	1,294
Province							
Central	68.5	87.7	83.3	85.5	54.7	2.2	165
Copperbelt	74.8	90.6	82.0	92.5	60.5	1.1	447
Eastern	70.7	88.3	74.6	92.6	58.6	3.5	268
Luapula	61.9	92.8	84.0	97.2	54.1	0.6	166
Lusaka	67.4	92.9	84.5	94.6	56.9	1.3	314
Northern	72.5	88.4	82.3	92.4	62.1	2.1	292
North-Western	92.4	95.0	92.4	93.3	83.6	0.8	93
Southern	64.4	90.7	79.5	94.1	53.2	1.5	232
Western	79.6	93.0	84.7	92.4	70.7	3.8	169
Education							
No education	68.9	82.4	74.5	91.4	49.5	3.3	108
Primary	68.0	89.3	80.3	91.2	56.6	2.3	1,100
Secondary	74.0	92.6	84.1	94.3	63.2	1.3	808
Higher	86.1	97.8	91.1	99.1	77.8	0.0	129
Employment							
Not employed	66.7	86.4	81.2	90.9	55.1	2.6	688
Employed for cash	73.7	92.5	81.2	94.3	63.0	2.0	913
Employed not for cash	73.4	93.0	84.8	92.7	61.1	0.7	542
Number of decisions in which wife should have greater say[1]							
0	67.0	88.7	77.5	91.7	55.1	3.2	544
1-2	66.7	89.2	80.5	92.3	54.9	1.3	789
3-4	78.9	93.5	86.8	94.0	68.3	1.5	813
Number of reasons wife beating is justified							
0	79.1	90.8	81.8	92.3	67.6	2.8	659
1-2	69.2	89.7	82.7	93.5	55.4	1.3	702
3-4	67.1	89.9	81.1	92.5	56.6	1.7	549
5	66.8	95.1	83.8	92.9	60.8	1.3	236
Total	71.4	90.7	82.1	92.8	60.0	1.9	2,145

[1] Either by herself or jointly with others

Figure 3.3 illustrates that for men, the least acceptable reason for a wife to refuse sex is knowledge that the husband has an STI (71 percent), whereas for the women it is being tired and not in the mood (67 percent). Surprisingly, for men this is the most widely accepted reason for a woman to refuse sex with her husband (93 percent).

Figure 3.3 **Percentage of Women and Men Who Agree with Specific Reasons That a Wife is Justified in Refusing Sex with Her Husband**



ZDHS 2001-2002

3.8 LIFE-STYLE MEASURES

The ZDHS included questions on a number of other aspects of a respondent's lifestyle that involve potential or actual health risks. One of these factors is smoking tobacco. Information was collected in the 2001-2002 ZDHS on tobacco use[3] for women and men.

3.8.1 Use of Tobacco

The use of tobacco in the household adversely affects the health status of all household members, including individuals who are not smoking. In the 2001-2002 ZDHS respondents were asked if they smoked regularly and how much they smoked in the last 24 hours.

Tables 3.17.1 and 3.17.2 show the percent distribution of women and men by whether they currently smoke various types of tobacco, by current age and mean number of cigarettes smoked in a day. The data indicate that there are more women (97 percent) than men (74 percent) who do not smoke. For those currently smoking, cigarettes are the most preferred by men (14 percent) whilst 'other tobacco' is the most preferred for women (2 percent). Table 3.17.1 shows that among women, use of tobacco reaches only 11 percent in age group 40-49 from less than 1 percent in age group 15-19.

Table 3.17.2 shows that the proportion of smokers is low (2 percent) among teenage men but increases rapidly to 37 percent in age group 30-39 after which it varies little with increasing age. Male smokers smoke an average of 4.6 cigarettes in a day.

[3] See Chapter 13 for results on alcohol use.

Table 3.17.1 Smoking of tobacco: women

Percent distribution of women by whether they currently smoke various types of tobacco, according to current age, Zambia 2001-2002

Smoking pattern	Age 15-19	20-29	30-39	40-49	Total
Smokes cigarettes only	0.2	0.3	0.7	1.3	0.5
Smokes pipe only	0.0	0.0	0.0	0.1	0.0
Smokes other tobacco only	0.2	0.6	2.7	9.1	2.2
Does not smoke	99.5	99.1	96.6	89.4	97.3
Missing	0.1	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0
Number of women	1,811	3,040	1,738	1,069	7,658

Table 3.17.2 Smoking of tobacco: men

Percent distribution of men by whether they currently smoke various types of tobacco, according to current age, Zambia 2001-2002

Smoking pattern	Age 15-19	20-29	30-39	40-49	50-59	Total
Smokes cigarettes only	1.1	17.7	17.6	14.8	16.8	13.7
Smokes pipe only	0.0	0.0	0.0	0.3	0.0	0.0
Smokes other tobacco only	0.1	6.9	16.5	21.1	21.7	10.8
Smokes tobacco in two or more of these forms	0.5	1.5	2.6	4.2	0.5	1.8
Does not smoke	98.1	73.9	63.3	59.6	61.0	73.6
Missing	0.2	0.0	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	459	706	523	287	171	2,145
Mean number of cigarettes smoked in 24 hours	*	4.3	4.5	4.6	(6.9)	4.6
Number of men	7	136	105	55	29	332

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.

Table 3.18 shows the percentage of women and men who currently smoke tobacco by background characteristics. The table illustrates that women and men who are divorced/separated/widowed, those who live in rural areas, those who have no education, and those involved in agricultural activities are the most likely to smoke tobacco.

Table 3.18 Smoking of tobacco by background characteristics

Percentage of women and men who currently smoke tobacco, by background characteristics, Zambia 2001-2002

Background characteristic	Women		Men	
	Currently smokes tobacco	Number of women	Currently smokes tobacco	Number of men
Marital status				
Never married	0.4	1,897	9.5	782
Married or living together	3.0	4,694	34.4	1,248
Divorced/separated/widowed	5.6	1,067	53.8	116
Residence				
Urban	1.3	3,073	22.4	851
Rural	3.7	4,585	29.0	1,294
Province				
Central	1.2	562	22.1	165
Copperbelt	1.1	1,544	19.5	447
Eastern	1.2	926	32.0	268
Luapula	3.7	622	37.6	166
Lusaka	1.0	1,132	23.0	314
Northern	1.9	1,040	26.3	292
North-Western	1.5	354	25.2	93
Southern	1.4	814	27.3	232
Western	15.3	663	34.4	169
Education				
No education	8.3	925	41.0	108
Primary	2.7	4,439	29.1	1,100
Secondary	0.5	2,061	23.4	808
Higher	0.0	234	9.5	129
Occupation				
Professional/technical/ managerial	0.0	175	10.9	93
Clerical	0.0	71	23.1	13
Sales and services	3.7	1,095	32.0	307
Skilled manual	2.3	200	27.2	273
Unskilled manual	0.0	13	31.8	23
Domestic service	2.1	449	18.4	104
Agriculture	4.9	2,354	36.2	862
Not working	1.1	3,274	8.3	451
Missing	2.3	27	23.8	19
Total	2.7	7,658	26.4	2,145

FERTILITY

4

Richard Banda and Margaret T. Mwanamwenge

This chapter presents the 2001-2002 ZDHS results on fertility levels, trends, and differentials. The analysis is based on the birth histories collected from women age 15-49 interviewed during the survey. To obtain this information, women were first asked a series of questions to determine the total number of live births they had in their lifetime. Second, for each live birth, information was collected on the age, sex, and survival status of the child. For dead children, age at death was recorded. Information from the birth history is used to assess current and completed fertility and to look at other factors related to fertility, including age at first birth, birth intervals, and teenage childbearing.

The following measures of current fertility are derived from birth history data:

- **Age-specific fertility rates** (ASFR) are expressed as the number of births per thousand women in the age group and represent a valuable measure for assessing the current age pattern of childbearing. They are defined in terms of the number of live births during a specified period to women in the particular age group divided by the number of woman-years lived in that age group during the specified period.

- **Total fertility rate** (TFR) is defined as the total number of births a woman would have by the end of her childbearing period if she were to pass through those years bearing children at the currently observed rates of age-specific fertility. The TFR is obtained by summing the age-specific fertility rates and multiplying by five.

- **General fertility rate** (GFR) is the number of live births occurring during a specified period per 1,000 women of reproductive age.

- **Crude birth rate** (CBR) is the number of births per 1,000 population during a specified period.

The various measures of current fertility are calculated for the three-year period just prior to the survey, which roughly corresponds to the calendar period 1999-2001. This period was chosen because it reflects the current situation while also allowing the rates to be calculated without compromising the statistical precision of estimates.

4.1 FERTILITY LEVELS AND TRENDS

4.1.1 Fertility Levels

Table 4.1 presents information on the current fertility levels for Zambia as a whole and for urban and rural areas. According to the 2001-2002 ZDHS results, the total fertility rate is 5.9 (Table 4.1). This means that the average Zambian woman who is at the beginning of her childbearing years will give birth to 5.9 children by the end of her reproductive period if fertility levels remain constant at the level observed in the three-year period before the 2001-2002 ZDHS.

The TFR from the 2001-2002 ZDHS is almost the same as that from the 2000 Census of Population and Housing, which stands at 6.0. The general fertility rate is 204. This means that there were 204 births for every 1,000 women during the three-year period preceding the survey. The table also shows a crude birth rate of 43.3 per 1,000 population for the period under review.

The TFR for rural areas (6.9 births) is considerably higher than the rate for urban areas (4.3 births). Table 4.1 also shows that urban-rural differences in childbearing rates are evident for all age groups. The difference is especially large in the age group 20-24; the rate among rural women in this cohort exceeds 300 births per thousand, compared with an urban rate of just below 200 births per thousand.

Table 4.1 Current fertility

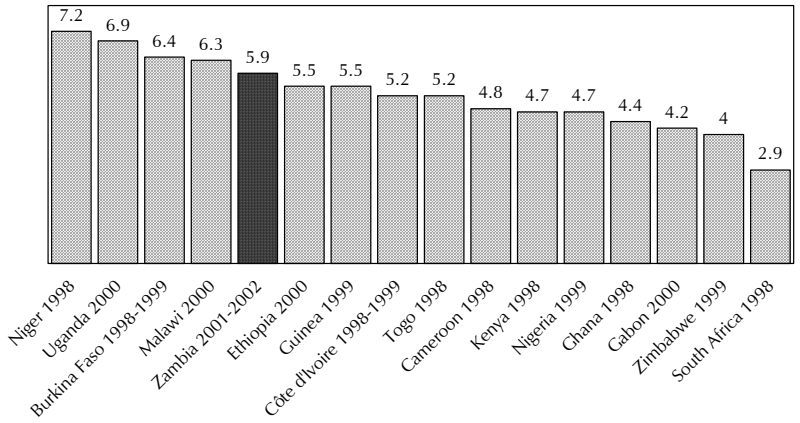
Age-specific and cumulative fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by urban-rural residence, Zambia 2001-2002

	Residence		
Age group	Urban	Rural	Total
15-19	127	185	160
20-24	192	320	266
25-29	197	288	249
30-34	159	254	218
35-39	113	204	172
40-44	43	101	79
45-49	25	33	30
TFR 15-49	4.3	6.9	5.9
GFR	153	239	204
CBR	36.7	47.0	43.3

Note: Rates for age group 45-49 may be slightly biased due to truncation.
TFR: Total fertility rate for ages 15-49, expressed per woman
GFR: General fertility rate (births divided by the number of women 15-44) expressed per 1,000 women
CBR: Crude birth rate expressed per 1,000 population

As the comparison in Figure 4.1 indicates, Zambia's fertility rate remains one of the highest in sub-Saharan Africa.

Figure 4.1 **Total Fertility Rates, Selected Sub-Saharan Countries, 1998-2001**



4.1.2 Differentials in Current and Completed Fertility

Table 4.2 presents differentials in two measures of current fertility, the TFR and the percentage currently pregnant, by key background characteristics. The percentage currently pregnant provides a useful additional measure of current fertility. However, it is recognised that it does not capture all of the women pregnant since some women may by unaware of, or reluctant to discuss, a pregnancy in its early stages. The table also shows differentials in the mean number of children ever born alive to women age 40-49, that is, to women who are at the end of their childbearing years. The latter is a measure of completed or past fertility. The mean number of children ever born to women 40-49 can be compared with the current TFR in order to assess the extent of fertility change over the last two decades in Zambia. Overall, women age 40-49 report having given birth to an average of 7.1 children. Comparing this with the TFR of 5.9 is another indication that there has been a decline in fertility of about 1 child over the past 10 to 20 years.

Table 4.2 shows that the total fertility rate increases with decreasing level of education. Women who have had no education have a TFR of 7.4, while those who have at least some secondary education have a rate of 3.9 (Figure 4.2). Considering provincial differences, Luapula has the highest fertility rate (7.3), followed by Northern (6.9), while Lusaka province has the lowest rate (4.3). Compared with the national average of 5.9, only Copperbelt and Lusaka have lower rates; the rest of the provinces are above the national average (Figure 4.3).

Table 4.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Zambia 2001–2002

Background characteristic	Total fertility rate[1]	Percentage currently pregnant[1]	Mean number of children ever born to women age 40-49
Residence			
Urban	4.3	7.5	6.8
Rural	6.9	12.1	7.3
Province			
Central	6.2	12.0	7.6
Copperbelt	4.5	9.1	7.2
Eastern	6.8	11.0	7.2
Luapula	7.3	12.9	7.2
Lusaka	4.3	7.8	6.5
Northern	6.9	11.3	7.2
North-Western	6.8	10.4	7.3
Southern	6.1	10.2	7.3
Western	6.4	10.1	6.5
Education			
No education	7.4	11.0	7.3
Primary	6.5	11.2	7.4
Secondary or higher	3.9	7.9	6.0
Total	5.9	10.2	7.1

[1] Women age 15-49 years

Figure 4.2 **Total Fertility Rate by Education Level**

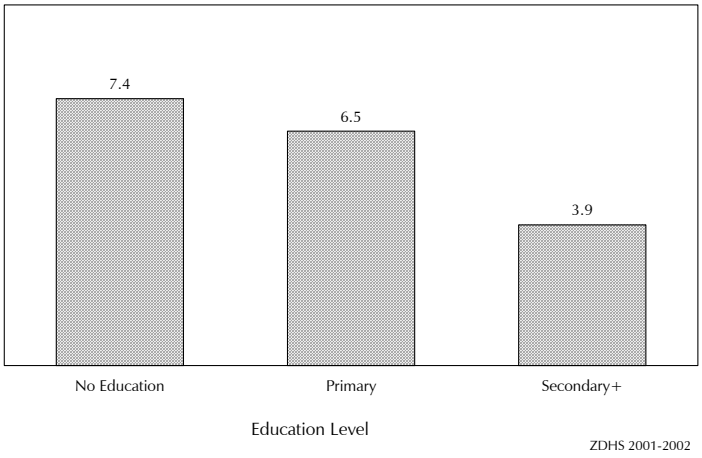
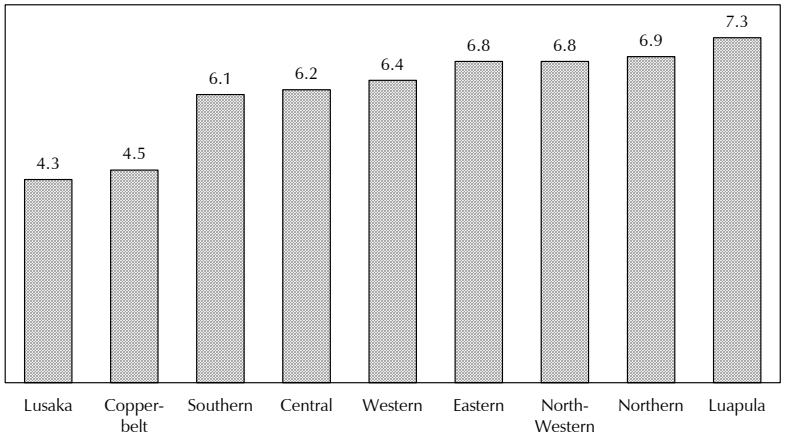


Figure 4.3 **Total Fertility Rate by Province**



4.1.3 Trends in Fertility

Besides the comparison of current and completed fertility, the trend in fertility in Zambia can be assessed in several other ways. First, the TFR from the 2001-2002 ZDHS can be compared with estimates obtained in earlier surveys or censuses. Second, fertility trends can also be investigated using retrospective data from the birth histories collected from respondents in a single survey.

Comparison with previous data

Table 4.3 and Figure 4.4 show estimates of age-specific fertility rates (ASFR) from a series of surveys and censuses conducted in Zambia since 1980. In addition to the ZDHS, these sources include the 1980, 1990 and 2000 censuses and the earlier rounds of the ZDHS in 1992 and 1996.

Table 4.3 Trends in age-specific and total fertility rates, various sources

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

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

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, 2002b; CSO, MOH, and Macro International, 1997; Gaisie et al., 1993

There has been a decline in fertility from 7.2 births per woman at the time of the 1980 census to 5.9 births at the time of the 2001-2002 ZDHS. Most of the decline in fertility is due to lower fertility rates for women 25 years and older. Until 1992, the peak of the ASFR was in age group 25-29. Results from 1996 and 2001-2002 surveys as well as the 2000 Census show that the peak has shifted to the age group 20-24. This shift is commonly associated with declines in fertility.

Figure 4.4 **Trends in Age-Specific Fertility Rates 1980 Census, 1992 ZDHS, and 2001-2002 ZDHS**

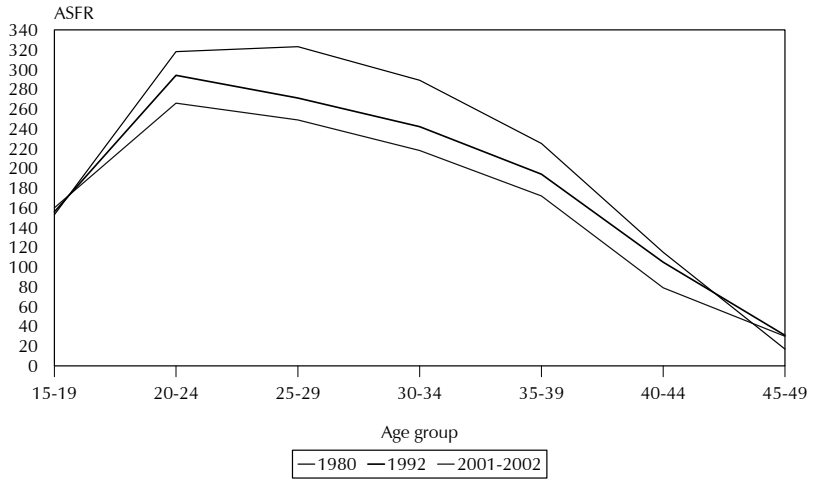


Table 4.4 shows the trends in the TFR by background characteristics for the 1992, 1996, and 2001-2002 ZDHS surveys. Urban areas have shown a sharp decline in fertility over the period covered by the ZDHS surveys. The urban TFR fell by 1.5 births between the 1992 and 2001-2002 surveys. In contrast, as Figure 4.5 shows, the rural TFR remained essentially stable over this period.

Considering provinces, Copperbelt and Lusaka are the only areas showing a consistent substantial fertility decline over the period. Among other provinces, the trend is consistently downward in Central, Northern, and Southern but the changes particularly between the 1996 and 2001-2002 surveys are modest in comparison to what occurred in Copperbelt and Lusaka. In North-Western, the TFR appears to have increased over the period (perhaps as a result of improved reporting of births rather than a genuine increase), while the pattern in Luapula and Western fluctuated over the period.

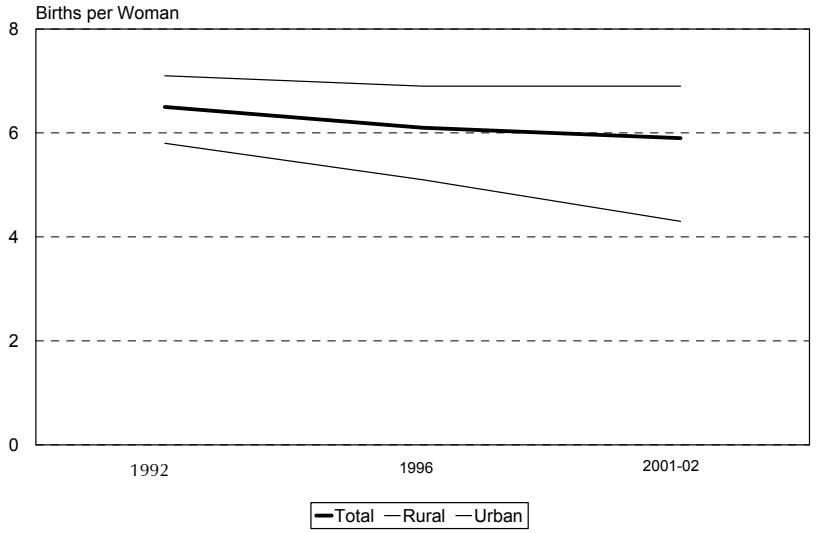
The TFR of women who have had no education fluctuated over the period, decreasing between the 1992 and 1996 surveys and then rising between the 1996 and 2001-2002 surveys. Among those with primary education, the TFR has been decreasing slowly. Women who have at least some secondary education, in contrast, experienced a steady decline in fertility, with the TFR for this group dropping by one birth over the period covered by the three surveys.

Table 4.4 Trends in fertility by background characteristics

Total fertility rate for the three years preceding the survey, by background characteristics, Zambia 1992, 1996, and 2001-2002

Background characteristic	1992 ZDHS	1996 ZDHS	2001-2002 ZDHS
Residence			
Urban	5.8	5.1	4.3
Rural	7.1	6.9	6.9
Province			
Central	6.8	6.3	6.2
Copperbelt	6.2	5.6	4.5
Eastern	6.8	7.1	6.8
Luapula	7.4	6.8	7.3
Lusaka	5.5	4.9	4.3
Northern	7.4	7.2	6.9
North-Western	6.0	6.2	6.8
Southern	7.1	6.2	6.1
Western	6.0	5.5	6.4
Education			
No education	7.1	6.8	7.4
Primary	6.8	6.7	6.5
Secondary or higher	4.9	4.5	3.9
Total	6.5	6.1	5.9

Figure 4.5 **Trends in the Total Fertility Rate, by Urban-rural Residence, 1992 ZDHS, 1996 ZDHS, and 2001-2002 ZDHS**



Retrospective data from 2001-2002 birth histories

Table 4.5 presents the trend in age-specific fertility rates for successive five-year periods before the survey, generated from the birth history data collected in the 2001-2002 ZDHS. The numerators of the rates are classified by five-year segments of time preceding the survey and the mother's age at the time of birth. Because women 50 years and over were not interviewed in the survey, 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 and more prior to the survey, because women in that age group would have been 50 years or older at the time of the survey. Partially truncated rates are enclosed in brackets in the table.

Table 4.5 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 2001-2002

Mother's age at time of the birth	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
15-19	161	161	168	183
20-24	267	298	302	314
25-29	247	285	300	298
30-34	220	264	268	[279]
35-39	168	206	[216]	
40-44	83	[140]		
45-49	[28]			

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

The table shows that fertility has been declining in all age groups except at age 15-19 where fertility has remained at the same level in the periods 5-9 and 0-4 years prior to the survey.

4.2 Children Ever Born and Children Surviving

Table 4.6 presents the distribution of all women and currently married women by parity, that is, the number of children ever born, and the mean number of children ever born and children surviving among women in each five-year age group.

Table 4.6 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born, and mean number of children ever born and mean number of living children, according to age group, Zambia 2001-2002

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	74.1	21.4	4.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,811	0.31	0.27
20-24	21.4	30.1	28.5	15.8	3.9	0.4	0.0	0.0	0.0	0.0	0.0	100.0	1,664	1.52	1.29
25-29	7.8	12.5	19.1	23.8	21.2	11.6	3.4	0.4	0.2	0.0	0.0	100.0	1,376	2.90	2.42
30-34	4.0	5.9	9.1	13.3	18.2	20.3	16.4	8.7	3.1	0.6	0.5	100.0	972	4.33	3.62
35-39	2.5	5.2	6.2	7.0	9.5	13.3	15.2	15.4	13.9	7.4	4.4	100.0	766	5.65	4.65
40-44	1.7	1.9	3.7	6.9	7.2	7.9	11.5	12.6	17.4	11.5	17.7	100.0	601	6.87	5.66
45-49	1.8	2.7	3.8	3.8	7.1	6.4	9.1	11.5	13.9	13.7	26.1	100.0	467	7.43	5.80
Total	24.6	15.4	12.9	11.0	8.9	7.1	5.7	4.4	4.0	2.6	3.5	100.0	7,658	3.03	2.50
CURRENTLY MARRIED WOMEN															
15-19	31.8	53.3	13.1	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	438	0.85	0.74
20-24	9.5	27.5	35.8	21.0	5.5	0.6	0.0	0.0	0.0	0.0	0.0	100.0	1,086	1.87	1.60
25-29	3.6	10.0	17.5	24.9	25.0	14.2	4.1	0.5	0.2	0.0	0.0	100.0	1,056	3.21	2.70
30-34	1.7	3.4	7.9	12.1	19.4	21.4	18.7	10.3	3.8	0.7	0.6	100.0	756	4.68	3.93
35-39	1.8	3.7	5.4	6.3	7.7	12.5	15.4	17.5	15.9	8.1	5.6	100.0	591	6.00	4.94
40-44	1.5	1.4	3.0	4.8	7.4	5.3	11.3	13.2	18.0	12.6	21.5	100.0	449	7.25	6.03
45-49	1.8	1.5	3.7	2.0	6.5	4.9	8.1	11.3	12.1	16.6	31.6	100.0	318	7.93	6.21
Total	6.7	14.8	15.9	13.9	12.2	9.2	7.5	6.0	5.2	3.5	5.0	100.0	4,694	3.97	3.30

Results from the 2001-2002 ZDHS indicate that women in Zambia in their late twenties have about 2.9 children. By the time they reach the end of their reproductive years (age 45-49), women in Zambia have given birth, on average, to 7.4 children, with 5.8 surviving.

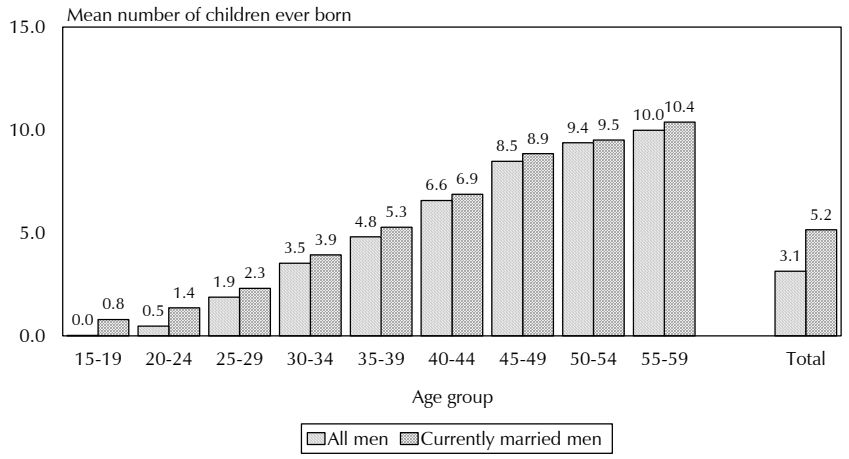
The most significant difference in the total number of children ever born between all women and currently married women is found in the youngest age group, 15-19. This is because many women in this age group have not yet married and hence the exposure to the risk of pregnancy is lower than for older women. Differences at older ages (40-44 and 45-49) reflect the impact of marital dissolution (divorce or widowhood) on fertility.

The parity distribution of older, currently married women provides a measure of primary infertility, that is, the proportion of women who are unable to have children at all. This is because voluntary childlessness is rare in Zambia, and married women with no live births are likely to be unable to have children.

ZDHS results suggest that primary infertility is low in Zambia, with about 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).

Figure 4.6 shows the distribution of all men and currently married men by mean number of children ever born. The mean number of children ever born among all men (3.1 children) is similar to the mean number of children ever born among all women (3 children) (Table 4.6). However, the mean number of children ever born among currently married men is higher than the mean number of children ever born among currently married women. This may be due to the high prevalence of polygynous marriages in Zambia. Men in such marriages often have more children than other men because having more than one wife increases the likelihood that they will father a greater number of children.

Figure 4.6 **Percent Distribution of All Men and Currently Married Men by Number of Children Ever Born, According to Age Group**



ZDHS 2001-2002

4.3 BIRTH INTERVALS

The birth interval refers to the period of time between two successive live births. Research has shown that births born too soon after a previous birth are at an increased risk of dying, particularly when the interval between births is less than 36 months.

Table 4.7 shows the distribution of births in the five-year period preceding the survey by the number of months since the previous birth, according to selected demographic and socio-economic variables. First births are omitted from the table because there is no prior birth with which to measure an interval.

Table 4.7 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, according to background characteristics, Zambia 2001-2002

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+			
Age								
15-19	10.0	19.9	49.9	16.9	3.3	100.0	88	27.1
20-29	6.8	11.3	47.1	22.1	12.7	100.0	2,703	31.7
30-39	4.6	8.6	40.7	24.1	22.0	100.0	1,837	34.7
40-49	5.2	6.8	25.1	24.9	38.0	100.0	497	40.8
Birth order								
2-3	6.3	11.5	44.0	22.4	15.9	100.0	2,247	32.6
4-6	5.1	9.3	43.5	22.7	19.5	100.0	1,876	33.7
7+	6.8	8.3	38.3	24.9	21.8	100.0	1,001	35.0
Sex of preceding birth								
Male	6.4	10.2	41.9	24.1	17.4	100.0	2,629	33.4
Female	5.5	9.9	43.5	21.8	19.3	100.0	2,496	33.2
Survival of preceding birth								
Living	2.7	8.6	44.9	24.6	19.1	100.0	4,246	34.2
Dead	21.6	16.8	32.1	15.0	14.5	100.0	878	27.6
Residence								
Urban	3.7	8.6	39.5	25.0	23.2	100.0	1,474	35.5
Rural	6.8	10.6	44.0	22.2	16.4	100.0	3,650	32.5
Province								
Central	6.5	11.5	47.1	20.6	14.2	100.0	395	31.1
Copperbelt	4.5	9.0	41.6	24.4	20.5	100.0	802	34.4
Eastern	5.7	9.7	43.0	23.9	17.8	100.0	694	33.8
Luapula	8.9	12.8	47.1	18.1	13.0	100.0	503	30.2
Lusaka	3.6	7.8	42.9	22.2	23.6	100.0	568	34.8
Northern	6.3	11.8	39.1	24.3	18.6	100.0	793	33.8
North-Western	5.0	10.3	45.5	23.8	15.4	100.0	289	33.3
Southern	6.5	11.8	43.4	22.5	15.8	100.0	583	32.1
Western	7.2	5.7	39.2	25.3	22.6	100.0	495	35.3
Education								
No education	6.8	10.6	41.1	21.3	20.1	100.0	813	33.2
Primary	6.3	9.9	44.8	22.4	16.7	100.0	3,348	32.7
Secondary	4.3	10.1	38.0	26.2	21.5	100.0	912	35.1
Higher	0.0	11.1	16.3	30.7	41.9	100.0	52	43.0
Total	5.9	10.0	42.7	23.0	18.3	100.0	5,125	33.3

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.

The median birth interval is 33 months, 3 months shorter than the minimum "safe period" of 36 months. This is one month longer than the 1996 ZDHS estimate of 32 months.

Sixteen percent of all non-first births occur less than 24 months after the earlier birth. This indicates a decline of 3 percentage points between 1996 and 2001-2002 in the number of births occurring before 24 months (from 19 to 16 percent).

About 43 percent of births occur 24-35 months after an earlier birth compared with 45 percent in 1996. However, 41 percent of births occur 3 or more years after an earlier birth, indicating an increase from the 1996 figure of 36 percent.

There are no differences in the median birth interval by sex of child. Variations are however present in the birth interval for surviving and dead siblings. As expected, children whose preceding sibling died have a shorter birth interval than those whose older sibling survived (28 versus 34 percent). This is presumably due to the desire of the parents to replace dead children, as well as to the loss of the fertility-delaying effects of breastfeeding.

Urban women have a slightly longer period between births (36 months) compared with rural women (33 months). Provincial variations in birth intervals range from 30 months for Luapula to 35 months for Western and Lusaka. Women with higher than secondary education have the longest birth interval (43 months), while women with only a primary education or those who never attended school have the shortest birth interval (33 months).

4.4 AGE AT FIRST BIRTH

One of the factors that determine fertility in a population is the average age at first birth. Women who marry early are typically exposed to the risk of pregnancy for a longer period. Thus early childbearing generally leads to a large family size. It is also associated with increased health risk for the mother and child. A rise in the median age at first birth is typically a sign of transition to lower fertility. Table 4.8 shows the percentage of women who have given birth by specific ages and the median age at first birth, according to current age.

Table 4.8 Age at first birth

Among all women, percentage who gave birth by specific exact ages, and median age at first birth, by current age, Zambia 2001-2002

	Percentage of women who have given birth by exact age:					Percentage who have never given birth	Number of women	Median age at first birth
Current age	15	18	20	22	25			
15-19	2.0	na	na	na	na	74.1	1,811	a
20-24	3.7	34.6	60.9	na	na	21.4	1,664	19.1
25-29	2.5	33.6	62.4	79.3	88.7	7.8	1,376	19.0
30-34	3.7	37.4	65.0	80.7	91.2	4.0	972	18.8
35-39	5.2	41.5	69.2	82.7	92.4	2.5	766	18.5
40-44	8.2	44.9	70.9	87.6	93.4	1.7	601	18.3
45-49	11.4	48.0	72.0	83.8	92.5	1.8	467	18.2

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

Childbearing begins early in Zambia. Most women typically become mothers before the age of 20, with 60 to 70 percent of women in all age groups having given birth by that age. By age 18, 48 percent of women age 45-49 had their first birth, compared with 35 percent of those currently age 20-24. This reduction in the percentage of women giving birth early implies that more young women are postponing childbearing.

4.5 MEDIAN AGE AT FIRST BIRTH BY BACKGROUND CHARACTERISTICS

Table 4.9 shows median age at first birth by background characteristics. Overall, the median age at first birth for women age 25-49 in Zambia is 18.7 years. Urban women age 25-49 have a higher median age at first birth (19.0 years) than their rural counterparts (18.6 years). Across provinces, the median age at first birth for women age 25-49 ranges from a low of 18.2 years in North-Western to a high of 19.3 years in Lusaka.

Women with higher education have a median age at first birth of 20 years, which is 2 years older than the median age for women with no education (18.2 years). This indicates that education contributes to postponement of childbearing, thereby decreasing fertility.

Table 4.9 Median age at first birth by background characteristics

Median age at first birth among women 20-49 years, by current age and background characteristics, Zambia 2001-2002

Background characteristic	Current age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	20.0	19.5	19.3	18.5	18.4	17.9	19.2	19.0
Rural	18.6	18.8	18.6	18.6	18.3	18.4	18.6	18.6
Province								
Central	18.7	18.8	19.1	18.0	17.7	17.5	18.5	18.4
Copperbelt	19.7	19.2	18.5	18.0	18.0	17.4	18.8	18.5
Eastern	18.8	19.1	18.9	18.5	18.6	19.8	18.9	18.9
Luapula	19.1	19.5	19.1	18.2	(18.2)	17.4	18.8	18.6
Lusaka	19.7	19.3	20.0	19.1	18.6	(18.2)	19.4	19.3
Northern	19.0	18.8	18.8	18.6	18.8	19.1	18.8	18.8
North-Western	18.9	19.0	18.2	17.8	17.6	18.0	18.4	18.2
Southern	18.8	18.3	18.4	18.9	18.1	(17.5)	18.4	18.3
Western	18.4	19.0	18.7	19.4	18.7	(19.9)	18.9	19.0
Education								
No education	18.2	18.5	18.4	18.1	17.8	18.1	18.2	18.2
Primary	18.5	18.6	18.5	18.3	18.2	17.8	18.4	18.4
Secondary or higher	a	20.3	19.9	20.0	19.5	19.7	a	20.0
Total	19.1	19.0	18.8	18.5	18.3	18.2	18.8	18.7

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

[a] Omitted because less than 50 percent of the women had a birth before the beginning of the age group.

4.6 TEENAGE FERTILITY

Adolescent childbearing has potentially negative demographic and social consequences. Teenage mothers, especially those under the age of 18, have been shown to be more likely to suffer from pregnancy and delivery complications than older mothers, resulting in higher morbidity and mortality for both themselves and their children. In addition, early childbearing limits a teenager's ability to pursue educational opportunities as well as job opportunities. Table 4.10 shows the percentage of adolescent women (age 15-19) who are mothers or pregnant with their first child, by background characteristics.

More than one in four teenagers in Zambia has either already had a child (26 percent) or is pregnant with her first child (6 percent). Urban and better educated teens tend to start childbearing later than rural teens and those with less education. By province, the percentage of women age 15-19 who are mothers ranges from 21 percent in Copperbelt to 32 percent in Eastern. Teenage childbearing has fluctuated over the period, declining from 34 percent in 1992 to 31 percent in 1996, and then increasing slightly to 32 percent in 2001-2002.

Table 4.10 Teenage pregnancy and motherhood

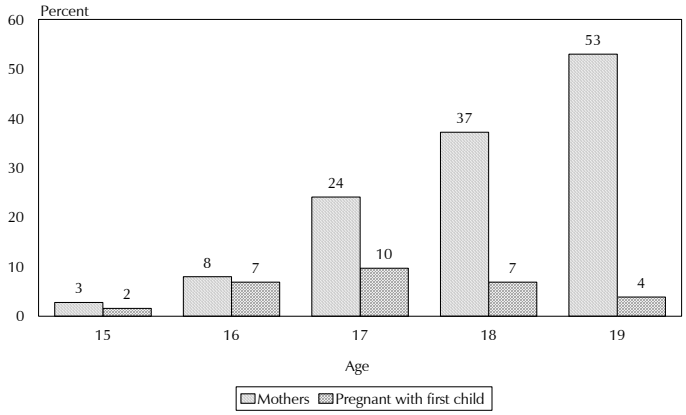
Percentage of women age 15-19 who are mothers or pregnant with their first child, by background characteristics, Zambia 2001-2002

Background characteristic	Percentage who are: Mothers	Percentage who are: Pregnant with first child	Percentage who have begun child-bearing	Number of women
Age				
15	2.8	1.6	4.5	365
16	8.0	6.9	15.0	330
17	24.1	9.7	33.8	326
18	37.2	6.9	44.2	417
19	53.0	3.9	56.9	374
Residence				
Urban	22.6	4.5	27.1	763
Rural	28.2	6.6	34.9	1,048
Province				
Central	26.9	5.4	32.3	141
Copperbelt	21.3	5.1	26.4	386
Eastern	32.3	3.1	35.4	199
Luapula	30.2	6.3	36.5	158
Lusaka	24.0	4.9	28.9	258
Northern	24.3	6.3	30.6	256
North-Western	27.3	6.1	33.3	80
Southern	25.9	6.0	31.9	191
Western	29.1	10.6	39.7	143
Education				
No education	37.8	7.8	45.6	145
Primary	29.8	5.9	35.7	1,053
Secondary	16.4	5.0	21.4	612
Total	25.9	5.7	31.6	1,811

Note: Table excludes one respondent with higher than secondary education.

Figure 4.7 shows data on teenage pregnancy and motherhood by age. The rates increase slowly between 15 and 16 years, after which the increase is rapid. In the case of first pregnancy, the increase is slow between 15 and 17, after which it starts declining.

Figure 4.7 **Percentage of Teenagers Who are Mothers or Pregnant with Their First Child**



ZDHS 2001-2002

FERTILITY REGULATION 5

Mika Bwembya and Margaret T. Mwanamwenge

This chapter presents the 2001-2002 ZDHS results on contraceptive knowledge, attitudes, and behaviour. Although the focus is on women, some results from the male survey will also be presented since men play an important role in the realisation of reproductive goals. Comparisons are also made, where feasible, with findings from previous surveys in order to evaluate trends occurring in Zambia over the last decade.

5.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Acquiring knowledge about fertility control is an important step toward gaining access to and then using a suitable contraceptive method in a timely and effective manner. Information on knowledge of contraception was collected in two ways. First, respondents were asked to name ways or methods couples can use to prevent or delay pregnancy. When a respondent failed to mention a particular method spontaneously, the interviewer described the method and asked whether the respondent knew it. Using this approach, information was collected for ten modern family planning methods: female and male sterilisation, the pill, the IUD, injectables, implants, male and female condoms, vaginal methods (including foam tablets/diaphragm/jelly), and emergency contraception. Information was also collected on three traditional methods: the lactational amenorrhoea method (LAM),[1] rhythm or natural family planning, and withdrawal. Provision was also made in the questionnaire to record any other methods named spontaneously by respondents. Both prompted and unprompted knowledge are combined in this report.

Tables 5.1.1 and 5.1.2 show the level of knowledge of contraceptive methods among all women and men, currently married women and men, sexually active unmarried women and men, sexually inactive unmarried women and men, and for women and men with no sexual experience, by specific method.

The data show that knowledge of any contraceptive method is almost universal in Zambia, with 98 percent of all women and men knowing at least one method of contraception. Modern methods are more widely known than traditional methods. The data show that 98 percent of all women know of a modern method, compared with 72 percent who know of a traditional one. Among modern methods, the male condom is the most commonly known (94 percent) closely followed by the pill (93 percent). Emergency contraception is the least known, reported by 9 percent of all women. Among the traditional methods, withdrawal is the most commonly known (56 percent).

Currently married women show a somewhat similar picture, especially regarding level of knowledge. Among currently married women, 99 percent know at least one method of contraception, 99 percent know a modern method, and 83 percent know a traditional method. Among modern methods, the most commonly known are the pill and the male condom (96 percent each).

[1] Although LAM is considered a modern method of family planning, analysis of the ZDHS data indicates that many women confused it with simple breastfeeding so, rather than present misleading data, it was decided to classify LAM as traditional.

Table 5.1.1 Knowledge of contraceptive methods: women

Percentage of all women, of currently married women, of sexually active unmarried women, of sexually inactive unmarried women, and of women with no sexual experience who know any contraceptive method, by specific method, Zambia 2001-2002

Contraceptive method	All women	Currently married women	Unmarried women who ever had sex: Sexually active[1]	Unmarried women who ever had sex: Not sexually active[2]	Unmarried women who never had sex
Any method	97.8	99.3	97.4	98.5	88.8
Any modern method	97.6	99.0	97.4	98.4	88.8
Female sterilisation	71.8	76.9	68.4	73.3	43.7
Male sterilisation	22.6	24.6	20.8	22.5	12.9
Pill	92.9	96.2	91.7	94.4	73.5
IUD	40.2	45.7	34.3	40.6	13.4
Injectables	81.4	86.9	81.6	83.0	50.2
Implants	30.9	35.2	22.7	30.8	11.4
Male condom	94.1	95.5	95.5	95.5	83.6
Female condom	57.8	59.4	57.6	61.0	43.2
Diaphragm/Foam/Jelly	29.4	34.1	25.6	28.0	9.5
Emergency contraception	9.4	9.9	13.0	10.2	4.5
Any traditional method	71.6	82.6	63.3	68.9	23.1
Lactational amenorrhoea[3]	33.2	39.7	26.6	30.3	7.3
Rhythm/Natural family planning	35.6	38.2	33.6	38.3	17.2
Withdrawal	56.2	67.6	49.1	51.5	9.0
Other	25.7	31.9	18.2	21.3	4.6
Mean number of methods known	6.8	7.4	6.4	6.8	3.8
Number of women	7,658	4,694	321	1,735	907

[1] Had sexual intercourse in the one month preceding the survey
[2] Did not have sexual intercourse in the one month preceding the survey
[3] Lactational amenorrhoea method (LAM) is usually considered a modern method. However, analysis of the 2001-2002 ZDHS data indicates that many women confused it with simple breastfeeding so, rather than present misleading data, it was decided to classify LAM as a traditional method.

Contraceptive knowledge is lower among unmarried women who have not had sex than among those who initiated sexual activity. Unmarried women reported the male condom to be the most commonly known method, closely followed by the pill, regardless of their sexual activity status.

Among men, 98 percent know of at least one method of contraception. Like women, a larger proportion of men (98 percent) know a modern method than a traditional method (74 percent). The most commonly known modern method is the male condom (98 percent). Similarly, withdrawal is the most commonly known traditional method. It is worth noting that knowledge of emergency contraception and implants is much lower for men than for women.

Looking at the number of methods known, it is clear that knowledge of specific methods is lowest among both women and men who never had sex. For example, while married women have heard of an average of 7.4 methods and married men 6.9 methods, unmarried women who have never had sex report only knowing an average of 3.8 methods and unmarried men who never had sex 2.8 methods.

Table 5.1.2 Knowledge of contraceptive methods: men

Percentage of all men, of currently married men, of sexually active unmarried men, of sexually inactive unmarried men, and of men with no sexual experience who know any contraceptive method, by specific method, Zambia 2001-2002

Contraceptive method	All men	Currently married men	Unmarried men who ever had sex: Sexually active[1]	Unmarried men who ever had sex: Not sexually active[2]	Unmarried men who never had sex
Any method	98.1	99.6	98.7	99.0	84.8
Any modern method	98.0	99.6	98.7	99.0	84.8
Female sterilisation	62.7	73.7	61.3	53.0	28.2
Male sterilisation	30.0	32.7	35.9	28.1	15.9
Pill	82.6	92.9	81.5	76.2	40.9
IUD	23.8	29.3	16.2	18.5	6.9
Injectables	62.6	74.8	61.0	52.9	20.2
Implants	14.7	17.4	9.8	13.1	3.4
Male condom	97.5	98.9	96.0	98.7	84.3
Female condom	57.2	59.8	46.1	59.6	33.6
Diaphragm/Foam/Jelly	21.7	24.2	14.7	21.0	8.1
Emergency contraception	1.8	1.8	0.0	2.0	1.3
Any traditional method	74.1	87.9	71.9	64.3	22.8
Lactational amenorrhoea[3]	22.4	28.1	18.4	17.1	4.9
Rhythm/Natural family planning	51.6	61.2	45.0	44.6	16.6
Withdrawal	63.9	78.4	61.0	52.1	15.0
Other	14.3	19.4	19.6	8.1	4.1
Mean number of methods known	6.1	6.9	5.7	5.4	2.8
Number of women	2,145	1,248	83	667	202

[1] Had sexual intercourse in the one month preceding the survey
[2] Did not have sexual intercourse in the one month preceding the survey
[3] Lactational amenorrhoea method (LAM) is usually considered a modern method. However, analysis of the 2001-2002 ZDHS data indicates that many women confused it with simple breastfeeding so, rather than present misleading data, it was decided to classify LAM as a traditional method.

There has been an increase in levels of awareness of contraceptive methods over time. Among all women, the proportion who know any method has risen since 1996 for all methods except the IUD and natural family planning. The proportion who know of injectables has risen steeply, from 53 percent of women in 1996 to 81 percent in 2001-2002. The mean number of methods known has increased from 5.3 to 6.8 for women and from 5.0 to 6.1 for men.

5.2 EVER USE OF CONTRACEPTION

All women interviewed in the survey who said they had heard of a method of family planning were asked whether they had ever used that method. Men were asked if they had ever used "male-oriented" methods, i.e., male sterilisation, condoms, rhythm method, and withdrawal. Tables 5.2 and 5.3 show the percentages of women and men who have ever used family planning by specific method and age.

Table 5.2 Ever use of contraception: women

Percentage of all women, of currently married women, and of sexually active unmarried women who have ever used any contraceptive method, by specific method and age, Zambia 2001-2002

		Modern method										Traditional method					
Age	Any method	Any modern method	Female sterilisation	Pill	IUD	Injectables	Implants	Male condom	Female condom	Diaphragm foam/jelly	Emergency contraception	Any traditional method	LAM[1]	Rhythm/natural/family planning	Withdrawal	Other methods	Number of women
ALL WOMEN																	
15-19	23.2	19.0	0.0	5.9	0.0	1.7	0.0	14.3	0.4	0.4	0.0	9.3	1.4	1.7	6.0	1.7	1,811
20-24	59.0	45.1	0.1	26.2	0.1	7.2	0.1	28.0	1.1	1.7	0.2	33.3	6.5	7.0	24.4	3.9	1,664
25-29	71.9	55.5	0.4	40.9	0.5	15.0	0.5	28.7	2.2	3.0	0.6	43.1	10.0	9.8	30.2	7.4	1,376
30-34	75.7	56.1	1.4	43.0	0.8	14.7	1.0	26.2	1.2	3.7	0.3	47.7	12.4	9.7	32.8	10.8	972
35-39	70.4	48.3	3.8	36.5	2.2	11.9	0.8	18.3	0.6	3.5	0.4	46.7	11.7	8.2	29.8	11.6	766
40-44	70.1	46.3	7.1	36.8	1.9	13.8	0.3	11.0	0.3	3.7	0.1	44.6	10.8	7.6	29.5	11.2	601
45-49	64.1	34.8	4.4	27.5	3.2	6.9	0.5	5.1	0.8	1.8	0.5	46.4	12.1	7.8	27.4	14.5	467
Total	57.3	42.0	1.5	28.1	0.8	9.2	0.4	20.9	1.0	2.2	0.3	34.2	7.9	6.8	23.3	6.9	7,658
1996	48.9	32.6	1.4	20.7	1.3	1.8	0.0	17.0	na	1.6	na	28.2	na	10.8	19.2	11.8	8,021
1992	39.9	22.9	1.5	15.5	2.2	1.5	na	9.1	na	1.5	na	27.5	na	7.1	18.0	8.9	7,060
CURRENTLY MARRIED WOMEN																	
15-19	48.2	36.1	0.0	16.9	0.0	5.3	0.0	21.9	0.4	1.0	0.0	24.7	4.4	3.1	17.3	3.8	438
20-24	66.8	48.8	0.0	32.4	0.0	8.0	0.1	27.3	0.9	2.4	0.3	41.9	8.9	7.3	31.6	5.4	1,086
25-29	75.5	56.8	0.4	44.1	0.6	16.1	0.5	27.1	1.9	3.4	0.8	47.0	12.2	10.4	32.7	9.0	1,056
30-34	78.9	56.6	1.3	45.2	1.0	16.8	0.8	24.7	1.2	4.0	0.3	51.6	14.0	10.5	35.3	12.1	756
35-39	70.4	47.0	4.4	36.6	2.2	13.0	0.9	15.9	0.8	3.6	0.5	47.6	11.5	8.8	30.4	11.9	591
40-44	73.4	47.5	8.1	38.5	1.5	15.8	0.4	10.9	0.4	4.0	0.0	47.9	11.6	7.6	31.2	13.2	449
45-49	66.2	33.6	6.0	26.6	2.8	7.4	0.7	4.8	1.1	1.4	0.8	50.5	14.0	8.6	30.0	15.8	318
Total	70.0	49.3	2.0	36.4	0.9	12.3	0.5	21.8	1.1	3.0	0.4	44.9	11.0	8.4	30.8	9.4	4,694
1996	59.4	38.5	2.0	26.0	1.5	2.1	0.0	18.6	na	2.0	na	35.9	na	12.5	25.5	15.7	4,902
1992	49.2	27.1	2.1	18.8	2.6	1.9	na	10.5	na	1.8	na	34.9	na	7.9	23.7	11.7	4,457
SEXUALLY ACTIVE UNMARRIED WOMEN[2]																	
Total	62.5	54.1	1.3	26.5	0.0	7.4	0.4	39.8	2.9	2.4	0.0	27.1	3.1	8.3	17.2	3.7	321
1996	51.1	40.0	0.0	18.8	1.5	2.3	0.0	29.5	na	2.9	na	23.3	na	11.8	13.2	8.2	492
1992	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na

na = Not applicable

[1] Lactational amenorrhoea method (LAM) is usually considered a modern method. However, analysis of the 2001-2002 ZDHS data indicates that many women confused it with simple breastfeeding so, rather than present misleading data, it was decided to classify LAM as a traditional method.

[2] Women who had sexual intercourse in the one month preceding the survey

Almost 60 percent of all women report having used a method of contraception at some time, 42 percent used a modern method, and 34 percent used a traditional method. Of the modern methods, the pill (28 percent) is the most common method followed by the male condom (21 percent). Implant and IUD are the least used methods with less than 1 percent reporting to have used either method. Of the traditional methods, withdrawal is the method most commonly used (23 percent) while rhythm/natural family planning the least commonly used by women (7 percent).

Seventy percent of currently married women have used a method of contraception at some time, 49 percent have used a modern method, while 45 percent have used a traditional method. Among sexually active unmarried women, 63 percent have used a method of contraception at some time. Sexually active unmarried women tend to use temporary methods of contraception rather than long-term or permanent methods. Two in five of these women have used a male condom, compared with only one in five married women.

Table 5.3 shows that two in three men reported having used a male method of contraception at some time, 48 percent used a modern male method and 49 percent used a traditional male method. Of the two male modern methods, male condom is more common (48 percent) than male sterilisation (less than 1 percent). For the traditional methods, withdrawal (36 percent) is more common than rhythm/natural family planning (28 percent).

Table 5.3 Ever use of contraception: men

Percentage of all men, of currently married men, and of sexually active unmarried men who have ever used any contraceptive method, by specific method and age, Zambia 2001-2002

		Modern method			Traditional method			
Age	Any method	Any modern method	Male sterilisation	Male condom	Any traditional method	Rhythm/ natural family planning	Withdrawal	Number of men
ALL MEN								
15-19	29.3	25.9	0.1	25.9	9.9	4.2	7.0	459
20-24	70.8	59.4	0.3	59.1	37.0	19.5	25.6	346
25-29	80.3	63.8	0.0	63.8	59.6	32.3	48.6	361
30-34	82.3	65.6	0.4	65.2	64.6	41.9	46.1	281
35-39	83.9	57.0	0.0	57.0	70.6	38.8	56.2	241
40-44	81.1	47.1	0.6	46.4	71.7	41.9	51.3	174
45-49	76.6	35.6	0.0	35.6	69.0	41.4	49.3	113
50-54	70.7	22.1	0.0	22.1	61.6	41.2	41.6	100
55-59	60.0	11.8	2.9	8.9	56.9	31.3	38.5	71
Total	67.3	47.9	0.3	47.7	48.7	27.9	36.1	2,145
CURRENTLY MARRIED MEN								
15-19	*	*	*	*	*	*	*	7
20-24	84.0	60.6	1.2	59.4	54.8	26.2	43.8	91
25-29	82.5	61.8	0.0	61.8	67.7	38.1	55.7	272
30-34	84.1	65.1	0.4	64.7	68.5	44.1	49.6	243
35-39	84.6	56.6	0.0	56.6	72.9	41.3	56.8	211
40-44	82.0	46.4	0.7	45.7	74.7	43.7	54.2	161
45-49	79.3	37.6	0.0	37.6	70.9	42.1	51.9	103
50-54	69.9	20.7	0.0	20.7	62.1	41.9	41.8	95
55-59	62.0	9.7	1.7	8.0	60.0	33.9	40.1	65
Total	80.9	51.7	0.3	51.4	68.0	39.8	51.3	1,248
SEXUALLY ACTIVE UNMARRIED MEN[1]								
Total	76.7	70.1	0.0	70.1	33.1	13.5	25.1	100

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Men who had sexual intercourse in the one month preceding the survey

The male condom was reported to be the most commonly used method among currently married men with about half of currently married men (51 percent) having used withdrawal at some time. Among sexually active unmarried men, a large majority (70 percent) have used male condoms, while only 14 percent have ever used natural family planning.

5.3 Current Use of Contraceptive Methods

The level of current use of contraceptive methods is one of the indicators most frequently used to assess the success of family planning programme activities. It is also widely used as a measure in analysing 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. One in four women are currently using any contraceptive method. The use of any contraceptive method increases with age, reaching its peak at age group 30-34 (38 percent) and then starts to decline. Modern methods are used by 17 percent of women, while only 8 percent are using traditional methods. The pill is the most commonly used method (8 percent) and the IUD, implant, female condom, and diaphragm/foam/jelly are the least used modern methods (less than 1 percent each). Four percent of women report using condoms, virtually all male condoms. Of the traditional methods, withdrawal is the most commonly used (3 percent) while natural family planning is the least used (1 percent).

Among currently married women, the pill (12 percent) and withdrawal (5 percent) are the most commonly used modern and traditional methods, respectively. After the condom (15 percent), the most commonly used modern method among sexually active unmarried women is the pill (10 percent), while withdrawal (2 percent) is the most widely used traditional method. More sexually active unmarried women use a modern contraceptive method than currently married women (29 percent and 23 percent, respectively). This difference may be due to higher use of male condoms by sexually active unmarried women (15 percent) than currently married women (4 percent).

Current use of contraception among women has increased from 19 percent in 1996 to 25 percent in 2001-2002. Use of modern methods has increased from 11 percent to 17 percent, while use of traditional methods has remained unchanged at 8 percent.

Table 5.4 Current use of contraception

Percent distribution of all women, of currently married women, and of sexually active unmarried women by contraceptive method currently used, according to age, Zambia 2001-2002

		Modern method									Traditional method							
Age	Any method	Any modern method	Female sterilisation	Pill	IUD	Injectables	Implants	Male condom	Female condom	Diaphragm foam/jelly	Any traditional method	LAM[1]	Rhythm/natural family planning	Withdrawal	Other methods	Not currently using	Total	Number of women
ALL WOMEN																		
15-19	10.1	7.7	0.0	2.8	0.0	0.9	0.0	4.0	0.1	0.0	2.4	0.5	0.2	1.1	0.6	89.9	100.0	1,811
20-24	25.0	16.8	0.1	9.0	0.0	2.4	0.0	5.2	0.1	0.0	8.3	2.0	0.6	3.9	1.7	75.0	100.0	1,664
25-29	32.6	22.8	0.4	12.1	0.0	4.6	0.3	5.3	0.1	0.0	9.7	2.6	1.1	4.2	1.8	67.4	100.0	1,376
30-34	37.6	26.2	1.4	13.2	0.2	5.7	0.7	4.9	0.0	0.1	11.4	2.5	1.4	4.9	2.6	62.4	100.0	972
35-39	31.4	21.2	3.8	9.9	0.1	4.5	0.8	2.1	0.0	0.0	10.1	2.2	1.7	3.6	2.6	68.6	100.0	766
40-44	28.5	20.4	7.1	6.6	0.0	4.2	0.0	2.1	0.0	0.4	8.1	1.4	0.6	3.9	2.1	71.5	100.0	601
45-49	13.4	8.7	4.4	2.4	0.0	1.4	0.0	0.5	0.0	0.0	4.6	0.2	0.9	1.2	2.3	86.6	100.0	467
Total	24.6	17.2	1.5	8.1	0.0	3.1	0.2	4.0	0.0	0.1	7.5	1.7	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	0.1	7.9	na	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	0.1	4.6	na	0.8	1.9	1.7	88.4	100.0	7,060
CURRENTLY MARRIED WOMEN																		
15-19	25.5	17.1	0.0	8.6	0.0	2.6	0.0	5.9	0.0	0.0	8.4	1.9	0.4	3.7	2.3	74.5	100.0	438
20-24	31.6	19.8	0.0	11.9	0.0	3.0	0.0	4.9	0.0	0.0	11.7	2.9	0.6	5.8	2.4	68.4	100.0	1,086
25-29	36.4	24.3	0.4	14.2	0.0	5.2	0.3	4.1	0.1	0.0	12.1	3.3	1.2	5.4	2.2	63.6	100.0	1,056
30-34	44.0	29.8	1.3	16.0	0.3	7.1	0.6	4.2	0.0	0.2	14.3	3.2	1.7	6.2	3.2	56.0	100.0	756
35-39	36.9	24.3	4.4	11.6	0.2	5.2	0.9	2.1	0.0	0.0	12.6	2.8	2.1	4.5	3.2	63.1	100.0	591
40-44	34.9	24.3	8.1	8.8	0.0	4.6	0.0	2.2	0.0	0.6	10.6	1.9	0.9	5.2	2.6	65.1	100.0	449
45-49	18.4	12.0	6.0	3.6	0.0	2.0	0.0	0.4	0.0	0.0	6.4	0.3	1.0	1.7	3.3	81.6	100.0	318
Total	34.2	22.6	2.0	11.9	0.1	4.5	0.3	3.8	0.0	0.1	11.6	2.7	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	0.1	11.5	na	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	0.1	6.3	na	0.9	3.0	2.2	84.8	100.0	4,457
SEXUALLY ACTIVE UNMARRIED WOMEN[2]																		
Total	32.5	29.3	1.3	9.7	0.0	2.9	0.4	15.0	0.0	0.0	3.2	0.4	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	0.3	6.1	na	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	na

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Lactational amenorrhoea method (LAM) is usually considered a modern method. However, analysis of the 2001-2002 ZDHS data indicates that many women confused it with simple breastfeeding so, rather than present misleading data, it was decided to classify LAM as a traditional method.
[2] Women who had sexual intercourse in the one month preceding the survey
na = Not applicable

5.4 CURRENT USE OF CONTRACEPTION BY BACKGROUND CHARACTERISTICS

Table 5.5 presents the percent distribution of currently married women by current use of family planning methods, according to background characteristics. Current use of contraception varies with number of living children, residence, region and education level. The proportion currently using contraception increases with increasing number of children and with increasing level of education. Only 4 percent of women without children are currently using contraceptive methods compared with at least 40 percent of those with three or more children.

Table 5.5 Current use of contraception by background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Zambia 2001-2002

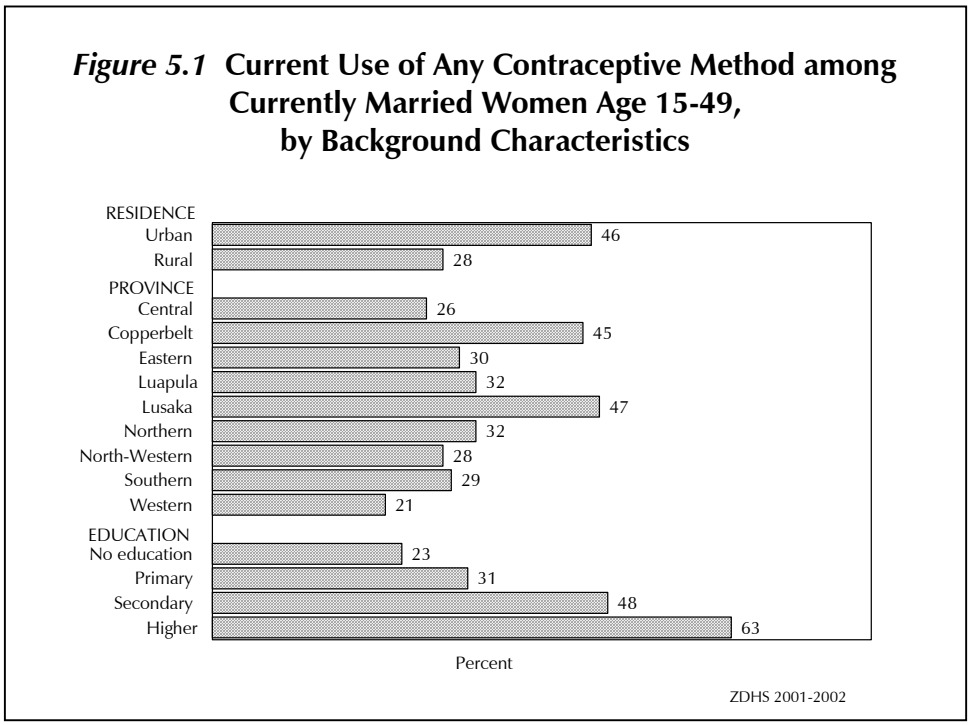
		Modern method									Traditional method							
Background characteristic	Any method	Any modern method	Female sterilisation	Pill	IUD	Injectables	Implants	Male condom	Female condom	Diaphragm foam/jelly	Any traditional method	LAM[1]	Rhythm/natural family planning	Withdrawal	Other methods	Not currently using	Total	Number of women
Number of living children																		
0	4.3	3.9	0.0	2.8	0.0	0.0	0.0	1.1	0.0	0.0	0.3	0.0	0.1	0.2	0.0	95.7	100.0	419
1-2	32.1	22.1	0.3	13.1	0.0	3.7	0.2	4.7	0.0	0.0	10.0	2.7	0.8	4.4	2.1	67.9	100.0	1,678
3-4	40.6	26.7	1.4	14.4	0.2	4.8	0.5	5.3	0.1	0.1	13.9	3.0	1.6	6.0	3.3	59.4	100.0	1,282
5+	40.1	25.3	5.5	10.8	0.1	6.6	0.2	1.9	0.0	0.2	14.8	3.2	1.5	6.5	3.6	59.9	100.0	1,315
Residence																		
Urban	45.7	38.7	3.7	21.5	0.1	7.7	0.7	4.9	0.0	0.1	7.1	2.5	1.1	2.5	0.9	54.3	100.0	1,662
Rural	27.9	13.9	1.2	6.6	0.0	2.7	0.1	3.2	0.0	0.1	14.0	2.8	1.1	6.5	3.6	72.1	100.0	3,032
Province																		
Central	25.7	20.8	1.3	11.9	0.0	3.5	0.5	3.5	0.0	0.2	4.9	0.2	0.4	3.5	0.9	74.3	100.0	346
Copperbelt	45.1	36.8	5.7	21.3	0.0	7.0	0.6	2.1	0.0	0.2	8.3	3.8	1.3	2.5	0.8	54.9	100.0	871
Eastern	29.5	19.6	1.4	9.2	0.3	4.0	0.0	4.7	0.0	0.0	9.8	1.4	1.0	3.5	3.9	70.5	100.0	644
Luapula	31.8	6.7	0.5	3.5	0.0	2.0	0.0	0.5	0.2	0.0	25.1	9.0	1.7	0.2	14.2	68.2	100.0	399
Lusaka	47.1	39.8	1.4	21.3	0.0	7.9	0.8	8.3	0.0	0.2	7.3	2.2	0.4	3.9	0.8	52.9	100.0	640
Northern	31.7	13.6	1.7	6.3	0.0	1.6	0.1	3.9	0.0	0.0	18.1	1.2	0.5	15.1	1.3	68.3	100.0	678
North-Western	28.2	15.7	2.8	4.9	0.0	3.9	0.0	3.9	0.0	0.2	12.5	0.6	3.6	6.0	2.4	71.8	100.0	215
Southern	28.6	18.8	0.9	10.8	0.2	3.9	0.0	3.0	0.0	0.0	9.7	3.2	2.4	3.7	0.4	71.4	100.0	532
Western	20.9	9.6	0.0	3.0	0.0	3.6	0.0	3.0	0.0	0.0	11.3	1.9	0.3	5.8	3.3	79.1	100.0	369
Education																		
No education	23.2	8.0	0.6	3.0	0.0	2.4	0.0	1.9	0.0	0.0	15.2	3.0	0.9	6.6	4.8	76.8	100.0	663
Primary	30.9	18.9	1.7	9.9	0.0	3.6	0.2	3.3	0.0	0.1	12.0	2.9	0.7	5.5	2.9	69.1	100.0	2,905
Secondary	47.6	39.2	3.2	21.5	0.2	8.0	0.5	5.8	0.0	0.1	8.4	2.1	2.2	3.2	1.0	52.4	100.0	1,006
Higher	62.8	56.3	7.8	28.5	0.0	8.0	2.4	9.5	0.0	0.0	6.5	0.0	4.8	1.7	0.0	37.2	100.0	120
Total	34.2	22.6	2.0	11.9	0.1	4.5	0.3	3.8	0.0	0.1	11.6	2.7	1.1	5.1	2.7	65.8	100.0	4,694

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

[1] Lactational amenorrhoea method (LAM) is usually considered a modern method. However, analysis of the 2001-2002 ZDHS data indicates that many women confused it with simple breastfeeding so, rather than present misleading data, it was decided to classify LAM as a traditional method.

Women in urban areas are more likely to use contraceptive methods (46 percent) than their rural counterparts (28 percent). The more urbanised provinces such as Copperbelt (45 percent) and Lusaka (47 percent) have the highest proportions of women currently using contraception. The province with the lowest level of contraceptive use by women is Western (21 percent). Women with a secondary education or higher are two to three times as likely to use contraception as women with no education (see Figure 5.1).

The pattern of current use of modern and traditional methods of contraception varies across subgroups. Use of modern methods is more common in urban (39 percent) than rural (14 percent) areas while use of traditional methods is more common in rural (14 percent) than urban (7 percent). Similarly, use of modern methods increases with increasing education, while that of traditional methods decreases with increasing level of education.



5.5 TRENDS IN THE USE OF FAMILY PLANNING

Table 5.6 shows the trends in the use of family planning among currently married women based on data from the 1992 ZDHS, the 1996 ZDHS and the 2001-2002 DHS.

Table 5.6 Trends in the use of family planning

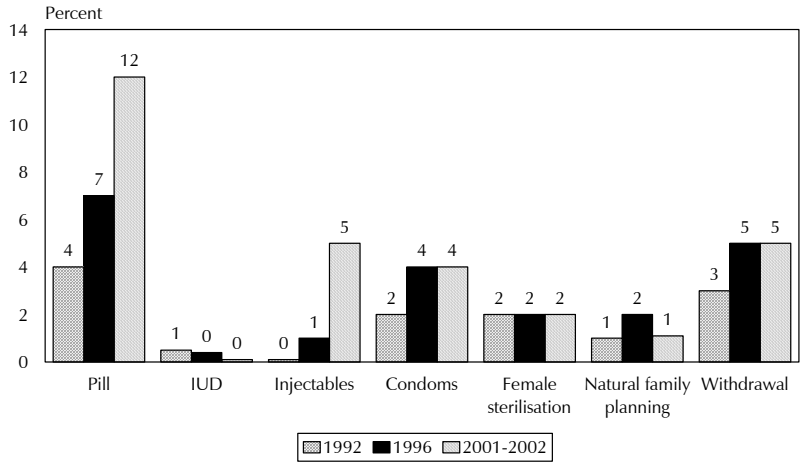
Percentage of currently married women age 15-49 who are currently using specific family planning methods, Zambia 1992, 1996, 2001-2002

Method	ZDHS 1992	ZDHS 1996	ZDHS 2001-2002
Any method	15.2	25.9	34.2
Any modern method	8.9	14.4	22.6
Pill	4.3	7.2	11.9
IUD	0.5	0.4	0.1
Injectable	0.1	1.0	4.5
Diaphragm/Foam/Jelly	0.1	0.1	0.1
Condom	1.8	3.5	3.8
Female sterilisation	2.1	2.0	2.0
Any traditional method	6.3	11.5	11.6
Natural family planning	0.9	1.9	1.1
Withdrawal	3.0	4.5	5.1
Other	2.2	5.2	2.7
Number of women	4,457	4,902	4,694

The information shows an increase of contraceptive use from a rate of 15 percent in 1992 and 26 percent in 1996 to the rate of 34 percent in 2001-2002. There has been a steady increase in the use of modern methods from 9 percent in 1992 and 14 percent in 1996 to 23 percent in 2001-2002. However, while there was an increase in the use of traditional methods from 6 percent in 1992 to 12 percent in 1996, use of these methods remained at that level in 2001-2002. Considering specific methods, the largest gains in use in the 2001-2002 ZDHS are observed for pills and injectables.

Figure 5.2 shows the trends in current use of specific contraceptive methods between 1992 and 2001-200. Current use of the pill has increased from 4 percent of currently married women in 1992 to 7 percent in 1996 and to 12 percent in 2001-2002. There has also been an increase in the current use of injectables from under 1 percent in 1992 to 5 percent in 2001-2002. Although reported condom use increased from 1992 to 1996, it showed no further gain from 1996 to 2001-2002. This is of concern given the significant proportion of married couples in Zambia who are sero-discordant for HIV infection. The proportion undergoing female sterilisation remained almost the same between 1992 and 2001-2002 at 2 percent, while use of the IUD declined over the same period.

Figure 5.2 **Trends in Current Use of Specific Contraceptive Methods among Currently Married Women Age 15-49, Zambia 1992-2002**



5.6 NUMBER OF CHILDREN AT FIRST USE OF CONTRACEPTION

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

Women interviewed in the 2001-2002 ZDHS were asked how many children they had at the time they first used a method of family planning. Table 5.7 shows the percent distribution of women who have ever used contraception by number of living children at the time of first use of contraception, according to current age. The results show that Zambian women are gradually adopting family planning at earlier ages.

Among older women, those who ever used contraception tended to start only when they had at least three or four children. In contrast, younger users tend to start when they had only one child or none. For example, half of women 15-19 who have used contraception started before they had any children.

Data from the 2001-2002 ZDHS indicate that among women who have been sterilised, the median age of sterilisation is 35 years. Almost half of women get the operation at age 35-39, with another one-fourth having the operation at age 30-35 (data not shown).

Table 5.7 Number of children at first use of contraception

Percent distribution of women who have ever used contraception by number of living children at the time of first use of contraception, according to current age, Zambia 2001-2002

Current age	Number of living children at time of first use of contraception: 0	1	2	3	4+	Don't know/ missing	Total	Number of women
15-19	50.8	45.9	2.0	0.0	0.0	1.3	100.0	421
20-24	19.0	60.8	16.4	3.3	0.3	0.2	100.0	982
25-29	9.6	48.3	27.6	10.1	4.2	0.2	100.0	989
30-34	3.7	40.3	24.2	16.4	14.9	0.6	100.0	736
35-39	2.7	32.8	18.7	13.1	32.3	0.4	100.0	539
40-44	1.6	29.0	17.2	12.4	39.5	0.2	100.0	422
45-49	2.0	31.9	16.6	13.3	36.1	0.0	100.0	299
Total	12.5	44.6	19.2	9.5	13.7	0.4	100.0	4,389

5.7 USE OF SOCIAL MARKETING BRAND PILLS

Since the pill is the most commonly used modern contraceptive method in Zambia, it is important to determine the proportion of women using Safeplan, a social marketing brand of oral contraceptive pill.

Table 5.8 shows the percentage of pill users who are using Safeplan by urban-rural residence and province. Although Safeplan is more widely marketed in Lusaka and Copperbelt provinces, its use is also high in Northern, Central, and Eastern provinces, although the number of pill users sampled is small in several provinces. Women in urban areas are more likely to use Safeplan (22 percent) than their counterparts in the rural areas (12 percent). Overall, almost one in five pill users is using Safeplan.

Table 5.8 Use of Safeplan

Percentage of pill users who are using Safeplan, by urban-rural residence and province, Zambia 2001-2002

Residence/Province	Percentage of pill users	Number of women
Residence		
Urban	22.1	388
Rural	12.4	236
Province		
Central	20.5	46
Copperbelt	16.9	204
Eastern	20.0	62
Luapula	*	15
Lusaka	22.2	148
Northern	21.2	46
North-Western	(29.0)	12
Southern	15.8	66
Western	*	24
Total	18.5	623

Note: Table excludes pill users who do not know the brand name. 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.

5.8 KNOWLEDGE OF FERTILE PERIOD

A basic knowledge of reproductive physiology is especially useful for the successful practice of coitus-related methods such as withdrawal, condom and vaginal methods, and other methods collectively called periodic abstinence. Knowledge of the fertile period is particularly critical in the case of period abstinence. The successful practice of natural family planning depends on an understanding of when during the ovulatory cycle a woman is most likely to conceive.

All women in the 2001-2002 ZDHS were asked about their knowledge of a woman's fertile period. The results are presented in Table 5.9 for users and non-users of periodic abstinence.

Table 5.9 Knowledge of fertile period

Percent distribution of women by knowledge of the fertile period during the ovulatory cycle, according to current use of periodic abstinence, Zambia 2001-2002

Perceived fertile period	Users of rhythm/ natural family planning	Nonusers of rhythm/ natural family planning	All women
Just before her period begins	11.0	16.3	16.3
During her period	3.8	1.7	1.7
Right after her period has ended	35.9	30.5	30.6
Halfway between two periods	42.9	22.3	22.5
Other	0.0	0.5	0.5
No specific time	2.2	6.3	6.3
Don't know	4.2	22.3	22.2
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number	64	7,594	7,658

Among all women, only 23 percent reported the correct fertile period, i.e., a woman is most likely to conceive half way between two periods. Users of natural family planning methods are more knowledgeable about their ovulatory cycle; 43 percent of users of natural family planning correctly identified the middle of the cycle as the fertile time, compared with 22 percent of non-users of the method. It should be noted that the precision of this estimate is limited by small sample size.

5.9 SOURCE OF SUPPLY

Information on where women obtain their contraceptive methods is important to family planning programme managers for strategic planning purposes. All current users of modern contraceptive methods were asked the most recent source of their methods. The results are shown in Table 5.10. Generally, most current users of contraception (61 percent) obtain their contraceptive methods from public institutions, most of which are government health centres. Private medical institutions are the second most common source (20 percent) of contraception, while non-medical sources are the least common (17 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 24 percent in 1996 and to 20 percent in 2001-2002. Reliance on public sources has increased slightly from 56 percent in 1992 to 60 percent in 1996 and to 61 percent in 2001-2002.

The pill and injectables are commonly obtained from public sources (67 percent and 83 percent, respectively), while male condoms are usually obtained from other sources (46 percent), mainly shops (35 percent). Female sterilisation, on the other hand, is obtained primarily through private medical sources (58 percent) compared with 40 percent through public sources. There has been an increase in the proportion of women sterilised at private medical centres from 51 percent in 1996 to 58 percent in 2001-2002, and a reduction at public medical centres from 49 percent in 1996 to 40 percent currently.

Table 5.10 Source of contraception

Percent distribution of women currently using modern contraceptive methods by most recent source of method, according to specific methods, Zambia 2001-2002

Last source	Pill	Inject-ables	Condom	Female sterili-sation	All modern methods
Public	67.1	83.1	39.2	40.1	60.9
Government hospital	7.0	6.3	4.7	40.1	9.6
Government health centre	57.4	74.6	32.4	0.0	49.1
Health post	2.8	2.2	1.7	0.0	2.1
Other public	0.0	0.0	0.4	0.0	0.1
Private medical	19.9	16.2	11.5	58.4	20.4
Private hospital/surgery	8.1	10.7	0.9	36.2	9.1
Mission hospital/clinic	3.8	5.0	0.9	22.2	4.9
Pharmacy	7.7	0.0	8.3	0.0	5.7
Private doctor	0.2	0.5	0.0	0.0	0.2
Work place	0.0	0.0	1.4	0.0	0.3
Other private medical	0.0	0.0	0.0	0.0	0.1
Other source	12.2	0.0	45.8	0.0	17.1
Shop	8.3	0.0	35.4	0.0	12.6
Community-based agent	3.7	0.0	4.9	0.0	3.2
Friend/relative	0.2	0.0	5.5	0.0	1.4
Other	0.2	0.0	1.3	0.0	0.4
Missing	0.6	0.7	2.3	1.5	1.2
Total	100.0	100.0	100.0	100.0	100.0
Number	623	240	310	112	1,314

Note: Table excludes lactational amenorrhoea method (LAM).

5.10 INFORMED CHOICE

Informed choice is an important aspect of the delivery of family planning services. Family planning providers should inform all method users of potential side effects and what they should do if they encounter signs of a problem. This information assists users in coping with side effects and decreases unnecessary discontinuation of temporary methods.

Table 5.11 shows that health providers are somewhat more likely to inform users of modern methods about side effects or problems of method used than about what to do if they experienced side effects. Three-fourths of women were informed about the side effects of the method, while 69percent were informed about what to do if they experienced side effects. Differences between pill users and injectables users are small, with injectables users being only slightly more likely to be informed about side effects.

Table 5.11 Informed choice

Among current users of specific modern contraceptive methods who adopted the method in the five years preceding the survey, percentage of women who were informed about the side effects of the current method used, and percentage who were informed what to do if side effects were experienced, by background characteristics, Zambia 2001-2002

Method	Informed about side effects or problems of method used	Informed what to do if side effect experienced	Number of users
Pill	73.8	68.5	587
Injectables	79.1	71.0	225
Total[1]	74.9	69.1	883

[1] Total includes users of female sterilisation, pill, IUD, injectables and implants

5.11 FUTURE USE OF CONTRACEPTION

Intention to use family planning is an important indicator of the potential demand for services. Currently married women who were not using contraceptives at the time of the survey and currently married men were asked about their intention to use family planning in the future. The results are shown in Table 5.12. The table reveals that of the currently married non-users, 70 percent of women and 72 percent of men intend to use a method of contraception in the future, while 26 percent of women and 25 percent of men have no intention to use any method. Four percent each of women and men are not sure of their contraceptive use intention in the future. One reason that more men than women are reported as intending to use in the future is that some of them may already be using contraception.

There has been an increase in the percentage of women non-users who intend to use family planning over the last few years; from 66 percent in the 1996 ZDHS to 70 percent in the 2001-2002 ZDHS.

Table 5.12 Future use of contraception

Percent distribution of currently married women who are not using a contraceptive method and currently married men who are not using a contraceptive method by intention to use in the future, according to number of living children, Zambia 2001-2002

	Number of living children[1]					
Intention	0	1	2	3	4+	Total
			WOMEN			
Intends to use	64.9	69.2	74.7	76.7	66.4	69.9
Unsure	6.1	5.0	2.7	2.5	3.0	3.5
Does not intend to use	29.0	25.9	22.5	20.1	30.2	26.4
Missing	0.0	0.0	0.0	0.6	0.4	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	264	578	564	469	1,214	3,089
			MEN			
Intends to use	70.6	79.3	79.7	75.2	67.5	71.7
Unsure	0.0	2.7	1.5	7.0	4.3	3.7
Does not intend to use	29.4	18.1	18.8	17.8	28.2	24.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	65	82	72	81	340	641

[1] Includes current pregnancy

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 65 percent of childless women, 75 percent for women with two children and 77 percent of those with three children. Proportions who do not intend to use contraception generally decrease with increasing number of living children. Twenty-nine percent of childless women do not intend to use contraception compared with 20 percent of women with three children. However, this proportion increases to 30 percent of women with at least 4 children.

The pattern is slightly different for men in that the proportion of currently married men who intend to use contraception initially increases with increasing number of children and reaches its peak at 2 children (80 percent) after which it starts declining and reaches 68 percent for men with at least 4 children.

5.12 Reasons for Not Intending to Use Contraception

Table 5.13 presents the main reasons for not intending to use contraception given by currently married women and men who do not intend to use a contraceptive method in the future.

The main reasons for not intending to use any contraception in the future among currently married women are fertility-related reasons (63 percent), followed by method-related reasons (18 percent). For men, the main reasons are also fertility related (59 percent), followed by opposition to use (20 percent). More specifically, apart from perceived lack of need due to decreased fertility, the most important reason given by women is fear of side effects. Men are more likely to feel there is no need for

Table 5.13 Reasons for not intending to use contraception

Percent distribution of currently married women who are not using a contraceptive method and who do not intend to use in the future and of currently married men who do not intend to use in the future by main reason for not intending to use, according to age, Zambia 2001-2002

Reason	Currently married women			Currently married men
	15-29	30-49	Total	
Fertility-related reasons	40.0	74.6	63.3	58.6
Infrequent sex/no sex	3.4	8.1	6.6	4.8
Menopausal/had hysterectomy[1]	0.0	22.8	15.3	19.7
Subfecund/infecund[2]	13.9	30.6	25.1	6.9
Wants as many children as possible	22.7	13.1	16.2	27.2
Opposition to use	15.9	8.8	11.1	20.4
Respondent opposed	8.9	4.2	5.7	10.4
Husband/partner opposed[3]	4.7	3.1	3.6	0.6
Others opposed	0.0	0.0	0.0	0.7
Religious prohibition	2.3	1.6	1.8	8.8
Lack of knowledge	6.5	1.7	3.2	2.3
Knows no method	3.4	0.4	1.4	0.6
Knows no source	3.0	1.3	1.8	1.7
Method-related reasons	28.8	12.3	17.7	10.6
Health concerns	3.1	3.0	3.0	4.2
Fear of side effects	23.3	6.5	12.0	4.2
Lack of access/too far	1.9	0.8	1.2	1.0
Inconvenient to use	0.2	0.6	0.5	0.0
Interfere with body's normal processes	0.4	1.4	1.1	1.2
Other	4.0	1.7	2.5	3.3
Don't know	3.9	0.6	1.7	4.0
Missing	0.9	0.3	0.5	0.7
Total	100.0	100.0	100.0	100.0
Number	267	547	814	158

[1] For men this refers to wife(s) menopausal/had hysterectomy
[2] For men this refers to couple infertile (subfecund/infecund)
[3] For men this refers to wife(s) opposed

contraception because they desire as many children as possible. Men are also more likely to be opposed to using contraception on the basis of religious prohibition.

As expected, younger women are more likely to cite method-related reasons and opposition to use, while older women are more likely to cite fertility-related reasons.

5.13 Preferred Method of Contraception for Future Use

Asking non-users who said they intended to use family a planning method in the future the type of method they would prefer to use is a way to assess the potential demand for specific methods of family planning.

Table 5.14 shows that, among currently married women, the most commonly preferred method for future use is the pill (42 percent), followed by injectables (31 percent) and female sterilisation (6 percent). The order of preferred methods for currently married women has not changed much since the 1996 ZDHS. The proportion of non-users preferring the pill has declined from 55 percent in 1996 to 42 percent in 2001-2002, while the proportion of non-users who prefer to use injectables rose from 12 in 1996 to 31 percent in 2001-2002.

Older respondents are more likely to intend to use permanent methods than younger ones. Among respondents in age group 30-49, 12 percent say they would prefer female sterilisation, compared with 2 percent among those in age group 15-29. On the other hand, female condoms, diaphragm/foam/jelly, LAM and natural family planning were the least preferred methods, reported by less than 1 percent of women age 15-29 and 30-49.

Table 5.14 Preferred method of contraception for future use

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, according to age, Zambia 2001-2002

	Currently married women		
Method	15-29	30-49	Total
Female sterilisation	1.9	12.3	5.6
Male sterilisation	0.1	0.1	0.1
Pill	48.3	31.6	42.4
IUD	0.7	1.1	0.8
Injectables	31.3	31.7	31.4
Implants	1.8	3.5	2.4
Condom	4.2	5.3	4.6
Female condom	0.6	0.5	0.5
Diaphragm/Foam/Jelly	0.4	0.3	0.3
Lactational amenorrhoea	0.7	0.3	0.5
Rhythm/Natural family planning	0.6	0.9	0.7
Withdrawal	2.9	2.9	2.9
Other	1.3	3.4	2.0
Unsure	5.4	6.2	5.7
Total	100.0	100.0	100.0
Number	1,402	756	2,158

5.14 EXPOSURE TO FAMILY PLANNING MESSAGES

Radio, television, and newspapers or magazines are potential media for disseminating family planning messages, although televisions still remain relatively rare, at least in rural Zambia. To assess the extent to which these media serve as sources of family planning messages, respondents were asked whether they heard or saw a message about family planning on the radio, television, or in the newspaper in the past few months. The results are shown in Table 5.15.

Table 5.15 Exposure to family planning messages

Percentage of women and men who heard or saw a family planning message on the radio, television, or in a newspaper/ magazine in the past few months, according to background characteristics, Zambia 2001-2002

	Women					Men				
	Exposed to family planning messages on:					Exposed to family planning messages on:				
Background characteristic	Radio	Television	Newspaper/ magazine	None of these media sources	Number of women	Radio	Television	Newspaper/ magazine	None of these media sources	Number of men
Age										
15-19	36.6	24.6	13.5	57.5	1,811	37.9	23.0	17.6	55.2	459
20-24	47.6	27.9	16.9	48.6	1,664	52.4	39.1	30.8	41.3	346
25-29	50.9	27.2	17.7	46.0	1,376	62.5	34.1	28.8	32.1	361
30-34	52.5	28.9	18.0	45.2	972	60.5	36.9	31.1	35.8	281
35-39	49.3	25.8	15.1	49.6	766	69.5	35.1	33.0	27.2	241
40-44	45.2	23.8	13.6	53.0	601	70.2	37.7	28.1	28.7	174
45-49	39.7	15.9	9.3	58.3	467	68.1	33.6	36.2	28.3	113
50-54	na	na	na	na	na	65.3	45.4	38.1	29.7	100
55-59	na	na	na	na	na	49.3	17.8	14.4	46.5	71
Residence										
Urban	66.1	54.4	30.6	26.3	3,073	72.2	64.3	52.6	17.9	851
Rural	32.0	6.7	5.3	67.3	4,585	46.5	12.8	11.5	51.8	1,294
Province										
Central	48.1	23.2	12.5	49.0	562	67.4	46.7	41.3	30.1	165
Copperbelt	66.0	54.4	24.2	25.8	1,544	74.4	62.4	49.6	17.3	447
Eastern	37.8	9.5	8.4	61.5	926	60.2	12.1	11.7	39.1	268
Luapula	35.9	5.1	4.5	63.9	622	50.3	9.4	16.6	47.5	166
Lusaka	68.0	56.9	38.7	25.8	1,132	72.0	71.1	56.9	13.8	314
Northern	29.0	9.7	7.7	68.8	1,040	56.6	12.2	12.8	41.0	292
North-Western	28.1	3.4	3.2	71.5	354	37.8	9.2	10.1	62.2	93
Southern	39.0	11.3	8.9	59.3	814	29.8	12.7	4.9	67.8	232
Western	22.2	5.8	5.1	76.7	663	19.7	7.6	6.4	79.6	169
Education										
No education	19.2	4.4	1.7	80.1	925	27.0	10.9	2.6	69.4	108
Primary	39.1	15.8	7.5	59.1	4,439	46.6	18.1	13.3	50.2	1,100
Secondary	67.4	51.0	33.2	25.1	2,061	70.6	50.1	45.2	22.8	808
Higher	85.1	79.3	64.5	5.2	234	81.1	76.3	63.5	8.8	129
Total	45.7	25.8	15.5	50.8	7,658	56.7	33.3	27.8	38.4	2,145

na= Not applicable

Radio is the most frequent source of family planning messages for both women (46 percent) and men (57 percent). One in four women and one in three men saw 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 (16 percent) and men (28 percent). About half of the women and almost two in five men were not exposed to a family planning message through radio, television, or newspaper/magazine.

Exposure to family planning messages is more common among men than women in urban areas than rural areas, and increases with increasing level of education. Among the provinces, respondents in Lusaka and Copperbelt have by far the highest exposure to family planning messages through any media, while those in Western have the lowest. 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.

5.15 Exposure to Specific Radio and Television Shows on Family Planning and HIV

The 2001-2002 ZDHS survey collected information from women and men about whether they had listened to specific radio and television programmes on family planning and HIV in the past few months. Tables 5.16.1 and 5.16.2 show the percentages of women and men who have heard specific radio and television shows in the few months preceding the survey by background characteristics.

Of the four radio programmes asked about, the most common is "Your Health Matters," listened to by 40 percent of women and 60 percent of men. "X-plosion" is the most commonly watched television programme watched by 19 percent of women and 27 percent of men. As was seen for exposure to family planning messages in general, men are more likely than women to have heard or seen all of the eight programmes asked about in the survey.

Overall, the variations by age group in the percentage of women and men who have been exposed to specific radio and television programmes are minimal, except for the youngest and oldest women and men. The percentage exposed in these two age groups is lower for both women and men. The pattern, however, differs in the case of "X-plosion"; exposure decreases with increasing age for women, while fluctuation is observed in men.

Women and men in urban areas are more likely to listen to or watch specific radio and television shows on family planning and HIV than those in the rural areas; for instance 42 percent of women and 50 percent of men listen to the radio programme "Lifeline" in urban areas, compared with 15 percent of women and 25 percent of men in rural areas.

Among women, exposure to radio programmes is generally low in Eastern and Western provinces, while exposure to television programmes is low in North-Western province. Among men, exposure to radio programmes is lowest in Western and Southern provinces, while exposure to television programmes is lowest in Luapula province. Exposure to all radio and television programmes is generally higher for both women and men in Lusaka and Copperbelt than the rest of the provinces

The proportion of both women and men who have been exposed to these programmes on radio and television increases with increased level of education.

Table 5.16.1 Exposure to specific radio and television shows on family planning and HIV: women

Percentage of women who have heard specific radio and television shows on family planning and HIV in the past few months, by background characteristics, Zambia 2001-2002

Background characteristic	Radio				Television				Number of women
	Your Health Matters	Lifeline	AIDS and the Family	Our Neigh-bourhood	Your Health Matters	Lifeline	Soul City	X-plosion	
Age									
15-19	39.4	21.7	28.9	29.6	31.2	12.4	14.6	23.5	1,811
20-24	41.9	26.6	34.3	37.0	29.7	16.1	14.5	21.2	1,664
25-29	42.7	27.7	36.6	35.4	28.7	18.2	13.3	18.9	1,376
30-34	43.4	29.9	37.8	38.5	29.5	16.8	12.8	19.1	972
35-39	39.9	27.7	36.6	35.5	23.5	16.5	9.8	14.4	766
40-44	36.9	25.0	32.6	30.3	23.1	14.9	10.0	12.2	601
45-49	32.1	23.0	29.3	28.2	16.5	7.9	3.5	6.8	467
Residence									
Urban	66.0	41.9	51.3	49.7	60.6	33.0	28.2	41.8	3,073
Rural	23.3	15.0	21.9	23.3	6.0	3.2	2.2	3.4	4,585
Province									
Central	40.6	20.9	31.1	34.2	24.5	11.2	1.6	10.7	562
Copperbelt	65.6	43.0	51.7	49.3	59.4	31.9	28.4	40.5	1,544
Eastern	20.8	6.6	14.0	24.9	8.5	2.6	2.7	4.7	926
Luapula	39.3	37.4	43.9	37.7	4.5	4.0	1.8	3.2	622
Lusaka	66.4	41.2	49.2	48.1	66.0	37.3	32.6	47.2	1,132
Northern	27.7	21.5	25.6	24.2	9.6	6.1	4.4	7.4	1,040
North-Western	25.2	12.8	20.9	22.4	3.7	1.4	1.0	1.5	354
Southern	23.2	15.1	25.3	25.0	10.7	6.6	5.7	7.5	814
Western	15.2	6.7	15.0	15.2	4.3	1.8	2.5	2.3	663
Marital status									
Never married	46.8	27.2	35.8	35.2	40.2	19.3	20.5	31.1	1,897
Currently married	38.7	25.4	33.2	34.0	23.9	13.7	10.0	14.7	4,694
Formerly married	36.8	25.4	31.9	31.3	23.9	14.1	9.9	15.0	1,067
Education									
No education	10.3	7.3	9.8	10.0	3.6	1.7	1.5	1.4	925
Primary	31.7	19.9	27.9	27.8	17.1	7.6	6.0	9.8	4,439
Secondary	67.7	42.9	53.1	54.8	55.7	32.4	28.3	41.3	2,061
Higher	85.3	60.9	66.4	61.6	83.7	59.6	43.2	60.5	234
Total	40.4	25.8	33.7	33.9	27.9	15.2	12.6	18.8	7,658

Table 5.16.2 Exposure to specific radio and television shows on family planning and HIV: men

Percentage of men who have heard specific radio and television shows on family planning and HIV in the past few months, by background characteristics, Zambia 2001-2002

Background characteristic	Radio				Television				Number of men
	Your Health Matters	Lifeline	AIDS and the Family	Our Neigh-bourhood	Your Health Matters	Lifeline	Soul City	X-plosion	
Age									
15-19	46.7	19.3	24.3	35.4	31.5	12.5	15.7	27.0	459
20-24	64.5	37.5	43.6	51.9	46.0	23.7	25.9	37.9	346
25-29	65.0	35.1	48.9	53.7	36.4	20.4	15.8	26.9	361
30-34	63.2	40.0	50.1	56.4	37.8	22.2	15.9	27.5	281
35-39	67.9	47.8	51.9	59.5	32.3	20.1	14.6	23.6	241
40-44	64.6	37.8	54.5	53.4	33.6	22.7	13.9	22.6	174
45-49	62.4	40.4	48.8	55.8	37.9	23.8	17.4	26.9	113
50-54	65.5	42.6	49.5	52.7	45.0	24.3	15.8	20.9	100
55-59	43.6	30.5	43.4	46.0	16.5	13.5	4.5	5.1	71
Residence									
Urban	79.4	50.0	56.8	56.5	70.8	40.9	34.5	56.1	851
Rural	47.6	24.9	34.8	46.2	13.5	5.8	5.2	7.9	1,294
Province									
Central	70.3	38.0	59.8	67.4	46.0	23.9	19.9	29.3	165
Copperbelt	81.2	56.4	62.0	53.4	72.9	44.0	24.4	57.1	447
Eastern	57.4	12.5	28.9	60.5	15.6	3.1	6.6	9.4	268
Luapula	54.7	33.1	40.3	58.0	3.9	2.2	1.7	3.9	166
Lusaka	79.5	47.3	52.3	62.8	72.0	41.4	50.2	61.5	314
Northern	54.7	45.3	49.5	44.6	12.5	9.8	8.9	11.3	292
North-Western	49.6	28.2	37.0	39.1	5.9	4.2	3.4	3.8	93
Southern	29.3	4.9	15.6	30.2	20.5	3.9	2.9	4.4	232
Western	26.8	15.9	21.0	21.7	7.0	2.5	3.2	3.2	169
Marital status									
Never married	56.4	29.5	34.5	42.8	40.9	19.8	21.2	34.1	782
Currently married	62.8	38.2	49.2	55.5	33.2	19.2	13.5	22.7	1,248
Formerly married	58.1	35.9	44.7	44.5	37.3	25.2	24.1	26.6	116
Education									
No education	29.2	6.6	15.6	31.1	9.0	2.2	4.1	2.0	108
Primary	47.2	24.0	35.6	43.5	17.1	7.9	7.0	11.5	1,100
Secondary	77.8	48.5	54.2	61.0	58.3	31.9	29.0	45.7	808
Higher	86.7	66.0	68.6	56.8	83.9	59.2	35.4	63.6	129
Total	60.2	34.9	43.6	50.3	36.2	19.8	16.8	27.0	2,145

5.16 Contact of Non-users with Family Planning Providers

In the 2001-2002 ZDHS survey, women who were not using contraception were asked whether they had attended a health facility in the last year and, if so, whether a staff person at that facility spoke to them about family planning methods. This information is important for determining whether non-users of family planning in Zambia have had an opportunity to receive information about family planning from providers.

Table 5.17 shows that 18 percent of non-users reported that they had visited a health facility and discussed family planning. Staff at health facilities are more likely to discuss family planning with women age 20-44 than with women age 15-19 and 45-49.

The proportion of non-users who visited a health facility and discussed family planning is highest in Eastern province (27 percent), followed by Southern (19 percent) and Central provinces (18 percent), and is lowest in Western province (13 percent).

Education level does not seem to have a great impact on the likelihood of women non-users visiting a health facility and discussing family planning.

Table 5.17 Contact of non-users with family planning providers

Percentage of women who are not using contraception who visited a health facility and discussed family planning in the 12 months preceding the survey, by background characteristics, Zambia 2001-2002

Background characteristic	Women who visited a health facility and discussed family planning	Number of women
Age		
15-19	5.9	1,628
20-24	19.9	1,248
25-29	28.6	928
30-34	27.9	607
35-39	20.4	526
40-44	21.9	430
45-49	9.7	405
Residence		
Urban	16.0	2,148
Rural	18.7	3,622
Province		
Central	18.2	460
Copperbelt	17.9	1,093
Eastern	26.5	722
Luapula	14.3	485
Lusaka	15.0	750
Northern	17.0	811
North-Western	15.0	277
Southern	18.6	619
Western	13.2	553
Education		
No education	16.5	759
Primary	18.0	3,419
Secondary	17.6	1,461
Higher	18.6	131
Total	17.7	5,770

5.17 Discussion about Family Planning with Husband

Although discussion of family planning between husband and wife is not a precondition for adoption of contraception, its absence may be an impediment to use. Inter-spousal communication is thus an important intermediate step along the path to eventual adoption and especially continuation of contraceptive use. Lack of discussion may reflect a lack of personal interest, hostility to the subject, or customary reticence in talking about sex-related matters. To explore this subject, women interviewed in the 2001-2002 ZDHS were asked the number of times they discussed family planning with their husband in the 12 months preceding the survey.

Table 5.18 provides information for currently married women who know of at least one contraceptive method about the number of times family planning was discussed with their husbands in the past year according to age. The 2001-2002 ZDHS data indicate that 37 percent of women reported having discussed family planning with their husband once or twice, and about 33 percent discussed family planning with their husband at least three times. Less than one-third (29 percent) never discussed family planning with their husbands in the past year. Women age 35-39 are the most likely to report frequent discussions (3 or more times) with their husbands (40 percent), while women 15-19 are least likely (16 percent).

Table 5.18 Discussion of family planning with husband

Percent distribution of currently married women who know a contraceptive method by the number of times they discussed family planning with their husband in the past year, according to current age, Zambia 2001-2002

	Number of times family planning was discussed with husband					
Age	Never	1-2	3+	Missing	Total	Number of women
15-19	43.6	40.0	16.4	0.0	100.0	428
20-24	26.1	40.8	33.1	0.0	100.0	1,081
25-29	21.7	39.6	38.4	0.4	100.0	1,051
30-34	24.2	39.9	35.9	0.0	100.0	754
35-39	28.5	31.2	39.8	0.5	100.0	589
40-44	35.8	32.6	31.6	0.0	100.0	443
45-49	51.9	27.0	21.1	0.0	100.0	314
Total	29.4	37.4	33.1	0.1	100.0	4,660

5.18 ATTITUDES OF COUPLES TOWARD FAMILY PLANNING

When couples have a positive attitude toward family planning, they are more likely to adopt a family planning method. In the 2001-2002 ZDHS survey, married women were asked whether they approved of couples using family planning and what they perceived as their husband's attitude toward family planning. This information is important in the formulation of family planning policies because it indicates the extent to which further education and publicity are needed to increase acceptance of family planning. Table 5.19 shows the percent distribution of currently married women who know a contraceptive method, by approval of family planning and their perception of their husband's attitude toward family planning, according to background characteristics. An overwhelming majority (87 percent) of married women approve of family planning, with only 10 percent disapproving and 4 percent unsure. Moreover, two-thirds of married women believe their husband approves of family planning, with only 16 percent reporting that their husband disapproves of family planning.

Approval of family planning is higher in urban than rural areas and increases with increasing level of education.

Table 5.19 Attitudes of couples toward family planning

Percent distribution of currently married women who know of a method of family planning by approval of family planning and their perception of their husband's attitude toward family planning, according to background characteristics, Zambia 2001-2002

	Respondent approves of FP			Respondent disapproves of FP					
Background characteristic	Both approve	Husband disapproves	Husband's attitude unknown	Husband approves	Both disapprove	Husband's attitude unknown	Woman is unsure	Total	Number of women
Age									
15-19	55.6	7.9	18.3	1.8	6.4	4.3	5.7	100.0	428
20-24	68.1	9.0	10.1	1.5	5.6	2.3	3.5	100.0	1,081
25-29	70.2	10.3	10.2	1.3	4.3	1.2	2.6	100.0	1,051
30-34	68.5	12.5	8.7	1.0	5.2	1.6	2.6	100.0	754
35-39	64.8	11.2	11.8	1.0	6.0	1.9	3.3	100.0	589
40-44	60.6	11.1	10.6	1.7	8.1	3.1	4.8	100.0	443
45-49	49.3	9.7	15.9	2.4	12.3	3.2	7.3	100.0	314
Residence									
Urban	77.1	9.3	7.1	1.6	3.0	0.9	1.1	100.0	1,656
Rural	58.5	10.8	13.6	1.3	7.7	2.9	5.2	100.0	3,004
Province									
Central	65.4	12.5	11.2	1.3	7.1	1.8	0.7	100.0	345
Copperbelt	78.1	9.5	6.2	2.3	3.0	0.8	0.2	100.0	870
Eastern	64.3	6.0	13.9	0.8	4.2	2.8	7.9	100.0	639
Luapula	47.1	13.6	22.4	1.3	8.3	3.3	4.0	100.0	394
Lusaka	76.8	8.7	7.7	1.2	2.4	0.6	2.6	100.0	638
Northern	60.7	10.2	8.8	0.9	10.1	2.9	6.4	100.0	670
North-Western	61.9	11.4	9.3	2.5	12.1	2.5	0.4	100.0	212
Southern	66.1	12.6	14.3	0.9	2.4	2.2	1.5	100.0	529
Western	42.3	12.6	14.3	2.2	13.7	5.3	9.5	100.0	363
Education									
No education	46.8	11.0	14.2	3.5	9.8	5.2	9.6	100.0	642
Primary	61.8	11.5	13.1	1.2	6.9	2.0	3.5	100.0	2,893
Secondary	82.9	7.3	5.3	0.6	1.9	0.9	1.0	100.0	1,004
Higher	92.6	1.4	2.2	2.7	0.0	1.1	0.0	100.0	120
Total	65.1	10.3	11.3	1.4	6.0	2.2	3.7	100.0	4,660

OTHER DETERMINANTS OF FERTILITY

6

Anne R. Cross

This chapter addresses the principal factors, other than contraception, which affect a woman's risk of becoming pregnant. These factors include marriage, polygyny, sexual intercourse, postpartum amenorrhoea, abstinence from sexual relations, and termination of exposure to pregnancy. Direct measures of the beginning of exposure to the risk of pregnancy and the level of exposure are also discussed in this chapter.

6.1 CURRENT MARITAL STATUS

Table 6.1 shows data on the current marital status of women and men interviewed in the survey. In this table, the term "married" is intended to mean legal or formal marriage, while "living together" designates an informal union. However, in future tables, the term "currently married" refers to both formal and informal unions.

Table 6.1 Current marital status

Percent distribution of women and men by current marital status, according to age, Zambia 2001-2002

Age	Marital status						Total	Number of women
	Never married	Married	Living together	Divorced	Separated	Widowed		
				WOMEN				
15-19	73.0	23.7	0.4	1.8	0.7	0.3	100.0	1,811
20-24	24.6	64.6	0.6	6.9	2.5	0.7	100.0	1,664
25-29	8.0	75.1	1.6	8.1	3.5	3.6	100.0	1,376
30-34	4.4	77.1	0.7	8.4	3.2	6.2	100.0	972
35-39	0.8	76.5	0.7	8.8	2.2	11.1	100.0	766
40-44	0.8	74.1	0.6	9.7	2.6	12.2	100.0	601
45-49	0.2	67.8	0.4	14.1	2.2	15.3	100.0	467
Total	24.8	60.5	0.8	7.0	2.3	4.7	100.0	7,658
				MEN				
15-19	98.2	1.2	0.3	0.0	0.3	0.0	100.0	459
20-24	68.7	26.0	0.2	2.1	2.7	0.3	100.0	346
25-29	17.9	74.8	0.5	2.8	3.5	0.6	100.0	361
30-34	5.8	85.7	0.8	3.7	3.6	0.5	100.0	281
35-39	3.7	87.4	0.2	3.0	3.9	1.9	100.0	241
40-44	1.9	92.9	0.0	1.0	2.1	2.1	100.0	174
45-49	0.5	89.2	1.5	0.5	5.1	3.2	100.0	113
50-54	0.0	95.4	0.0	1.2	0.0	3.4	100.0	100
55-59	0.0	92.2	0.0	5.5	0.0	2.4	100.0	71
Total	36.4	57.8	0.4	2.0	2.4	1.0	100.0	2,145

Marriage and cohabitation are generally considered to be primary indicators of exposure to the risk of pregnancy. In Zambia, however, a union is not prerequisite to childbearing. Many women bear children before entering a stable union. Informal relationships are common, and women may have children in the context of such unions.

Table 6.1 shows that one-fourth of women aged 15-49 in Zambia have never married, while 61 percent are formally married, 1 percent are living together and 14 percent are either widowed, divorced or separated. Marriage occurs relatively early in Zambia and all but a tiny fraction of women eventually marry; less than 1 percent of those age 35 and over have never married. The proportion who are divorced or widowed generally increases with age.

Similar patterns are true for men as well. More than one-third of men aged 15-59 have never married, while 58 percent are married, and 5 percent are either widowed, divorced or separated. Men tend to marry at older ages than women, which is why the overall proportion of men who have never married is higher than for women (36 percent of men compared with 25 percent of women).

There has been little change in the distribution by marital status since 1996, except that young men appear to be increasingly likely to marry. Men in their mid- to late twenties and early thirties are more likely to be married in 2001-2002 than men of the same age group in 1996 (75 percent and 68 percent, respectively).

6.2 POLYGYNY

Polygyny (the practice of having more than one wife at the same time) has implications for frequency of sexual activity and fertility. Married women were asked whether their husbands had other wives, and if so, how many. Married men were asked whether they had only one or more than one wife or partner with whom they were living.

Table 6.2 shows that 16 percent of married women in Zambia are in polygynous unions. Twelve percent say they have only one co-wife, while 4 percent say they have two or more co-wives. Married men are less likely to report having multiple wives; only 9 percent say they have two or more wives. The discrepancy is due in part to the fact that, by definition, more married women than men are in polygynous unions. It could also be due to differences in classifying girlfriends, i.e., a tendency for women to report their husbands' girlfriends as wives, while their husbands do not.

The level of polygyny increases with age for both women and men. The increase among women is from 8 percent among married women age 15-19 to 24 percent among those age 40-44. Rural women are more likely to be in polygynous unions than urban women. Provincial differences are marked: 30 percent of married women in Southern province are in polygynous unions, compared with 3 percent of women in Copperbelt province. Polygyny is also high in Central, Eastern, Western, and Northern provinces, with more than 20 percent of married women in polygynous unions. Data for men show similar patterns. The prevalence of polygynous unions decreases with increasing education for both women and men.

Overall, the level of polygyny among women has declined from 17 percent in 1996 to 16 percent in 2001-2002, while it has stayed at 9 percent for men.

Table 6.2 Polygyny

Percent distribution of currently married women by number of co-wives and percent distribution of currently married men by number of wives, according to background characteristics, Zambia 2001-2002

Background characteristic	Married women: number of co-wives						Married men: number of wives			
	0	1	2+	Missing	Total	Number	1	2+	Total	Number
Age										
15-19	91.7	6.2	1.5	0.6	100.0	438	*	*	100.0	7
20-24	90.7	7.1	1.6	0.6	100.0	1,086	97.6	2.4	100.0	91
25-29	83.7	11.8	4.2	0.3	100.0	1,056	96.0	4.0	100.0	272
30-34	81.9	13.6	4.1	0.3	100.0	756	91.0	9.0	100.0	243
35-39	77.0	15.3	7.3	0.4	100.0	591	88.9	11.1	100.0	211
40-44	75.6	16.0	7.8	0.6	100.0	449	87.2	12.8	100.0	161
45-49	78.6	15.4	5.6	0.3	100.0	318	86.4	13.6	100.0	103
50-54	na	na	na	na	0.0	0	87.8	12.2	100.0	95
55-59	na	na	na	na	0.0	0	85.6	14.4	100.0	65
Residence										
Urban	93.8	4.7	1.0	0.5	100.0	1,662	96.8	3.2	100.0	443
Rural	78.4	15.3	5.9	0.4	100.0	3,032	87.6	12.4	100.0	805
Province										
Central	79.6	13.7	6.8	0.0	100.0	346	86.9	13.1	100.0	82
Copperbelt	95.7	2.8	0.6	0.9	100.0	871	99.3	0.7	100.0	235
Eastern	77.3	16.3	6.1	0.3	100.0	644	85.2	14.8	100.0	184
Luapula	83.6	13.7	2.5	0.2	100.0	399	91.1	8.9	100.0	113
Lusaka	94.1	4.3	1.2	0.4	100.0	640	94.7	5.3	100.0	173
Northern	79.8	15.7	3.8	0.7	100.0	678	90.0	10.0	100.0	178
North-Western	86.2	12.0	1.7	0.2	100.0	215	93.3	6.7	100.0	52
Southern	69.9	18.2	11.7	0.2	100.0	532	81.9	18.1	100.0	144
Western	79.6	14.9	5.2	0.3	100.0	369	91.2	8.7	100.0	86
Education										
No education	76.6	16.6	6.7	0.2	100.0	663	89.0	11.0	100.0	73
Primary	82.7	12.5	4.2	0.6	100.0	2,905	87.7	12.3	100.0	642
Secondary	90.4	6.5	2.9	0.2	100.0	1,006	94.2	5.8	100.0	431
Higher	96.3	2.3	1.4	0.0	100.0	120	98.3	1.7	100.0	102
Total	83.8	11.6	4.2	0.4	100.0	4,694	90.9	9.1	100.0	1,248

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 closely associated with fertility because it is directly linked to the probability of conception. The age at which a woman first marries is important because it affects the length of time a woman is exposed to the risk of pregnancy during her childbearing years. Early marriage tends to lead to early childbearing and to a greater number of births overall. It also leads to shorter intervals between generations, and, thus higher fertility.

Marriage occurs relatively early in Zambia. Almost half of women are married before age 18 and 70 percent are married by age 20 (Table 6.3). Although the median age at first marriage appears to have risen from 17 among women age 45-49 to almost 19 among women age 20-24, some of this increase could be due to recall error on the part of older respondents. Comparison with data from the 1996 ZDHS shows that the median age at first marriage among women 20-49 has barely changed—from 18.0 to 18.1.

Table 6.3 Age at first marriage

Percentage of women and men who were first married by specific exact ages, and median age at first marriage, by current age, Zambia 2001-2002

Current age	Percentage first married by exact age: 15	18	20	22	25	Percentage never married	Number of women/ men	Median age at first marriage
				WOMEN				
15-19	4.9	na	na	na	na	73.0	1,811	a
20-24	7.8	42.1	63.3	na	na	24.6	1,664	18.7
25-29	8.4	45.3	66.1	78.3	88.2	8.0	1,376	18.4
30-34	10.3	48.4	69.1	79.9	89.3	4.4	972	18.1
35-39	15.4	56.8	74.0	83.8	93.5	0.8	766	17.5
40-44	18.0	59.7	80.2	89.3	94.5	0.8	601	17.3
45-49	24.6	63.7	83.3	89.6	94.2	0.2	467	16.8
20-49	11.7	49.4	69.7	79.5	86.5	9.8	5,847	18.1
25-49	13.3	52.2	72.2	82.5	91.0	4.0	4,182	17.8
				MEN				
15-19	0.0	na	na	na	na	98.2	459	a
20-24	0.0	5.3	13.0	na	na	68.7	346	a
25-29	0.0	5.0	15.4	40.3	64.9	17.9	361	23.2
30-34	0.0	3.5	16.8	37.3	68.1	5.8	281	23.0
35-39	0.6	5.2	16.1	36.5	63.6	3.7	241	23.5
40-44	0.2	2.8	17.0	44.0	70.3	1.9	174	22.5
45-49	0.0	4.2	16.9	34.0	59.7	0.5	113	23.6
50-54	0.4	4.4	14.7	29.4	65.2	0.0	100	23.5
55-59	0.0	3.0	9.3	32.6	62.3	0.0	71	23.9
25-59	0.2	4.2	15.8	37.7	65.5	7.0	1,341	23.2

na = Not applicable
[a] Omitted because less than 50 percent of respondents married for the first time before reaching the beginning of the age group

In general, men marry at a later age than women. For example, the median age at first marriage for those age 25-29 years is 18 for women and 23 for men.

Table 6.4 shows differences in the median age at first marriage by background characteristics for women and men. Because of small samples of married respondents, data for women age 15-19 and for men age 15-24 have been omitted.

Urban women marry about one year later than rural women, while the difference for men is about two years. Among both women and men, the median age at first marriage is highest in Western province, followed by Copperbelt and Lusaka. Young marriage is more common in Eastern, Luapula, and North-Western provinces. The median age at first marriage is higher among those with at least some secondary education than among those with less education; this pattern is true for women and men.

Table 6.4 Median age at first marriage

Median age at first marriage among women 20-49 and among men 25-59, by background characteristics, Zambia 2001-2002

Background characteristic	Current age						Women age 20-49	Women age 25-49	Men age 25-59
	20-24	25-29	30-34	35-39	40-44	45-49			
Residence									
Urban	19.9	18.9	18.9	17.7	17.5	16.7	18.7	18.3	24.5
Rural	18.0	18.0	17.7	17.4	17.2	16.8	17.7	17.6	22.6
Province									
Central	17.9	18.2	18.3	17.6	16.3	16.2	17.7	17.6	23.2
Copperbelt	19.4	18.6	18.5	17.2	16.8	16.3	18.2	17.8	24.2
Eastern	17.8	17.8	17.6	17.3	17.0	17.9	17.6	17.6	22.0
Luapula	18.0	17.8	17.8	16.5	(17.1)	16.3	17.4	17.2	22.9
Lusaka	19.3	18.8	19.2	17.8	17.6	(16.6)	18.7	18.4	23.6
Northern	18.2	17.9	17.7	17.4	17.9	17.8	17.8	17.7	23.3
North-Western	19.2	18.0	17.4	16.9	16.4	16.4	17.6	17.2	22.6
Southern	18.7	18.6	17.9	18.8	17.2	(16.3)	18.1	17.9	23.0
Western	19.7	20.1	19.4	19.1	18.5	(17.6)	19.3	19.2	24.3
Education									
No education	17.1	17.4	16.9	16.6	16.6	16.0	16.9	16.8	21.7
Primary	17.8	17.7	17.6	17.2	17.0	16.6	17.5	17.4	22.3
Secondary or higher	a	21.0	20.2	20.2	19.0	19.2	a	20.2	24.6
Total	18.7	18.4	18.1	17.5	17.3	16.8	18.1	17.8	23.2

Note: Figures in parentheses are based on 25-49 unweighted cases.
[a] Omitted because less than 50 percent of the women married for the first time before the beginning of the age group

6.4 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 may engage in sexual relations prior to marriage, especially if they are postponing the age at which they marry. In the 2001-2002 ZDHS, women and men were asked how old they were when they first had sexual intercourse.

Table 6.5 shows that the median age at first intercourse is just under 17 years for women and about 18 years for men. Almost 20 percent of women and men report that they had sexual intercourse before age 15. By age 18, two-thirds of women and about half of men have had sexual intercourse. Among women, the median age at first sex shows a slight increase among younger women, which corroborates the trend over time from 16.4 in 1996 to 16.8 in 2001-2002. Among men, the trend is less clear. Data in Table 6.5 would indicate that age at first sex has been declining among younger men; however, the median age at first sex increased from 16.7 in 1996 to 18.0 in 2001-2002 among men age 25-59.

Table 6.5 Age at first sexual intercourse

Percentage of women and men who had first sexual intercourse by specific exact ages and median age at first intercourse, by current age, Zambia 2001-2002

Current age	Percentage of women and men who had first sexual intercourse by exact age: 15	18	20	22	25	Percentage who never had intercourse	Number of women/ men	Median age at first intercourse
				WOMEN				
15-19	17.5	na	na	na	na	42.7	1,811	a
20-24	18.4	62.2	81.2	na	na	5.9	1,664	17.0
25-29	16.4	63.5	80.3	86.5	90.7	2.2	1,376	17.0
30-34	19.5	65.4	81.9	87.9	90.9	0.6	972	16.9
35-39	22.9	70.8	84.1	89.8	92.6	0.1	766	16.5
40-44	22.4	68.5	83.2	90.0	92.0	0.0	601	16.7
45-49	27.3	69.8	86.2	91.0	93.8	0.0	467	16.5
20-49	19.8	65.4	82.1	88.3	90.9	2.3	5,847	16.8
25-49	20.4	66.7	82.4	88.4	91.6	0.9	4,182	16.8
				MEN				
15-19	27.2	na	na	na	na	36.5	459	a
20-24	23.9	58.8	81.5	na	na	7.8	346	17.0
25-29	18.7	57.7	75.8	86.4	92.8	1.3	361	16.8
30-34	13.3	53.0	72.6	86.4	93.8	0.5	281	17.6
35-39	19.6	53.0	67.7	81.2	88.5	0.4	241	17.4
40-44	17.4	47.9	75.5	87.5	95.7	0.0	174	18.1
45-49	8.8	40.0	57.9	76.0	83.8	0.5	113	18.8
50-54	7.2	34.3	66.1	83.9	90.2	0.0	100	18.7
55-59	6.1	29.0	45.1	66.5	84.4	0.0	71	20.4
20-59	17.0	51.7	72.2	84.8	91.3	2.1	1,686	17.8
25-59	15.2	49.8	69.8	83.5	91.2	0.6	1,341	18.0

na = Not applicable
[a] Omitted because less than 50 percent of the women (men) 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 Table 6.6. Urban women and men have their first sexual experience at slightly older ages than their rural counterparts. Among both women and men, age at first sex appears to be the lowest in North-Western and Western provinces and highest in Northern province. The median age at first sex increases steadily as educational attainment increases.

Table 6.6 Median age at first sexual intercourse

Median age at first sexual intercourse among women 20-49 and men 20-59, by current age and background characteristics, Zambia 2001-2002

Background characteristic	Current age						Women age 20-49	Women age 25-49	Men age 20-59	Men age 25-59
	20-24	25-29	30-34	35-39	40-44	45-49				
Residence										
Urban	17.8	17.5	17.5	16.8	16.9	16.6	17.4	17.2	17.9	18.1
Rural	16.6	16.7	16.4	16.4	16.6	16.4	16.5	16.5	17.7	18.0
Province										
Central	16.6	16.9	16.9	16.3	15.7	15.7	16.5	16.4	16.5	16.6
Copperbelt	17.7	17.6	17.4	16.7	16.3	16.4	17.2	17.1	17.8	18.1
Eastern	16.5	16.9	16.8	16.8	16.7	17.8	16.8	16.9	18.2	18.3
Luapula	17.0	17.0	16.7	15.9	(16.9)	16.1	16.7	16.6	17.9	17.7
Lusaka	17.7	17.3	17.2	16.9	17.0	(16.9)	17.3	17.2	17.5	17.5
Northern	17.5	17.3	17.4	16.9	17.6	17.2	17.3	17.3	18.9	19.0
North-Western	15.6	15.4	15.0	15.3	15.4	15.0	15.3	15.3	15.9	16.0
Southern	17.5	17.1	16.7	16.7	16.8	(16.2)	17.1	16.8	18.4	18.5
Western	15.7	16.1	15.8	16.1	16.4	(16.8)	16.0	16.1	16.1	16.5
Education										
No education	16.0	16.0	16.2	15.8	15.9	15.9	16.0	16.1	16.1	16.2
Primary	16.4	16.6	16.5	16.2	16.5	16.3	16.4	16.5	17.6	17.9
Secondary or higher	18.4	18.3	18.2	18.1	18.0	18.3	18.3	18.2	18.0	18.2
Total	17.0	17.0	16.9	16.5	16.7	16.5	16.8	16.8	17.8	18.0

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

6.5 RECENT SEXUAL ACTIVITY

In the absence of contraception, the probability of pregnancy is related to the frequency of intercourse. Thus, information on sexual activity can be used to refine measures of exposure to pregnancy. Survey results are shown in Table 6.7.1 for women and 6.7.2 for men.

In the 4 weeks before the survey, about half of women age 15-49 years were sexually active, while 23 percent had been sexually active in the previous year but not in the previous month and 12 percent had not been sexually active for more than one year. An additional 12 percent of women had never had sex.

The proportion of women who were sexually active in the 4 weeks before the survey increases with age to a high of almost two-thirds of women age 30-34 years and then declines somewhat. Teenagers and women who are not currently in a marital union are less likely to be sexually active than older women and women who are married or living with a man. The proportion sexually active remains remarkably stable at all marital durations, although it is slightly lower among recently married women than among those married longer.

Women in urban areas are slightly less likely to be sexually active (i.e., over the past 4 weeks) (46 percent) than those in rural areas (52 percent). The proportion of women who are sexually active is highest in Southern province (61 percent) and lowest in Western province (45 percent). Education appears to have little effect on the probability of recent sexual activity, although women with more education are more likely to have never been sexually active, presumably because they are younger than less educated women. As expected, women who are using a contraceptive method are more likely to be sexually active than women who are not using any method. Obviously, women who are sexually active are more likely to use a method, but it is also true that those who are using contraception probably feel freer to engage in sex because they are at lower risk of pregnancy.

Table 6.7.1 Recent sexual activity: women

Percent distribution of women by timing of last sexual intercourse, according to background characteristics, Zambia 2001-2002

Background characteristic	Timing of last sexual intercourse: Within the last 4 weeks	Within 1 year[1]	One or more years ago	Missing	Never had sexual intercourse	Total	Number of women
Age							
15-19	24.4	20.7	9.5	2.7	42.7	100.0	1,811
20-24	51.2	26.5	11.0	5.4	5.9	100.0	1,664
25-29	60.3	24.6	8.6	4.3	2.2	100.0	1,376
30-34	62.5	20.1	11.1	5.8	0.6	100.0	972
35-39	57.8	23.0	15.4	3.7	0.1	100.0	766
40-44	59.1	19.7	17.2	3.9	0.0	100.0	601
45-49	51.3	18.6	27.3	2.7	0.0	100.0	467
Marital status							
Never married	9.9	23.1	16.5	2.6	47.8	100.0	1,897
Married or living together	73.5	20.2	2.8	3.5	0.0	100.0	4,694
Divorced/separated/widowed	12.4	32.4	45.5	9.7	0.0	100.0	1,067
Marital duration[2]							
Married only once							
0-4 years	70.7	22.7	2.4	4.2	0.0	100.0	1,127
5-9 years	75.0	19.5	2.2	3.3	0.0	100.0	881
10-14 years	73.9	19.6	3.2	3.2	0.0	100.0	642
15-19 years	74.4	18.7	1.3	5.5	0.0	100.0	423
20-24 years	71.3	23.0	2.7	3.0	0.0	100.0	310
25+ years	73.4	18.7	6.1	1.8	0.0	100.0	313
Married more than once	75.3	18.5	3.1	3.2	0.0	100.0	998
Residence							
Urban	45.6	21.7	14.9	3.0	14.7	100.0	3,073
Rural	51.7	23.2	10.3	4.9	9.9	100.0	4,585
Province							
Central	47.5	24.7	13.1	2.6	12.1	100.0	562
Copperbelt	46.3	20.2	14.1	3.6	15.8	100.0	1,544
Eastern	48.1	26.6	11.3	4.8	9.2	100.0	926
Luapula	53.2	18.4	11.7	2.7	14.1	100.0	622
Lusaka	48.9	23.0	14.2	2.0	11.9	100.0	1,132
Northern	45.5	19.7	12.6	8.3	13.9	100.0	1,040
North-Western	52.7	23.2	11.6	4.0	8.6	100.0	354
Southern	61.4	20.7	5.9	2.5	9.5	100.0	814
Western	45.0	30.6	12.4	6.6	5.4	100.0	663
Education							
No education	53.3	23.6	12.7	5.1	5.4	100.0	925
Primary	51.9	22.5	10.8	4.7	10.1	100.0	4,439
Secondary	41.7	22.8	14.3	2.7	18.5	100.0	2,061
Higher	49.9	18.7	17.5	2.7	11.3	100.0	234
Current contraceptive method							
Female sterilisation	73.9	15.2	8.5	2.4	0.0	100.0	112
Pill	85.9	12.2	0.5	1.3	0.0	100.0	623
Condom	62.3	33.6	2.1	1.9	0.0	100.0	310
Rhythm/Natural family planning	68.9	20.0	6.3	4.8	0.0	100.0	64
Other method	76.2	17.1	3.0	3.7	0.0	100.0	775
No method	40.2	24.1	15.3	4.7	15.7	100.0	5,770
Total	49.2	22.6	12.2	4.2	11.8	100.0	7,658

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

Table 6.7.2 Recent sexual activity: men

Percent distribution of men by timing of last sexual intercourse, according to background characteristics, Zambia 2001-2002

Background characteristic	Timing of last sexual intercourse: Within the last 4 weeks	Within 1 year[1]	One or more years ago	Missing	Never had sexual intercourse	Total	Number of men
Age							
15-19	10.8	33.5	19.2	0.0	36.5	100.0	459
20-24	26.3	50.1	15.8	0.0	7.8	100.0	346
25-29	48.4	44.6	5.3	0.4	1.3	100.0	361
30-34	47.5	47.3	4.7	0.0	0.5	100.0	281
35-39	50.4	42.9	6.3	0.0	0.4	100.0	241
40-44	52.4	44.9	2.7	0.0	0.0	100.0	174
45-49	50.5	41.5	7.5	0.0	0.5	100.0	113
50-54	53.0	44.7	2.3	0.0	0.0	100.0	100
55-59	49.6	37.3	13.0	0.0	0.0	100.0	71
Marital status							
Never married	10.3	42.3	21.4	0.2	25.9	100.0	782
Married or living together	56.2	42.4	1.4	0.0	0.0	100.0	1,248
Divorced/separated/widowed	21.7	52.7	25.7	0.0	0.0	100.0	116
Marital duration[2]							
Married only once							
0-4 years	62.4	35.7	1.8	0.0	0.0	100.0	243
5-9 years	50.8	49.2	0.0	0.0	0.0	100.0	196
10-14 years	55.2	44.1	0.7	0.0	0.0	100.0	153
15-19 years	60.8	37.8	1.4	0.0	0.0	100.0	104
20-24 years	47.1	49.9	3.0	0.0	0.0	100.0	86
25+ years	63.3	32.2	4.5	0.0	0.0	100.0	94
Married more than once	54.3	44.6	1.1	0.0	0.0	100.0	372
Residence							
Urban	33.4	45.4	14.1	0.2	6.9	100.0	851
Rural	40.4	41.3	7.3	0.0	11.1	100.0	1,294
Province							
Central	28.6	43.8	17.0	0.0	10.5	100.0	165
Copperbelt	29.7	48.1	15.0	0.0	7.1	100.0	447
Eastern	35.2	49.6	7.0	0.0	8.2	100.0	268
Luapula	55.2	28.7	6.1	0.0	9.9	100.0	166
Lusaka	38.9	42.7	10.0	0.4	7.9	100.0	314
Northern	32.7	43.7	9.2	0.0	14.4	100.0	292
North-Western	47.1	32.8	9.7	0.0	10.5	100.0	93
Southern	43.9	40.5	4.9	0.0	10.7	100.0	232
Western	45.9	39.5	7.0	0.0	7.6	100.0	169
Education							
No education	40.7	44.1	5.1	0.0	10.0	100.0	108
Primary	40.1	41.0	7.5	0.0	11.4	100.0	1,100
Secondary	32.6	45.9	13.7	0.0	7.7	100.0	808
Higher	45.1	39.3	12.2	1.0	2.5	100.0	129
Total	37.6	42.9	10.0	0.1	9.4	100.0	2,145

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

Almost four in ten (38 percent) of the men interviewed were sexually active in the 4 weeks before the survey, while 43 percent had had sex in the previous year but not in the previous month. Ten percent had not been sexually active in the previous year and 9 percent had never had sex. As with women, sexual activity increases with age among men, with the highest level among men in their 40s and early 50s. Men in union are much more likely to be sexually active than those never in union. Men in urban areas are less likely to be sexually active than men in rural areas (33 and 40 percent, respectively). Recent sexual activity is highest in Luapula province (55 percent), followed by North-Western and Western provinces. The lowest rates of recent sexual activity are in Central and Copperbelt provinces. As with women, there is no clear pattern of sexual activity by education.

Comparison of data from the 2001-2002 ZDHS and the 1996 ZDHS shows a substantial decrease in the level of recent sexual activity among young men: the proportion who were sexually active in the 4 weeks before the survey dropped by half among those age 15-19 and 20-24 and decreased by one-third among men age 30-34.

6.6 Postpartum Amenorrhoea, Abstinence and Insusceptibility

Postpartum protection from conception can be prolonged by breastfeeding, which can lengthen the duration of amenorrhoea. Delaying the resumption of sexual relations can also prolong protection.

As shown in Table 6.8, a majority of women are amenorrhoeic for at least 12 months after delivering, with a median duration of amenorrhoea of 13 months. The median duration of postpartum abstinence is much lower—less than 5 months. Taking these two factors together shows that the median duration of postpartum insusceptibility to pregnancy is 15 months (i.e., median duration of protection due to either amenorrhoea or postpartum abstinence). By 12-13 months after birth, 55 percent of women remain amenorrhoeic and 63 percent are insusceptible to pregnancy, but only 17 percent are abstaining from sexual relations.

A comparison of data from the 1996 and 2001-2002 ZDHS surveys indicates that there has been a slight increase in the median duration of postpartum amenorrhoea, from 11.5 months to 13.3 months. This is likely due to longer duration of breastfeeding (see Chapter 11). There has been little change in duration of postpartum abstinence or insusceptibility.

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 2001-2002

Months since birth	Percentage of births for which the mother is: Amenorrhoeic	Abstaining	Insusceptible	Number of births
< 2	97.9	95.1	99.4	163
2-3	86.4	68.1	91.9	269
4-5	83.7	47.1	88.7	221
6-7	72.3	36.9	77.6	213
8-9	70.1	30.3	76.5	217
10-11	67.9	24.0	71.5	211
12-13	54.9	16.5	62.9	234
14-15	44.4	20.4	54.5	244
16-17	28.9	19.7	39.1	242
18-19	22.9	13.8	31.3	239
20-21	24.5	14.0	31.9	217
22-23	14.6	10.0	21.8	261
24-25	6.2	12.9	17.9	199
26-27	5.0	8.7	12.2	229
28-29	1.2	5.3	6.1	233
30-31	0.7	7.5	8.0	249
32-33	1.3	4.5	5.4	234
34-35	0.4	8.1	8.3	195
Total	37.1	23.7	44.0	4,069
Median	13.3	4.8	14.9	na
Mean	13.9	9.1	16.3	na

Note: Estimates are based on status at the time of the survey.
na= Not applicable

Table 6.9 shows the median durations of postpartum amenorrhoea, abstinence and insusceptibility by background characteristics. The duration of amenorrhoea is considerably shorter among urban women than among rural women, and it is considerably shorter among mothers in Lusaka and mothers with more education. The median duration of postpartum abstinence is particularly long for mothers in Western province, which is the main reason why they also have a relatively high median duration of insusceptibility to pregnancy.

Table 6.9 Median duration of postpartum insusceptibility by background characteristics

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 2001-2002

	Postpartum amenorrhoea	Postpartum abstinence	Postpartum insusceptibility	Number of births
Mother's age				
15-29	12.7	4.9	14.5	2,778
30-49	14.6	4.5	15.7	1,291
Residence				
Urban	9.9	4.6	12.9	1,230
Rural	14.4	4.9	15.9	2,839
Province				
Central	12.5	4.1	13.1	311
Copperbelt	11.4	4.2	13.0	641
Eastern	14.1	5.3	15.3	568
Luapula	13.8	2.6	14.5	390
Lusaka	9.1	5.0	10.9	469
Northern	15.0	5.8	16.2	642
North-Western	15.4	5.7	17.9	217
Southern	14.3	3.5	16.2	452
Western	14.4	10.4	19.4	379
Mother's education				
No education	15.5	5.6	16.7	602
Primary	13.9	4.7	15.3	2,595
Secondary	10.0	4.6	12.6	818
Higher	3.7	4.2	6.7	54
Total	13.3	4.8	14.9	4,069

Note: Medians are based on status at the time of the survey.

6.7 MENOPAUSE

Another factor influencing the risk of pregnancy among women is menopause. In the context of the available survey data, women are considered menopausal if they are neither pregnant nor postpartum amenorrhoeic, but have not had a menstrual period in the six months preceding the survey (Table 6.10). As expected, the proportion of women who are menopausal increases with age from 2 percent for women age 30-34 to 40 percent for women age 48-49.

Table 6.10 Menopause

Percentage of women age 30-49 who are menopausal, by age, Zambia 2001-2002

Age	Percentage menopausal[1]	Number of women
30-34	1.5	972
35-39	2.9	766
40-41	5.6	225
42-43	6.9	265
44-45	16.0	216
46-47	34.8	197
48-49	39.7	166
Total	8.4	2,807

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

FERTILITY PREFERENCES AND UNMET NEED FOR FAMILY PLANNING

7

Margaret T. Mwanamwenge and Richard Banda

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

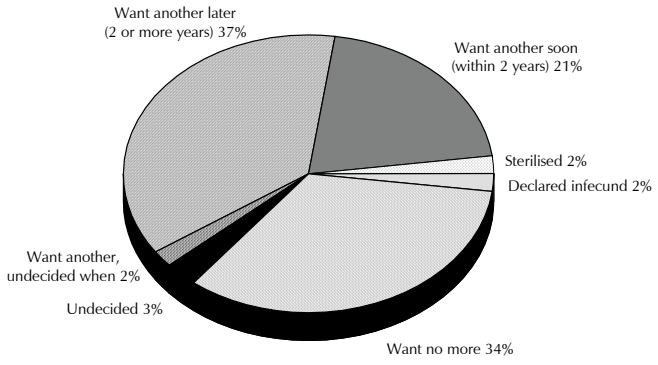
In the 2001-2002 ZDHS, women and men were asked a series of questions to ascertain their fertility preferences, including their desire to have another child, the length of time they would like to wait before having another child, and what they consider to be the ideal number of children. These data make it possible to quantify fertility preferences and, in combination with data on contraceptive use, allow estimation of the unmet need for family planning, both for spacing and limiting births.

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

7.1 DESIRE FOR MORE CHILDREN

Figure 7.1 shows that 60 percent of all currently married women want to have another child, with 21 percent wanting to have a child within 2 years and 37 percent of women preferring to wait for 2 or more years. This indicates a potential need for family planning services for spacing. One-third of married women want no more children, while 4 percent are either sterilised or declared infecund.

Figure 7.1 **Fertility Preferences of Currently Married Women 15-49**



ZDHS 2001-2002

Table 7.1 shows fertility preferences among currently married women and men by number of children at the time of survey. The table also shows disparities in the desire for more children between women and men, with more men than women desiring another child regardless of the number of surviving children. Overall, 67 percent of married men want another child, compared with only 60 percent of married women. Men are also more likely to want their next child soon, whereas women are more likely to want to wait two years for their next child. For example, 13 percent of married women with four children want another child within 2 years, compared with 32 percent of men with the same number of children.

Table 7.1 Fertility preferences by number of living children

Percent distribution of currently married women and currently married men by desire for children, according to number of living children, Zambia 2001-2002

Desire for children	Number of living children[1]							All women/ men
	0	1	2	3	4	5	6+	
WOMEN								
Have another soon[2]	85.2	33.0	20.7	16.8	13.4	7.7	3.2	20.5
Have another later[3]	5.1	57.4	53.6	48.7	36.5	27.4	11.0	37.4
Have another, undecided when	3.0	3.3	2.9	2.5	2.1	1.8	0.5	2.2
Undecided	1.5	1.2	1.9	2.6	4.7	4.2	2.3	2.5
Want no more	1.4	4.0	18.4	26.7	40.6	53.9	74.1	33.5
Sterilised[4]	0.0	0.2	0.5	1.2	1.4	3.2	6.2	2.0
Declared infecund	3.8	0.9	1.8	1.1	0.9	1.5	2.3	1.6
Missing	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Number	282	829	851	754	587	449	941	4,694
MEN								
Have another soon	88.4	49.9	37.2	31.7	32.2	26.9	21.1	35.2
Have another later	3.9	39.8	44.2	38.2	34.9	18.3	12.1	27.2
Have another, undecided when	5.4	4.5	4.2	4.5	3.3	4.7	3.7	4.2
Undecided	0.0	1.7	1.3	4.7	3.5	0.9	2.3	2.3
Want no more	2.3	4.0	13.1	20.5	26.1	49.3	60.1	31.0
Declared infecund	0.0	0.0	0.0	0.3	0.0	0.0	0.6	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Number	81	171	189	175	146	120	366	1,248

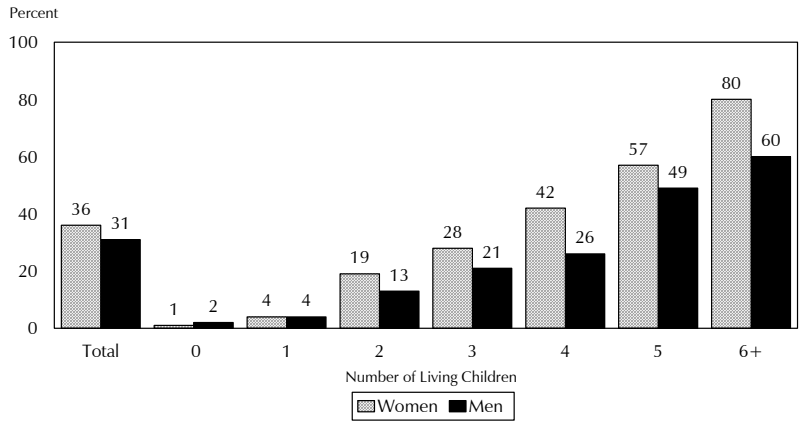
[1] Includes current pregnancy
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilisation

According to the results of the 2001-2002 ZDHS, women who want to have their first child soon has remained stable when compared with the 1996 ZDHS. However, there is a large increase in the proportion of men who want their first child soon between 1996 and 2001-2002 ZDHS (58 percent and 88 percent, respectively). This large change, which seems unexpected, deserves further investigation, but may reflect variability due to the small number of men in the category.

Thirty-six percent of married women and 31 percent of men want no more children or have been sterilised. The desire to end childbearing increases with the number of living children, increasing from 4 percent for women with only one child to 80 percent for women with 6 or more children (Figure 7.2). The desire to end childbearing for men increases from 4 percent for men with only one child to 60 percent for men with 6 or more children.

The above results show an increase in the desire to end childbearing, from 29 percent of married women and 24 percent of married men in 1996 to 36 percent of married women and 31 percent of married men in 2001-2002. The increase in the desire to end childbearing is particularly striking among women and men with 6 or more children; for women, this figure increased from 68 to 80 percent, while for men it increased from 44 to 60 percent.

Figure 7.2 **Percentage of Married Women and Men who Want No More Children by Number of Living Children**



ZDHS 2001-2002

7.2 DESIRE TO LIMIT CHILDBEARING BY BACKGROUND CHARACTERISTICS

Table 7.2 shows the percentage of currently married women who want no more children or are sterilised by number of living children and background characteristics and the percentage of currently married men who want no more children by background characteristics. The table shows that urban women are more likely than rural women to want no more children regardless of the number of children they already have. Overall, 45 percent of urban women do not want any more children, compared with 31 percent of their rural counterparts.

Copperbelt, Lusaka, and Central provinces lead in the proportion of women who wish to stop having children, while Western province has the lowest proportion of women who wish to limit the number of children that they have.

The percentage of women who do not want any more children increases with the increase in the level of education. The 2001-2002 ZDHS shows that 40 percent of women with secondary or higher education do not want any more children compared with 31 percent of women without any education. The differences are especially striking when the number of living children is taken into account. For example, among women with three children, only 15 percent of uneducated women want no more, compared with 46 percent of those with secondary or higher schooling (Figure 7.3).

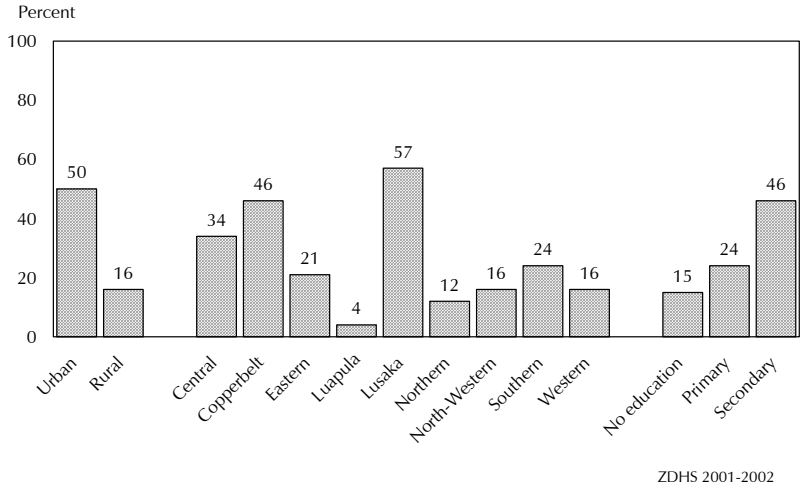
Table 7.2 Desire to limit childbearing

Percentage of currently married women who want no more children or are sterilised, by number of living children and background characteristics, and percentage of currently married men who want no more children, by background characteristics, Zambia 2001-2002

Background characteristic	Number of living children[1] 0	1	2	3	4	5	6+	All women	All men
Residence									
Urban	2.5	5.4	28.8	50.2	57.0	78.5	93.5	44.7	40.2
Rural	0.8	3.4	12.0	16.3	33.6	46.1	74.9	30.5	25.9
Province									
Central	5.7	3.7	17.0	33.7	53.0	(52.6)	88.3	40.9	35.8
Copperbelt	(0.0)	6.4	30.9	45.8	50.6	(75.5)	91.3	46.4	45.0
Eastern	0.0	2.6	17.1	21.4	48.6	59.3	80.7	33.2	30.1
Luapula	(0.0)	1.2	7.7	4.1	(19.1)	*	78.3	23.6	21.1
Lusaka	2.7	7.8	23.9	57.0	(58.2)	71.1	92.5	42.0	39.4
Northern	0.0	3.8	9.1	11.8	33.0	42.0	75.4	30.3	22.0
North-Western	(5.9)	6.5	8.3	16.0	19.7	47.7	69.4	30.7	20.9
Southern	(0.0)	1.4	23.2	23.6	45.3	(58.5)	74.6	37.2	26.0
Western	(3.7)	1.7	11.4	15.9	(14.6)	(38.6)	57.4	20.7	18.7
Education									
No education	3.6	3.1	6.6	14.8	27.2	45.7	76.3	30.9	19.8
Primary	1.1	3.0	16.1	23.7	38.8	55.5	78.7	35.0	26.6
Secondary+	0.9	6.8	28.8	45.8	59.8	70.9	92.3	39.8	37.8
All women	1.4	4.2	18.9	28.0	42.0	57.1	80.2	35.5	na
All men	2.3	4.0	13.1	20.5	26.1	49.3	60.1	na	31.0

Note: Women who have been sterilised are considered to want no more children. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1]Includes current pregnancy

Figure 7.3 **Percentage of Women with Three Living Children Who Do Not Want Additional Children, by Background Characteristics**



7.3 UNMET NEED FOR FAMILY PLANNING

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

Table 7.3 shows the proportions of currently married women with unmet need and met need, and the total demand for family planning by background characteristics, according to intention to space or limit births. The data show that 27 percent of married women have unmet need for family planning, the same proportion as in 1996. Unmet need for spacing is greater than unmet need for limiting children (17 percent and 11 percent, respectively). Comparing data from the 1996 and 2001-2002 ZDHS surveys, unmet need for spacing has declined somewhat (from 19 percent to 17 percent), while unmet need for limiting has increased (from 8 percent to 11 percent). Unmet need generally rises with age, falling off at the oldest age group. As expected, younger women (15-29) have a higher unmet need for spacing, while the unmet need for limiting births is higher in older women (35-49).

The table indicates that rural women have a higher unmet need for family planning (29 percent) compared with their urban counterparts (26 percent). It is interesting to note that whereas rural women have a higher unmet need for *spacing* (19 percent) compared with urban women (14 percent), urban women have a higher unmet need for *limiting* (12 percent) compared with rural women (10 percent).

Unmet need for family planning is highest in Southern and Central provinces (34 percent and 33 percent) and lowest in Luapula (19 percent). Lusaka, Luapula and Copperbelt lead the rest of the provinces with a satisfied demand for family planning of above 60 percent. Central province has the lowest satisfied demand of all provinces (44 percent).

Women with higher than secondary education have a lower unmet need for family planning (16 percent) compared with women with no education and those with primary education whose unmet need for family planning is 27 percent and 29 percent, respectively. Total demand for family planning increases with women's education level. The demand satisfied follows the same pattern. Overall, the percentage of demand satisfied ranges from 46 percent for women with no education to 79 percent for women with higher education.

Much of the unmet need for family planning in Zambia results from women's fear of the health side effects associated with contraceptive methods, especially the pill and injectables. Studies indicate that fear of side effects prevents many women from using modern methods of contraception (Population Council, 1998).

Table 7.3 Need for family planning

Percentage of currently married women with unmet need for family planning, and with met need for family planning, and the total demand for family planning, by background characteristics, Zambia 2001-2002

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning[3]			Percentage of demand satis-fied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	21.3	1.4	22.8	25.4	0.2	25.5	46.7	1.6	48.3	52.9	438
20-24	25.3	2.5	27.8	28.2	3.4	31.6	53.5	5.9	59.4	53.2	1,086
25-29	20.6	6.1	26.7	25.5	10.9	36.4	46.1	17.1	63.1	57.7	1,056
30-34	15.1	9.6	24.7	19.9	24.1	44.0	35.0	33.7	68.7	64.1	756
35-39	10.8	21.0	31.9	9.1	27.8	36.9	19.9	48.8	68.8	53.6	591
40-44	5.2	30.1	35.3	2.6	32.3	34.9	7.9	62.4	70.2	49.7	449
45-49	0.8	21.1	21.9	0.3	18.1	18.4	1.0	39.2	40.3	45.7	318
Residence											
Urban	13.6	11.9	25.5	22.6	23.1	45.7	36.2	35.0	71.2	64.2	1,662
Rural	18.6	9.9	28.5	17.4	10.5	27.9	36.0	20.4	56.4	49.5	3,032
Province											
Central	19.0	14.1	33.0	13.1	12.6	25.7	32.1	26.6	58.8	43.8	346
Copperbelt	15.1	11.9	27.0	21.1	24.0	45.1	36.2	35.8	72.1	62.6	871
Eastern	19.5	10.8	30.3	17.4	12.1	29.5	36.9	22.9	59.7	49.3	644
Luapula	11.4	7.5	18.9	23.4	8.5	31.8	34.8	15.9	50.7	62.7	399
Lusaka	14.2	12.8	27.0	25.8	21.3	47.1	40.0	34.1	74.2	63.6	640
Northern	16.9	7.3	24.2	18.3	13.4	31.7	35.3	20.7	56.0	56.7	678
North-Western	18.1	7.7	25.8	16.1	12.1	28.2	34.2	19.8	54.0	52.2	215
Southern	20.3	13.4	33.8	16.2	12.3	28.6	36.6	25.8	62.3	45.8	532
Western	18.5	7.2	25.6	15.7	5.2	20.9	34.2	12.4	46.6	45.0	369
Education											
No education	17.1	10.1	27.2	13.0	10.1	23.2	30.1	20.3	50.4	46.0	663
Primary	18.1	11.1	29.2	18.1	12.9	30.9	36.2	23.9	60.1	51.4	2,905
Secondary	14.1	9.7	23.8	26.3	21.2	47.6	40.4	30.9	71.4	66.7	1,006
Higher	6.7	9.7	16.4	23.0	39.8	62.8	29.7	49.5	79.2	79.3	120
Currently married women	16.8	10.6	27.4	19.2	15.0	34.2	36.1	25.6	61.6	55.5	4,694
Unmarried women	3.1	0.7	3.8	6.6	2.9	9.5	9.8	3.6	13.3	71.4	2,964
All women	11.5	6.8	18.3	14.4	10.3	24.6	25.9	17.0	42.9	57.4	7,658

[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, and fecund women who are neither pregnant nor amenorrhoeic and who are not using any method of family planning and say they want to wait two or more years for their next birth. Also included in unmet need for spacing are 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 unless they say it would not be a problem if they discovered they were pregnant in the next few weeks. *Unmet need for limiting* refers to pregnant women whose pregnancy was unwanted, amenorrhoeic women whose last child was unwanted, and to fecund women who are neither pregnant nor amenorrhoeic and who are not using any method of family planning and who want no more children. Excluded from the unmet need category are pregnant and amenorrhoeic women who became pregnant while using a method (these women are in need of better contraception).

[2] *Using for spacing* is defined as women who are using some method of family planning and say they want to delay their next 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.

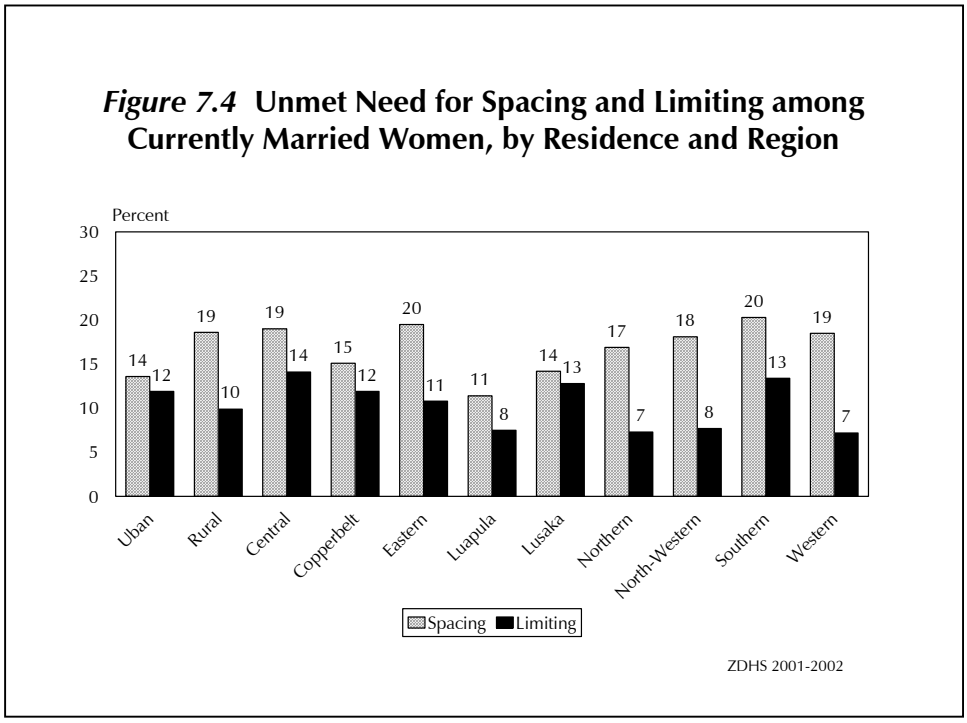


Figure 7.4 **Unmet Need for Spacing and Limiting among Currently Married Women, by Residence and Region**

7.4 IDEAL FAMILY SIZE

Information on what men and women believe to be their ideal family size was elicited through two questions. Respondents who had no children were asked, "How many children would you like to have if you could choose the number of children to have?" Respondents who had children were asked, "If you could go back to the time you did not have any children, how many children would you have if you could choose the number of children to have. Even though these questions are based on hypothetical situations, they give an idea of the total number of children women who have not started childbearing will have in the future, while among older and high parity women, these data provide a measure of the level of unwanted fertility.

Table 7.4 shows that 94 percent of all women and 93 percent of all men gave a numeric response to the question. The remaining 6 percent and 7 percent respectively gave responses such as "any number," "it's up to God," or "do not know."

Generally, men prefer larger families than women. Forty-two percent of men would like to have at least 6 children, compared with 28 percent of women. Less than 1 percent of all women and men do not want to have a child at all. For women with one child, 16 percent would like to have at least 6 children compared with 42 percent for those with 4 children and 54 percent for those who already have 6 children. This pattern is similar to that of men, though the percentages are higher for men at every given number of living children.

Table 7.4 Ideal and actual number of children

Percent distribution of all women and all men by ideal number of children and mean ideal number of children for all women and for all men and for currently married women and currently married men, according to number of living children, Zambia 2001-2002

Ideal number of children	Number of living children[1]							All women/ men
	0	1	2	3	4	5	6+	
WOMEN								
0	0.9	0.2	0.0	0.1	0.0	0.2	0.4	0.3
1	1.2	3.1	0.5	0.5	0.9	0.3	0.8	1.2
2	19.5	14.0	10.3	5.2	2.9	2.7	3.5	10.4
3	17.6	21.6	11.7	9.4	3.3	4.4	3.2	12.1
4	28.6	27.3	33.1	27.4	27.0	14.8	16.6	26.0
5	13.4	14.0	19.6	22.6	18.0	20.6	12.4	16.3
6+	12.2	15.5	20.2	30.1	42.2	49.8	53.8	27.6
Non-numeric responses	6.8	4.3	4.5	4.6	5.8	7.2	9.2	6.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,878	1,371	1,107	945	696	545	1,116	7,658
Mean ideal number children for:								
All women	3.9	4.0	4.5	4.9	5.4	5.8	6.2	4.7
Number	1,751	1,312	1,057	902	655	506	1,013	7,195
Currently married women	4.4	4.2	4.5	4.9	5.4	5.9	6.2	5.1
Number	259	792	816	718	554	419	858	4,416
MEN								
0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1
1	0.4	1.2	1.0	1.0	0.0	0.0	0.4	0.6
2	8.3	6.2	9.3	13.2	8.5	2.0	2.1	7.1
3	10.7	14.6	9.2	7.3	4.1	3.7	4.4	8.7
4	21.3	21.5	20.2	13.5	13.1	9.0	11.2	17.5
5	9.7	14.1	10.9	8.0	5.4	10.5	4.9	9.1
6+	30.0	30.6	31.6	45.1	58.3	66.8	63.8	41.6
Non-numeric responses	8.5	4.3	5.3	5.9	5.2	5.9	8.7	7.1
Total	89.0	92.4	87.6	93.8	94.5	97.9	95.5	91.7
Number	861	237	210	184	152	125	376	2,145
Mean ideal number children for:								
All men	4.5	4.3	4.7	5.2	5.8	6.7	7.6	5.3
Number	809	231	205	179	146	120	346	2,036
Currently married men	4.8	4.3	4.8	5.2	5.8	6.8	7.6	5.9
Number	77	166	186	170	140	116	337	1,190

[1] Includes current pregnancy

[2] Means are calculated excluding respondents giving non-numeric responses.

The mean ideal number of children for women is 4.7, compared with 5.3 for men. The number increases with the number of living children and ranges from 3.9 for women without any children to 6.2 for those with at least 6 children. For married women, the ideal number of children is higher (5.1) than that of all women (4.7). There are two principal reasons for this pattern. First, to the extent that women are able to implement their fertility desires, women who want smaller families will tend to achieve smaller families. Second, some women may have difficulty admitting that they would have had fewer children if they could begin childbearing again. Such women are likely to report their actual number of children as their preferred number. As with women, the mean ideal number of children increases with the number of children that the man has and ranges from 4.5 among those without a child to 7.6 among those who already have 6 children.

The levels of ideal family size exceed the four children espoused as the ideal family size in the National Population Policy and imply that efforts to encourage smaller family size norms might be warranted. However, comparison with the 1992 and 1996 ZDHS surveys demonstrates that there has been a decline in ideal family size among women over time from a mean of 5.8 children in 1992 to 5.3 children in 1996 and to 4.7 in 2001-2002.

The data also provide evidence of unwanted fertility. This is shown by the proportion of respondents. For example, among women with six or more children, 37 percent who said that they would ideally have liked fewer children than they actually have.

Table 7.5 shows the mean ideal number of children for all women by age according to background characteristics and for all men by background characteristics.

Table 7.5 Mean ideal number of children by background characteristics

Mean ideal number of children for all women by age and mean ideal number of children for all men, according to background characteristics, Zambia 2001-2002

Background characteristic	Age							All women	All men
	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
Residence									
Urban	3.3	3.5	3.9	4.4	5.1	5.5	6.2	4.0	4.4
Rural	4.5	4.7	5.0	5.6	6.0	6.5	6.5	5.2	5.9
Province									
Central	3.7	3.9	4.5	4.9	5.3	5.8	5.6	4.5	5.0
Copperbelt	3.5	3.7	4.1	4.5	5.4	5.6	6.6	4.2	4.6
Eastern	4.0	4.2	4.6	5.3	5.8	6.3	6.7	4.9	5.5
Luapula	4.6	5.0	5.2	5.7	6.3	(6.1)	6.4	5.4	5.8
Lusaka	3.1	3.3	3.9	4.3	4.9	5.7	(5.3)	3.9	4.2
Northern	4.1	4.7	4.9	5.6	6.2	6.3	6.8	5.1	6.3
North-Western	4.8	4.7	5.2	5.7	6.3	6.8	7.5	5.4	6.1
Southern	4.2	4.5	4.5	5.2	5.3	5.9	(5.7)	4.8	5.5
Western	5.3	5.2	5.1	6.0	6.6	7.3	(7.5)	5.8	6.7
Education									
No education	4.9	5.2	5.1	5.9	6.1	7.0	6.8	5.7	6.0
Primary	4.2	4.5	4.9	5.4	6.0	6.3	6.4	5.0	5.9
Secondary or higher	3.4	3.4	3.7	4.1	4.6	5.0	5.8	3.8	4.5
All women	4.0	4.2	4.5	5.1	5.7	6.1	6.4	4.7	5.3

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

The ideal family size increases with age, from 4 children among those aged 15-19 to 6.4 among those aged 45-49. Ideal family size for both women and men is higher in rural areas than urban areas. The ideal size is the highest in Western province (5.8 for women and 6.7 for men). This confirms the findings that Western province has the lowest percentage of both men and women who want to limit child bearing as discussed earlier. Copperbelt and Lusaka provinces have the lowest ideal family sizes along with the lowest fertility levels and highest contraceptive prevalence rates. There are also variations in the ideal family size with level of education reached. Across all age groups, the ideal family size decreases with increasing level of education.

7.5 WANTED AND UNWANTED FERTILITY

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

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

Table 7.6 Fertility planning status

Percent distribution of births in the five years preceding the survey (including current pregnancies) by fertility planning status, according to birth order and mother's age at birth, Zambia 2001-2002

Birth order and mother's age at birth	Planning status of birth			Missing	Total	Number of births
	Wanted then	Wanted later	Wanted no more			
Birth order						
1	62.7	13.6	23.3	0.4	100.0	1,669
2	67.7	21.7	10.1	0.5	100.0	1,392
3	65.0	24.1	10.6	0.3	100.0	1,133
4+	52.1	24.3	23.4	0.2	100.0	3,236
Age at birth						
<20	59.8	17.4	22.4	0.4	100.0	1,587
20-24	64.6	22.9	12.0	0.4	100.0	2,209
25-29	62.0	24.4	13.4	0.2	100.0	1,675
30-34	56.1	24.9	18.8	0.2	100.0	1,034
35-39	45.6	17.8	36.4	0.3	100.0	633
40-44	43.1	10.0	46.9	0.0	100.0	258
45-49	(41.3)	(7.3)	(50.2)	(1.2)	100.0	35
All women	59.4	21.4	18.9	0.3	100.0	7,430

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

The data show that over 40 percent of these births were unplanned, of which 21 percent were mistimed and 19 percent were unwanted. The proportion of planned births increases between the first and second birth and then declines with the increase in number of births. The proportion of unplanned births has slightly increased from 36 percent in 1996 and to 40 percent in 2001-2002. Even more troubling is the fact that the proportion of births that are unwanted has almost tripled over the same period, from 7 percent to 19 percent.

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

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 2001-2002

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	3.4	4.3
Rural	5.8	6.9
Province		
Central	4.8	6.2
Copperbelt	3.7	4.5
Eastern	5.9	6.8
Luapula	6.2	7.3
Lusaka	3.5	4.3
Northern	6.0	6.9
North-Western	6.1	6.8
Southern	4.7	6.1
Western	5.4	6.4
Education		
No education	6.6	7.4
Primary	5.5	6.5
Secondary or higher	3.0	3.9
All women	4.9	5.9

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.

The wanted fertility rate has decreased from 5.4 in 1992 to 5.2 in 1996 and to 4.9 in 2001-2002. There is a difference of one child between the wanted fertility rate and the actual total fertility rate. If the desired fertility rates for rural and urban areas were realised, the fertility level would be 5.8 births and 3.4 births per woman, respectively. This means that there would be about one child fewer per woman in both rural and urban areas.

Lusaka has the lowest wanted and actual fertility rates of 3.5 and 4.3 respectively, while Luapula has the highest wanted and actual fertility rates of 6.2 and 7.3 respectively. In addition to Luapula, women in Eastern, Northern, North-Western and Western provinces have wanted fertility rates that are above the national average, while the rates for women in Central, Lusaka, Copperbelt and Southern provinces are below the national average. On the other hand, only Copperbelt and Lusaka have actual total fertility rates that are below that of the national average. Southern and Central provinces have the largest gaps between wanted and actual fertility.

Women's education has a negative relationship with levels of both wanted and actual fertility. Women with no education have the highest wanted fertility rate (6.6), while those with at least some secondary education have the lowest with wanted fertility (3.0).

INFANT AND CHILD MORTALITY 8

Kumbutso Dzekedzeke

8.1 INTRODUCTION

Infant and child mortality rates are some of the most important social indicators in Zambia. The national population policy developed in 1984 targeted the reduction of infant mortality from 97 deaths per 1,000 live births in 1980 to 65 per 1,000 live births by the year 2000 and to 50 by the year 2015. In this chapter, information about the levels, trends and differentials are provided, as well as data on high-risk fertility behaviour. The data are disaggregated by sex, socio-economic characteristics, demographic characteristics and other variables that influence mortality levels among children under age five.

Estimates of childhood mortality are based on information from the birth history section of the questionnaire administered to individual women. In the birth history section, women were asked to provide information about all their births starting with the first one, irrespective of whether they were still alive. Additional information about sex of children, whether the children were still alive, age at death for dead children, date of birth for all children and whether the children lived with the mother or elsewhere were collected. This information has provided robust direct estimates of early childhood mortality in Zambia which compare well with other estimates from censuses.

The direct early childhood mortality rates estimated with this data are:

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

Infant mortality: the probability of dying before the first birthday

Postneonatal mortality: the difference between infant and neonatal mortality

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

Under-five mortality: the probability of dying before the fifth birthday.

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

Data collected using the birth history in the 2001-2002 ZDHS are subject to a number of potential errors. First, the data reflect only surviving women age 15-49 years; no data are available for children of women who died. To the extent that child mortality of surviving and non-surviving women differs substantially and that young children of non-surviving women make up a significant portion of all young children, the mortality indicators compiled from the birth history would be biased.

Another possible error is underreporting of events; respondents are likely to forget events that occurred in the more remote past. Omission of infants' deaths may take place, especially in cases where deaths occur early in infancy. If such deaths are selectively reported, consequences will not only be a lower infant mortality rate (IMR) and neonatal mortality rate (NNMR), but also a low ratio of neonatal deaths to infant deaths. On the other hand, misstatements of the date of birth and age at death will result in distortion of the age pattern of death. This may affect the final indices obtained because of shifting of ages above or below the cut-offs for the different mortality categories.

Fifty-nine percent of all neonatal deaths in the 20 years preceding the 2001-2002 ZDHS were early neonatal deaths (Appendix Table C.5). This figure is within the expected range and is the same as reported in the 1996 ZDHS. Further, it appears that infant deaths for births that occurred longer before the survey have not been underreported. The proportion of early neonatal deaths increases with an increase of the period before the survey. In the 1996 ZDHS, a reverse pattern was observed. The pattern observed in the 2001-2002 ZDHS can be attributed to the increase in heaping of deaths at 7 days with the reduction of the time period before the 2001-2002 ZDHS.

Another aspect that affects the childhood mortality estimates is the quality of reporting of age at death. In general, these problems are less serious for periods in the recent past than for those in the more distant past. If ages at death are misreported, it may bias the estimates, especially if the net effect of age misreporting results in transference of deaths from one age bracket to another. To minimise errors in the reporting of age at death, the interviewers were instructed to record the age at death in days if the death took place within one month after birth, in months if the child died within 24 months, and in years if the child was two years or older.

Table C.6 shows that the number of reported deaths at age 12 months is sometimes more than twice that of adjacent ages (11 and 13 months). If some of these deaths actually took place at less than 12 months of age, transference to age 12 months or older will result in a lower estimate of infant mortality than the actual level. However, age heaping is higher for births in the 5 to 14 years prior to the survey than for the most recent births. Overall, the heaping of deaths at 12 months of age is relatively minor compared with the total number of infant deaths in each period, and does not warrant adjustment of the data.

8.2 Levels and Trends in Infant and Child Mortality

Table 8.1 shows the variations in neonatal, postneonatal, infant, child and under-five mortality rates for successive five-year periods before the survey. The level of under-five mortality was 168 deaths per 1,000 births during the five-year period before the 2001-2002 ZDHS, indicating that around 1 in 6 Zambian children born during the period died before their fifth birthday. The indicators in the table can be segmented into two sections, neonatal mortality and postneonatal mortality which are components of the infant mortality rate; and infant mortality and child mortality which are components of the under-five mortality rate. Viewed this way, most of the deaths of infants (61 percent) occur after the first month of birth and those of children under five (about 57 percent) before their first birthday. Given the short period of reference in a child's life referred to by neonatal mortality and infant mortality, a disproportionate number of deaths occur in the first month and first year of childhood.

Table 8.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality rates for three five-year periods preceding the survey, Zambia 2001-2002

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	**Infant mortality** ($_1q_0$)	Child mortality ($_4q_1$)	**Under-five mortality** ($_5q_0$)
0-4	37	58	95	81	168
5-9	29	63	93	83	168
10-14	31	64	95	87	174

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

Although Table 8.1 also presents indicators for the 10-14 year period before the survey, indicators in the table will not be used to infer trends. The primary reason for this is that reported mortality data for time periods more distant from the survey date may be subject to less complete reporting of events and less accurate reporting of dates of birth and ages at death than data for time periods immediately preceding the survey. Accordingly, trend analysis will be based on mortality estimates for the 0-4 year time periods preceding the 1992, 1996 and 2001-2002 ZDHS surveys.

Table 8.2 shows the childhood mortality rates for the 0-4 year period preceding the three recent ZDHS surveys. The table shows that all childhood mortality rates had increased in the period 1992-1996 and all but one (neonatal mortality) declined in the period 1997-2001. Under-five mortality, which had shown a modest increase from 191 to 197 deaths per 1,000 births between the 1992 and 1996 surveys, subsequently fell sharply to 168 in the 2001-2002 ZDHS. A similar pattern is evidenced for infant mortality. Although it is not clear what might be causing the decline in childhood mortality in Zambia, several factors could be involved. One possible factor could be the impressive coverage of vitamin A supplements for children. Data in Chapter 11 show that two-thirds of children 6-59 months were reported to have received a vitamin A supplement in the six months prior to the survey. Research has shown that adequate intake of vitamin A can reduce child mortality substantially (Pokhrel et al., 1994). Another possible factor is that, as mentioned earlier, the child mortality data omit the experience of children whose mothers have died. It is likely that the childhood mortality rates of children whose mothers have died are higher than those of children whose mothers are still alive. However, one analysis indicates that omission of data from deceased women would have a very small effect on the mortality estimates from 2001-2002 survey (Hodgins, 2003). Of course, sampling error could be responsible for some or all of the difference in the rates estimated by the three surveys. For example, consider the IMR estimates of the 1996 and 2001-2002 surveys (117 and 95 per 1,000, respectively). The 95 percent confidence interval for the 1996 estimate (100 to 117 per 1,000) (CSO, MOH, and Macro International, 1997: Appendix B) overlaps with that of the 2001-2002 estimate (85 to 105 per 1,000) (see Appendix B), indicating that sampling variability could be responsible for the observed variation in the rate.

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, ZDHS 2001-2002, ZDHS 1996, and ZDHS 1992

Survey	Approximate calendar period	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	**Infant mortality** ($_1q_0$)	Child mortality ($_4q_1$)	**Under-five mortality** ($_5q_0$)
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 the neonatal mortality rates

8.3 EARLY CHILDHOOD MORTALITY BY SOCIOECONOMIC CHARACTERISTICS

Early childhood mortality rates by socio-economic characteristics are presented in Table 8.3. The table focuses on geographic and education differentials of women. The rates have been computed for a ten-year period instead of a five-year period in order to reduce sampling errors.

Table 8.3 Early childhood mortality by background characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates (per 1,000) for the ten-year period preceding the survey, by selected background characteristics, Zambia 2001-2002

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	**Infant mortality** ($_1q_0$)	Child mortality ($_4q_1$)	**Under-five mortality** ($_5q_0$)
Residence					
Urban	31	46	77	69	140
Rural	35	68	103	89	182
Province					
Central	35	57	92	110	192
Copperbelt	24	43	68	71	134
Eastern	29	55	84	89	166
Luapula	36	118	154	112	248
Lusaka	29	41	70	72	137
Northern	39	74	113	84	187
North-Western	25	49	74	60	130
Southern	29	47	76	77	148
Western	60	79	139	72	201
Mother's education					
No education	39	70	108	101	198
Primary	34	64	99	87	177
Secondary or higher	27	44	70	55	121

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

Early childhood mortality is lower in urban areas than in rural areas. However, there are exceptions with some rural provinces (North-Western and Southern provinces) having mortality rates comparable with urban provinces (Copperbelt and Lusaka provinces). In fact, North-Western province has the lowest under-five mortality rate (130 per 1,000 births) among all the provinces. This finding has also been corroborated by the 2000 Census data where the under-five mortality rate for North-Western province was measured at 137 per 1,000 births (CSO 2002b).

There are variations in childhood mortality indicators by background characteristics. The largest variations are in infant, child, and under-five mortality rates. Neonatal mortality has the least variation with the outlier being Western province where at 60 per 1,000 births the rate is more than twice that of the rate in Copperbelt province, 24 per 1,000 births. The rate in Copperbelt province (24 per 1,000 births), an urban province, is closely followed by North-Western province (25 per 1,000 births), one of the most rural provinces in Zambia.

Luapula province has the highest postneonatal mortality rate (118 per 1,000 births); it is almost three times higher that of Copperbelt province (43 per 1,000 births). Similarly, Luapula province has the highest infant, child, and under-five mortality rates. The rates in Luapula province are almost twice those of the lowest provinces: Copperbelt for infant mortality and North-Western province for child and under-five mortality.

The childhood mortality rates by mother’s level of education of show the expected relationship, with children of better educated women having lower mortality rates.

A comparison of neonatal, infant, and under-five mortality from the 1992, 1996 and 2001-2002 surveys is shown in Table 8.4. For neonatal mortality, there was little change in urban rates between the three surveys but a steady decline in rural areas. For infant and under-five mortality, rates rose between 1992 and 1996 and then declined from 1996 to 2001-2002, both in urban and rural areas, although the increase in both infant and under-five mortality between 1992 and 1996 is small. The trend between the three surveys in early childhood mortality rates within the same category of mother's education is generally a curve, with rates increasing between 1992 and 1996 and then dropping from 1996 to 2001-2002. The only exception is the neonatal mortality rates for children of mothers with primary and secondary or higher education: rates generally decline between the three surveys.

Table 8.4 Trends in early childhood mortality rates by residence and education

Neonatal, infant, and under-five mortality rates for the ten-year periods preceding the survey, by residence and mother's education, ZDHS 2001-2002, ZDHS 1996, and ZDHS 1992

	Neonatal mortality (NN)			Infant mortality ($_1q_0$)			Under-five mortality ($_5q_0$)		
Residence and mother's education	ZDHS 1992	ZDHS 1996	ZDHS 2001-2002	ZDHS 1992	ZDHS 1996	ZDHS 2001-2002	ZDHS 1992	ZDHS 1996	ZDHS 2001-2002
Residence									
Urban	32	32	31	78	92	77	151	173	140
Rural	47	39	35	116	118	103	201	205	182
Mother's education									
No education	47	48	39	115	133	108	204	222	198
Primary	40	36	34	99	110	99	182	201	177
Secondary or higher	35	27	27	79	82	70	135	142	121

8.4 EARLY CHILDHOOD MORTALITY RATES BY DEMOGRAPHIC CHARACTERISTICS

Studies have shown that a number of demographic factors are strongly associated with the survival chances of young children. These factors include sex of the child, age of the mother at birth, birth order, length of the preceding birth interval, and the size of the child at birth. Table 8.5 presents mortality rates for by selected demographic characteristics. Again, for most variables in Table 8.5, the mortality estimates are calculated for a ten-year period before the survey so that the rates are based on a sufficient number of cases in each category to ensure statistical significance. However, five-year rates are presented for the birth weight variable because information collected for this indicator was available only for births during the period since 1996.

Female children have a lower mortality risk than males. The under-five mortality risk for males is more than 10 percent greater than that for females. Among the demographic characteristics, a preceding birth interval of less than 24 months poses the highest risk for child survival. For example, the data show that when the birth interval is less than 24 months, infant mortality is double that for a birth interval of 36 months or more. It should be noted that there is now a new international consensus (Setty-Venugopal and Upadhyay, 2002) that the optimal interval between births is at least 36 months. As illustrated in Table 8.5, early childhood mortality is higher for births occurring after an interval of 24-35 months than those occurring 36 or more months after a previous birth. For example, the infant mortality risk ratio for births occurring after an interval of 24-35 months (75 per 1,000) to births occurring after 36-47 months (69 per 1,000) is 1.09, i.e., children born 24-35 months after a previous birth are 9 percent more likely to die in the first year of life than those born 36-47 months after a previous birth). These findings show the importance of birth spacing as a means of reducing childhood mortality.

Mortality risks for each category of childhood mortality generally display a U-shape curve by mother's age and birth order. In Zambia, an exception to this pattern occurs in the case of child mortality (age 1-4); the child mortality rate for birth order 2-3 is higher than that of children of other birth orders.

Table 8.5 Early childhood mortality by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the ten-year period preceding the survey, by selected demographic characteristics, Zambia 2001-2002

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	**Infant mortality** (${}_1q_0$)	Child mortality (${}_4q_1$)	**Under-five mortality** (${}_5q_0$)
Child's sex					
Male	34	61	95	89	176
Female	32	60	93	74	160
Mother's age at birth					
<20	43	67	110	84	185
20-29	29	61	89	84	166
30-39	34	53	87	75	155
40-49	38	72	110	90	191
Birth order					
1	42	65	107	81	180
2-3	28	59	87	90	169
4-6	31	61	92	72	157
7+	37	56	93	83	169
Previous birth interval[2]					
<24 months	62	96	157	106	247
24-35 months	24	51	75	79	148
36-47 months	19	50	69	70	134
48+ months	26	46	72	70	137
Birth size[3]					
Small or very small	84	61	145	na	na
Average or larger	29	57	86	na	na

Note: Rates based on 250 to 499 exposed persons are in parentheses.
na= Not applicable
[1] Computed as the difference between the infant and the neonatal mortality rates
[2] Excludes first-order births
[3] Rates for the five-year period preceding the survey

Studies have shown that a child's weight at birth is an important determinant of its survival chances. It should be noted that, since relatively few mothers had information on the child's exact weight at birth, mothers were instead asked whether their child was very large, larger than average, average, smaller than average, or small at birth, since this has been found to be a good proxy for the child's weight. Children reported to be small or very small are almost three times more likely to die in the first month than children reported to be average or larger. Their postneonatal and infant mortality rates are also significantly elevated.

8.5 Women's Status and Early Childhood Mortality

Greater participation of women in household decision-making and greater control of their own lives have long been thought to lead to a better household situation overall.. A better household situation will have a positive effect on the well-being of children. Table 8.6 shows childhood mortality rates tabulated by three indices of women's status: the number of household decisions in which the woman has the final say, the number of reasons for which she feels a woman is justified in refusing to have sex with her husband and the number of reasons for which she feels wife beating is justified (see Chapter 3 for a detailed description of these indices).

Table 8.6 shows that there is no clear relationship between levels of childhood mortality and the number of decisions in which a woman has a final say in household decision-making. Similarly, no clear trends are apparent between child mortality and women's ability to refuse sex with their husbands. The only clear relationship between women's status indicators and early childhood mortality is with acceptability of wife-beating. In this case, risk of child death increases by number of reasons considered to justify beating, across all categories of early childhood mortality.

Table 8.6 Early childhood mortality by women's status indicators

Neonatal, postneonatal, infant, child and under-five mortality rates for the ten-year period preceding the survey, by selected women's status indicators, Zambia 2001-2002

Indicator of women's status	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Number of decisions in which woman has final say[2]					
0	31	66	97	87	175
1-2	33	63	95	89	176
3-4	36	55	91	72	156
Number of reasons to refuse sex with husband					
0	38	77	115	80	186
1-2	30	53	82	92	167
3-4	34	61	95	80	167
Number of reasons wife beating is justified					
0	30	46	76	67	138
1-2	31	55	86	77	157
3-4	34	62	95	87	174
5	36	70	106	86	182

[1] Computed as the difference between the infant and the neonatal mortality rates
[2] Either by herself or jointly with others

8.6 HIGH-RISK FERTILITY BEHAVIOUR

There is a strong relationship between maternal fertility patterns and children's survival risks. Typically, the risk of early childhood death is higher among children born to mothers who are too young or too old, children born after too short a birth interval and among children of high birth order, than among other children. For the purpose of the analysis that follows, a mother is classified as "too young" if she is less than 18 years of age, and "too old" if she is over 34 years at the time of the birth. Furthermore, for the purpose of this report and for the sake of trend analysis, a "short birth interval" is defined as less than 24 months after the previous birth, and a child is of "high birth order," if the mother had previously given birth to three or more children (i.e., the child is of birth order four or higher). It should be noted that first births, although they are often at increased risk of dying, are assigned to the "not in any high-risk" category because the first birth is not considered avoidable.

Table 8.7 shows the percent distribution of children born in the five years before the survey by these risk factors. The data presented in the first two columns of Table 8.7 address the issue of high-risk fertility behaviour from the perspective of the child. The first column shows the percentage of births in the five-year period before the survey that fall into one or more of the categories where the risk of dying is elevated. The second column presents the ratio of the proportion dead in each high-risk category to the proportion dead among children not in any high-risk category. Categories in which this risk ratio exceeds 1.0 are considered to have an elevated risk of dying.

Only 27 percent of births are in a "risk-free" category (not in any high-risk category). Forty-one percent of births are in the single high-risk category, with 26 percent being third order births or higher. Births in the multiple high-risk category are not as common as births in the single high-risk category. The percentage of births in the multiple high-risk category (18 percent) is less than half that of births in the single high-risk category.

Table 8.7 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey by category of elevated risk of dying and the risk ratio, and the percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Zambia 2001-2002

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	27.0	1.00	19.9[a]
Unavoidable risk category			
First order births, mother's age 18-34	14.3	1.14	5.4
Single high-risk category			
Mother's age <18	9.2	1.30	0.8
Mother's age >34	0.2	1.15	2.5
Birth interval <24 months	5.5	1.34	10.3
Birth order >3	26.1	0.90	20.5
Subtotal	41.0	1.05	34.1
Multiple high-risk category			
Age <18 & birth interval <24 months[2]	0.5	2.00	0.6
Age >34 & birth order >3	10.9	0.82	21.4
Age >34 & BI <24 months & birth order >3	1.4	2.99	4.8
Birth interval <24 months & birth order >3	4.9	1.42	13.8
Subtotal	17.7	1.19	40.6
In any avoidable high-risk category	58.7	1.09	74.7
Total	100.0	na	100.0
Number of births	6,649	na	4,694

Note: Risk ratio is the ratio of the proportion dead of births in a specific high-risk category to the proportion dead of 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 occurred less than 15 months ago, or latest birth being of order 3 or higher.
[2] Includes the combined categories age<18 & birth order >3
[a] Includes sterilised women

In general, risk ratios are higher for children in multiple high-risk categories than in single high-risk categories. Most vulnerable are children born to mothers older than 34 years, less than 24 months after a preceding birth, and of a birth order greater than 3. Such children are almost three times more likely to die as children who are not in any risk category. However, only 1 percent of births fall in this category. Among single high-risk categories, a birth interval of less than 24 months results in a child running a 34 percent higher risk of dying than children not in any high-risk category; 6 percent of births are in this group.

Finally, the last column of Table 8.7 shows the potential for high-risk births from the perspective of the woman, i.e., the percentage of currently married women who, if they had become pregnant at the time of the survey, would give birth to a child with an elevated risk of dying. A woman's current age, time elapsed since the last birth, and parity are used to determine the risk category in which any birth a woman conceived at the time of the survey would fall. For example, if a respondent age 40 with a parity of four, and most recent birth within the 18 months before the survey were to become pregnant, she would fall in the multiple-risk category of being at too old, too high parity (three or more births) and giving birth too soon. Eighty percent of the women have the potential to give birth to a child with an elevated risk of dying; the majority of these women (41 percent) have the potential to give birth to children in the multiple high-risk categories.

MATERNAL AND CHILD HEALTH 9

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This chapter presents findings from several areas of importance to maternal and child health including information on antenatal, delivery and postnatal care, children's vaccinations, and common childhood illnesses and their treatment.

9.1 MATERNITY CARE

Early and regular checkups by health professionals are very important in assessing the physical status of women during pregnancy and ensuring delivery of appropriate interventions. The 2001-2002 ZDHS obtained information from women on both coverage of antenatal care and of key elements of the care received for the last birth during the five-year period before the survey.

9.1.1 Antenatal Care

Antenatal care coverage

Table 9.1 shows the proportion of women who had a live birth in the five years preceding the survey by the source of antenatal care for the most recent birth. In obtaining the information on source, interviewers recorded all persons a woman had seen for antenatal care. However, for cases where more than one person was seen, only the provider with the highest qualifications was recorded. Table 9.1 shows that 93 percent received antenatal care from medical personnel and 2 percent from traditional birth attendants

There is little variation in the distribution of antenatal care according to the birth order. Urban residents are more likely to receive antenatal care from doctors (5 percent) than rural residents (1 percent), but over 80 percent of urban and rural residents see midwives. Traditional birth attendants provide antenatal care to less than 1 percent of urban residents compared with 3 percent of rural residents.

There are few regional variations in obtaining antenatal care, with Lusaka and Copperbelt recording a higher proportion (4 percent and 7 percent, respectively) of attendances by doctors, respectively, compared with less than 1 percent in Luapula, Northern, Eastern, North-Western, and Southern. In comparison to the other provinces, Central, Northern, Western, and North-Western have a higher percentage of women who did not get any antenatal care.

Women's education is strongly associated with antenatal attendance. With a higher level of education, the choice of provider shifts to a higher qualification. Those with higher than secondary education have the highest antenatal attendance from medically trained providers (100 percent) compared to those with no education (84 percent) . Thirteen percent of women with higher education saw a doctor for antenatal care compared with less than 1 percent for those with no education. None of the women with higher than secondary education reported having been attended to by traditional birth attendants compared with 6 percent of those with no education.

Table 9.1 Antenatal care

Percent distribution of women who had a live birth in the five years preceding the survey by antenatal care (ANC) provider, for the most recent birth, according to background characteristics, Zambia 2001-2002

Background characteristic	Any[1] ANC	Medically trained provider			Traditional birth attendant/ other	No one	Missing	Total	Number of women
		Doctor	Clinical officer	Nurse/ midwife					
Age at birth									
<20	93.2	1.7	6.3	85.1	2.4	4.3	0.1	100.0	866
20-34	94.0	2.6	7.0	84.4	2.0	3.6	0.3	100.0	2,868
35-49	90.7	1.7	8.4	80.6	3.0	6.0	0.3	100.0	668
Birth order									
1	93.9	1.8	5.9	86.2	2.6	3.4	0.1	100.0	948
2-3	93.8	2.7	7.0	84.2	1.9	3.8	0.4	100.0	1,467
4-5	94.2	2.4	7.4	84.4	2.1	3.6	0.0	100.0	941
6+	91.3	2.1	7.9	81.3	2.5	5.7	0.4	100.0	1,046
Residence									
Urban	97.7	4.6	1.4	91.6	0.1	1.9	0.4	100.0	1,499
Rural	91.1	1.1	10.0	80.0	3.4	5.2	0.2	100.0	2,904
Province									
Central	92.5	2.8	11.5	78.2	0.6	6.9	0.0	100.0	319
Copperbelt	96.8	6.7	2.2	88.0	0.0	2.6	0.6	100.0	765
Eastern	95.2	0.4	2.5	92.4	1.2	3.2	0.4	100.0	587
Luapula	91.7	0.0	13.9	77.8	3.5	4.5	0.3	100.0	371
Lusaka	97.6	4.3	1.5	91.9	0.2	1.9	0.2	100.0	590
Northern	90.5	0.4	11.1	79.0	2.9	6.6	0.0	100.0	649
North-Western	92.2	0.4	4.1	87.7	1.1	6.2	0.5	100.0	226
Southern	92.9	0.7	9.7	82.4	5.2	1.9	0.0	100.0	485
Western	86.0	2.0	13.1	70.9	7.1	6.4	0.5	100.0	412
Education									
No education	83.9	0.8	8.1	75.0	6.0	9.9	0.2	100.0	613
Primary	93.6	1.8	7.8	84.1	2.1	4.0	0.2	100.0	2,726
Secondary	97.8	3.8	4.7	89.3	0.5	1.2	0.5	100.0	977
Higher	100.0	2.6	2.5	84.9	0.0	0.0	0.0	100.0	87
Total	93.4	2.3	7.0	84.0	2.3	4.1	0.3	100.0	4,402

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.

[1] The percentage receiving antenatal care from any trained medical provider is the sum of the proportions receiving care from a doctor, clinical officer or nurse/midwife

Antenatal care can be more effective in preventing adverse pregnancy outcomes when it is sought early in the pregnancy and continues through to delivery. Table 9.2 provides information on the number of antenatal care visits and the timing of the first visit. Early detection of problems in pregnancy leads to more timely referrals in case of complications and 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 of obstetric emergencies and adverse outcomes. In an effort to bridge the gap and provide health care as close to the family as possible, the District Health Management Teams have been training traditional birth attendants to recognise the danger signs during pregnancy and refer women early to health centres.

Expectant mothers should begin antenatal attendance as early as possible in the first trimester. Monthly antenatal visits are recommended up to the seventh month of pregnancy, after which visits every two weeks are recommended up to the eighth month when the visits should be weekly until delivery. About half of Zambian women report visiting antenatal clinics at least four times during pregnancy. Half the women pay their first antenatal visit between four and five months of pregnancy followed by 27 percent who visit between six and seven months. Only 14 percent of the respondents begin their antenatal attendance in the first trimester of pregnancy. The median number of months of pregnancy at first visit is 5.3 for both urban and rural residents.

Overall, there has been little change in the pattern of antenatal attendance by gestational age over the last decade. The median gestational age at first visit was 5.6 months in 1992 and 1996, and dropped slightly to 5.3 months in 2001-2002. This calls for programme interventions that will encourage women to attend antenatal clinics in the first trimester of pregnancy.

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

Percent distribution of women who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent birth, and by the timing of the first visit, according to residence, Zambia 2001-2002

Number and timing of ANC visits	Residence		
	Urban	Rural	Total
Number of ANC visits			
None	1.9	5.2	4.1
1	1.2	2.4	2.0
2-3	14.6	22.5	19.8
4+	79.6	67.5	71.6
Don't know/missing	2.7	2.3	2.5
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	1.9	5.2	4.1
<4	16.3	13.2	14.3
4-5	52.6	52.3	52.4
6-7	26.6	26.8	26.7
8+	1.9	1.9	1.9
Don't know/missing	0.6	0.5	0.6
Total	100.0	100.0	100.0
Median months pregnant at first visit (for those with ANC)	5.3	5.3	5.3
Number of women	1,499	2,904	4,402

Components of antenatal care

In the earlier ZDHS surveys, information was obtained on only one component of antenatal care services, tetanus toxoid immunisations. In the 2001-2002 survey, additional questions were asked about ANC services including whether information about signs of pregnancy complications was provided, whether the woman's blood pressure was measured, urine and blood samples were taken, and whether iron supplements and antimalarial prophylaxis tablets were provided.

Some caution should be exercised in considering the information on the content of antenatal care. First of all, the information is dependent on the woman's understanding of the questions, e.g., her understanding of what blood pressure measurement involves. It is also dependent on her recall of events during antenatal visits that may have taken place a number of years before the interview. Nonetheless, the results are useful in providing insights into the content of antenatal care for Zambian women. Table 9.3 shows the findings for components of antenatal care other than tetanus toxoid coverage and Table 9.4 provides information on tetanus toxoid coverage.

Although attendance at antenatal care is high in Zambia, the quality of care that expectant mothers receive varies. Table 9.3 shows that of women receiving antenatal care, 94 percent have their weight measured and 87 percent have blood pressure measured. However, only 25 percent of women have their height measured and urine sampled, and less than half (44 percent) have a blood sample taken.

Table 9.3 Antenatal care content

Percentage of women with a live birth in the five years preceding the survey who received antenatal care (ANC) for the most recent birth, by content of antenatal care, and percentage of women with a live birth in the five years preceding the survey who received iron/folic acid tablets for the most recent birth, according to background characteristics, Zambia 2001-2002

	Content of antenatal care among women who received ANC						Percentage of women with a birth in the 5 years preceding the survey who:	
Background characteristic	Weight measured	Height measured	Blood pressure measured	Urine sample taken	Blood sample taken	Number of women	Received iron tablets/ iron syrup/ folic acid	Number of women
Age at birth								
<20	91.3	24.4	83.7	19.1	41.6	828	63.1	866
20-34	94.0	25.3	87.2	25.0	46.3	2,755	72.2	2,868
35-49	93.9	24.0	87.2	31.1	39.6	626	73.1	668
Birth order								
1	91.5	26.3	85.5	24.9	49.9	915	62.6	948
2-3	93.5	27.2	86.1	23.8	46.2	1,406	72.3	1,467
4-5	94.5	22.4	86.8	23.0	44.1	906	73.4	941
6+	94.3	22.7	87.7	27.6	36.9	982	72.8	1,046
Residence								
Urban	97.2	37.3	96.5	42.2	77.1	1,464	64.7	1,499
Rural	91.5	18.3	81.2	15.4	26.9	2,744	73.6	2,904
Province								
Central	94.7	18.7	92.3	18.9	36.8	297	74.3	319
Copperbelt	94.9	45.3	94.9	49.1	69.3	740	69.0	765
Eastern	95.1	16.8	84.6	13.6	28.8	566	66.1	587
Luapula	89.9	19.7	70.5	11.5	24.4	353	67.1	371
Lusaka	98.7	21.4	97.4	35.4	81.6	577	62.5	590
Northern	92.2	32.0	87.0	18.0	33.6	606	72.6	649
North-Western	99.2	11.7	92.2	22.2	38.0	210	76.1	226
Southern	84.7	14.8	76.5	17.9	24.5	475	79.6	485
Western	92.3	21.2	75.4	15.3	32.5	384	74.9	412
Education								
No education	90.8	15.4	80.7	14.6	26.4	551	62.7	613
Primary	93.0	22.0	85.0	21.0	40.4	2,610	70.5	2,726
Secondary	95.7	36.0	92.8	36.4	60.7	960	74.4	977
Higher	100.0	51.9	98.7	72.0	95.6	87	85.2	87
Total	93.5	24.9	86.5	24.7	44.4	4,209	70.6	4,402

Blood sampling is of particular importance in the screening for maternal syphilis. Over 70 percent of women with recent births were given or bought iron and/or folic acid supplements during pregnancy.

The socioeconomic characteristics that appear to influence the quality of antenatal care are residence and level of education. Urban residents have a higher percentage of women who receive all the specified components of antenatal care compared with rural residents. The only exception is the dispensing of iron and folic acid supplements, which may be attributed to a higher incidence of malaria and anaemia in rural areas. Similarly, antenatal care coverage appears to be more comprehensive in the more urbanised provinces of Copperbelt and Lusaka than in the other provinces.

There are particularly sharp differences in antenatal care content by education level. For example, among women with higher education, 72 percent have urine tests during antenatal care visits, compared with only 15 percent of those with no education. Similarly, blood tests are performed for 96 percent of women with higher education, compared with 26 percent of those with no education.

Table 9.4 shows the percent distribution of women who had a live birth in the five years preceding the survey by number of tetanus toxoid injections received during the most recent pregnancy, according to background characteristics. The data show that 75 percent of women receive at least one tetanus toxoid injection during pregnancy. Women are slightly more likely to receive two injections during their first pregnancy. Urban women are more likely to receive one tetanus toxoid injection (55 percent) than rural women (45 percent). Lusaka province has the lowest proportion of women who received no tetanus injections compared with other provinces. Education is again a strong predictor of tetanus toxoid vaccination, as women with no education are twice as likely to receive no tetanus toxoid injections, compared with those with higher than secondary education.

Table 9.4 Tetanus toxoid injections

Percent distribution of women who had a live birth in the five years preceding the survey by number of tetanus toxoid injections received during pregnancy for the most recent birth, according to background characteristics, Zambia 2001-2002

Background characteristic	None	One injection	Two or more injections	Don't know/ missing	Total	Number of women
Age at birth						
<20	19.6	46.6	33.1	0.7	100.0	866
20-34	22.8	50.4	25.6	1.1	100.0	2,868
35-49	35.7	40.0	22.9	1.4	100.0	668
Birth order						
1	18.1	46.3	35.1	0.6	100.0	948
2-3	19.5	51.8	27.4	1.3	100.0	1,467
4-5	24.9	51.9	22.0	1.2	100.0	941
6+	35.6	41.1	22.2	1.1	100.0	1,046
Residence						
Urban	20.6	54.5	23.8	1.1	100.0	1,499
Rural	26.0	44.8	28.1	1.1	100.0	2,904
Province						
Central	28.1	44.8	24.8	2.4	100.0	319
Copperbelt	27.7	52.5	18.9	0.9	100.0	765
Eastern	28.3	43.1	28.3	0.4	100.0	587
Luapula	24.6	45.2	29.9	0.3	100.0	371
Lusaka	14.8	57.0	27.4	0.9	100.0	590
Northern	21.5	45.6	31.8	1.1	100.0	649
North-Western	25.5	50.4	23.7	0.4	100.0	226
Southern	24.0	47.7	26.6	1.7	100.0	485
Western	25.4	42.6	29.8	2.2	100.0	412
Education						
No education	32.6	38.7	27.8	0.9	100.0	613
Primary	24.2	48.9	25.9	1.0	100.0	2,726
Secondary	19.4	52.0	27.3	1.2	100.0	977
Higher	16.6	45.2	36.0	2.2	100.0	87
Total	24.2	48.1	26.7	1.1	100.0	4,402

9.1.2 Delivery and Postnatal Care

Another important component of efforts to reduce the health risks of mothers and children is increasing the proportion of health facility-based deliveries. Proper medical attendance and hygienic conditions during delivery can reduce the risk of complications and infections and possibly death for both the mother and/or the baby.

For births occurring outside a health facility, the 2001-2002 ZDHS collected information on whether the mother had seen anyone after the birth to check on her health (Table 9.8). Postnatal checkups provide an opportunity to assess and treat delivery complications and to counsel new mothers on how to care for herself and her child.

Delivery care

The 2001-2002 ZDHS obtained information on both the place of delivery and the person assisting with the delivery. Tables 9.5 and 9.6 present this information for all live births in the five-year period preceding the survey.

Place of delivery and assistance during delivery are indicators of the quality of care being provided. Table 9.5 shows that over half of births occur at home, while 44 percent occur in health facilities. Of the births in health facilities, 35 percent occur in public sector facilities and about one in ten occur in private sector facilities. Women having their first baby are more likely to deliver in health institutions; this proportion declines with increased birth order. Urban residents are three times more likely to deliver in a health facility than their rural counterparts, the majority of the latter (71 percent) delivering at home. Lusaka and Copperbelt have the highest proportion of institutional deliveries.

The higher a woman's education, the higher the probability that she will deliver in a health facility. Almost all women with higher than secondary education deliver in health facilities (97 percent) while only 17 percent of women with no education do so. Additionally, antenatal care attendance has an impact on the proportion of women who deliver in a health facility. Only 7 percent of women who did not receive antenatal care delivered at a health facility, compared with 53 percent of those with four or more visits.

Table 9.5 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics, Zambia 2001-2002

Background characteristic	Health facility: Any[1] facility	Health facility: Public sector	Health facility: Private sector	Home	Other	Don't know/ missing	Total	Number of births
Mother's age at birth								
<20	45.8	39.6	16.1	53.4	0.5	0.4	100.0	1,454
20-34	44.5	34.6	9.9	55.0	0.2	0.3	100.0	4,364
35-49	35.4	25.3	10.2	63.1	1.0	0.4	100.0	831
Birth order								
1	54.4	46.3	8.0	44.9	0.3	0.4	100.0	1,515
2-3	44.3	36.1	8.2	55.2	0.2	0.4	100.0	2,257
4-5	41.1	30.0	11.1	58.4	0.4	0.2	100.0	1,422
6+	33.9	24.3	9.6	64.9	0.8	0.4	100.0	1,455
Residence								
Urban	79.0	67.2	11.8	20.6	0.0	0.3	100.0	2,050
Rural	27.9	20.0	7.9	71.3	0.5	0.3	100.0	4,599
Province								
Central	33.7	30.9	2.8	66.1	0.1	0.1	100.0	502
Copperbelt	71.8	50.6	21.1	27.2	0.3	0.8	100.0	1,065
Eastern	31.2	24.0	7.2	67.6	1.0	0.1	100.0	890
Luapula	29.1	23.1	6.0	70.6	0.3	0.0	100.0	625
Lusaka	75.4	74.1	1.3	24.6	0.0	0.0	100.0	805
Northern	27.6	19.7	7.8	71.9	0.3	0.3	100.0	1,008
North-Western	47.0	26.0	21.0	52.5	0.3	0.1	100.0	357
Southern	32.1	24.8	7.2	66.7	0.5	0.8	100.0	764
Western	33.3	26.2	7.1	65.8	0.5	0.5	100.0	632
Mother's education								
No education	17.4	13.3	4.1	81.9	0.7	0.0	100.0	978
Primary	38.1	29.7	8.4	61.1	0.4	0.3	100.0	4,235
Secondary	76.3	62.1	14.1	23.0	0.1	0.6	100.0	1,334
Higher	97.1	75.8	21.4	2.9	0.0	0.0	100.0	101
Antenatal care visits[2]								
None	7.4	6.7	0.7	91.6	1.1	0.0	100.0	181
1-3	30.6	24.4	6.2	68.7	0.7	0.0	100.0	960
4+	52.8	42.3	10.6	46.8	0.3	0.1	100.0	3,153
Total	43.6	34.5	9.1	55.7	0.4	0.3	100.0	6,649

[1] Sum of percentage delivered at a public sector facility and percentage delivered at a private sector facility; excludes 108 births lacking information on number of antenatal visits
[2] Information on 'antenatal care visits' includes only the most recent birth in the five years preceding the survey

Table 9.6 shows that medically trained providers assist 43 percent of deliveries. Births are equally likely to be assisted by a relative or friend (38 percent) as they are by a nurse or midwife (39 percent). Traditional birth attendants assist 12 percent of the deliveries and doctors assist an even smaller percentage (3 percent). Births to older mothers (35-49) are considerably more likely to deliver without any assistance (18 percent) than births to women under age 20 (1 percent). Women expecting their first child are more likely to be delivered by a medically trained provider compared with those with more children. Seventy-nine percent of urban women are delivered by a medically trained provider, compared with only 28 percent of those living in rural areas. Medical personnel assisted in over 70 percent of the deliveries in Lusaka and Copperbelt compared with Northern (28 percent) and Luapula (29 percent) provinces. Seventeen percent of births to mothers with no education are assisted by medically trained personnel during delivery, compared with 76 percent of births to mothers with secondary education and 97 percent of those with higher than secondary education.

Table 9.6 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, according to background characteristics, Zambia 2001-2002

Background characteristic	Medically trained provider: Any[1] provider	Doctor	Clinical officer	Nurse/ midwife	Traditional birth attendant	Relative/ friend	No one	Don't know/ missing	Total	Number of births
Mother's age at birth										
<20	45.4	3.5	1.5	40.5	12.1	40.7	1.3	0.4	100.0	1,454
20-34	44.3	3.2	1.3	39.8	11.5	37.6	6.4	0.2	100.0	4,364
35-49	35.0	2.9	1.2	30.9	10.2	36.9	17.7	0.2	100.0	831
Birth order										
1	54.1	5.4	1.8	47.0	10.7	34.0	0.9	0.4	100.0	1,515
2-3	44.2	3.0	1.2	40.0	11.6	40.5	3.4	0.3	100.0	2,257
4-5	41.0	2.3	1.0	37.8	11.9	38.8	8.2	0.1	100.0	1,422
6+	33.4	2.3	1.4	29.7	11.8	38.5	16.2	0.1	100.0	1,455
Residence										
Urban	78.9	7.2	0.6	71.2	3.4	14.4	3.0	0.2	100.0	2,050
Rural	27.6	1.5	1.7	24.4	15.1	48.8	8.3	0.2	100.0	4,599
Province										
Central	34.2	2.8	2.0	29.4	10.4	47.9	7.5	0.0	100.0	502
Copperbelt	71.5	8.0	0.8	62.7	6.3	17.4	4.3	0.5	100.0	1,065
Eastern	31.7	1.4	0.8	29.5	22.0	39.1	7.1	0.1	100.0	890
Luapula	28.6	1.0	2.9	24.8	17.5	46.6	7.3	0.0	100.0	625
Lusaka	74.9	7.1	0.9	66.9	1.6	15.7	7.8	0.0	100.0	805
Northern	27.6	1.1	1.2	25.2	14.8	50.9	6.5	0.2	100.0	1,008
North-Western	47.4	1.5	1.1	44.8	18.0	32.2	2.3	0.1	100.0	357
Southern	32.1	1.2	1.7	29.2	9.5	47.6	10.4	0.5	100.0	764
Western	31.4	2.3	1.3	27.8	6.3	56.4	5.5	0.5	100.0	632
Mother's education										
No education	17.3	0.7	0.8	15.8	14.3	56.0	12.4	0.0	100.0	978
Primary	37.8	2.6	1.4	33.8	12.8	42.2	7.0	0.2	100.0	4,235
Secondary	76.3	5.8	1.4	69.2	6.0	15.2	2.0	0.4	100.0	1,334
Higher	97.1	22.0	1.2	73.9	1.2	1.6	0.0	0.0	100.0	101
Total	43.4	3.2	1.3	38.9	11.5	38.2	6.7	0.2	100.0	6,649

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

[1] The percentage assisted by any medically trained provider is the sum of the percentages assisted by a doctor, clinical officer or nurse/midwife

Delivery characteristics

The 2001-2002 ZDHS obtained information on a number of aspects of deliveries including the frequency of caesarean sections and of low birth weight babies. In countries where the level of facility deliveries is comparatively low like Zambia, the caesarean section rate provides a proxy for women's access to care for complicated deliveries. Information is collected on the baby's birth weight and size because low birth weight is associated with neonatal morbidity and mortality. To obtain the birth weight data, respondents were asked whether their baby was weighed at birth, and if so, how much the baby weighed. Interviewers were trained to use any written record of birth weight available. As many women do not deliver at a health facility, the mother was also asked for her own perception of the baby's size at birth.

Table 9.7 shows that only 2 percent of births are delivered by cesarean section. Caesarean sections are more common among first births (3 percent), women residing in urban areas (4 percent), women in Lusaka (5 percent) and Copperbelt (3 percent), and women with higher than secondary education (15 percent).

Two and half kilogrammes is considered normal birth weight and babies weighing less than that are regarded as small or low birth weight. The 2001-2002 ZDHS revealed that more than half (54 percent) of neonates are not weighed at birth. This may be explained by the low percentage of institutional deliveries. Five percent of all births are underweight, representing 11 percent of births for which a birth weight was recorded. Underweight births are more common among babies born to younger mothers (6 percent) and mothers delivering their first child (8 percent). Although it appears as if babies who weigh less than 2.5 kg are more common in urban than in rural areas and among babies born of mothers with higher education, this pattern disappears when only babies who were weighed are taken into account.

Table 9.7 Delivery characteristics

Percentage of live births in the five years preceding the survey delivered by caesarean section (C-section), and percent distribution by birth weight and by mother's estimate of baby's size at birth, according to background characteristics, Zambia 2001-2002

		Birth weight					Size of child at birth					
Background characteristic	Delivery by caesarean section	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	1.7	51.9	6.4	36.5	5.1	100.0	4.6	14.5	80.3	0.5	100.0	1,454
20-34	2.3	53.0	4.1	39.5	3.4	100.0	3.2	9.1	87.5	0.2	100.0	4,364
35-49	1.5	61.3	3.9	30.4	4.4	100.0	3.3	9.7	86.5	0.5	100.0	831
Birth order												
1	3.1	44.2	8.0	42.9	5.0	100.0	4.9	15.1	79.4	0.5	100.0	1,515
2-3	2.0	53.2	3.6	39.7	3.5	100.0	3.0	9.2	87.4	0.3	100.0	2,257
4-5	1.3	55.6	4.3	37.2	2.9	100.0	3.2	8.9	87.8	0.1	100.0	1,422
6+	1.8	63.2	2.8	29.8	4.3	100.0	3.0	8.6	88.1	0.3	100.0	1,455
Residence												
Urban	4.2	17.6	8.1	71.0	3.4	100.0	5.0	10.6	84.0	0.4	100.0	2,050
Rural	1.1	70.0	3.0	22.9	4.1	100.0	2.8	10.3	86.6	0.3	100.0	4,599
Province												
Central	1.9	66.0	2.6	27.8	3.6	100.0	2.9	13.2	83.8	0.1	100.0	502
Copperbelt	3.2	21.3	7.6	68.4	2.8	100.0	5.7	6.9	86.6	0.8	100.0	1,065
Eastern	1.5	67.9	2.2	26.1	3.8	100.0	0.8	8.0	91.0	0.1	100.0	890
Luapula	0.6	68.5	5.2	22.4	3.8	100.0	1.6	14.3	84.1	0.0	100.0	625
Lusaka	4.7	20.6	6.0	69.4	4.1	100.0	3.9	14.8	81.3	0.0	100.0	805
Northern	2.1	70.3	2.5	21.9	5.4	100.0	3.1	5.8	90.9	0.2	100.0	1,008
North-Western	1.7	52.1	6.4	40.0	1.5	100.0	1.9	9.2	88.7	0.1	100.0	357
Southern	0.8	65.7	4.2	25.5	4.7	100.0	4.2	14.5	80.6	0.8	100.0	764
Western	1.0	67.4	4.8	24.0	3.9	100.0	6.1	10.8	82.6	0.5	100.0	632
Mother's education												
No education	0.5	81.3	1.3	12.0	5.4	100.0	2.7	11.5	85.9	0.0	100.0	978
Primary	1.8	59.0	4.0	32.7	4.2	100.0	3.4	10.5	85.8	0.3	100.0	4,235
Secondary	3.3	21.0	8.2	68.7	2.1	100.0	4.3	9.5	85.7	0.5	100.0	1,334
Higher	14.5	1.9	11.1	87.0	0.0	100.0	5.1	7.3	87.0	0.6	100.0	101
Total	2.1	53.8	4.6	37.7	3.9	100.0	3.5	10.4	85.8	0.3	100.0	6,649

When asked about the size of their children at birth, 14 percent of the mothers reported that their babies were very small or smaller than average. The majority of babies (86 percent) were reported to be of average or larger size at birth. Among babies who were weighed, the proportion that were of low birth weight was highest in Copperbelt (8 percent) and lowest in Eastern (2 percent). There was little difference by mother's level of education in the proportion who weighed less than 2.5 kg at birth.

Postnatal care

Postnatal care is particularly important in the case of non-institutional births in order to detect delivery complications that may threaten the mother or the child's survival. Table 9.8 shows the percent distribution of women who delivered a baby outside a health facility in the five years before the survey, according to whether they received a postnatal checkup and, if they had such care, the timing of the first postnatal visit. A checkup during the first two days following delivery is particularly critical since most maternal and neonatal deaths occur during that period. The benefits of early postnatal check-up, especially during the first 24 hours, include early diagnosis of complications during the postpartum period for both mother and her newborn, care of the newborn and mother including education or breastfeeding and family planning. One of the most frequent postpartum complications is haemorrhage, which occurs within 24 hours after delivery and can lead to death (Ransom and Yinger, 2002). In Zambia, the majority of women deliver at home where they do not have access to skilled care.

Table 9.8 shows that 77 percent of women who deliver outside a health facility do not receive postnatal care. Only 12 percent attend postnatal care within 2 days of delivery and 8 percent 7 to 41 days after delivery. Younger mothers tend to utilise postnatal services slightly more than older mothers. More than twice as many women from the urban areas receive postnatal care within 2 days of delivery as those from rural areas. Differences in the utilisation of postnatal services by province are quite marked. Mothers residing in Copperbelt (51 percent) and Lusaka (46 percent) are most likely to receive postnatal care, compared with mothers living in Central, Western, and Eastern provinces, where the level is less than 15 percent. A higher proportion of mothers with secondary or higher education receive postnatal care compared with those with primary or no education.

Table 9.8 Postnatal care

Percent distribution of women who had a non-institutional live birth in the five years preceding the survey by timing of postnatal care for the most recent non-institutional birth, according to background characteristics, Zambia 2001-2002

Background characteristic	Timing of first postnatal checkup: Within 2 days of delivery	3-6 days after delivery	7-41 days after delivery	Don't know/ missing	Did not receive postnatal checkup [1]	Total	Number of women
Age at birth							
<20	12.6	3.0	11.6	0.1	72.7	100.0	441
20-34	11.8	2.3	7.6	0.2	78.1	100.0	1,506
35-49	11.7	1.8	7.7	0.0	78.8	100.0	423
Birth order							
1	11.8	4.1	11.4	0.1	72.5	100.0	394
2-3	13.4	2.1	8.4	0.2	76.0	100.0	768
4-5	13.1	2.0	6.4	0.2	78.2	100.0	539
6+	9.4	2.0	8.0	0.1	80.5	100.0	669
Residence							
Urban	23.0	4.8	19.4	0.3	52.5	100.0	313
Rural	10.3	2.0	6.7	0.1	81.0	100.0	2,057
Province							
Central	9.8	1.5	3.4	0.0	85.3	100.0	206
Copperbelt	28.0	3.2	20.0	0.0	48.8	100.0	206
Eastern	3.4	0.3	7.1	0.0	89.2	100.0	393
Luapula	11.1	3.3	15.5	0.4	69.7	100.0	269
Lusaka	19.0	6.7	20.0	0.0	54.3	100.0	133
Northern	14.8	2.3	3.5	0.2	79.1	100.0	456
North-Western	1.4	5.1	9.2	1.0	83.2	100.0	117
Southern	12.5	1.8	6.8	0.0	78.9	100.0	321
Western	10.2	1.9	1.9	0.0	86.1	100.0	270
Education							
No education	6.0	1.8	6.1	0.2	86.0	100.0	500
Primary	12.6	2.2	8.7	0.1	76.4	100.0	1,652
Secondary or higher	20.9	5.2	10.8	0.0	63.2	100.0	218
Total	11.9	2.4	8.4	0.1	77.2	100.0	2,370

[1] Includes women who received the first postnatal checkup after 41 days

9.1.3 Trends in Maternity Care Indicators

The trends in selected maternity care indicators are shown in Figure 9.1. The percentage of women receiving antenatal care from a health professional has decreased slightly from 96 percent in 1996 to 93 percent in 2001-2002. Tetanus toxoid coverage for women has declined from 81 percent in 1992 to 75 percent in 2001-2002. Medical personnel are attending slightly fewer deliveries, while the proportion of births attended by traditional birth attendants is the highest recorded since 1992 (12 percent).

Figure 9.1 also shows that there has been a decline in the proportion of deliveries at health facilities and an increase in home deliveries. Presumably, because of declines in facility deliveries, the proportion of births assisted by medically trained providers has also declined, from 51 percent of births in 1992 to 47 percent in 1996 and 43 percent in 2001-2002. The percentage of women delivered by a relative or friend increased from 33 percent in 1992 to 41 percent in 1996 but has now declined slightly to 38 percent.

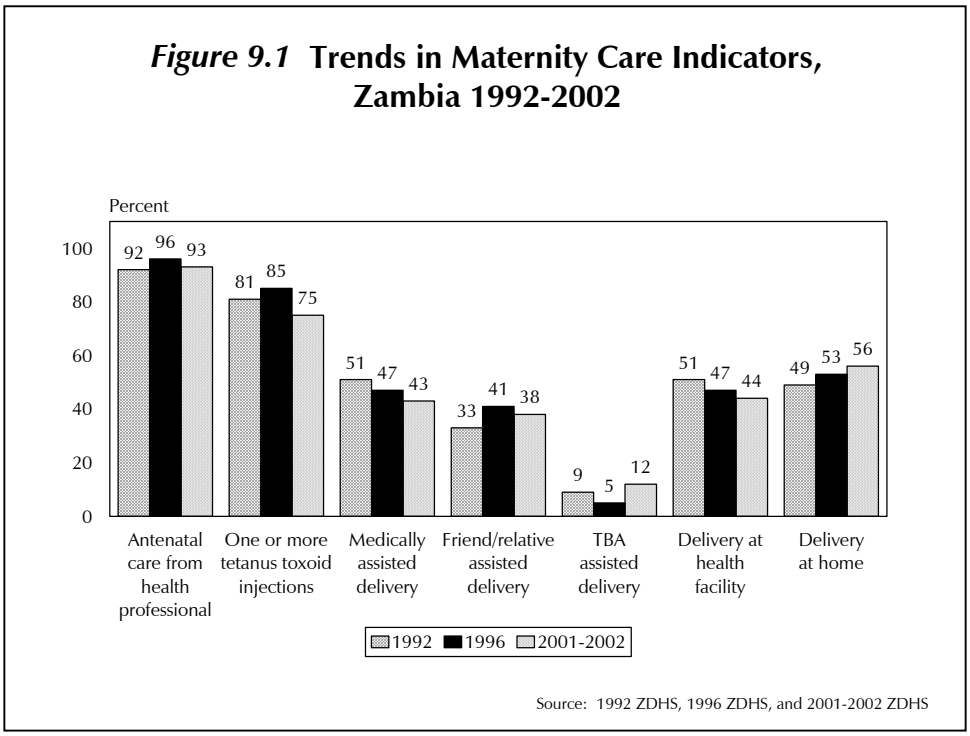

Figure 9.1 **Trends in Maternity Care Indicators, Zambia 1992-2002**

9.2 VISITS BY HEALTH WORKERS AND PRESENCE OF A NEIGHBOURHOOD HEALTH COMMITTEE

Table 9.9 shows the proportion of women who reported that someone in their house was visited by a health worker in the last 12 months and of those visited, the percentage provided with various services by background characteristics.

Overall, 10 percent of women reported a visit by a health worker from the community in their house. The proportion of health worker visits is higher in rural areas (11 percent) than in urban areas (7 percent). Among provinces, North-Western and Western have the higher proportions of women reporting house visits by a community health worker (29 percent and 22 percent, respectively), while Central province has the lowest (5 percent).

Information, education, counseling is the most common service provided to the household members by the community health workers (45 percent), followed by immunisations (28 percent) and administering of vitamin A (14 percent).

Table 9.9 Visits by health workers

Percentage of all women 15-49 visited by a health worker in the 12 months preceding the survey, and, of those visited, the percentage who received specific services, by background characteristics, Zambia 2001-2002

Background characteristic	Percentage visited by health worker	Number of women	Services provided: Pills, condoms, foam	ORS packets	Clorin	Anti-malarial medi-cine	Weighed baby	Mos-quito net	Vita-min A	Information, educa-tion, coun-seling	Immu-nisa-tions	Other	Number of women visited
Age													
15-19	6.7	1,811	5.4	0.3	5.0	1.4	4.8	2.1	14.8	33.5	43.2	7.1	121
20-24	10.2	1,664	3.3	2.1	4.4	2.6	7.2	1.8	10.0	48.9	23.3	5.3	169
25-29	8.9	1,376	5.2	2.4	6.7	0.5	3.8	1.6	17.6	39.1	31.9	7.0	123
30-34	12.2	972	9.8	3.5	6.5	0.0	7.6	0.0	13.4	40.5	26.6	6.5	118
35-39	12.4	766	6.6	1.8	1.1	2.0	2.0	1.1	12.6	57.9	22.0	7.8	95
40-44	11.2	601	5.3	0.6	1.7	0.0	7.0	1.3	17.5	52.3	25.6	5.7	67
45-49	11.6	467	5.6	3.5	9.8	3.0	1.9	0.0	13.8	55.3	21.7	9.7	54
Residence													
Urban	7.4	3,073	7.3	2.9	11.4	0.5	5.6	0.4	15.7	49.0	18.1	8.5	229
Rural	11.3	4,585	5.1	1.6	2.1	1.8	5.1	1.6	13.0	43.8	32.9	6.0	519
Province													
Central	5.4	562	4.2	2.1	8.3	10.4	0.0	0.0	0.0	70.8	4.2	16.7	30
Copperbelt	7.7	1,544	5.6	2.8	5.6	1.4	6.9	1.4	26.4	43.1	18.1	12.5	118
Eastern	6.8	926	16.4	8.2	3.3	1.6	9.8	3.3	11.5	52.5	0.0	3.3	63
Luapula	9.9	622	1.6	0.0	4.8	0.0	4.8	3.2	16.1	79.0	0.0	0.0	62
Lusaka	6.5	1,132	10.3	1.7	20.7	3.4	6.9	0.0	1.7	62.1	0.0	8.6	73
Northern	9.1	1,040	8.5	0.9	0.9	0.9	6.6	2.8	4.7	74.5	3.8	6.6	94
North-Western	28.8	354	0.4	1.6	0.0	0.0	0.0	0.0	2.0	3.5	92.5	1.2	102
Southern	7.4	814	9.6	1.9	9.6	0.0	5.8	1.9	9.6	65.4	0.0	7.7	60
Western	21.7	663	1.4	0.7	0.7	0.7	4.9	0.0	28.9	18.3	63.4	7.0	144
Education													
No education	9.6	925	7.7	1.4	3.3	0.0	6.3	2.5	9.3	48.8	30.8	3.8	89
Primary	9.5	4,439	5.3	2.3	4.7	0.9	5.5	0.9	15.6	45.2	30.3	5.9	423
Secondary or higher	10.3	2,295	5.8	1.8	5.9	2.8	4.4	1.5	12.5	44.5	24.0	9.4	235
Total	9.8	7,658	5.7	2.0	4.9	1.4	5.3	1.3	13.9	45.4	28.4	6.7	747

Neighbourhood Health Committee

Tables 9.10.1 and 9.10.2 show the percentage of women and men who report there is a Neighbourhood Health Committee (NHC) in their community and the percentage who have ever attended an NHC meeting, by background characteristics. A NHC is a committee selected by people in the community to assist in the management and financing of health services in the community. Forty-two percent of women report the existence of an NHC in their community, 33 percent in urban areas and 48 percent in rural areas. Men are less likely to report having an NHC in their neighbourhood (37 percent). NHCs are apparently more common in the rural provinces than in the predominantly urban provinces. Among people who report having an NHC in their community, only 23 percent of women and 42 percent of men reported ever attending an NHC meeting. Attendance is higher in rural than urban areas.

Table 9.10.1 Neighbourhood Health Committee (NHC): women

Percentage of women who say there is a NHC in their community and of those, percentage who have ever attended an NHC meeting, by background characteristics, Zambia 2001-2002

Background characteristic	NHC in community		Ever attended NHC meeting	
	Percentage	Number	Percentage	Number
Age				
15-19	35.5	1,811	12.0	643
20-24	39.2	1,664	19.0	652
25-29	41.6	1,376	24.9	572
30-34	47.9	972	26.0	466
35-39	51.6	766	31.9	395
40-44	45.6	601	32.2	274
45-49	47.0	467	33.3	219
Residence				
Urban	32.6	3,073	15.4	1,002
Rural	48.4	4,585	26.9	2,220
Province				
Central	46.2	562	16.0	260
Copperbelt	38.4	1,544	18.0	594
Eastern	45.2	926	22.8	419
Luapula	64.7	622	10.4	402
Lusaka	24.9	1,132	17.9	282
Northern	49.7	1,040	33.0	517
North-Western	50.4	354	32.2	179
Southern	39.7	814	27.4	323
Western	37.2	663	39.9	247
Education				
No education	39.5	925	25.9	365
Primary	44.7	4,439	23.3	1,983
Secondary	39.4	2,061	21.7	813
Higher	26.1	234	30.3	61
Total	42.1	7,658	23.3	3,222

Table 9.10.2 Neighbourhood Health Committee (NHC): men

Percent distribution of men who say there is a NHC in their community and of those, percentage who have ever attended an NHC meeting, by background characteristics, Zambia 2001-2002

Background characteristic	NHC in community		Ever attended NHC meeting	
	Percentage	Number	Percentage	Number
Age				
15-19	24.0	459	15.8	110
20-24	33.2	346	28.5	115
25-29	41.0	361	38.3	148
30-34	37.7	281	44.6	106
35-39	48.4	241	51.3	117
40-44	50.4	174	64.7	88
45-49	40.2	113	69.5	46
50-54	44.1	100	53.1	44
55-59	32.9	71	51.6	23
Residence				
Urban	22.6	851	31.4	192
Rural	46.6	1,294	46.0	603
Province				
Central	40.6	165	50.0	67
Copperbelt	22.6	447	26.7	101
Eastern	60.5	268	54.2	162
Luapula	53.0	166	37.5	88
Lusaka	23.4	314	33.9	73
Northern	55.0	292	43.9	161
North-Western	45.8	93	56.9	43
Southern	26.8	232	36.4	62
Western	22.9	169	36.1	39
Education				
No education	40.5	108	47.8	44
Primary	39.9	1,100	42.9	439
Secondary	34.7	808	39.5	280
Higher	25.0	129	55.0	32
Total	37.1	2,145	42.4	796

9.3 WOMEN'S PERCEPTIONS OF PROBLEMS IN OBTAINING HEALTH CARE

The 2001-2002 ZDHS included a series of questions aimed at obtaining information on the problems women perceive as barriers to accessing health care for themselves. This information is particularly important in understanding and addressing the barriers women may face in seeking care in general. To obtain this information, all ZDHS respondents were asked whether each of the following factors would be a big problem or not for them in obtaining medical advice or treatment when they are sick: knowing where to go, getting permission to go, getting money for transport and treatment, distance to the health facility and availability of transport. Table 9.11 shows the problems in accessing health care.

Clearly, women have problems in accessing health care services, with 77 percent of all women citing at least one of the specified problems. The majority of women say that difficulty in getting money for treatment or transport is a big problem (66 percent), followed by availability of transport (47 percent) and distance to the health facilities (46 percent). Very few women cite knowing where to go for treatment or getting permission to go as big problems in accessing health care for themselves.

Getting money for transport or treatment, distance to the health facility, and availability of transport are problems of particular concern to older women and high parity women. The same is true for divorced/separated/widowed women compared with never-married women and those married or co-habiting with a partner. More rural women cite getting money for transport, distance to the health facility, and availability of transport as big problems than urban women.

Table 9.11 Problems in accessing health care

Percentage of women who report they have big problems in accessing health care for themselves when they are sick, by type of problem and background characteristics, Zambia 2001-2002

Background characteristic	Problems in accessing health care						
	Knowing where to go for treatment	Getting permission to go for treatment	Getting money for treat-meant or transport	Distance to health facility	Availability of transport	Any of the specified problems	Number of women
Age							
15-19	7.8	4.8	59.7	40.9	42.0	71.5	1,811
20-29	6.5	4.4	65.1	45.1	46.2	76.6	3,040
30-39	6.7	2.5	69.5	47.1	50.5	79.8	1,738
40-49	7.6	3.9	76.0	51.6	54.5	85.1	1,069
Number of living children							
0	7.7	4.9	59.0	39.3	40.7	71.4	2,067
1-2	6.5	4.3	65.2	44.7	46.1	76.2	2,431
3-4	7.4	3.3	70.5	49.3	53.3	81.1	1,578
5+	6.3	2.9	73.6	51.0	52.1	83.0	1,582
Marital status							
Never married	7.1	5.0	59.1	38.2	39.2	70.5	1,897
Married or living together	6.5	3.3	66.4	47.4	49.4	77.9	4,694
Divorced, separated, widowed	9.1	5.0	79.1	50.1	52.8	86.9	1,067
Residence							
Urban	5.2	3.0	58.5	25.2	28.0	66.2	3,073
Rural	8.1	4.7	71.6	59.1	60.3	84.8	4,585
Province							
Central	12.2	4.8	66.0	58.0	50.2	82.4	562
Copperbelt	5.5	3.3	57.1	27.6	28.0	66.0	1,544
Eastern	3.4	2.6	78.4	52.1	57.7	83.2	926
Luapula	0.6	3.8	60.9	57.8	56.2	77.2	622
Lusaka	6.5	4.1	66.9	32.1	36.9	75.6	1,132
Northern	4.8	1.2	68.0	55.7	59.4	82.5	1,040
North-Western	7.0	5.8	73.1	56.6	57.9	82.1	354
Southern	8.9	4.7	69.6	50.8	56.2	80.6	814
Western	18.8	9.2	65.5	50.1	49.5	79.6	663
Education							
No education	9.7	6.1	78.0	61.8	63.6	88.0	925
Primary	7.4	3.9	71.6	50.7	53.3	82.8	4,439
Secondary	5.4	2.8	53.8	30.2	30.7	64.6	2,061
Higher	2.5	7.6	31.0	15.7	17.6	43.7	234
Employment							
Not employed	6.7	3.8	65.9	41.5	44.1	75.1	3,274
Working for cash	6.8	4.2	67.3	42.3	44.7	77.6	2,553
Not working for cash	7.8	3.9	65.8	57.1	56.8	81.0	1,830
Total	7.0	4.0	66.4	45.5	47.3	77.3	7,658

Note: The total includes one woman with data missing for employment

It is also quite evident that women with no education are more likely to experience problems in accessing health care compared with their counterparts with higher education. Women with no education are more likely to have problems with finding money for treatment or transport (78 percent) than women with higher than secondary education (31 percent). Getting money for treatment or transport is the most frequently reported problem in all nine provinces. Women in Lusaka and Copperbelt were notably less likely to cite distance to the health facility and availability of transport as a problem in accessing health care than women in other provinces.

No major variations were observed with regard to women's employment status and getting money for treatment or transport. However, 57 percent of women not working for cash identified distance to a health facility and availability of transport as barriers to accessing health services compared with 42 and 45 percent, respectively, of women working for cash.

9.4 CHILD IMMUNISATION

The 2001-2002 ZDHS collected information on immunisation coverage for all children born in the five years before the survey. The Government of Zambia has adopted the World Health Organisation (WHO) guidelines for vaccinating children. According to these guidelines, to be considered fully vaccinated, a child should receive the following vaccinations: one dose of BCG, three doses each of DPT and polio vaccine, and one dose of measles vaccine. BCG, which protects against tuberculosis, should be given at birth or at first clinic contact. DPT protects against diphtheria, pertussis (whooping cough), and tetanus. DPT and polio vaccine guidelines require three vaccinations at approximately 6, 10 and 14 weeks of age. There is also a dose of polio vaccine at birth (Polio 0) or within 13 days. The measles vaccine should be given at nine months of age. It is recommended that children receive the complete schedule of vaccinations before 12 months of age.

In the 2001-2002 ZDHS, information on vaccination coverage was obtained in two ways—from health cards and from mother's verbal reports. All mothers were asked to show the interviewer the health cards on which the child's immunisations are recorded. If the card was available, the interviewer copied the dates on which each vaccination was received. If a vaccination was not recorded on the card, the mother was asked to recall whether that particular vaccination had been given. If the mother was not able to present a card for a child at all, she was asked to recall whether the child had received BCG, polio, DPT and measles. If she recalled that the child had received the polio or DPT vaccines, she was asked about the number of doses that the child received.

Table 9.12 presents information on vaccination coverage for children 12-23 months indicating the source of information used to determine the coverage for specific vaccines.

Table 9.12 Vaccinations by source of information

Percentage of children 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 2001-2002

	Percentage of children who had received:											
		DPT			Polio[1]							Number of children
Source of information	BCG	1	2	3	0	1	2	3	Measles	All[2]	None	
Vaccinated at any time before the survey												
Vaccination card	78.0	78.3	75.8	70.9	12.1	78.7	75.9	71.1	70.5	63.5	0.0	1,033
Mother's report	16.0	15.8	13.9	9.2	2.2	16.8	15.1	9.1	13.9	6.5	3.4	266
Either source	94.0	94.1	89.7	80.0	14.3	95.6	91.0	80.2	84.4	70.0	3.4	1,299
Vaccinated by 12 months of age [3]	90.7	91.9	85.9	73.8	13.9	93.6	87.3	73.4	70.2	57.1	5.3	1,299

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

Overall, 70 percent of children 12-23 months are fully vaccinated and only 3 percent of children have not received any vaccines. Looking at coverage for specific vaccines, only 14 percent of children have received polio at birth, 94 percent the first DPT dose, and 96 percent the first polio dose. Coverage declines for subsequent doses of DPT and polio, with only 80 percent of children receiving the recommended three doses of these vaccines. These figures reflect dropout rates of 15 and 16 percent for DPT and polio, respectively; the dropout rate represents the proportion of children who receive the first dose of a vaccine but do not go on to get the third dose. The proportion of children vaccinated against measles is 84 percent.

Table 9.13 presents vaccination coverage among children age 12-23 months by background characteristics. There are minor variations in coverage by sex and birth order. Urban children have 77 percent coverage for all vaccinations, compared with 67 percent among rural children. Copperbelt, Lusaka, and Southern provinces record the highest coverage (79, 78 and 77 percent, respectively) for all vaccinations.

The proportion of children fully immunised increases with mother's level of education, from 58 percent among children whose mothers have no education to 71 percent among those whose mothers have some primary education and 76 percent among those whose mothers have at least some secondary education.

Table 9.13 Vaccinations by background characteristics

Percentage of children 12-23 months who received specific vaccines at any time before the survey (according to vaccination card or mother's report), and percentage with a vaccination card, by background characteristics, Zambia 2001-2002

Background characteristic	Percentage of children who received: BCG	DPT 1	DPT 2	DPT 3	Polio [1] 0	Polio [1] 1	Polio [1] 2	Polio [1] 3	Measles	All[2]	No vaccinations	Percentage with a vaccination card	Number of children
Sex													
Male	92.4	93.8	88.9	78.4	14.2	95.6	90.8	79.7	82.7	68.8	3.7	78.0	636
Female	95.4	94.4	90.3	81.6	14.4	95.6	91.1	80.8	86.0	71.2	3.1	81.0	663
Birth order													
1	95.9	97.3	93.8	85.0	17.7	97.3	92.7	83.4	88.6	74.6	1.5	80.6	303
2-3	94.3	95.5	90.2	79.9	15.5	96.1	91.7	82.3	84.7	71.2	3.2	80.5	421
4-5	95.5	95.5	91.5	84.0	13.7	95.7	92.3	82.2	85.1	72.0	3.1	82.2	293
6+	89.6	87.2	82.4	70.8	9.3	92.8	86.6	71.6	78.6	61.5	6.0	74.1	282
Residence													
Urban	95.5	95.9	94.3	87.9	23.3	96.0	92.8	85.1	85.5	76.9	3.2	81.3	379
Rural	93.3	93.4	87.7	76.8	10.6	95.4	90.2	78.2	83.9	67.2	3.4	78.8	920
Province													
Central	95.1	93.8	88.2	81.3	9.0	95.8	91.0	81.9	83.3	70.1	2.1	80.6	91
Copperbelt	92.1	92.1	92.1	87.1	23.7	94.2	92.1	85.6	84.9	79.1	5.0	79.9	229
Eastern	96.7	97.8	91.7	81.8	12.7	97.2	90.1	75.7	89.0	68.5	1.7	76.8	188
Luapula	91.6	86.9	84.1	70.1	3.7	91.6	87.9	72.9	82.2	61.7	6.5	83.2	106
Lusaka	99.2	99.2	97.5	90.0	22.5	99.2	96.7	87.5	86.7	78.3	0.0	84.2	152
Northern	91.7	90.8	79.8	68.4	4.8	92.5	84.6	72.8	80.7	60.5	5.3	71.9	203
North-Western	93.3	94.5	89.1	77.6	8.5	96.4	90.3	80.0	82.4	68.5	3.0	86.7	66
Southern	93.5	96.0	94.4	87.9	18.5	96.8	95.2	86.3	87.1	77.4	3.2	84.7	143
Western	92.6	95.9	89.3	71.1	15.7	97.5	91.7	78.5	80.2	60.3	2.5	76.0	123
Mother's education													
No education	88.2	87.9	80.0	67.1	5.3	90.6	82.9	67.6	79.8	58.0	7.3	73.9	198
Primary	95.5	95.6	90.9	81.3	14.0	96.8	92.3	81.1	84.4	70.6	2.4	82.3	786
Secondary or higher	93.7	94.3	92.6	85.0	20.7	95.6	927	85.3	87.2	76.3	3.3	76.1	316
Total	94.0	94.1	89.7	80.0	14.3	95.6	91.0	80.2	84.4	70.0	3.4	79.5	1,299

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

Figure 9.2 shows trends in vaccination coverage among children 12-23 months old from 1992 to 2001-2002. Vaccination coverage for all vaccines increased from 1992 to 1996 and decreased slightly between 1996 and 2001-2002.

Availability of new, clean syringes and needles at health facilities is thought to be low in parts of Zambia. In order to assess the situation as well as the frequency of re-using needles, women interviewed in the 2001-2002 ZDHS were asked if their children under five had received any injection during the three months prior to the survey and if so, whether they brought their own syringes, whether a previously used syringe was used, and whether they kept the syringe after the injection.

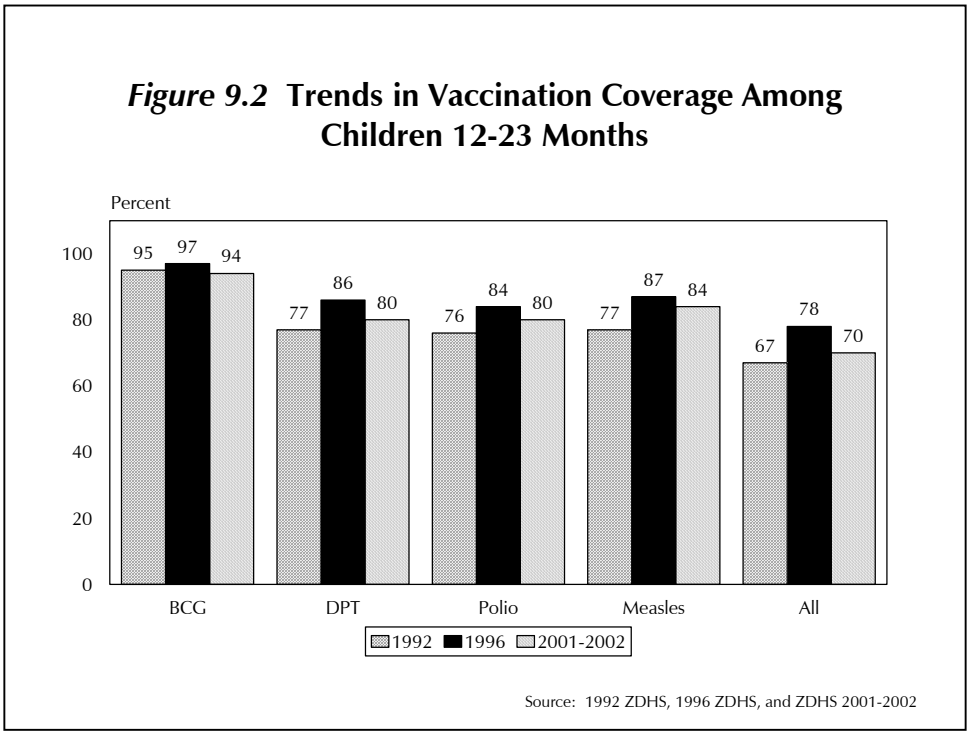

Figure 9.2 **Trends in Vaccination Coverage Among Children 12-23 Months**

Table 9.14 shows the percent distribution of children under five years receiving injections in the three months preceding the survey, by background characteristics. Twenty-two percent of children under five received an injection in the three months prior to the survey.

Of those who received injections, 24 percent used their own needle and syringe brought to the health facility. Thirty-seven percent of urban children were given an injection using their own needle and syringe brought to the health facility, compared with 15 percent of children in rural areas.

Central (38 percent), Southern (37 percent), and Lusaka (37 percent) provinces have the highest percentage of children who received an injection using their own needle and syringe brought to the health facility and North-Western province (2 percent) has the lowest.

Forty-six percent of children were given injections using old/used needles and syringes.

Only 7 percent of respondents reported keeping the needles and syringes after the injection was given to the child, 5 percent in urban areas and 8 percent in rural areas. The questions on injections are specific to Zambia and have not been tested in other countries. Thus, the data should be interpreted with caution because some confusion may have occurred in the respondent's understanding of the questions and in the coded responses.

Table 9.14 Prevalence of injections

Percentage of children under five who received an injection in the three months preceding the survey and of those, the percentage who provided their own syringe, the percentage for whom a previously used syringe was used, and the percentage who kept the syringe, according to background characteristics, Zambia 2001-2002

Background characteristic	Received injection in past 3 months	Number of children	Client provided syringe	Previously used needle and syringe used	Client kept needle and syringe after use	Number of children who received injection
Age in months						
<6	51.8	634	20.2	47.0	3.6	329
6-11	53.3	604	26.3	49.5	4.6	322
12-23	25.6	1,299	25.1	46.7	7.9	333
24-35	13.8	1,143	19.2	43.5	6.5	157
36-47	6.5	1,003	20.5	45.8	19.6	65
48-59	4.3	1,103	34.3	30.0	11.2	47
Sex						
Male	22.1	2,877	21.1	49.1	6.3	635
Female	21.2	2,911	26.0	43.7	6.7	618
Residence						
Urban	26.5	1,796	37.1	45.7	4.7	476
Rural	19.5	3,991	15.2	46.9	7.6	777
Province						
Central	22.4	425	38.4	79.5	10.6	95
Copperbelt	21.2	931	31.7	73.3	5.0	197
Eastern	15.3	781	5.2	7.8	9.6	119
Luapula	27.3	508	6.4	52.9	11.4	139
Lusaka	30.2	711	36.5	12.4	2.4	215
Northern	15.7	884	19.9	77.6	13.5	139
North-Western	22.1	326	2.2	5.0	5.0	72
Southern	22.6	684	36.6	72.4	3.0	154
Western	22.9	536	13.2	24.0	1.7	123
Mother's education						
No education	18.2	842	13.3	39.7	4.6	153
Primary	21.3	3,656	22.6	47.1	6.1	778
Secondary or higher	25.0	1,289	30.6	48.0	8.3	322
Total	21.7	5,787	23.5	46.4	6.5	1,253

9.5 ACUTE RESPIRATORY INFECTIONS

Pneumonia and other respiratory tract infections are leading causes of death of young children in Zambia. In cases of pneumonia, early diagnosis and treatment with antibiotics can prevent a large proportion of deaths due to acute respiratory tract infections (ARI). The prevalence of ARI in the 2001-2002 ZDHS 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. It should be borne in mind that these data are subjective (i.e., mother's perception of illness) and not validated by a medical examination.

Table 9.15 shows the percentage of children reported to have the symptoms of ARI during the two-week period before the survey and, among children with these symptoms, the percentage for whom treatment was sought from a health provider.

Table 9.15 Prevalence and treatment of symptoms of acute respiratory infection (ARI)

Percentage of children under five years of age who had a cough accompanied by short, rapid breathing (symptoms of ARI), and percentage of children with symptoms of ARI for whom treatment was sought from a health facility or provider, by background characteristics, Zambia 2001-2002

Background characteristic	Percentage of children with symptoms of ARI	Number of children	Among children with symptoms of ARI, percentage for whom treatment was sought from a health facility or provider [1]	Number of children with ARI symptoms
Age in months				
<6	16.5	634	71.8	105
6-11	21.4	604	78.8	129
12-23	18.0	1,299	76.0	234
24-35	15.5	1,143	71.4	177
36-47	9.9	1,003	55.4	99
48-59	9.0	1,103	46.8	99
Sex				
Male	14.9	2,877	68.1	428
Female	14.2	2,911	70.1	415
Residence				
Urban	13.8	1,796	73.2	248
Rural	14.9	3,991	67.4	595
Province				
Central	17.7	425	53.8	75
Copperbelt	11.8	931	76.1	110
Eastern	9.4	781	81.7	74
Luapula	26.8	508	72.3	136
Lusaka	15.8	711	74.2	112
Northern	12.8	884	61.4	113
North-Western	9.2	326	64.0	30
Southern	14.6	684	75.9	100
Western	17.2	536	56.0	92
Mother's education				
No education	18.2	842	63.6	153
Primary	14.6	3,656	69.2	535
Secondary and higher	12.0	1,289	74.2	155
Total	14.6	5,787	69.1	843

[1] Excludes pharmacy, shop and traditional practitioner

Mothers reported that 15 percent of children under 5 had symptoms of acute respiratory illness (ARI) in the two weeks prior to the survey, of whom 69 percent sought treatment from a health care provider. The 6-23 month old children had the highest prevalence of ARI closely followed by those aged less than 6 months and 24-35 months. The prevalence of ARI drops sharply after 3 years of age. There is little difference observed between boys and girls and residential location. Luapula has 27 percent of children with symptoms of ARI which was the highest compared with North-Western and Eastern provinces which have the lowest (9 percent). Children of mothers with secondary or higher education were reported to have slightly lower occurrence of ARI symptoms (12 percent) compared with those of mothers with no education (18 percent).

Eastern province has the highest proportion (82 percent) of ARI cases for which treatment was sought from a facility, while Central had the lowest (54 percent). Children age 0-35 months are more likely to be taken for treatment compared with children age 36-59 months. Children of mothers with secondary or higher education are more likely to receive treatment from a health facility (74 percent) than those whose mothers have no education (64 percent).

9.6 DIARRHOEAL DISEASES

Dehydration caused by severe diarrhoea is a major cause of morbidity and mortality among young children in Zambia. Exposure to diarrhoeal-causing agents is frequently related to use of contaminated water and unhygienic practices related to food preparation, hand-washing, and excreta disposal.

In the 2001-2002 ZDHS, mothers were asked whether any of their children under five years of age had diarrhoea at any time during the two-week period prior to the survey. If any child had diarrhoea, the mother was asked about feeding practices during the diarrhoeal episode and about what actions were taken to treat the diarrhoea.

Table 9.16 shows the proportion of children under 5 who had diarrhoea during the two-week period before the survey. Overall, the prevalence of diarrhoea in the two weeks preceding the survey was 21 percent. Children age 6-23 months have the highest prevalence of diarrhoea (36-39 percent) followed by those age 24-35 months (22 percent). There are no differences in the prevalence of diarrhoea regarding the child's sex or residence. Children in North-Western province have a somewhat lower diarrhoea prevalence than children in other provinces Children of mothers with more than secondary education have a much lower prevalence rate for diarrhoeal diseases (6 percent), than children of mothers with no education (24 percent), some primary education (21 percent), or some secondary education (20 percent). Some of this difference may be due to the relatively small number of children whose mothers have more than secondary education. There is little variation in episodes of diarrhoea by source of drinking water in households.

Table 9.16 Prevalence of diarrhoea

Percentage of children under five years with diarrhoea in the two weeks preceding the survey, by background characteristics, Zambia 2001-2002

Background characteristic	Diarrhoea in the two weeks preceding the survey	Number of children
Age in months		
<6	9.9	634
6-11	38.5	604
12-23	36.0	1,299
24-35	22.2	1,143
36-47	12.6	1,003
48-59	7.4	1,103
Sex		
Male	21.4	2,877
Female	20.9	2,911
Residence		
Urban	21.1	1,796
Rural	21.2	3,991
Province		
Central	20.0	425
Copperbelt	19.3	931
Eastern	22.3	781
Luapula	23.4	508
Lusaka	24.5	711
Northern	19.9	884
North-Western	13.6	326
Southern	23.9	684
Western	20.5	536
Mother's education		
No education	23.7	842
Primary	21.4	3,656
Secondary	19.7	1,198
Higher	5.7	92
Source of drinking water		
Piped	20.0	1,717
Covered well/borehole	21.3	1,145
Open well	21.9	1,689
Surface	21.8	1,219
Total	21.2	5,787

Use of ORT and ORS

A simple and effective response to dehydration associated with diarrhoea is a prompt increase in the child's fluid intake through food and oral rehydration therapy (ORT). ORT may include the use of a solution prepared from commercially produced packets of oral rehydration salts (ORS) or a homemade mixture usually prepared from sugar, salt and water. Table 9.17 shows the proportion of women with children under five years of age who know about ORS packets.

Ninety-five percent of recent mothers know about ORS. There is little variation in the proportion by age, residence, and province. All the women with more than secondary education know about ORS compared with 88 percent of those with no education.

Mothers of children who had diarrhoea in the two weeks preceding the survey were asked what was done to manage or treat the illness. The results are shown in Table 9.18. Mothers reported that 43 percent of their children with diarrhoea were taken to a health facility. Just over half the children (53 percent) were given a solution made from oral rehydration salts (ORS), and 41 percent were given increased fluids. Overall, 67 percent received either ORS or increased fluids. Fifteen percent of children with diarrhoea were given pills or syrup, less than 1 percent received injections or intravenous medication, and 18 percent were given herbal remedies or medicines. One in five children with diarrhoea were given no treatment at all.

Children under three years are more likely to be taken to a health facility for treatment (43-47 percent) than those over 3 years of age. There are wide variations between the provinces in the proportion of children with diarrhoea who are taken for treatment, ranging from the lowest (32 percent) in Central to the highest (53 percent) in Luapula. Children with diarrhoea are more likely to be taken to a health facility if their mother has a higher level of education. Thirty-nine percent of children with diarrhoea whose mothers have no education are taken to a health facility, compared with 46 percent of those whose mothers have secondary or higher education. Use of ORS also increases with education level of the mother.

Table 9.17 Knowledge of ORS packets

Percentage of mothers with births in the five years preceding the survey who know about ORS packets for treatment of diarrhoea in children, by background characteristics, Zambia 2001-2002

Background characteristic	Percentage of mothers who know about ORS packets	Number of mothers
Age		
15-19	93.0	467
20-24	94.4	1,250
25-29	96.0	1,106
30-34	95.7	708
35-49	93.5	870
Residence		
Urban	98.3	1,499
Rural	92.9	2,904
Province		
Central	97.8	319
Copperbelt	98.7	765
Eastern	97.0	587
Luapula	92.0	371
Lusaka	98.5	590
Northern	92.1	649
North-Western	94.3	226
Southern	87.2	485
Western	91.9	412
Education		
No education	87.7	613
Primary	95.1	2,726
Secondary	97.6	977
Higher	100.0	87
Total	94.7	4,402

Mothers are encouraged to continue feeding their children normally when they suffer from diarrhoea and to increase the amount of fluids children are given. These practices help to reduce the likelihood the child will become dehydrated and also minimise the adverse consequences of diarrhoea on the child's nutritional status.

Table 9.18 Diarrhoea treatment

Percentage of children under five years who had diarrhoea in the two weeks preceding the survey who were taken for treatment to a health provider, percentage who received oral rehydration therapy (ORT), and percentage given other treatments, according to background characteristics, Zambia 2001-2002

Background characteristic	Percentage taken to a health facility[1]	Oral rehydration therapy			Other treatments					No treatment	Number of children with diarrhoea
		ORS packets	Increased fluids	ORS or increased fluids	Pill or syrup	Injection	Intravenous solution	Home remedy/ herbal medicine/ other	Missing		
Age in months											
<6	43.7	48.1	22.3	52.7	9.3	0.0	1.4	20.7	0.0	30.6	63
6-11	43.1	50.3	41.7	66.6	15.2	0.0	0.5	17.4	0.4	24.0	232
12-23	46.9	57.7	40.7	68.2	17.1	0.5	0.5	17.4	0.0	20.3	468
24-35	41.6	54.4	48.4	71.9	14.6	0.0	1.1	18.3	0.4	17.6	254
36-47	35.4	45.7	40.3	62.9	13.9	0.0	0.0	21.4	0.0	24.2	127
48-59	32.3	47.8	32.0	61.6	8.7	0.0	0.0	20.5	0.0	21.4	81
Sex											
Male	42.0	53.2	41.9	67.9	13.5	0.1	1.0	17.3	0.2	21.6	617
Female	43.5	53.3	39.8	65.8	16.4	0.3	0.2	19.4	0.2	21.2	609
Residence											
Urban	40.6	56.4	45.5	71.9	22.4	0.4	1.6	11.2	0.0	18.6	379
Rural	43.7	51.8	38.9	64.6	11.6	0.1	0.1	21.6	0.2	22.7	847
Province											
Central	31.9	44.4	42.2	62.2	8.9	0.7	0.0	22.2	0.0	26.7	85
Copperbelt	48.6	55.0	51.4	74.3	20.2	0.9	0.9	11.0	0.0	19.3	179
Eastern	51.8	62.5	54.8	76.2	22.6	0.0	0.6	25.0	0.0	14.9	174
Luapula	53.3	60.0	37.5	73.3	19.2	0.0	0.8	16.7	0.8	14.2	119
Lusaka	34.1	58.7	42.8	73.2	21.0	0.0	1.4	11.6	0.0	17.4	174
Northern	42.4	44.4	41.4	62.1	6.6	0.0	0.5	20.7	0.0	25.3	176
North-Western	47.3	60.9	31.8	68.2	5.5	0.0	0.0	23.6	0.0	19.1	44
Southern	34.5	47.2	28.9	57.0	11.3	0.0	0.0	21.8	0.0	27.5	163
Western	40.7	46.3	22.2	48.1	7.4	0.0	0.0	18.5	0.9	31.5	110
Mother's education											
No education	38.8	42.0	35.1	56.7	12.2	0.0	0.0	31.3	0.5	23.9	200
Primary	42.8	53.1	38.9	66.3	13.0	0.3	0.9	17.7	0.1	23.1	784
Secondary or higher	46.0	63.1	52.0	77.0	23.6	0.0	0.0	10.0	0.0	14.1	241
Total	42.8	53.2	40.9	66.9	14.9	0.2	0.6	18.4	0.2	21.4	1,225

Note: ORT includes solution prepared from packets of oral rehydration salts (ORS) or increased fluids.
[1] Excludes pharmacy, shop, and traditional practitioner

Table 9.19 presents data on feeding practices when a child has diarrhoea. Most children are given either the same amount of fluids (36 percent) or more fluids than usual (41 percent) when they have diarrhoea. Twelve percent of children are given less fluids than usual, 6 percent are given much less, and 5 percent receive no fluids.

Regarding food, 39 percent of children are offered the same amount of food and 9 percent are offered more food than usual. Almost half of children with diarrhoea are offered somewhat less or much less food than usual, or no food at all.

Table 9.19 Feeding practices during diarrhoea

Percent distribution of children under five years who had diarrhoea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, Zambia 2001–2002

Feeding practices	Percent
Amount of liquids offered	
Same as usual	36.2
More	40.9
Somewhat less	12.4
Much less	5.7
None	4.7
Don't know/missing	0.2
Total	100.0
Amount of food offered	
Same as usual	39.3
More	8.5
Somewhat less	24.5
Much less	14.0
None	10.0
Never gave food	3.5
Don't know/missing	0.1
Total	100.0
Number of children	1,225

Knowledge and Use of Clorin

Clorin is a product used for water purification that is widely marketed in Zambia. Table 9.20 shows that 75 percent of all households have heard of Clorin (95 percent in urban areas and 65 percent in rural areas). However, only 14 percent of households (27 percent in urban and 7 percent in rural areas) reported treating their water with Clorin at the time of the survey.

Lusaka (98 percent), Copperbelt (96 percent) and Central provinces (93 percent) have the highest percentage of households that have heard of Clorin. The same three provinces have the largest proportion of households reporting use of Clorin to treat household water; 24 percent in Lusaka and Copperbelt, and 16 percent in Central province. The smallest proportion of households that report ever having heard of Clorin or are currently using Clorin to treat their household water is in Western province, 39 percent and 3 percent, respectively.

Community-based agents (31 percent) and radio messages (31 percent) are the most common sources of information about Clorin, followed by television (20 percent), and shops (18 percent). Leaflets/booklets and posters were the least mentioned source of information about the use of Clorin (2 percent each).

Table 9.20 Household knowledge and usage of Clorin

Percentage of household respondents who have ever heard of Clorin, percentage of households whose water is currently treated with Clorin, and among those who have heard of Clorin, the percentage who cite specific sources of information, by background characteristics, Zambia 2001-2002

Background characteristic	Percentage of household respondents who have heard of Clorin	Percentage of households whose water is currently treated with Clorin	Number of house-holds	Among households that have heard of Clorin, source of information							Number of household respondents who have heard of Clorin
				Radio	Television	Shop	Leaflet/ booklets	Poster	Community-based agent	Other	
Residence											
Urban	94.8	26.5	2,437	41.1	39.1	21.5	2.2	3.0	32.1	3.7	2,310
Rural	64.8	6.7	4,689	22.6	4.7	15.6	1.1	0.8	29.8	4.0	3,039
Province											
Central	92.5	16.4	490	40.4	17.2	7.3	2.1	2.4	29.2	2.9	453
Copperbelt	95.7	24.2	1,221	39.3	40.9	27.1	1.6	1.3	27.5	2.6	1,168
Eastern	63.5	11.7	999	17.3	4.9	9.2	0.3	1.1	35.0	6.4	634
Luapula	86.8	7.3	652	11.9	0.9	11.2	1.1	0.9	36.4	0.9	566
Lusaka	97.5	23.6	976	41.0	36.8	16.1	2.2	4.5	39.8	4.6	951
Northern	69.1	11.4	1,028	29.1	7.2	27.6	0.9	0.5	21.7	4.1	711
North-Western	63.3	6.5	371	23.8	2.4	36.4	1.2	0.0	11.0	4.9	235
Southern	51.3	4.2	734	24.4	9.8	12.0	3.5	2.5	35.8	3.5	377
Western	38.9	2.6	656	28.2	4.4	7.9	2.0	0.4	29.4	7.9	255
Total	75.1	13.5	7,126	30.6	19.6	18.2	1.6	1.8	30.8	3.9	5,349

MALARIA 10

Miriam Chipimo and Richard Banda

10.1 INTRODUCTION

Malaria is endemic throughout Zambia and continues to be a major public health concern. It is the leading cause of morbidity and second highest cause of mortality, especially among pregnant women and children under the age of five. The Ministry of Health (MoH) estimates that there are more than 3.5 million cases and 50,000 deaths per year. Malaria accounts for 37 percent of all out-patient attendance in Zambia.

Since 1999, Zambia has been involved in the international efforts to control malaria under the Roll Back Malaria (RBM) initiative (CBOH, MOH, and RBM, 2001). The goals of the initiative aim at ensuring that by the year 2005 at least 60 percent of those at risk of malaria, particularly pregnant women and children under five benefit from the most suitable combination of personal and community protective measures such as insecticide-treated mosquito nets (ITNs) and other interventions, which are accessible and affordable to prevent infection and suffering. Another goal is at least 60 percent of all pregnant women who are at risk of malaria, especially those in their first pregnancies, to have access to chemoprophylaxis or preventive intermittent treatment.

10.1.1 Ownership of Mosquito Nets

The ownership and use of mosquito nets, both treated and untreated is the primary health intervention for reducing malaria transmission and morbidity in a community prone to malaria-carrying mosquitoes.

Table 10.1 shows that 27 percent of households in Zambia own a mosquito net, with 14 percent owning an ITN and 5 percent having soaked or dipped their net at least once. About 10 percent of households own more than one net. Urban households are more likely to own any kind of net (35 percent) compared with the rural households (23 percent). Fourteen percent of urban households report owning more than one net compared with 8 percent of rural households. Mosquito net ownership is highest in Luapula province (34 percent) and lowest in Southern province (20 percent). Households in Southern (6 percent) and Central provinces (7 percent) report the lowest ownership of ITNs, while Luapula (25 percent) and North-Western provinces (23 percent) have the highest level of ITN ownership.

Table 10.1 Ownership of mosquito nets

Percentage of households with at least one mosquito net (treated or untreated), and percentage of households that have more than one net, by background characteristics, Zambia 2001-2002

Background characteristic	Percent of households that have at least one net: Insecticide treated	Ever soaked or dipped	Any type	Percentage of households that have more than one net	Number of households
Residence					
Urban	16.1	5.3	34.9	14.3	2,437
Rural	12.4	4.5	23.3	7.5	4,689
Province					
Central	7.2	2.3	23.6	10.2	490
Copperbelt	14.7	4.5	30.1	11.5	1,221
Eastern	12.3	14.0	25.7	11.9	999
Luapula	25.1	4.4	33.7	10.3	652
Lusaka	11.7	3.6	29.3	9.4	976
Northern	12.1	2.8	21.3	6.9	1,028
North-Western	23.0	2.3	32.1	10.0	371
Southern	6.2	2.8	20.3	7.0	734
Western	15.6	2.0	31.6	11.0	656
Total	13.6	4.8	27.2	9.8	7,126

10.1.1 Use of Bednets by Children and Pregnant Women

In the 2001-2002 ZDHS, respondents for the household questionnaire were asked about the use of bednets by the household members during the previous night. Since the prevalence of malaria-carrying mosquitoes varies seasonally, with a peak during and immediately following periods of rain, use of bednets may be expected to follow a similar seasonal pattern. The 2001-2002 ZDHS was conducted during the period when malaria is prevalent in Zambia, i.e., November to May.

Table 10.2 presents information on use of bednets by children. Results presented in the table show that 16 percent of children under five years were reported as having slept under a mosquito net the night before the survey, with 7 percent of children reported as having slept under an ITN. The table also shows that children in urban areas are more likely to sleep under a mosquito net (22 percent) than their rural counterparts (14 percent).

The proportion of children who sleep under any type of mosquito net ranges from a high of 23 percent in Luapula and 22 percent in North-Western provinces, to a low of 8 percent in Southern province. The percentage of children who sleep under ITNs is highest in Eastern (13 percent) and Luapula provinces (10 percent) and lowest in Southern province (2 percent).

Table 10.3 shows the percentage of all women and pregnant women who slept under a mosquito net the night before the survey. Malaria is especially dangerous during pregnancy and this has prompted many advocacy campaigns to educate not only pregnant women, but also the general public on the importance of preventing malaria during pregnancy. However, results from the 2001-2002 ZDHS indicate that less than one in five pregnant women (18 percent) sleeps under a mosquito net, and only 8 percent sleep under an ITN. The data indicate that pregnant women are no more likely than other women to sleep under a mosquito net or an ITN.

Table 10.2 Use of mosquito nets by children

Percentage of children under age five years who slept under a mosquito net the night before the survey and percentage who slept under an insecticide treated net, by background characteristics, Zambia 2001-2002

Background characteristic	Percentage who slept under a bednet last night: Any net	Percentage who slept under a bednet last night: Insecticide-treated net[1]	Number of children
Age in months			
<6	19.5	5.3	634
6-11	17.2	7.6	604
12-23	18.3	7.8	1,299
24-35	16.5	7.5	1,143
36-47	13.6	5.8	1,003
48-59	13.6	4.7	1,103
Sex			
Male	16.5	6.4	2,877
Female	16.1	6.6	2,911
Residence			
Urban	21.9	8.1	1,796
Rural	13.7	5.8	3,991
Province			
Central	10.5	1.8	425
Copperbelt	19.4	7.6	931
Eastern	17.6	12.5	781
Luapula	22.5	10.4	508
Lusaka	18.1	4.4	711
Northern	13.6	5.8	884
North-Western	21.6	8.0	326
Southern	7.6	2.0	684
Western	17.4	4.5	536
Total	16.3	6.5	5,787

[1] Includes pre-treated nets, nets obtained in the past 6 months, and nets that were re-treated at home

Use of mosquito nets is more common among urban than rural women, although rural women are almost as likely to use ITNs as urban women. As was seen in the data for children, use of mosquito nets by women is highest in Luapula, Eastern, and North-Western provinces and lowest in Southern province.

The use of both untreated and treated nets increases with women's level of education for both pregnant women and all women. Among women with no education, 11 percent slept under a mosquito net the night before the survey, compared with 26 percent of women with secondary education and 44 percent of women with more than secondary education. Among pregnant women, 9 percent with no education slept under a mosquito net, compared with 30 percent of women with some secondary education.

Table 10.3 Use of mosquito nets by women

Percentage of all women and pregnant women age 15-49 who slept under a mosquito net (treated or untreated) and who slept under an insecticide-treated net (ITN) the previous night, by background characteristics, Zambia 2001-2002

	All women			Pregnant women		
Background characteristic	Percentage who slept under a net last night	Percentage who slept under an ITN last night	Number of women	Percentage who slept under a net last night	Percentage who slept under an ITN last night	Number of pregnant women
Residence						
Urban	20.3	7.7	3,073	23.5	9.9	229
Rural	16.0	7.5	4,585	14.9	7.1	553
Province						
Central	10.7	3.0	562	6.5	3.7	68
Copperbelt	17.7	6.6	1,544	22.4	8.2	140
Eastern	23.0	15.5	926	18.4	11.2	102
Luapula	25.1	13.3	622	29.6	18.5	80
Lusaka	16.0	4.2	1,132	12.9	2.9	88
Northern	17.3	8.0	1,040	14.4	6.1	117
North-Western	23.7	10.2	354	(27.2)	(12.0)	37
Southern	9.8	2.5	814	5.6	1.4	83
Western	19.9	6.9	663	22.7	9.1	67
Education						
No education	10.8	4.3	925	9.2	3.8	102
Primary	14.1	6.1	4,439	13.5	6.7	498
Secondary	25.7	10.5	2,061	30.2	9.9	170
Higher	44.1	22.8	234	*	*	11
Total	17.7	7.6	7,658	17.4	7.9	782

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.

Use of insecticide-treated nets—especially among pregnant women—is very important in malaria prevention. Results from the 2001-2002 ZDHS show that only 4 percent of pregnant women with no education slept under an ITN, compared with 30 percent of pregnant women with secondary education.

10.2 Malaria Diagnosis, Case Management and Treatment

Zambia is among the countries in Africa with the highest malaria-related maternal mortality. In controlling malaria in Zambia, one of the strategies that the MoH/National Malaria Control Centre has adopted through the Anti-malarial Drug Policy is the presumptive treatment of fever with sulpha-pyrimethamine (SP), known as Fansidar (as the first-line drug replacing chloroquine), and the promotion of efforts to increase its availability at the community level. Nonetheless, during the period that the fieldwork for the 2001-2002 ZDHS was conducted, chloroquine was the national drug of choice. The data on anti-malarial drugs from the 2001-2002 ZDHS depend on accurate reporting of types of drugs taken. It is likely that some women were not sure of the type of drug they took during pregnancy or gave to their children.

10.2.1 Malaria Prophylaxis during Pregnancy

Table 10.4 shows the percentage of women with a birth in the five years preceding the survey who took any drug for prevention of malaria during their pregnancy. Thirty-six percent of women received some anti-malarial drugs during their last pregnancy. The most frequently used drug for malaria is chloroquine (33 percent), with less than 1 percent of the women reporting use of Fansidar. More than 80 percent of the pregnant women who took anti-malarial medication received the drugs during an antenatal visit.

Table 10.4 Use of antimalarial drugs during pregnancy

Percentage of women who had a birth in the five years preceding the survey who took anti-malarial drugs during the most recent pregnancy, and the percentage who received these drugs from various sources, by background characteristics, Zambia 2001-2002

	Percentage of women who took anti-malarial drugs during pregnancy:					Number of women who gave birth in last five years	Percentage of women who got their drugs:					
Background characteristic	Any drug	Chloro-quine	SP/ Fansidar	Other	Don't know name of drug		During an ante-natal visit	During another health facility visit	From another source	No ANC visit	Missing	Number who took antimalarial drugs
Residence												
Urban	30.5	28.7	0.8	0.7	0.8	1,499	76.9	20.6	1.6	0.5	0.4	444
Rural	38.6	35.7	0.4	1.5	1.8	2,904	87.8	9.4	1.7	0.7	0.4	1,070
Province												
Central	23.4	21.0	0.4	1.8	0.8	319	72.0	22.0	5.1	0.8	0.0	72
Copperbelt	28.2	26.2	0.6	0.9	1.1	765	80.9	16.0	2.3	0.0	0.8	207
Eastern	35.9	30.7	1.2	1.4	3.0	587	88.2	7.9	3.0	0.0	1.0	193
Luapula	39.8	38.2	0.0	0.3	1.3	371	91.9	8.1	0.0	0.0	0.0	143
Lusaka	31.7	29.6	0.9	1.3	0.6	590	68.2	29.1	2.0	0.7	0.0	183
Northern	29.3	28.6	0.3	0.1	0.4	649	85.0	8.9	3.3	2.3	0.5	187
North-Western	56.1	50.4	0.0	7.7	3.0	226	91.7	7.6	0.0	0.6	0.0	120
Southern	44.2	42.0	0.5	0.7	1.4	485	87.1	10.8	0.5	1.1	0.5	207
Western	51.2	48.0	0.0	0.7	2.5	412	91.8	7.7	0.0	0.5	0.0	201
Education												
No education	27.8	25.2	0.0	0.8	2.0	613	89.9	7.0	1.7	1.3	0.0	158
Primary	34.7	32.1	0.4	1.3	1.7	2,726	85.1	12.6	1.1	0.6	0.6	900
Secondary	43.0	40.7	1.1	1.3	0.5	977	81.6	15.3	2.5	0.6	0.0	415
Higher	47.7	44.4	2.5	0.5	0.5	87	(84.9)	(10.6)	(4.5)	(0.0)	0.0	41
Total	35.8	33.3	0.5	1.2	1.4	4,402	84.7	12.7	1.7	0.7	0.4	1,514

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

Rural women (39 percent) are more likely to take anti-malarial drugs during pregnancy than urban women (31 percent). North-Western (56 percent) and Western provinces (51 percent) have the highest percentage of women that report having taken any anti-malarial drugs, while Copperbelt (28 percent) and Central provinces (23 percent) have the lowest.

The use of anti-malarial drugs increases with the level of education. However, among women who took anti-malarial drugs during their most recent pregnancy, the proportion who obtained the drugs during antenatal visits declines with level of education, from 90 percent of women with no education to 82 percent of those with some secondary education.

10.2.2 Prevalence and Management of Childhood Malaria

Since the major manifestation of malaria is fever or convulsions (fits), in the 2001-2002 ZDHS mothers were asked whether their children under age five had a fever/convulsion in the two weeks preceding the survey. If fever/convulsions were 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 episode of illness started.

Table 10.5 shows the percentage of children under age of five who had fever and/or convulsions in the two weeks preceding the survey and, of those, the proportion who took anti-malarial drugs and the proportion receiving treatment on the same or next day.

Table 10.5 Prevalence and treatment of fever/convulsions in children

Percentage of children under five with fever and/or convulsions in the two weeks preceding the survey, and among these, percentage who took anti-malarial drugs and percentage receiving treatment on the same or next day, by background characteristics, Zambia 2001-2002

			Children with fever and/or convulsion		
Background characteristic	Percentage of children with fever/ convulsions	Number of children	Percentage who took anti-malarial drugs	Percentage who took anti-malarial drugs same/ next day	Number of children with fever/ convulsions
Age in months					
<6	34.4	634	47.2	27.6	218
6-11	59.3	604	58.5	39.9	358
12-23	56.0	1,299	53.2	39.0	727
24-35	47.7	1,143	53.1	39.1	545
36-47	33.4	1,003	50.4	35.5	336
48-59	29.1	1,103	44.3	32.0	320
Sex					
Male	42.2	2,877	52.8	37.4	1,214
Female	44.4	2,911	51.0	36.2	1,291
Residence					
Urban	33.2	1,796	49.3	35.8	597
Rural	47.8	3,991	52.7	37.1	1,908
Province					
Central	45.1	425	54.6	39.5	192
Copperbelt	36.6	931	50.2	33.8	340
Eastern	43.9	781	50.8	39.9	343
Luapula	57.0	508	59.2	42.1	290
Lusaka	35.0	711	39.1	29.4	249
Northern	46.5	884	48.4	36.1	411
North-Western	38.7	326	66.2	41.1	126
Southern	41.2	684	62.0	45.7	282
Western	50.6	536	45.3	23.5	271
Mother's education					
No education	50.4	842	46.4	31.7	424
Primary	44.7	3,656	52.4	35.8	1,636
Secondary or higher	34.5	1,289	55.1	45.0	445
Total	43.3	5,787	51.9	36.8	2,505

Forty-three percent of children under five years were reported as having suffered from fever and or convulsions in the two weeks preceding the survey. Of these, 52 percent were reported to have taken anti-malarial drugs. Among those receiving treatment, 37 percent were reported to have taken anti-malarial drugs on the same or the next day after the onset of the illness.

The highest prevalence of fever/convulsions (59 percent) is reported among children aged 6-11 months, followed by those aged 12-23 months (56 percent). Fever/convulsions are less common among children aged 48-59 months. More children (48 percent) in rural areas are reported as having fever than children in urban areas (33 percent). Nevertheless, treatment with anti-malarial drugs differs little by urban-rural residence.

Luapula province has the highest percentage of children with malaria symptoms (57 percent), followed by Western province (51 percent), while Lusaka has the lowest (35 percent). Although it has one of the lowest levels of malaria (39 percent), North-Western province has the highest proportion of children with malaria who took anti-malarial drugs (66 percent).

Prevalence of fever among children under five years declines with increasing level of mother's education. Women with secondary or higher education report the lowest percentage of children with fever (35 percent), compared with women with no education (50 percent). The percentage who receive anti-malarial drugs is highest among children of mothers with secondary or higher education (55 percent), followed by children of mothers with primary education (52 percent).

Table 10.6 presents information on the types of drugs given to children with fever. Chloroquine is by far the most common anti-malarial drug given for fever (50 percent) in both urban (46 percent) and rural areas (51 percent). Fansidar is given more in urban areas (5 percent) than in rural areas (2 percent). Overall, only 2 percent of children with fever are reportedly given Fansidar. The fact that almost half of children with fever are given chloroquine is of concern because chloroquine-resistant malaria exists in Zambia.

Sixty-two percent of children with fever are given non-anti-malarial drugs, such as aspirin, panadol, and herbs (77 percent of children in urban areas and 57 percent in rural areas). One in five children with fever was not given any drugs.

Table 10.6 Drugs taken for fever

Among children under five years who were ill with fever, convulsions or fits during the two weeks preceding the survey, percentage given specific drugs, according to residence, Zambia 2001-2002

	Residence		
Drug given	Urban	Rural	Total
Anti-malarial drug			
Chloroquine	46.0	50.9	49.7
Fansidar	4.7	1.7	2.4
Quinine	2.2	1.3	1.5
Non-anti-malarial drug	76.6	57.2	61.8
No drug	10.6	22.3	19.5
Don't know/missing	1.0	2.2	1.9
Number of children	594	1,901	2,505

Table 10.7 shows the percentage of children under five who had fever or convulsions in the two weeks preceding the survey who were given specific treatments, by background characteristics.

As mentioned, more than half (52 percent) of all children reported to have had fever or convulsions in the two weeks preceding the survey took anti-malaria drugs. Ten percent of children were given treatments other than drugs. For example, 4 percent of children with fever were given a tepid sponging and 3 percent were given herbs or other treatments.

Table 10.7 Treatment in children with fever/convulsions

Among children under five years with fever or convulsions in the two weeks preceding the survey, percentage who were given specific treatments, by background characteristics, Zambia 2001-2002

Background characteristic	Percentage of children who received anti-malarial drugs	Percentage who received treatments other than drugs:					Number of children with fever/ convulsions
		Any treatment other than drugs	Were taken to a traditional healer	Were given a tepid sponging	Were given herbs	Were given other treatments	
Sex							
Male	52.8	9.9	0.5	3.9	3.2	3.1	1,214
Female	51.0	10.0	0.5	4.7	3.0	2.6	1,291
Residence							
Urban	49.3	8.0	0.4	4.2	1.8	2.7	597
Rural	52.7	10.6	0.5	4.3	3.5	2.9	1,908
Province							
Central	54.6	8.9	1.0	1.3	5.6	1.6	192
Copperbelt	50.2	5.8	1.0	1.9	1.0	2.4	340
Eastern	50.8	8.5	0.3	2.1	4.2	2.1	343
Luapula	59.2	7.2	0.3	3.1	3.4	0.7	290
Lusaka	39.1	9.1	0.0	4.6	2.5	3.0	249
Northern	48.4	7.8	0.0	5.0	3.0	0.9	411
North-Western	66.2	6.7	0.6	0.0	4.8	1.6	126
Southern	62.0	23.3	0.8	12.7	3.7	8.2	282
Western	45.3	12.7	0.7	5.6	1.1	5.2	271
Mother's education							
No education	46.4	11.2	0.5	3.6	4.9	3.0	424
Primary	52.4	9.6	0.6	4.0	3.2	2.6	1,636
Secondary or higher	55.1	10.3	0.1	6.2	0.8	3.7	445
Average	51.9	10.0	0.5	4.3	3.1	2.8	2,505

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

11

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Malnutrition plays an important role in the health and welfare of children and women in Zambia. Poor nutrition results in morbidity, mortality, poor education. and fewer opportunities for economic development. Poor education, low socio-economic status, and high fertility are factors that may influence the nutritional status of an individual and thus the development of the nation. In Zambia, children under five years and women of reproductive age are the most vulnerable. Economic evidence also suggests that life expectancy is directly related to poverty and nutrition (Sachs, 1999). Adequate food and sound nutrition are essential to good health. They are crucial not only for human survival, but also for prevention of and recovery from illness.

The 2001-2002 ZDHS collected data from respondents in order to evaluate the nutritional status of women and young children. For infants and young children, this included information on breastfeeding and complementary feeding. For the micronutrients iron, vitamin A, and iodine, information was collected on intake levels from supplementation and food. Anthropometric measurements (height and weight) were taken for women 15-49 years and children under age 5 to determine their nutritional status.

11.1 BREASTFEEDING

Appropriate feeding practices are of fundamental importance for the survival, growth, development, health and nutrition of infants and children and for the well-being of mothers. Feeding practises are one of the underlying determinants of children's nutritional status, which in turn influence the risk of illness and ultimately death. Breastfeeding benefits depend on the length of time a child is breastfed, and the frequency and intensity of breastfeeding. Breastfeeding also affects the mother in other ways. The physiological suppression of fertility as a result of intensive breastfeeding influences the length of the interval between pregnancies.

11.1.1 Initiation of Breastfeeding

Breastfeeding is sufficient and beneficial for infant nutrition in the first six months of life. Early initiation of breastfeeding (breastfeeding within one hour) facilitates the newborn's innate sucking reflex, which helps to stimulate breast milk production and provides all of the nutritional requirements of a young infant (Righard and Alade, 1990). The high concentration of antibodies in colostrum[1] protects the child from infection before the child's immune system has matured. Early initiation also encourages the bond between mother and baby and helps to maintain the baby's body temperature. Breastfeeding also helps the uterus to retract, hence reducing postpartum blood loss of the mother. Prelacteal feeding (giving something other than breast milk in the first three days of life) is discouraged since it may inhibit breastfeeding and expose the newborn infant to illness.

The data presented in Table 11.1 show the percentage of children who were ever breastfed and among children ever breastfed, the proportion who started breastfeeding within one hour and within one day of birth and those who received a prelacteal feed. The data indicate that almost all (98 percent) Zambian children are breastfed for some period of time, the same level that was reported in 1996. More

[1] First yellowish highly nutritious milk that is present right after delivery

Table 11.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and among children ever breastfed, the percentage who started breastfeeding within one hour and within one day of birth, and percentage who received a prelacteal feed, by background characteristics, Zambia 2001-2002

Background characteristic	Percentage ever breastfed	Number of children	Among children ever breastfed, percentage who: Started breastfeeding within 1 hour of birth	Started breastfeeding within 1 day of birth[1]	Received a prelacteal feed[2]	Number of children ever breastfed
Sex						
Male	98.4	3,341	51.0	90.3	26.2	3,288
Female	98.5	3,307	51.4	89.3	25.9	3,257
Residence						
Urban	98.0	2,050	61.0	91.1	15.6	2,009
Rural	98.6	4,599	46.9	89.2	30.6	4,535
Province						
Central	98.5	502	35.1	88.3	31.9	495
Copperbelt	99.2	1,065	54.4	90.4	17.3	1,057
Eastern	98.8	890	60.0	94.0	29.0	880
Luapula	99.2	625	38.9	92.8	18.1	620
Lusaka	98.0	805	64.4	92.1	14.9	788
Northern	98.4	1,008	49.0	91.3	30.7	992
North-Western	98.8	357	52.1	94.6	49.2	352
Southern	98.2	764	60.6	95.1	15.6	750
Western	96.5	632	33.2	65.8	46.3	610
Mother's education						
No education	98.4	978	51.4	87.3	31.7	963
Primary	98.4	4,235	48.3	90.0	26.4	4,168
Secondary	98.7	1,334	59.4	91.3	20.6	1,317
Higher	96.1	101	62.0	85.1	27.6	98
Assistance at delivery						
Health professional	98.4	2,886	58.5	91.8	20.1	2,840
Traditional birth attendant	98.8	763	47.7	91.0	31.9	754
Other	98.3	2,541	46.0	87.4	31.0	2,498
No one	99.0	444	41.5	90.8	27.0	439
Place of delivery						
Health facility	98.3	2,901	58.3	91.7	20.1	2,851
At home	98.6	3,700	45.9	88.6	30.8	3,647
Other	(96.0)	26	(37.4)	(89.2)	(31.1)	25
Total	98.4	6,649	51.2	89.8	26.0	6,544

Note: Table is based on all births whether the children are living or dead at the time of interview. Total includes 14 children for whom assistance at birth is missing and 22 children for whom place of delivery is missing. Figures in parentheses are based on 25-49 unweighted cases.

[1] Includes children who started breastfeeding within one hour of birth

[2] Infant was given something other than breast milk during the first three days of life before the mother started breastfeeding regularly.

[3] Doctor, nurse/midwife, or auxiliary midwife

than half (51 percent) of the infants were put to the breast within one hour of birth, and 90 percent started breastfeeding within the first day. These proportions are less than the 1996 levels: 58 percent and 91 percent, respectively.

There are no marked differences in the proportion of children ever breastfed by background characteristics. However, significant differences exist with respect to breastfeeding initiation within the first hour. A larger proportion of urban infants (61 percent) are breastfed within one hour of birth than rural infants (47 percent).

Initiation of breastfeeding varies among provinces. The proportion of infants that are breastfed within one hour of birth ranges from 33 percent in Western province to 64 percent in Lusaka province. Western province has the lowest percentage of children who started breastfeeding within one day of birth: 66 percent compared with 88 percent or higher in the other provinces.

Prelacteal feeding is not widely practiced in Zambia. Only 26 percent of children born in the five years preceding the survey received a prelacteal feed. Prelacteal feeding is more widely practiced in rural areas (31 percent) than urban areas (16 percent). North-Western (49 percent) and Western provinces (46 percent) have the highest reported rates of this practice. Women who did not deliver in a health facility have higher reported rates of prelacteal feeding (31 percent) than those who delivered in a health facility (20 percent).

A breastfeeding programme started in urban areas of Zambia in 1992 may have had an impact on regional differences in the prevalence of early breastfeeding and breastfeeding initiation. However, the programme was discontinued for the period because of the uncertainties of the risk of transmission of the AIDS virus to the baby through breast milk. Training has since resumed, taking care of the concerns through the infant and young child feeding counseling, of which breastfeeding is a major component.

11.1.2 Age Pattern of Breastfeeding

Breast milk is safe, convenient, uncontaminated and contains all the nutrients needed by the baby in the first six months of life. In Zambia, all women are encouraged to breastfeed their infants exclusively for the first six months and then complement the breastfeeding with nutritious foods for at least two years. Breast milk provides protection against infection through the mother's antibodies. Supplementing breast milk before 6 months is unnecessary and is strongly discouraged because of the likelihood of contamination, the unaffordability of breast milk substitutes, and the resulting increased risk of diarrhoeal disease. The early introduction of liquids and solids reduces breast milk output because the production and release of milk is influenced by the frequency and intensity of suckling. HIV positive mothers may transmit the virus to their infants during pregnancy or delivery. Some may also transmit the virus to their infants via breast milk. However, the majority (80 percent) of infants of HIV-positive women do not become infected from their mothers through breast milk. Breastfeeding remains the best nutrition even for infants of HIV-positive mothers and mothers of unknown status as it provides resistance to opportunistic diseases.

Table 11.2 presents breastfeeding practises from birth through the third year of life. Based on information about feeding practises in the 24 hours preceding the survey, almost all children are breastfed for at least one year, with only 3 percent of children aged 12-15 months who are not breastfed. By age 16-19 months, 15 percent of children are no longer breastfeeding. Breastfeeding decreases rapidly late in the second year of life, so that by 28-31 months of age, virtually all children (97 percent) are weaned. In the 1996 ZDHS, almost all children were weaned by 34 months.

Table 11.2 Breastfeeding status by child's age

Percent distribution of youngest children under three years living with the mother by breastfeeding status and percentage of children under three years using a bottle with a nipple, according to age in months, Zambia 2001-2002

Age in months	Not breast-feeding	Exclu-sively breast-fed	Breastfeeding and consuming: Plain water only	Water-based liquids/ juice	Other milk	Comple-mentary foods	Total	Number of children	Percentage using a bottle with a nipple[1]	Number of living children
<2	0.0	65.2	31.3	0.0	1.3	2.1	100.0	159	1.2	164
2-3	0.0	44.8	28.8	0.9	2.0	23.5	100.0	259	4.3	260
4-5	1.8	15.2	18.4	0.5	1.9	62.1	100.0	210	4.3	211
6-7	0.0	5.2	8.1	2.0	0.5	84.3	100.0	203	1.5	203
8-9	1.0	1.2	4.8	1.1	1.3	90.6	100.0	199	4.1	199
10-11	0.6	0.6	3.3	0.7	0.5	94.2	100.0	197	7.0	202
12-15	3.2	0.3	1.8	0.3	0.0	94.4	100.0	428	2.9	436
16-19	15.0	1.3	0.8	0.3	0.0	82.6	100.0	422	3.1	437
20-23	41.6	0.0	1.0	0.3	0.0	57.2	100.0	397	1.8	426
24-27	71.7	0.0	0.0	0.0	0.0	28.3	100.0	310	2.8	354
28-31	96.7	0.0	0.0	0.0	0.0	3.3	100.0	302	1.3	421
32-35	97.9	0.0	0.0	0.0	0.0	2.1	100.0	232	0.4	369
<6	0.6	40.1	26.0	0.5	1.8	31.0	100.0	627	3.5	634
6-9	0.5	3.2	6.5	1.6	0.9	87.4	100.0	401	2.8	402

Note: Breastfeeding status refers to a 24-hour period (yesterday and last night). Children classified as breastfeeding and consuming plain water only consume no supplements. The categories not breastfeeding, exclusively breastfed, breastfeeding, and consuming plain water, water-based liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical, mutually exclusive, and add to 100 percent. Thus, children who receive breast milk and water-based liquids and who do not receive complementary foods are classified in the water-based liquid category even though they may also get plain water. Children who receive complementary foods are classified in that category as long as they are also breastfeeding.

[1] Based on all children under three years

Despite the high breastfeeding prevalence (98 percent) in Zambia, the majority of infants are not fed in compliance with the WHO/UNICEF recommendations (World Health Assembly, 2001). These recommendations call for a period of exclusive breastfeeding for 6 months and the introduction of complementary foods between the age of 6 and 9 months. Only 40 percent of infants under 6 months of age are exclusively breastfed in Zambia. While it appears to be an increase over the proportion reported in the 1996 ZDHS (26 percent), changes in the questionnaire wording may account for the increase.[2]

Exclusive breastfeeding drops sharply from 45 percent at age 2-3 months to 15 percent at age of 4-5 months. As many as 24 percent of children age 2-3 months and 62 percent of children age 4-5 months are receiving food supplements in addition to breast milk. This indicates that there are many infants who are at risk of being exposed to bacterial contamination and poor quality foods, even if they started out well with early initiation of breastfeeding.

The use of a feeding bottle with a nipple is discouraged in Zambia. HIV-positive mothers are told not to use feeding bottles even when they choose to use formula as their feeding option. The use of a bottle with a nipple, regardless of the contents (formula or any other liquid), requires a lot of attention in terms of hygiene and handling. As a result of inadequate and insufficient cleaning and ease of recon-

[2] In the 1996 ZDHS, mothers were asked if their young children were given any of a list of liquids and specific foods in the preceding 24 hours. A final question concerned "any other solid or semi-solid foods." In the 2001-2002 ZDHS, mothers were asked only about specific food groups, with no final "any other food" category. This may have resulted in overestimation of exclusive breastfeeding.

tamination after cleaning, the nipple may house disease-causing agents transferable to the baby. Table 11.2 indicates that only 3 percent of children age 6-9 are given a feeding bottle with a nipple. This is a little less than in the 1996 ZDHS (4 percent). Bottle-feeding reaches its peak (7 percent) at age 10-11 months. The percentage of children who are bottle-fed declines to 3 percent by the age of one year. It is assumed that by that age most children are eating solid foods, which do not require feeding by bottle.

Table 11.3 presents information on the median duration and frequency of breastfeeding, exclusive breastfeeding, and full breastfeeding among children under three years of age. It also shows the percentage of children 6 months of age who were breastfed six or more times in 24 hours preceding the survey, according to background characteristics.

The median duration of breastfeeding in Zambia is 21 months, a slight increase from 1996 (20 months). Regional differences in breastfeeding prevalence are minimal with the longest duration being 24 months in Western province and the lowest (20 months) in Copperbelt, Lusaka, and Luapula provinces (Figure 11.1). The median duration of exclusive breastfeeeding is 2 months and the median duration of predominant breastfeeding is 4 months. Children are considered predominantly breastfed when they are either exclusively breastfed or receive breast milk and plain water, water-based liquids, and/or juice only (excluding other milk and solids).

Frequent breastfeeding improves the production of breast milk. It is also a benefit for some mothers who breastfeed exclusively as it delays the return of fertility.

Figure 11.1 **Median Duration of Breastfeeding by Background Characteristics**

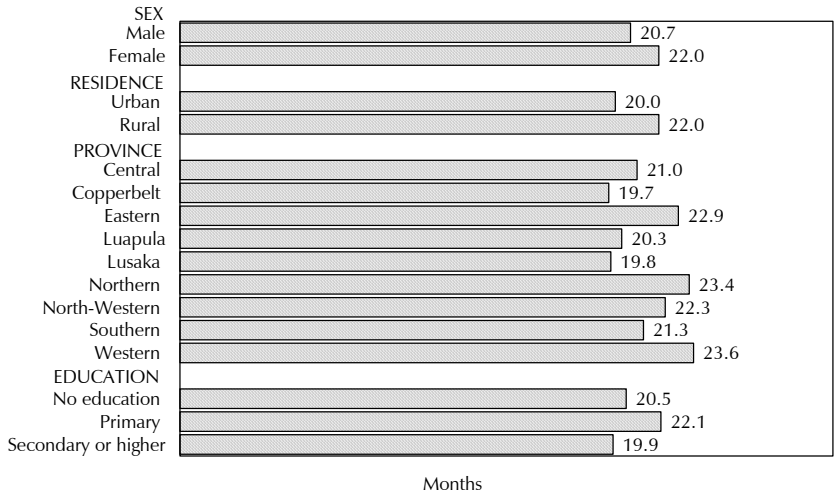


Table 11.3 indicates that almost all children under 6 months (97 percent) were breastfed six or more times in the past 24 hours, with an average of 7 daytime feeds and 5 nighttime feeds.

Although the median duration of breastfeeding is slightly longer in the rural areas (22 months) than in the urban areas (20 months), exclusive breastfeeding is slightly shorter in rural areas (1 month) than in urban areas (2 months). Mother's level of education is not related to breastfeeding practices.

Table 11.3 Median duration 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 2001-2002

	Median duration (months) of breastfeeding[1]				Breastfeeding children under six months[2]			
Background characteristic	Any breast-feeding	Exclusive breast-feeding	Pre-dominant breast-feeding [3]	Number of children	Percentage breastfed 6+ times in last 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
Sex								
Male	20.7	1.5	3.6	2,065	97.0	7.4	5.4	306
Female	22.0	1.7	3.8	2,075	96.4	6.7	5.3	318
Residence								
Urban	20.0	2.3	3.6	1,252	97.7	7.1	5.8	199
Rural	22.0	1.3	3.8	2,888	96.3	7.1	5.2	425
Province								
Central	21.0	1.1	4.0	314	98.6	6.6	5.4	47
Copperbelt	19.7	2.0	3.0	654	100.0	6.9	5.9	97
Eastern	22.9	1.4	2.8	580	97.4	7.8	5.2	81
Luapula	20.3	2.3	3.5	402	93.9	6.2	4.9	66
Lusaka	19.8	2.8	4.4	475	96.4	7.1	5.7	71
Northern	23.4	1.3	3.4	650	98.0	7.7	5.6	89
North-Western	22.3	0.6	3.2	219	97.6	6.0	5.5	34
Southern	21.3	3.4	5.0	459	93.4	7.3	4.9	70
Western	23.6	0.7	5.2	385	94.2	7.1	5.3	70
Mother's education								
No education	20.5	1.5	4.4	613	94.3	7.3	5.8	105
Primary	22.1	1.4	3.5	2,638	96.6	7.2	5.3	391
Secondary or higher	19.9	2.6	4.0	889	99.0	6.4	5.4	128
Total	21.4	1.6	3.7	4,140	96.7	7.1	5.4	624
Mean	20.9	3.1	5.0	na	na	na	na	na

Note: Median and mean durations are based on current status.
na = Not applicable
[1] It is assumed that non-last-born children or last-born children not living with the mother are not currently breastfeeding.
[2] Excludes children for whom there is no valid answer on the number of times breastfed
[3] Either exclusively breastfed or receives breast milk and plain water, water-based liquids and/or juice only (excludes other milk)

11.2 COMPLEMENTARY FEEDING

11.2.1 Types of Complementary Foods

In line with the WHO/UNICEF global strategy on infants and young child feeding, the Zambia government recommends 6 months as the optimal age to introduce complementary foods. This is because after 6 months of age, breast milk alone is not sufficient to meet all the nutrition requirements of the infant. The period after 6 months of age is a crucial time for children because they are being introduced to the family diet, and a number of issues come into force. These include income, hygiene, general care, and choice of complementary foods.

The spread of HIV/AIDS has created another challenge for breastfeeding. In some cases, early introduction of breast milk substitutes has resulted from fear of transmitting the HIV virus from the mother to child. Zambia is putting in place legislation under the Food and Drugs Act to control the marketing of breast milk substitutes by baby food manufacturers. The purpose is to prevent the aggressive marketing of breast milk substitutes, hence, protecting breastfeeding practices.

Table 11.4 presents information on the different types of food that are given to children in the first three years of life. This is regardless of whether the child is breastfeeding or not. It is important to note that the categories presented in Table 11.4 are not exclusive. The child who consumed milk could also have consumed semi-solid foods. According to the findings, among breastfeeding infants in Zambia, very few receive infant formula. Seventy-one percent of breastfeeding children age 4-5 months are introduced to solid or semi-solid foods and more than half (57 percent) are introduced to foods made from grains.

Table 11.4 Foods consumed by children in the day or night preceding the interview

Percentage of children under three years of age living with the mother who consumed specific foods in the day or night preceding the interview, by breastfeeding status and age, Zambia 2001-2002

Child's age in months	Infant formula	Other milk	Fruit juice	Other liquids[1]	Solid/semi-solid foods: Food made from grains	Fruits/ vege-tables[2]	Food made from roots/ tubers	Food made from legumes	Meat/ fish/ poultry eggs	Food made with oil/fat/ butter	Fruits and vegetables rich in vitamin A[3]	Any solid or semi-solid food	Number of children
BREASTFEEDING CHILDREN													
<2	1.3	0.0	0.0	0.0	1.9	0.4	0.8	0.0	0.0	0.0	0.4	2.8	159
2-3	2.8	2.1	1.0	3.7	20.1	1.9	2.3	1.2	0.3	2.8	1.1	26.6	259
4-5	2.8	3.7	5.9	9.8	57.3	12.1	6.4	7.6	10.3	13.5	8.9	70.9	206
6-7	4.4	6.7	6.9	15.6	72.9	38.6	10.2	12.4	25.7	23.0	33.7	89.0	203
8-9	4.7	9.1	9.1	21.7	74.9	60.9	20.2	25.2	32.2	43.0	53.5	96.6	197
10-11	5.4	8.2	6.7	26.7	78.1	68.9	21.0	27.6	43.2	40.7	63.8	96.8	196
12-15	2.0	10.4	7.7	28.4	80.2	80.7	29.9	31.4	49.3	46.1	72.5	98.3	414
16-19	4.6	9.5	10.4	27.5	81.7	81.5	26.4	25.0	46.9	41.4	74.3	99.8	359
20-23	2.6	10.1	8.1	27.9	83.6	87.2	25.2	32.3	47.4	41.0	81.9	98.7	232
24-35	0.0	4.8	0.8	9.4	86.1	79.1	35.1	29.3	46.6	32.0	75.2	100.0	103
<6	2.4	2.1	2.4	4.8	27.8	4.9	3.3	3.0	3.6	5.6	3.5	35.2	623
6-9	4.6	7.9	8.0	18.6	73.9	49.6	15.1	18.7	28.9	32.9	43.4	92.8	400
NON-BREASTFEEDING CHILDREN													
16-19	11.2	13.6	18.0	54.7	94.3	84.3	21.3	26.8	68.8	54.7	73.1	97.4	63
20-23	3.2	8.4	9.3	41.4	84.7	84.1	28.0	27.8	51.5	45.3	79.6	97.0	165
24-35	4.0	11.7	10.5	40.3	84.5	86.0	30.8	28.8	54.7	51.5	81.0	98.1	741

Note: Breastfeeding status and food consumed refer to a 24 hour recall period (yesterday and last night). Data are not shown separately for non-breastfeeding children under 16 months nor for the 4 non-breastfeeding children under 6 months nor for the 2 non-breastfeeding children age 6-9 months.

[1] Does not include plain water

[2] Includes fruits and vegetables rich in vitamin A

[3] Includes 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

Table 11.4 further shows that at the age of 6-9 months, 93 percent of breastfeeding infants received solid foods in the 24 hours before the survey. The majority (74 percent) consumed grains, 50 percent received fruits and vegetables, and 29 percent received animal products (in addition to breast milk). Foods rich in vitamin A were consumed by 43 percent of breastfeeding infants 6-9 months and fats by 33 percent. The findings indicate that, in terms of nutrition, the food mixtures given during this transition period are somewhat limited. By 10-11 months, almost all (97 percent) infants are receiving solids. A larger proportion are consuming grains (78 percent), fruits and vegetables (69 percent), and foods rich in vitamin A (64 percent) Although animal products (a major source of iron and vitamin A) are consumed by 43 percent of children in this age group, consumption of animal products is not as prevalent as the other foods. By 20-23 months, grains (84 percent), fruits and vegetables (87 percent) and foods rich in vitamin A (82 percent) are consumed by the majority of breastfeeding children; consumption of animal products remains below 50 percent.

Few children under two years of age are not breastfed. For non-breastfeeding children, about two years of age, the rates of consumption of food are about the same as for breastfeeding children; however, these children do not have the added nutritional benefit of breast milk, and very few receive other milk.

11.2.2 Frequency of Foods Consumed by Children

Table 11.5 presents the frequency of consumption of specific foods by children less than three years of age in the day or night preceding the interview. Infants and young children eat small meals, and therefore, frequent meals are necessary to provide them with the required nutrients. It is recommended that children age 6-8 months eat a minimum of 2-3 meals and snacks per day in addition to breast milk. For children over 8 months of age, 3-5 meals should be consumed by breastfed children (WHO, 1998). The number of meals required is based on the energy density of the foods being fed. Consuming an appropriate variety of foods is essential for the child's nutrition.

Table 11.5 Frequency of foods consumed by children in the day or night preceding the interview

Mean number of times specific foods were consumed in the day or night preceding the interview by youngest child under three years of age living with the mother, according to breastfeeding status and age, Zambia 2001-2002

					Solid/semisolid foods							
Child's age in months	Infant formula	Other milk	Fruit juice	Other liquids[1]	Food made from grains	Fruits/ vege-tables[2]	Food made from roots/ tubers	Food made from legumes	Meat/ fish/ poultry/ eggs	Food made with oil/fat/ butter	Fruits and vegetables rich in vitamin A[3]	Number of children
BREASTFEEDING CHILDREN												
<2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	159
2-3	0.1	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	259
4-5	0.0	0.1	0.1	0.1	1.0	0.2	0.1	0.1	0.1	0.2	0.2	206
6-7	0.1	0.1	0.1	0.3	1.4	0.8	0.2	0.2	0.4	0.3	0.6	203
8-9	0.2	0.1	0.1	0.3	1.7	1.3	0.3	0.3	0.5	0.7	1.0	197
10-11	0.1	0.1	0.1	0.3	1.7	1.6	0.3	0.4	0.6	0.7	1.2	196
12-15	0.1	0.1	0.1	0.4	1.9	1.9	0.5	0.4	0.7	0.8	1.5	414
16-19	0.2	0.1	0.1	0.4	2.0	1.9	0.4	0.3	0.7	0.7	1.5	359
20-23	0.0	0.1	0.1	0.4	2.0	2.3	0.4	0.4	0.7	0.7	1.8	232
24-35	0.0	0.1	0.0	0.1	1.8	2.1	0.6	0.4	0.6	0.5	1.7	103
<6	0.1	0.0	0.0	0.1	0.5	0.1	0.1	0.0	0.0	0.1	0.1	623
6-9	0.2	0.1	0.1	0.3	1.6	1.1	0.2	0.3	0.4	0.5	0.8	400
NON-BREASTFEEDING CHILDREN												
16-19	0.1	0.3	0.3	0.9	2.5	2.1	0.3	0.4	1.1	1.0	1.6	63
20-23	0.0	0.2	0.1	0.7	2.2	2.3	0.5	0.4	0.8	0.8	1.8	165
24-35	0.1	0.2	0.2	0.6	2.1	2.4	0.5	0.4	0.8	0.9	2.0	741

Note: Breastfeeding status and foods consumed refer to a 24 hour recall period (yesterday and last night).

[1] Does not include plain water

[2] Includes fruits and vegetables rich in vitamin A

[3] Includes 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

Table 11.5 shows that foods made from grains are usually given to breastfeeding children less than twice a day from age 6-9 months, which is the best time for introducing complementary foods. Foods containing grain include flour made from maize, millet, or sorghum, which is used to make a porridge and sometimes a fermented drink (Munkoyo, Mahewu). This food is consumed a little more than once a day through one year of age and twice a day at about two years of age for breastfed children.

At two years, non-breastfeeding children are receiving foods made from grain twice a day like breastfeeding children. Fruits and vegetables are consumed twice a day by both breastfeeding and non-breastfeeding children at about two years. Foods enriched with oil/fat/butter—thereby increasing caloric intake—are consumed less than once a day. (These probably include foods previously reported.) Animal products are consumed less than once a day by both groups of children at two years of age.

11.3 MICRONUTRIENTS

Micronutrients are essential for the metabolic processes in the body and they play a major role in the nutrition and health of an individual. The 2001-2002 ZDHS survey collected various types of data that are useful in assessing the micronutrient status of young children and women.

11.3.1 Salt and Sugar Fortification

In Zambia, a number of programmes aim at reducing micronutrient deficiencies. These include food fortification, namely fortification of salt with iodine, sugar with vitamin A, and recently maize with mineral and vitamin combinations. In addition to sugar fortification, children 6 to 72 months of age may receive vitamin A supplements through health services and community campaigns. Women may be given vitamin A supplements during the postpartum period (4 weeks after delivery) to assist both the mother and her breastfeeding children.

Disorders induced by dietary iodine deficiency constitute a major global nutrition concern. A lack of sufficient iodine can lead to goitre, hypothyroidism, impaired mental functions, retarded mental and physical development, and diminished school performance. Iodine deficiency in the foetus leads to increased rates of abortion, stillbirths, congenital anomalies, cretinism, psychomotor defects, and neonatal mortality. Iodine deficiency can be avoided by using salt that has been fortified with iodine (iodised salt).

Table 11.6 shows that 80 percent of the households visited in the 2001-2002 ZDHS had their salt tested for iodine, while 17 percent had no salt available in the household. Less than 4 percent of households are consuming salt that is not iodised, 19 percent of households are consuming inadequately iodised salt (<15 ppm) and 77 percent are consuming adequately iodised salt (15+ ppm). The high proportion of households with iodised salt could be attributed to the aggressive enforcement and continued monitoring of the iodine content in salt by the Health Inspectorate unit of the Ministry of Health. There is little difference in the rates of adequate iodisation in rural areas (79 percent) versus urban areas (75 percent). There are more marked regional differences in adequacy of iodine levels in salt, ranging from 65 percent in Copperbelt to 93 percent in Southern province.

Table 11.6 Iodisation of household salt

Percent distribution of households by level of iodine in salt (parts per million), according to background characteristics, Zambia 2001-2002

Background characteristic	Level of iodine in household salt: None (0 ppm)	Inadequate (<15 ppm)	Adequate (15+ ppm)	Total	Number of households	Percentage of households with salt tested	Percentage of households with no salt	Number of households
Residence								
Urban	1.8	23.8	74.5	100.0	2,074	85.1	10.8	2,437
Rural	4.4	16.5	79.1	100.0	3,629	77.4	20.1	4,689
Province								
Central	1.7	8.8	89.5	100.0	428	87.3	11.1	490
Copperbelt	2.0	32.8	65.2	100.0	1,009	82.6	14.9	1,221
Eastern	1.7	23.8	74.5	100.0	714	71.5	26.1	999
Luapula	8.3	2.1	89.6	100.0	498	76.3	21.7	652
Lusaka	2.2	24.9	73.0	100.0	838	85.9	8.4	976
Northern	5.3	20.9	73.8	100.0	818	79.6	16.3	1,028
North-Western	0.4	16.7	82.9	100.0	308	83.1	15.7	371
Southern	1.0	5.9	93.1	100.0	605	82.5	13.5	734
Western	9.8	15.4	74.8	100.0	486	74.1	24.5	656
Total	3.5	19.1	77.4	100.0	5,703	80.0	16.9	7,126

Vitamin A is an essential micronutrient for the normal functioning of the visual system, growth and development, resistance to disease, and for reproduction. Vitamin A is believed to improve immunity, and hence reduce mortality rates in children and women. Sugar produced in Zambia as well as sugar imported from other countries is supposed to be fortified with vitamin A. Respondents were asked about the type of sugar they had in their household and the amount they consumed in a week to gauge the extent to which vitamin A is reaching the population at large by means of sugar. Table 11.7 shows that only 24 percent of households had sugar present in the home at the time of the 2001-2002 ZDHS, 45 percent in urban areas and 14 percent in rural areas.

Copperbelt (41 percent) and Lusaka (42 percent) provinces had the highest proportion of households with sugar at the time of the survey, while Western had the lowest (11 percent).

Table 11.7 indicates that among households with sugar, the majority (66 percent) have sugar in an opaque package labeled "Zambia Sugar." This may be considered the best kind of sugar because it is produced in Zambia where vitamin A fortification is regulated and supervised. The opaque package prevents vitamin A exposure to light. Eleven percent of households had sugar in a transparent package labeled "Zambia Sugar," 15 percent in an unlabeled transparent plastic bag, and 2 percent had imported labeled sugar.

Table 11.7 Presence of sugar in household

Percentage of households that have sugar in the home, and among these, the percent distribution of households with sugar by type of packaging, according to background characteristics, Zambia 2001-2002

Background characteristic	Sugar present in the home	Total number of households	Type of sugar package: Zambia Sugar (opaque package)	Zambia Sugar (transparent package)	Labeled, not from Zambia	Transparent plastic, no label	Other, not seen	Missing	Total	Number of households with sugar
Residence										
Urban	44.7	2,437	74.1	7.2	1.7	11.1	5.5	0.4	100.0	1,090
Rural	13.9	4,689	52.7	17.2	1.2	21.2	4.9	2.9	100.0	652
Province										
Central	27.3	490	64.6	2.9	1.9	19.9	10.7	0.0	100.0	134
Copperbelt	41.2	1,221	81.6	3.6	1.3	8.6	3.9	1.0	100.0	504
Eastern	16.3	999	61.1	28.7	1.9	3.8	1.3	3.2	100.0	163
Luapula	11.1	652	42.9	10.0	0.0	45.7	1.4	0.0	100.0	72
Lusaka	42.4	976	71.8	5.0	1.3	14.1	7.5	0.3	100.0	413
Northern	16.8	1,028	48.9	17.6	0.5	23.9	4.3	4.8	100.0	173
North-Western	15.5	371	58.6	2.1	2.1	31.4	3.6	2.1	100.0	57
Southern	21.3	734	42.0	36.6	4.6	9.9	5.3	1.5	100.0	156
Western	10.6	656	60.9	7.2	0.0	23.2	8.7	0.0	100.0	70
Total	24.4	7,126	66.1	10.9	1.5	14.8	5.3	1.3	100.0	1,742

Table 11.8 shows the percent distribution of the usual weekly consumption of sugar in the household by background characteristics. Forty-one percent of households report consuming more than 1 kilogram of sugar per week; 28 percent consume 1 kilogram; and 13 percent consume less than a kilogram of sugar per week. Nine percent of households report they do not consume any sugar. Copperbelt (55 percent), Central (54 percent), and Lusaka (52 percent) have the highest proportion of households that report consuming more than 1 kilogram of sugar per week, while North-Western province (17 percent) has the lowest. North-Western (32 percent), Luapula (17 percent), and Northern province (14 percent) have the highest proportions of households that do not consume any sugar at all.

Table 11.8 Household consumption of sugar

Percent distribution of households by usual weekly consumption of sugar, according to background characteristics, Zambia 2001-2002

Background characteristic	Amount of sugar usually consumed per week: None	Less than 250 grams	About half a kilo	About 1 kg	More than 1 kg	Do not know/not sure	Missing	Total	Number of households
Residence									
Urban	1.9	4.5	7.0	27.3	54.7	4.5	0.1	100.0	2,437
Rural	12.3	6.7	7.6	29.0	33.8	10.5	0.1	100.0	4,689
Province									
Central	4.2	2.6	7.9	26.1	54.2	4.9	0.0	100.0	490
Copperbelt	3.7	5.6	5.6	23.1	55.4	6.8	0.0	100.0	1,221
Eastern	10.4	3.5	7.6	36.7	34.0	7.5	0.3	100.0	999
Luapula	17.3	22.4	12.7	24.3	19.5	3.7	0.2	100.0	652
Lusaka	0.8	3.3	9.7	29.1	51.9	5.0	0.1	100.0	976
Northern	14.2	3.3	5.9	28.8	35.8	12.0	0.1	100.0	1,028
North-Western	31.9	16.9	7.6	23.4	16.7	3.3	0.1	100.0	371
Southern	0.6	0.6	3.1	29.5	62.0	4.1	0.0	100.0	734
Western	9.7	4.0	8.0	31.8	18.2	28.2	0.0	100.0	656
Total	8.7	5.9	7.4	28.4	41.0	8.5	0.1	100.0	7,126

11.3.2 Micronutrient Intake among Children

Table 11.9 shows the percentage of children under age three who consumed fruits and vegetables rich in vitamin A in the day or night preceding the survey, and the percentage of those children who received vitamin A supplements in the 6 months preceding the survey. It also indicates the percentage of children under five living in households that have adequately iodised salt.

Table 11.9 shows that almost 60 percent of children under three consume fruits and vegetables rich in vitamin A. Also encouraging is the fact that two-thirds of children 6-59 months are reported to have received a vitamin A supplement in the previous 6 months. Consumption of vitamin A supplements is highest in the age group 12-36 months. There are no marked difference between the sexes on the consumption of vitamin A, iodised salt, vegetables and fruits rich in vitamin A, or vitamin A supplements. Non-breastfeeding children appear to consume more micronutrient-rich foods and supplements than breastfeeding children. There are minimal differences in urban and rural areas in the consumption of fruits and vegetables rich in vitamin A. Data also indicate that the consumption of foods rich in vitamin A is higher for children of women with a secondary or higher education compared with those with primary or no education. Vitamin A supplementation is relatively high in the urban areas (78 percent) compared with the rural areas (63 percent). There are marked differences between provinces in the level of vitamin A supplementation ranging from 52 percent in Eastern province to 83 percent in Copperbelt. These differences may be due to inadequate programme coverage in these areas.

The data indicate that 80 percent of children under the age of three live in households that use iodised salt.

Table 11.9 Micronutrient intake among children

Percentage of youngest children under age three living with the mother who consumed fruits and vegetables rich in vitamin A in the day or night preceding the survey, percentage of children age 6-59 months who received vitamin A supplements in the six months preceding the survey, and percentage of children under five living in households using adequately iodised salt, by background characteristics, Zambia 2001-2002

	Children under three		Children age 6-59 months		Children under five	
Background characteristic	Consumed fruits and vegetables rich in vitamin A[1]	Number of children (youngest child living with mother)	Received vitamin A supplements	Number of children	Living in households using adequately iodised salt[2]	Number of children
Age in months						
<6	3.5	627	na	0	77.6	513
6-9	43.5	401	36.5	402	79.9	332
10-11	64.1	197	59.2	202	82.1	172
12-23	75.7	1,246	71.4	1,299	77.8	1,075
24-35	80.3	843	73.1	1,143	81.3	933
36-47	na	0	70.7	1,003	80.8	836
48-59	na	0	66.6	1,103	79.6	924
Sex						
Male	58.9	1,637	66.7	2,566	79.6	2,375
Female	58.3	1,679	68.1	2,587	79.7	2,409
Birth order						
1	57.9	703	67.3	1,171	79.5	1,066
2-3	56.2	1,153	69.5	1,726	80.2	1,637
4-5	60.8	718	67.0	1,120	78.7	1,019
6+	60.8	742	64.7	1,136	79.9	1,061
Breastfeeding status						
Breastfeeding	49.6	2,326	61.0	1,733	78.7	1,919
Not breastfeeding	80.0	987	71.2	3,383	80.3	2,839
Residence						
Urban	58.1	1,026	77.8	1,590	78.3	1,547
Rural	58.9	2,290	62.8	3,563	80.3	3,237
Province						
Central	55.3	236	64.8	379	91.7	386
Copperbelt	66.0	541	83.3	829	70.3	770
Eastern	63.5	475	52.4	701	77.1	603
Luapula	60.8	291	74.2	442	92.2	406
Lusaka	51.5	380	76.9	639	78.0	625
Northern	71.2	530	65.4	794	72.2	721
North-Western	57.2	181	59.6	292	80.0	280
Southern	42.3	375	53.0	612	95.6	571
Western	46.4	307	71.6	465	70.7	423
Mother's education						
No education	52.7	483	50.7	737	80.2	643
Primary	58.5	2,091	67.5	3,260	80.5	3,012
Secondary	62.9	690	77.3	1,081	78.1	1,048
Higher	62.9	52	83.8	75	62.0	81
Mother's age at birth						
<20	58.8	679	66.9	1,137	81.0	1,039
20-24	54.8	971	68.7	1,524	81.4	1,404
25-29	59.9	757	69.4	1,117	77.2	1,088
30-34	62.9	469	66.6	735	78.1	676
35-49	59.9	439	62.6	640	79.1	577
Total	58.6	3,316	67.4	5,153	79.6	4,784

Note: Information on vitamin A supplements is based on mother's recall.
na = Not applicable
[1]Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A
[2]Salt containing 15 ppm of iodine or more. Excludes children in households in which salt was not tested.

11.3.3 Micronutrient Supplementation for Women

It is recommended for mothers in Zambia to be given a dose of vitamin A within 4 weeks of delivery. Mothers who deliver at health institutions are to receive a dose of vitamin A before they are discharged from the institution. This is to boost the vitamin A level for their benefit and, through their breast milk for the benefit of the child. According to the 2001-2002 ZDHS, the levels of micronutrient supplementation among mothers are very worrying. Table 11.10 shows that only about 28 percent of recent mothers reported receiving a vitamin A dose postpartum.

Vitamin A supplementation among women is higher in urban areas (36 percent) than in rural areas (23 percent). Copperbelt province has the highest level of postpartum supplementation with vitamin A (37 percent), while Northern province has the lowest (17 percent). This indicates the need for strengthening routine supplementation by health services, because it is the best opportunity to capture most of the mothers.

Table 11.10 also presents information on iron supplementation of mothers. Iron-deficiency anaemia is a major threat to maternal health; it contributes to low birth weight, lowered resistance to infection, poor cognitive development, and decreased work capacity. Furthermore, anaemia increases morbidity from infections because it adversely affects the body's immune response. According to the government policy, all pregnant mothers attending antenatal clinics are supposed to be supplemented with iron tablets during their pregnancy. International recommendations are that iron tablets be taken daily for at least three months during pregnancy. It should be noted that although six in ten women reported having taken iron tablets during their pregnancy, only 20 percent took them for 90 or more days.

According to the baseline study on prevalence and etiology of anaemia conducted in 1998 (Luo et al., 1999), 39 percent of the women, 23 percent of men, and 65 percent of children were found to be anaemic. This situation poses a challenge to the Zambian government if morbidity and mortality due to anaemia and other micronutrient deficiencies is to be reduced.

Almost 80 percent of women live in households where adequately iodised salt is used. There are no marked differences in the level of micronutrient supplementation by mother's age at birth or number of children ever born.

Table 11.10 Micronutrient intake among mothers

Percentage of women who gave birth in the five years preceding the survey who received a vitamin A dose in the two months following delivery of the most recent child, percentage who took iron tablets or syrup for specific numbers of days during the pregnancy preceding the most recent birth, and percentage who live in households using adequately iodsed salt, by background characteristics, Zambia 2001-2002

Background characteristic	Received vitamin A dose post-partum [1]	Number of days woman took iron tablets or syrup during pregnancy					Number of women	Living in households using adequately iodised salt[2]	Number of women
		None	<60	60-89	90+	DK/missing			
Age at birth									
<20	26.6	35.1	32.6	7.1	14.7	10.6	866	79.5	719
20-24	29.2	28.7	32.7	9.4	19.3	9.8	1,262	81.0	1,051
25-29	30.1	22.9	33.9	9.6	23.4	10.2	997	76.5	843
30-34	26.0	27.7	31.5	7.7	22.9	10.1	610	78.6	491
35-49	22.6	24.8	31.7	9.5	22.1	11.9	668	78.0	537
Number of children ever born									
1	28.7	36.3	31.3	6.7	16.9	8.8	948	78.0	782
2-3	29.9	25.7	31.7	10.4	20.4	11.7	1,467	79.6	1,233
4-5	27.4	25.9	35.5	7.9	21.3	9.3	941	79.2	767
6+	22.9	25.2	32.4	9.1	22.2	11.1	1,046	78.5	858
Residence									
Urban	35.9	34.9	28.7	9.5	21.0	5.9	1,499	78.0	1,297
Rural	23.1	24.3	34.6	8.4	19.9	12.8	2,904	79.4	2,344
Province									
Central	27.5	25.7	44.0	6.3	9.1	14.9	319	91.9	287
Copperbelt	37.4	30.5	23.0	10.8	32.7	3.0	765	68.9	640
Eastern	29.0	33.9	33.7	9.4	12.7	10.2	587	76.3	455
Luapula	25.9	32.9	53.7	5.3	6.4	1.6	371	91.6	295
Lusaka	28.3	37.5	33.0	7.9	14.8	6.9	590	77.3	518
Northern	16.8	27.4	42.1	6.6	6.7	17.3	649	71.8	529
North-Western	21.4	16.9	22.5	21.2	28.3	11.1	226	81.3	198
Southern	27.6	20.4	20.7	11.4	44.9	2.6	485	94.9	404
Western	26.8	13.8	25.4	3.9	24.9	32.0	412	71.7	316
Education									
No education	13.5	33.7	30.3	9.1	14.6	12.3	613	80.6	466
Primary	25.2	28.2	35.0	7.8	19.0	10.0	2,726	79.8	2,238
Secondary	41.9	24.7	29.5	11.3	25.0	9.5	977	77.1	856
Higher	32.7	14.8	10.5	7.4	46.7	20.7	87	63.1	81
Total	27.5	27.9	32.6	8.8	20.3	10.4	4,402	78.9	3,641

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.
[1] In the first two months after delivery
[2] Salt containing 15 ppm of iodine or more. Excludes women in households in which salt was not tested.

11.4 HOUSEHOLD FOOD SECURITY

Food security is an important determinant of nutritional status. People are considered "food insecure" when they are unable to obtain sufficient food to meet their dietary needs and food preferences.

The 2000-2002 ZDHS measured food security by asking how often households have enough food to eat. Table 11.11 shows the results by background characteristics. According to the findings, only 36 percent of households in Zambia usually or always have enough food to eat, while 45 percent sometimes have enough food to eat. Nineteen percent of Zambian households report they seldom or never have enough to eat and are thereby chronically food insecure. Eleven percent of urban households report seldom or never having enough to eat, compared with 24 percent of rural households.

Food security varies by province, with Northern (59 percent), Central (55 percent), and North-Western provinces (55 percent) having the highest proportions of households that are food secure, and Southern (16 percent) and Eastern (19 percent) having the lowest.

Table 11.11 Household food security

Percent distribution of households by whether household has enough food to eat, according to background characteristics, Zambia 2001-2002

Background characteristic	Household has enough food to eat					Total	Number
	Usually/ Always	Sometimes	Seldom	Never	Missing		
Residence							
Urban	39.6	49.5	10.4	0.5	0.0	100.0	2,437
Rural	34.1	41.9	22.5	1.3	0.2	100.0	4,689
Province							
Central	55.1	40.3	4.4	0.3	0.0	100.0	490
Copperbelt	36.4	44.4	18.0	1.2	0.0	100.0	1,221
Eastern	18.6	35.2	43.9	2.0	0.4	100.0	999
Luapula	37.1	52.2	10.6	0.0	0.0	100.0	652
Lusaka	34.4	59.1	6.1	0.4	0.0	100.0	976
Northern	59.0	39.1	1.7	0.0	0.2	100.0	1,028
North-Western	54.9	31.7	10.4	2.9	0.1	100.0	371
Southern	15.7	33.8	47.6	2.9	0.0	100.0	734
Western	24.4	60.8	14.7	0.0	0.2	100.0	656
Total	36.0	44.5	18.4	1.0	0.1	100.0	7,126

11.5 NUTRITIONAL STATUS OF CHILDREN UNDER AGE FIVE

The 2001-2002 ZDHS included measuring nutritional status of children under six years old by taking body measurements to derive three indices, namely weight-for-age, height-for-age and weight-for-height. Nutritional status of the child can be a direct indicator of the well being of the household. It also reflects on the community nutritional status and the future national development potential.

11.5.1 Measures of Nutritional Status in Childhood

As recommended by the World Health Organisation (WHO), the nutritional status of children in the survey is compared with an international reference population defined by the U.S. National Centre for Health Statistics (NCHS) and accepted by the U.S. Centres for Disease Control and Prevention (CDC). Each of the three nutritional status indicators described below are expressed in standard deviation units (Z-scores) from the median for the reference population. The use of this reference population is based on

the finding that well nourished young children of all population groups (for which data exist) follow very similar growth patterns. The reference populations serve as a point of comparison, facilitating the examination of differences in the anthropometric status of subgroups in a population and changes in nutritional status over time. In any large population, there is variation in height and weight; this variation approximates a normal distribution.

Each of these indices—height-for-age, weight-for-height, and weight-for-age—gives different information about growth and body composition used to assess nutritional status. The height-for-age index is an indicator of linear growth retardation. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered short for their age (stunted) and are chronically malnourished. Children who are below minus three standard deviations (-3 SD) from the median of the reference population are considered severely stunted. Stunting reflects failure to receive adequate nutrition over a long period of time and is also affected by recurrent and chronic illness. Height-for-age, therefore, represents the long-term effect of malnutrition in a population and does not vary according to recent dietary intake.

The weight-for-height index measures body mass in relation to body length and describes current nutritional status. Children whose Z-scores are below minus two standard deviations (-2 SD) from the median of the reference population are considered thin (wasted) for their height 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) from the median of the reference population 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 from the median of the reference population are classified as underweight.

In the reference population, only 2.3 percent of children fall below minus two (-2 SD) for each of the three indices.

Table 11.12 shows the percentage of children under five years classified as malnourished according to height-for-age, weight-for-age, and weight-for-height by background characteristics. A total of 6,292 children under age five were weighed and measured. Four percent of these children had missing information on height or weight, 4 percent had implausibly high or low values for the height and weight measurements, and 1 percent had incomplete age information. The following information focuses on the 5,784 children under age five for whom complete and plausible anthropometric data were collected.

According to the 2001-2002 ZDHS, 47 percent of children under five are stunted and 22 percent severely stunted. Five percent of children under five were found to be wasted. Only 1 percent are severely wasted. Results on weight-for-age show that 28 percent of children under five are underweight and 7 percent are severely underweight.

Table 11.12 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 2001-2002

Background characteristic	Height-for-age (stunted)			Weight-for-height (wasted)			Weight-for-age (underweight)			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]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	
Age in months										
<6	1.5	8.5	-0.4	0.7	3.7	0.4	0.2	2.8	0.1	563
6-9	8.7	29.1	-1.2	2.0	7.8	-0.0	5.0	18.8	-1.0	395
10-11	17.6	36.8	-1.7	2.3	10.9	-0.4	15.8	40.1	-1.6	194
12-23	26.5	55.6	-2.1	1.8	9.0	-0.5	11.4	39.5	-1.7	1,291
24-35	27.4	54.4	-2.1	1.2	3.9	-0.3	9.6	34.0	-1.5	1,179
36-47	26.2	51.9	-2.1	0.7	2.4	-0.1	4.8	27.2	-1.3	1,062
48-59	23.8	51.1	-2.1	0.5	2.6	-0.2	4.4	23.7	-1.4	1,099
Sex										
Male	22.9	47.9	-1.9	1.4	5.7	-0.2	7.4	28.3	-1.3	2,898
Female	21.5	45.6	-1.8	0.9	4.3	-0.2	6.8	27.9	-1.3	2,886
Birth order[2]										
1	23.2	47.5	-1.9	0.9	5.3	-0.1	6.3	26.9	-1.3	1,111
2-3	21.4	44.8	-1.8	1.3	5.1	-0.2	8.0	27.4	-1.3	1,805
4-5	19.8	45.4	-1.8	0.9	4.8	-0.2	6.2	28.1	-1.3	1,173
6+	24.3	50.3	-2.0	1.3	5.0	-0.2	8.0	30.6	-1.4	1,206
Birth interval in months[2]										
First birth[3]	23.4	47.7	-1.9	0.9	5.4	-0.1	6.5	27.0	-1.3	1,117
<24	29.2	55.2	-2.2	1.1	3.8	-0.3	11.5	35.3	-1.6	586
24-47	21.5	47.1	-1.9	1.3	5.0	-0.2	7.1	28.7	-1.3	2,813
48+	17.1	38.0	-1.6	0.9	5.7	-0.2	5.5	22.7	-1.1	780
Size at birth[2]										
Very small	32.1	59.6	-2.3	0.0	8.7	-0.5	14.5	43.7	-1.9	161
Small	27.5	56.6	-2.2	0.9	5.4	-0.4	11.5	36.7	-1.6	581
Average or larger	21.2	45.2	-1.8	1.2	4.8	-0.2	6.4	26.6	-1.2	5,038
Missing	41.8	83.6	-3.2	0.0	0.0	0.8	0.0	83.6	-1.2	4
Residence										
Urban	14.8	36.8	-1.5	1.0	5.1	-0.2	5.0	23.4	-1.1	1,813
Rural	25.5	51.3	-2.0	1.2	5.0	-0.2	8.1	30.3	-1.4	3,971
Province										
Central	19.0	45.9	-1.9	0.7	4.2	-0.2	6.5	26.6	-1.3	450
Copperbelt	19.1	39.9	-1.7	1.4	6.5	-0.3	6.5	29.0	-1.3	921
Eastern	29.7	59.4	-2.2	1.3	5.2	-0.1	9.9	32.1	-1.4	732
Luapula	29.0	57.6	-2.2	0.6	3.8	-0.2	10.3	33.0	-1.5	542
Lusaka	12.8	35.6	-1.4	1.3	5.1	-0.2	4.2	21.7	-1.0	710
Northern	33.5	54.8	-2.2	2.0	7.6	-0.2	10.4	33.8	-1.5	861
North-Western	20.3	44.8	-1.9	0.2	2.8	-0.2	6.0	27.1	-1.3	340
Southern	17.7	40.2	-1.7	0.8	3.9	-0.2	4.4	23.6	-1.2	702
Western	14.1	42.6	-1.8	0.8	2.5	-0.2	4.2	23.7	-1.2	525
Mother's education[4]										
No education	26.8	53.5	-2.0	1.2	5.3	-0.2	10.4	32.9	-1.4	786
Primary	23.7	49.0	-1.9	1.2	5.0	-0.2	7.3	28.7	-1.3	3,441
Secondary	15.2	36.6	-1.6	1.0	4.9	-0.2	5.0	24.1	-1.2	1,112
Higher	2.2	19.8	-0.8	0.0	3.2	0.1	0.0	12.2	-0.4	92
Mother's age[4]										
15-19	22.4	48.3	-1.8	0.5	5.1	-0.1	8.4	30.7	-1.3	476
20-24	23.4	46.5	-1.9	1.2	5.2	-0.2	7.0	26.8	-1.3	1,639
25-29	20.9	46.2	-1.8	1.4	4.9	-0.2	7.1	27.5	-1.3	1,522
30-34	19.6	44.7	-1.8	1.2	4.8	-0.3	6.5	28.9	-1.3	1,018
35-49	24.3	49.2	-1.9	1.0	4.9	-0.2	7.4	29.0	-1.3	1,130
Mother's status										
Mother interviewed	22.1	46.8	-1.9	1.1	5.1	-0.2	7.2	28.2	-1.3	5,295
Mother not-interviewed										
In the household	19.4	41.5	-1.6	1.2	2.6	-0.1	3.8	23.4	-1.1	136
Not in the household[5]	24.1	48.6	-1.8	1.6	4.9	-0.2	6.3	29.3	-1.2	353
Total	22.2	46.8	-1.9	1.1	5.0	-0.2	7.1	28.1	-1.3	5,784

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. The percentage of children who are more than three or more than two standard deviations below the median of the International Reference Population (-3 SD and -2 SD) are shown according to demographic characteristics. 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 mother was not interviewed

[3] First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.

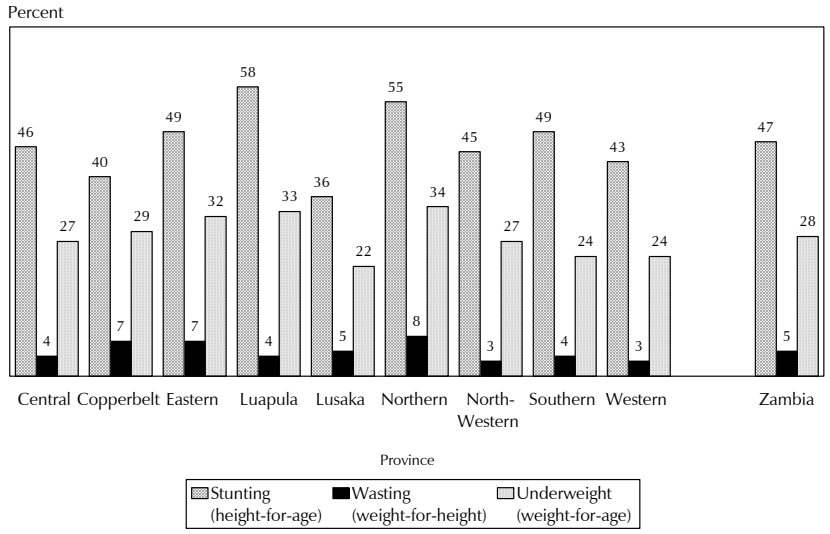
[4] For women who were not interviewed, information is taken from the Household Questionnaire. Excludes children whose mother was not listed in the household schedule.

[5] Includes children whose mothers are deceased

Table 11.12 indicates that stunting is found in children as young as 6 months of age (9 percent). Stunting rates increase with the age of the child. This is evidenced by the doubling of stunting levels from 29 percent at 6-9 months to 56 percent at age 12–23 months. There are no marked differences between males (48 percent) and females (46 percent) in the levels of stunting among children under five years. Table 11.12 further shows that the longer the birth interval, the lower the stunting levels. Birth weight is an important determinant of the child's nutrition at birth and in the future. According to Table 11.12, a larger percentage of children who were reported to have been very small at birth were stunted (60 percent), compared with children who were born average or larger in size (45 percent). Table 11.12 indicates that wasting is more common in the age group 10-23 months and decreases as the child increases in age. Weight-for-age is an index of chronic or acute malnutrition. It does not distinguish between a child who is underweight because of stunting or wasting. Underweight is very minimal for children less than 6 months of age but becomes more pronounced at age 6 months and above (normal complementary feeding period). This may be because most children are still primarily breastfeeding until 6 months of age.

Table 11.12 indicates that rural children are more likely to be stunted and underweight than urban children, while the proportion of wasted children is the same in both rural and urban areas (5 percent). Regional variation in nutritional status of children is substantial. Eastern, Luapula, and Northern provinces have stunting and underweight levels that are above the national average (Figure 11.2). Lusaka province has the lowest level of stunting and underweight (36 percent and 22 percent, respectively). Size at birth is related to wasting in children; a larger percentage of children reported by mothers as very small are wasted (9 percent), compared with those reported as average or larger (5 percent). Wasting is particularly high in Northern and Copperbelt provinces.

Figure 11.2 **Nutritional Status of Children under Five Years by Province**



The percentage of children who are malnourished declines with increasing level of mother's education. More than half (54 percent) of children whose mothers have no education are stunted, compared with only 20 percent of children whose mothers have more than secondary education. The pattern is the same with levels of wasting and underweight. Mother's age has no marked influence on the nutritional status of the child.

Table 11.12 indicates that children whose biological mothers were not present in the household at the time of the interview are more likely to be malnourished than children whose mothers were interviewed—49 percent stunted, 5 percent wasted, and 29 percent underweight. The small number of children whose mothers were available but not interviewed have the lowest levels of stunting, wasting, and underweight—41 percent stunted, 3 percent wasted, and 23 percent underweight.

11.5.2 Trends in Children's Nutritional Status

Previous ZDHS surveys collected anthropometric measurements only for children of interviewed women. An analysis of trends in these data show a decline in the nutritional status of children. The proportion of children under five who are stunted has increased from 40 percent in 1992 to 42 percent in 1996 and to 47 percent in 2001-2002. The proportion underweight has also risen, but less sharply, from 25 percent in 1992 to 24 percent in 1996 and 28 percent in 2001-2002. However, the proportion of children who are wasted has remained more or less steady, declining from 5 percent in 1992 to 4 percent in 1996 and rising again to 5 percent in 2001-2002. These trends in nutritional status imply that the problem of malnutrition in Zambia is one of chronic food shortages.

11.6 Nutritional Status of Women

The 2001-2002 ZDHS collected information on height and weight of women. The data were used to derive two measures of nutritional status, height and body mass index (BMI). A woman's height may be used to predict the risk of difficulty in delivery (given the relationship between height and the size of the pelvis). The risk of giving birth to a low birth weight baby is influenced by the mother's nutritional status. The cut-off point at which mothers can be considered at risk for height varies between populations but normally falls between 140 cm and 150 cm. The index used to measure thinness or obesity is known as the body mass index (BMI), or the Quetelet index. Body mass index is defined as weight in kilogrammes divided by height squared in metres (kg/m^2). A cut-off point of 18.5 is used to define thinness or acute undernutrition. A BMI of 25 or above usually indicates overweight or obesity.

Table 11.13 shows the nutritional status of women in the reproductive ages 15-49. The mean height of Zambian women is 158 cm, which is above the critical height of 145 cm. As expected, there is a slightly higher percentage of women with a height less than 145 cm in the age group 15-19. Fifteen percent of women were found to be chronically malnourished (BMI less than 18.5), while 12 percent are overweight. Variations between urban and rural women are marked. More women have a BMI less than 18.5 in rural areas (18 percent) than in urban areas (11 percent). Overweight (BMI greater than 25) is higher in urban areas (20 percent) than in rural areas (7 percent).

Interpretation of trends in women's nutritional status is complicated by the fact that in the 1992 and the 1996 ZDHS all mothers of children under five were measured. In 2001-2002, the data refer to all women 15-49. However, an analysis of the nutritional status of women who gave birth in the five years preceding the survey (data not shown), indicates that there has been a deterioration in women's nutritional status, with the proportion having a BMI of less than 18.5 increasing from about 9-10 percent in prior surveys to 15 percent in 2001-2002.

Table 11.13 Nutritional status of women by background characteristics,

Among women age 15-49, mean height, percentage under 145 cm, mean body mass index (BMI), and percentage with specific BMI levels, by background characteristics, Zambia 2001-2002

	Height			BMI[1] (kg/m^2)									
					Normal	Thin				Overweight/obese			
Background characteristic	Mean height in centi-metres	Percent-age below 145 cm	Number of women	Mean BMI	18.5-24.9 (normal)	<18.5 (thin)	17.0-18.4 (mildly thin)	16.0-16.9 (moder-ately thin)	<16.0 (severe-ly thin)	Ó25.0 (over-weight/ obese)	25.0-29.9 (over-weight)	30.0 or higher (obese)	Number of women
Age													
15-19	156.0	4.0	1,769	20.6	74.4	20.0	13.5	4.3	2.2	5.6	5.2	0.4	1,601
20-24	157.5	1.8	1,642	21.4	78.0	12.0	9.6	1.7	0.7	10.0	8.7	1.3	1,373
25-29	158.4	1.6	1,363	21.6	74.9	13.9	10.3	2.6	1.0	11.3	9.0	2.3	1,102
30-34	158.6	1.5	957	21.8	74.1	12.5	10.4	1.1	1.1	13.4	10.7	2.7	827
35-39	158.9	1.1	752	22.0	68.4	15.0	10.8	2.7	1.5	16.6	10.6	6.1	682
40-44	158.5	1.1	588	22.7	66.2	12.5	8.7	2.4	1.3	21.3	14.8	6.5	554
45-49	157.9	2.0	457	22.8	58.5	16.6	11.8	3.7	1.2	24.9	13.9	11.0	452
Residence													
Urban	158.9	0.9	3,028	22.5	68.9	11.4	8.4	2.3	0.8	19.7	14.0	5.7	2,751
Rural	156.9	2.9	4,501	20.9	75.6	17.5	12.8	3.0	1.7	6.9	5.8	1.1	3,840
Province													
Central	158.3	1.5	550	21.2	70.4	18.7	14.1	3.6	1.1	10.8	8.7	2.1	472
Copperbelt	159.2	1.0	1,531	22.1	69.0	14.2	9.8	3.1	1.3	16.8	11.1	5.7	1,363
Eastern	156.0	2.7	890	21.3	76.1	14.7	10.1	2.7	1.9	9.3	7.4	1.9	771
Luapula	155.1	4.7	616	20.8	73.9	19.4	13.1	4.8	1.5	6.7	6.1	0.6	517
Lusaka	158.4	1.0	1,113	22.9	69.4	7.5	5.7	1.2	0.5	23.1	18.0	5.1	1,012
Northern	156.4	4.0	1,030	21.1	75.7	16.2	12.0	2.7	1.4	8.1	6.4	1.7	885
North-Western	157.4	2.7	352	20.9	71.5	19.7	14.0	2.9	2.8	8.7	7.4	1.3	304
Southern	159.3	0.7	793	21.2	75.1	15.8	12.9	1.8	1.0	9.1	6.6	2.5	694
Western	157.8	2.6	655	20.6	77.5	18.2	14.0	2.7	1.6	4.2	3.2	1.1	574
Education													
No education	156.0	4.0	906	20.9	74.6	18.4	14.9	2.1	1.4	6.9	4.9	2.0	777
Primary	157.2	2.4	4,371	21.3	73.8	16.1	11.4	3.0	1.7	10.1	7.9	2.2	3,775
Secondary	159.1	1.0	2,020	22.1	71.8	12.1	9.1	2.5	0.6	16.1	12.3	3.8	1,823
Higher	161.4	0.0	232	24.3	56.3	8.1	5.1	2.2	0.8	35.6	22.3	13.3	217
Total	157.7	2.1	7,529	21.6	72.8	15.0	11.0	2.7	1.3	12.2	9.2	3.0	6,591

[1] Excludes pregnant women and women with a birth in the preceding 2 months

VIOLENCE AGAINST WOMEN 12

Mary Kazunga and Patrick Mumba Chewe

12.1 INTRODUCTION

In recent years, there has been increasing concern about violence against women in general, and domestic violence in particular, in both developed and developing countries (United Nations General Assembly, 1991). Not only has domestic violence against women been acknowledged worldwide as a violation of the basic human rights of women, but an increasing amount of research highlights the health burdens, intergenerational effects, and demographic consequences of such violence (Heise et al., 1994; Heise et al., 1998; Jejeebhoy, 1998). Tolerance and experience of domestic violence are significant barriers to the empowerment of women, with consequences for women's health, their health-seeking behaviour, their adoption of a small family norm, and the health of their children. The ZDHS 2001-2002 included a series of questions that provide information on women's experience of physical violence since age 15 and in the 12 months preceding the survey. Furthermore, information was collected on women's experience of sexual violence. For all types of violence, questions were asked about the type of perpetrator(s) and the frequency of the violence in the last 12 months.

In many settings, there is a culture of silence around the topic of domestic violence that makes the collection of data on this sensitive issue particularly challenging. Even women who want to speak about their experience with domestic violence may find it difficult because of feelings of shame or fear. The need for establishing rapport with the respondent, assuring confidentiality, and ensuring privacy during the interview, are all important for the entire survey, but are critical in ensuring the validity of the data on domestic violence. Complete privacy is also essential for ensuring the security of the respondent and the interviewer. Asking about or reporting violence, especially in households where the perpetrator may be present at the time of interview, carries the risk of further violence. Given all of these concerns relating to the collection of data on violence, the following steps were taken to ensure the validity of the data and the security of respondents and interviewers:

- Special training was provided to interviewers to sensitise them to the problem of domestic violence in Zambia and to the specific challenges involved in collecting data on violence. The need to form rapport with the respondent and ensure privacy was emphasised both in teaching and practice.

- The domestic violence questions were specially designed to allow the interviewer to continue the interview only if privacy was ensured. If privacy could not be obtained, the interviewer was instructed to skip the questions and move on to the following section.

- Only one eligible woman in each selected household was administered the domestic violence questions. In households with more than one eligible woman, the woman administered the domestic violence questions was randomly selected using a specially designed simple selection procedure. Thus, any security breach due to the presence of other persons in the household was minimised by asking domestic violence only to one woman in each household.

- Informed consent of the respondent was obtained for the survey at the start of the ZDHS 2001-2002 interview. In addition, at the start of the domestic violence questions, each respondent was read a statement informing her that she was now going to be asked questions that could be quite personal in nature, because they explored different aspects of how women are treated in their households. The statement assured her that her answers were completely confidential and would not be told to anyone else, and that no one else in the household would be asked these questions.

¢# Interviewers were provided with a list of organisations that provide services or referrals to victims of domestic violence and were instructed to give a copy of the list to abused women who appealed to them for help.

12.2 Characteristics of Respondents

As mentioned above, in every household selected for the 2001-2002 ZDHS with eligible women, one woman was randomly selected to answer the domestic violence questions. Table 12.1 shows the percentage of women in the domestic violence sub-sample by background characteristics. A total of 5,029 women answered the domestic violence questions, representing 92 percent of all women selected in the domestic violence sub-sample (data not shown in table). Overall, the background characteristics of women in the domestic violence sub-sample follow similar patterns as those of women in the 2001-2002 ZDHS sample (Chapter 3, Table 3.1). It is important to acknowledge that despite all efforts to reassure women, women may have been reluctant to discuss violence or particular types of violence (physical or sexual). Willingness to report violence likely also varies by subgroup, affecting the differentials shown in many of the tables to an unknown degree.

Table 12.1 Background characteristics of respondents who were asked questions about domestic violence

Percent distribution of women in the domestic violence sub-sample, according to background characteristics, Zambia 2001-2002

Background characteristic	Total	
	Percent	Weighted number
Age		
15-19	23.3	1,171
20-24	21.6	1,086
25-29	17.8	898
30-34	12.8	644
35-39	9.9	495
40-44	8.3	418
45-49	6.3	317
Marital status		
Never married	24.6	1,237
Married	60.8	3,057
Divorced/separated	9.7	489
Widowed	4.9	245
Residence		
Urban	40.6	2,043
Rural	59.4	2,986
Province		
Central	7.3	367
Copperbelt	20.1	1,010
Eastern	12.2	614
Luapula	8.1	410
Lusaka	14.7	738
Northern	13.6	684
North-Western	4.6	232
Southern	10.7	539
Western	8.7	435
Education		
No education	12.1	608
Primary	58.2	2,929
Secondary	26.3	1,320
Higher	3.4	172
Employment status		
Not employed	44.4	2,233
Employed for cash	31.9	1,604
Employed, but not for cash	23.6	1,187
Total	100.0	5,029

12.3 Experience of Beatings or Physical Mistreatment

During the 2001-2002 ZDHS, women selected for the domestic violence sub-sample were asked whether their husband/partner or any other person had ever slapped, hit, kicked, thrown things at them, or done anything else to physically hurt them since age 15. Women who answered 'Yes' to this question are defined as having experienced physical violence. The respondents were also asked whether they had experienced physical violence in the 12 months prior to the survey and, if yes, how many times this happened during the past year.

Table 12.2 shows the percentages of women who have experienced violence since age 15 and in the 12 months preceding the survey by background characteristics.

More than half of women (53 percent) report having experienced beatings or physical mistreatment since age 15 and almost one out of four women (24 percent) report having experienced physical violence in the past 12 months. Never-married women report having been beaten or physically mistreated since age 15 significantly less often (41 percent) than ever-married women (57 percent), while similar proportions (21 percent of never-married and 24 percent of ever-married women) reportedly experienced physical violence during the last 12 months.

Table 12.2 Experience of beatings or physical mistreatment

Percentage of women who have ever experienced physical violence (since age 15) and the percentage who experienced physical violence in the past 12 months, by marital status and background characteristics, Zambia 2001-2002

Background characteristic	Ever-married women			Never-married women			Total		
	Ever	In past 12 months	Number of women	Ever	In past 12 months	Number of women	Ever	In past 12 months	Number of women
Age									
15-19	53.3	34.5	306	41.7	25.5	864	44.8	27.8	1,171
20-29	60.1	30.4	1,643	40.9	12.0	340	56.8	27.2	1,983
30-39	55.5	19.2	1,110	(19.4)	(0.0)	30	54.5	18.7	1,140
40-49	55.0	14.3	732	*	*	3	55.0	14.2	735
Marital status									
Never married	na	na	na	41.0	21.1	1,237	41.0	21.1	1,237
Married	55.8	25.9	3,057	na	na	na	55.8	25.9	3,057
Separated/divorced	66.8	22.3	489	na	na	na	66.8	22.3	489
Widowed	56.1	8.7	245	na	na	na	56.1	8.7	245
Residence									
Urban	64.1	26.5	1,438	46.3	22.9	605	58.8	25.4	2,043
Rural	53.0	23.0	2,354	35.9	19.3	632	49.4	22.2	2,986
Province									
Central	52.2	20.3	275	34.0	16.7	92	47.7	19.4	367
Copperbelt	64.9	29.2	727	49.5	26.1	282	60.6	28.3	1,010
Eastern	51.2	17.6	506	40.7	13.6	108	49.4	16.9	614
Luapula	53.2	23.2	326	36.2	13.4	84	49.8	21.2	410
Lusaka	66.8	26.1	526	45.4	27.1	212	60.7	26.4	738
Northern	54.9	24.3	535	38.0	24.0	149	51.3	24.2	684
North-Western	43.7	11.4	170	29.6	8.5	62	39.9	10.6	232
Southern	59.0	26.1	417	44.2	21.4	122	55.7	25.0	539
Western	50.3	30.3	309	28.8	16.9	127	44.0	26.4	435
Education									
No education	52.5	23.6	538	28.3	10.3	71	49.7	22.0	608
Primary	57.2	24.3	2,324	40.4	23.4	605	53.7	24.1	2,929
Secondary	59.0	26.5	819	43.8	22.4	501	53.2	25.0	1,320
Higher	68.0	10.9	111	38.1	0.0	61	57.5	7.0	172
Employment status									
Not employed	58.1	25.1	1,437	42.7	22.4	796	52.6	24.1	2,233
Employed for cash	59.2	22.5	1,367	35.8	16.7	237	55.7	21.7	1,604
Employed, but not for cash	53.3	25.6	986	40.9	21.4	201	51.2	24.9	1,187
Total	57.2	24.3	3,792	41.0	21.1	1,237	53.2	23.5	5,029

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

By age group, women 15-19 are generally the least likely to report having ever experienced physical violence; however, at the same time, women in this age group are the most likely to report having experienced violence in the past year. Overall, women in urban areas report experience of physical violence more than those living in rural areas. Women living in the highly urbanised Copperbelt and Lusaka provinces report more physical violence ever and in the past year than those living in other provinces.

Divorced or separated women are more likely to report having been beaten or physically mistreated since age 15 (67 percent) than women in union or widowed (56 percent each). The pattern is different for reported violence in the last 12 months, where women currently in union report higher level of physical violence (26 percent) than those separated or divorced (22 percent) or widowed (9 percent).

Notably, there is an inverse relationship between experience of physical violence since age 15 and women's level of education among the ever-married group. Women with higher than secondary education are more likely to report having experienced physical violence since age 15 than those with less education. The opposite is true for reported violence in the last 12 months, where women with higher education are the least likely to experience beatings or physical mistreatment.

Never-married women with no education are less likely to be physically mistreated in the long and short term than those with primary or secondary education. Unemployed never-married women report more physical violence since age 15 and in the last year than those employed. Among those employed, women who earn cash are slightly less likely to be physically abused than those employed but not for cash.

12.4 Perpetrators of Physical Violence

During the 2001-2002 ZDHS, women who reported any physical violence were asked who the perpetrator(s) of the violence was. Table 12.3 shows the percentage of women who report any physical violence since age 15 by perpetrator(s) of the violence, according to their current marital status.

Table 12.3 Perpetrators of physical violence

Among women who report any physical violence since age 15, percentage reporting violence by specific perpetrators, by current marital status, Zambia 2001-2002

	Marital status				
Perpetrator	Never married	Married	Separated/ divorced	Widowed	Total
Current husband/partner	na	77.8	na	na	49.6
Former husband/partner	na	3.2	81.7	73.0	15.8
Current boyfriend	1.8	0.0	0.3	0.6	0.4
Former boyfriend	2.2	1.3	2.9	1.2	1.7
Mother/father	35.1	17.4	11.1	20.5	20.1
Siblings	15.9	7.7	5.1	8.5	9.0
In-laws	0.0	0.1	0.0	0.0	0.1
Other relative	9.4	3.0	3.8	4.9	4.4
Male friend	13.2	2.6	5.5	3.2	5.0
Female friend	9.3	2.7	3.0	8.9	4.3
Teacher	22.2	4.8	4.9	6.9	8.2
Stranger	6.0	1.7	2.4	4.4	2.7
Other	2.8	1.1	0.2	3.7	1.4
Number of women	507	1,706	326	138	2,677

na = Not applicable

Results show that almost eight out of ten women currently in union who experienced physical violence report their current husband/partner as a perpetrator. Similarly, separated or divorced women and those widowed report their former husband/partner as the main perpetrator of the violence (82 percent and 73 percent, respectively). Parents are also reported as perpetrators of physical violence by ever-married women, although significantly less often than husband(s)/partner(s).

Among never-married women, the mother or father is the most commonly reported perpetrators of violence (35 percent), followed by teachers (22 percent) and siblings (16 percent). Furthermore, more than one in ten never-married women (13 percent) report having been beaten or physically mistreated by a male friend. This is much higher than the proportion of women reporting physical violence by current or former boyfriend.

12.5 Frequency of Beatings

Table 12.4 presents information on the frequency of beatings in the 12 months preceding the survey among women who report ever experiencing physical violence since age 15 by background characteristics.

Table 12.4 Frequency of beatings

Percent distribution of women who have ever been beaten, by frequency of beatings in the past year, according to background characteristics, Zambia 2001-2002

	Frequency of beatings (in the past year)				
Background characteristic	0 times	1-2 times	3-5 times	6 or more times	Number of women
Age					
15-19	37.8	38.3	13.0	10.2	524
20-29	43.7	36.9	13.0	4.2	1,127
30-39	45.5	34.5	13.2	6.4	622
40-49	44.2	33.3	14.9	5.8	404
Marital status					
Never married	41.2	36.8	10.5	8.1	507
Married	42.8	36.2	14.8	5.2	1,706
Separated/divorced	43.6	37.4	10.3	7.8	326
Widowed	52.0	28.6	13.3	5.6	138
Residence					
Urban	50.5	35.5	7.3	4.9	1,202
Rural	37.0	36.5	18.2	7.1	1,475
Province					
Central	45.2	47.2	7.5	0.0	175
Copperbelt	42.3	28.1	19.2	7.4	612
Eastern	48.5	38.1	9.9	3.6	303
Luapula	41.9	35.2	21.6	1.0	204
Lusaka	53.5	36.7	7.2	2.3	448
Northern	40.8	36.4	20.0	0.0	351
North-Western	59.6	26.3	5.1	7.1	93
Southern	31.7	53.7	2.4	10.1	300
Western	25.6	24.0	19.8	30.6	192
Education					
No education	39.7	39.5	13.2	6.7	302
Primary	39.8	36.5	16.1	6.4	1,573
Secondary	50.7	33.9	8.5	5.8	702
Higher	50.4	33.4	4.4	0.9	99
Employment status					
Not employed	43.8	38.4	11.2	4.6	1,174
Employed for cash	47.7	35.4	10.7	5.4	894
Employed, but not for cash	34.8	32.6	21.1	10.1	608
Total	43.1	36.1	13.3	6.1	2,677

More than half of women who have ever been beaten say they were beaten in the 12 months before the survey. Overall, almost four out of ten women (36 percent) who have ever experienced physical violence report having been beaten once or twice in the last 12 months. Almost one in six women (13 percent) report having been beaten three to five times, and 6 percent report having been beaten six or more times in the past year.

The frequency of beatings among women who report being beaten does not vary much with age or marital status. However, women age 15-19 are more likely to report being beaten six or more times in the last year (10 percent) than women in other age groups.

Overall, rural women who have ever been beaten report a higher frequency of beatings in the last year than urban women. The urban-rural distinction is particularly notable in the proportions of women who report being beaten three to five times in the last 12 months (7 percent in urban areas; 18 percent in rural areas). The provinces with the highest proportions of women ever been beaten reporting six or more beatings include the predominantly rural Western province (one in three women) and Southern province (one in ten women). Notably, one out of five women who have ever experienced physical violence report being beaten three to five times in Copperbelt, Luapula, Northern, and Western provinces.

The frequency of beatings decreases with increasing level of education among women who have ever been beaten. Additionally, a significantly higher proportion of women employed but not earning any cash report being beaten three or more times in the last year compared with those unemployed or employed for cash.

12.6 Sexual Violence by a Man

Women in the domestic violence sub-sample were asked whether they had ever been forced by a man to have sexual intercourse when they did not want to. Women who answered "Yes" are defined as having experienced sexual violence. Women were asked how often this had occurred in the last 12 months and who the person was.

Table 12.5 shows the percentage of women who have experienced sexual violence ever and in the 12 months prior to the survey by background characteristics. Overall, around one in six women (15 percent) report having ever experienced sexual violence by a man and one in twelve (8 percent) report such experience in the last year. Ever-married women report slightly lower levels of sexual violence ever and in the past 12 months (14 percent and 7 percent, respectively) than those never-married (18 percent and 11 percent, respectively).

Table 12.5 Experience of sexual violence

Percentage of women who have ever been forced by a man to have sexual intercourse, and percentage who were forced to have intercourse in the past 12 months, by background characteristics, Zambia 2001-2002

	Ever-married women			Never-married women			Total		
Background characteristic	Ever	In past 12 months	Number of women	Ever	In past 12 months	Number of women	Ever	In past 12 months	Number of women
Age									
15-19	15.7	11.1	306	17.3	13.1	864	16.9	12.6	1,171
20-29	15.0	7.4	1,643	19.3	6.0	340	15.7	7.1	1,983
30-39	12.8	6.2	1,110	(29.3)	(15.6)	30	13.2	6.4	1,140
40-49	11.3	4.0	732	*	*	3	11.3	4.0	735
Marital status									
In union	13.1	6.5	3,057	na	na	na	13.1	6.5	3,057
Separated/divorced	17.0	9.9	489	na	na	na	17.0	9.9	489
Widowed	14.3	2.7	245	na	na	na	14.3	2.7	245
Never married	na	na	na	18.1	11.2	1,237	18.1	11.2	1,237
Residence									
Urban	15.6	7.1	1,438	19.2	10.3	605	16.7	8.1	2,043
Rural	12.5	6.4	2,354	17.0	12.0	632	13.5	7.6	2,986
Province									
Central	6.9	1.8	275	12.9	5.7	92	8.4	2.8	367
Copperbelt	12.3	4.8	727	21.1	13.3	282	14.7	7.2	1,010
Eastern	13.1	6.8	506	7.9	2.9	108	12.2	6.1	614
Luapula	7.3	2.2	326	15.0	4.7	84	8.8	2.7	410
Lusaka	21.3	12.4	526	15.5	7.6	212	19.6	11.0	738
Northern	13.6	6.4	535	21.9	19.0	149	15.4	9.2	684
North-Western	13.2	5.5	170	22.1	14.6	62	15.6	7.9	232
Southern	14.1	5.9	417	13.0	7.8	122	13.8	6.3	539
Western	17.7	12.3	309	28.8	20.0	127	20.9	14.5	435
Education									
No education	12.4	6.6	538	13.3	7.8	71	12.5	6.7	608
Primary	12.9	6.3	2,324	18.3	13.7	605	14.0	7.8	2,929
Secondary	14.8	7.2	819	18.7	9.7	501	16.3	8.1	1,320
Higher	28.8	11.7	111	17.0	1.0	61	24.6	8.0	172
Employment status									
Not employed	14.6	8.0	1,437	16.3	10.2	796	15.2	8.7	2,233
Employed for cash	14.1	6.2	1,367	21.2	9.8	237	15.1	6.7	1,604
Employed, but not for cash	11.8	5.5	986	21.8	16.8	201	13.5	7.4	1,187
Total	13.7	6.7	3,792	18.1	11.2	1,237	14.8	7.8	5,029

na = Not applicable

Among ever-married women, experience of sexual violence by a man ever and in the last 12 months decreases steadily with age. Separated or divorced women are more likely to report having been forced by a man to have sexual intercourse with him (17 percent ever and 10 percent in the last 12 months) than those currently in union (13 percent ever and 7 percent in the last 12 months) or widowed (14 percent ever and 3 percent in the last 12 months) (Figure 12.1).

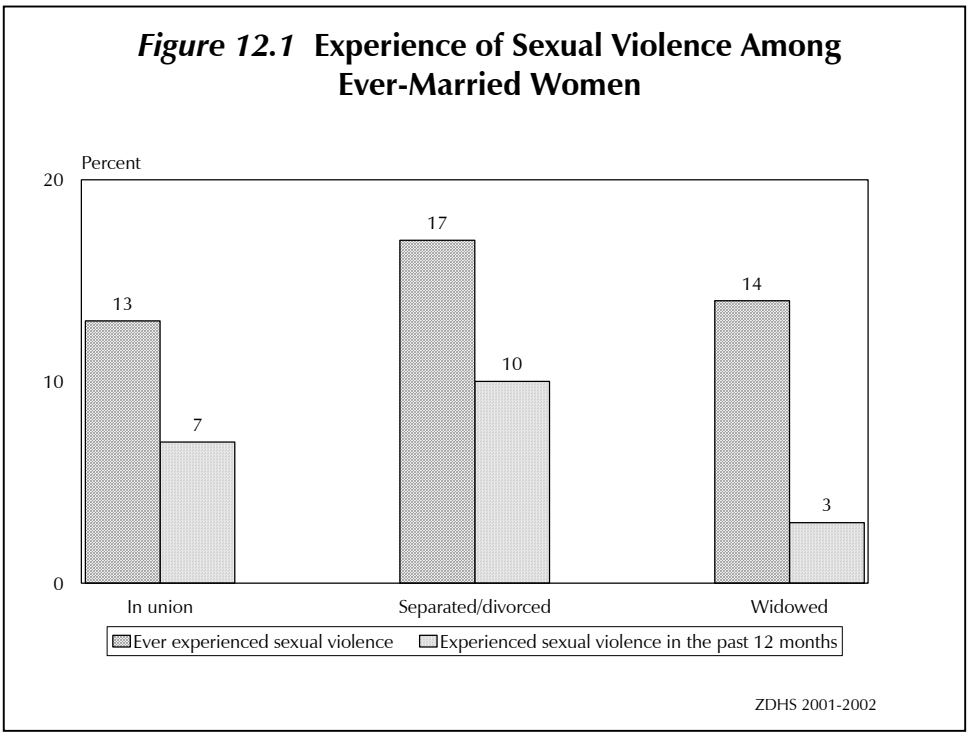


Figure 12.1 **Experience of Sexual Violence Among Ever-Married Women**

Urban ever-married women reportedly experience slightly higher levels of sexual violence ever and in the past year when compared to their rural counterparts. Among provinces, Lusaka and Western have the highest proportion of ever-married women who report having been forced by a man to have sexual intercourse with him against their will ever and in the past year, while Central and Luapula the lowest.

Notably, the proportion of ever-married women reporting sexual violence by a man ever and in the past year increases with women's education.

Western province has the highest proportion of never-married women reporting experience of sexual violence ever (29 percent) and in the past 12 months (20 percent), while Eastern province has the lowest (8 percent and 3 percent, respectively).

Never-married women with no education are somewhat less likely to have experienced sexual violence by a man ever and in the past year (13 percent and 8 percent, respectively) than those with primary education (18 percent and 14 percent, respectively). Ever experience of sexual violence by a man continues to increase for women with secondary education before dropping slightly for those with higher education, while experience of sexual violence in the past year generally decreases with increasing level of women's education.

12.7 Perpetrators and Frequency of Sexual Violence in the Past 12 Months

Table 12.6 shows the percentage of women who report sexual violence by a man, by perpetrator(s) of the violence, according to their current marital status.

Among ever-married women, current husband/partner is reportedly the most common perpetrator of sexual violence (37 percent), followed by a male friend (16 percent). More than one out of ten ever-married women report having been forced to have sexual intercourse by a current boyfriend and a similar proportion by a stranger (13 percent each).

More than four out of ten never-married women (42 percent) report their current boyfriend as the perpetrator of sexual violence, followed by almost one in three (27 percent) who report to have been forced to have sexual intercourse by a male friend. The relatively high proportion of ever-married and never-married women who report a male friend as the perpetrator of sexual violence may be due to language and/or cultural reasons. In the Zambian context, "male friend" may imply "boyfriend," a perpetrator commonly mentioned by both categories of women.

Figure 12.2 shows that among women who report having been forced to have sexual intercourse, almost half (47 percent) were not forced in the past year, more than four in six (42 percent) reported having been forced 1-3 times, and one in ten (11 percent) 4 or more times.

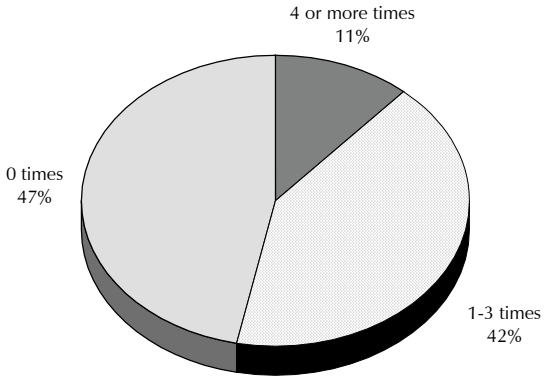
Table 12.6 Perpetrators of sexual violence

Among women who report any physical violence since age 15, percentage reporting violence by specific perpetrators, by current marital status, Zambia 2001-2002

	Marital status		
Perpetrator	Ever married	Never married	Total
Current husband/partner	37.4	na	26.1
Previous husband/partner	6.5	na	4.6
Current boyfriend	13.4	41.8	22.0
Former boyfriend	7.3	5.9	6.8
Brother	0.3	0.5	0.4
Father-in-law	0.1	0.0	0.1
Other male relative	6.7	8.0	7.1
Male friend	16.4	26.6	19.5
Teacher/employer	1.6	2.6	1.9
Stranger	13.1	15.6	13.9
Other	0.9	0.4	0.8
Number of women	519	224	743

na = Not applicable

Figure 12.2 **Frequency of Sexual Violence in the Past Year, Among Women Who Report Having Ever Experienced Sexual Violence**



ZDHS 2001-2002

12.8 Sexual Intercourse Forced by a Third Party

Women in the domestic violence sub-sample were asked whether anyone had ever forced them to have sexual intercourse with some other person when they did not want to. If the answer to this question was "Yes," they were asked who forced them and how often this happened in the last 12 months.

Results show that, overall, 2 percent of women report having been forced by someone to have sexual intercourse with a third person and 1 percent report such an occurrence in the past 12 months (data not shown). Given the small proportion of women reporting forced intercourse by a third party, the relationship between this form of sexual violence and respondents' background characteristics is not clear.

AIDS/HIV/STI-RELATED KNOWLEDGE AND BEHAVIOUR

13

Margaret T. Mwanamwenge

13.1 INTRODUCTION

HIV/AIDS remains a major concern in Zambia due to its high prevalence rates among both youth and adults. To reverse the epidemic, the Government of the Republic of Zambia through the National HIV/AIDS/STD/TB Council with the support of donors has implemented a number of programmes to reduce the spread of HIV. Programmes have focused on ensuring that individuals, families and communities have the correct and appropriate knowledge and information. A major focus of health interventions is behaviour change to stem the spread of the epidemic.

As a means to achieve this goal, information, education and communication messages are being used to educate the public about sexually transmitted infections (STIs). Public health research has documented a strong correlation between STIs and vulnerability to HIV infection. AIDS control measures have been directed at sensitizing the public that STIs are avoidable; however, if an STI is contracted, it is important to practice responsible sexual behaviour.

In addition to the Zambia Demographic and Health Surveys, the Zambia Sexual Behaviour Surveys (in 1998 and 2000) provide further measures of sexual behaviour and knowledge of HIV/AIDS prevention in the country. Zambians report a high level of knowledge of both HIV/AIDS transmission routes and prevention strategies.

13.2 KNOWLEDGE ABOUT AIDS AND WAYS TO AVOID IT

Table 13.1 shows that knowledge of AIDS is nearly universal, with 99 percent of women and men having heard of AIDS. There is no significant difference between women and men in knowledge of AIDS. In comparison, the 2000 Sexual Behaviour Survey (SBS) indicated that 96 percent of both women and men had heard about HIV/AIDS, while that of the 1996 ZDHS was about 100 percent of both women and men. Exposure to higher levels of education is a key factor in improving knowledge about ways of preventing sexually transmitted diseases.

There are no significant differences according to background characteristics in the knowledge of AIDS. However, the proportion of women who believe AIDS can be avoided ranges from 80 percent among women aged 15-19 to 89 percent among those age 30-39, from 59 percent in Western province to 93 percent in Copperbelt province, and from 71 percent among women without any education to 99 percent among those with more than secondary education. For men, the range in proportion of those who believe there is a way to avoid AIDS by province is narrower, from 85 percent in Southern province to 97 percent in Central province.

13.2.1 Knowledge of Ways to Avoid AIDS

In general, most Zambians know that HIV/AIDS can be prevented. Table 13.2 shows that when asked to spontaneously mention ways to avoid AIDS, only 6 percent of women and 4 percent of men say that AIDS is unavoidable, compared with 21 percent of women and 16 percent of men in the 2000 SBS. Among women, condom use (48 percent) is the most commonly mentioned way of avoiding HIV/AIDS, followed closely by faithfulness/limiting number of partners (46 percent) and abstinence (44 percent).

Similarly, among men, use of condoms is the most commonly mentioned method to avoid HIV infection (62 percent), followed by abstinence (53 percent) and faithfulness/limiting number of partners (33 percent).

Table 13.1 Knowledge of HIV/AIDS

Percentage of women and men who have heard of HIV/AIDS and percentage who believe there is a way to avoid HIV/AIDS, by background characteristics, Zambia 2001-2002

	Women			Men		
Background characteristic	Has heard of HIV/AIDS	Believes there is a way to avoid HIV/AIDS	Number of women	Has heard of HIV/AIDS	Believes there is a way to avoid HIV/AIDS	Number of men
Age						
15-19	98.4	79.6	1,811	94.7	86.6	459
20-24	99.4	87.3	1,664	99.4	92.4	346
25-29	99.6	87.8	1,376	100.0	94.9	361
30-39	99.8	88.6	1,738	99.8	95.8	523
40-49	99.3	83.2	1,069	100.0	94.7	287
50-59	na	na	na	99.0	90.4	171
Marital status						
Never married	98.4	82.7	1,897	96.8	89.6	782
Ever had sex	98.7	85.6	990	98.2	91.6	579
Never had sex	98.1	79.6	907	92.5	83.9	202
Married or living together	99.6	86.2	4,694	99.7	94.6	1,248
Divorced/separated/widowed	99.5	86.0	1,067	100.0	89.8	116
Residence						
Urban	99.9	92.8	3,073	99.7	94.6	851
Rural	98.9	80.3	4,585	98.0	91.2	1,294
Province						
Central	99.8	76.5	562	99.6	97.1	165
Copperbelt	99.7	92.5	1,544	98.9	92.9	447
Eastern	99.4	85.8	926	98.8	92.2	268
Luapula	99.4	90.3	622	98.9	96.1	166
Lusaka	100.0	92.3	1,132	100.0	95.4	314
Northern	99.1	89.8	1,040	98.8	92.0	292
North-Western	99.3	91.0	354	99.6	93.7	93
Southern	99.4	76.5	814	95.6	84.9	232
Western	96.5	59.4	663	97.5	89.8	169
Education						
No education	98.0	70.6	925	92.6	77.6	108
Primary	99.2	83.0	4,439	98.1	89.9	1,100
Secondary	100.0	95.2	2,061	100.0	97.0	808
Higher	100.0	99.3	234	100.0	100.0	129
Total	99.3	85.3	7,658	98.6	92.5	2,145

na = Not applicable

Table 13.2 Knowledge of ways to avoid HIV/AIDS

Percentage of women and men who spontaneously mentioned ways to avoid HIV/AIDS, Zambia 2001-2002

Ways to avoid AIDS	Women	Men
Does not know of AIDS or if AIDS can be avoided	8.6	3.3
Believes no way to avoid AIDS	6.1	4.2
Does not know specific way to avoid AIDS[1]	0.8	0.5
Ways to avoid AIDS		
Abstain from sex	43.7	52.9
Use condoms	48.4	61.9
Limit number of sexual partners	8.1	4.8
Limit sex to one partner/stay faithful to one partner	45.9	33.4
Avoid sex with prostitutes	1.5	6.3
Avoid sex with persons who have many partners	1.2	2
Avoid sex with homosexuals	0.1	0.1
Avoid sex with persons who inject drugs intravenously	0.2	0.8
Avoid blood transfusions	1.5	2.5
Avoid injections	2.0	4.1
Avoid sharing razor/ blades	5.2	6.7
Avoid kissing	0.1	0.7
Avoid mosquito bites	0.1	0.1
Seek protection from traditional practitioner	0.1	0.2
Other	1.8	2.1
Number of women	7,658	2,145

[1]Believes there is something a person can do to avoid AIDS, but cannot spontaneously mention any specific way

13.2.2 Knowledge of Programmatically Important Ways to Avoid HIV/AIDS

There are 3 programmatically important ways to avoid contracting HIV. These are: 1) abstaining from sex; 2) being faithful in unions or limiting the number of sexual partners, and 3) consistent condom use. During the 2001-2002 ZDHS, respondents were asked whether condom use and limiting partners could reduce the risk of contracting HIV.

Table 13.3 shows that 78 percent of women and 86 percent of men know at least two programmatic ways of avoiding HIV infection. In addition, 7 percent of women and men know only one way to avoid HIV/AIDS, while 15 percent of women and 8 percent of men do not know any way to avoid AIDS.

Regarding particular methods, 72 percent of women and 79 of men know that condom use is a means to prevent contracting HIV/AIDS, while 82 percent of women and 86 percent of men know that by limiting the number of sexual partners one can avoid contracting HIV/AIDS. It is clear that when respondents are asked specific questions about HIV prevention methods, knowledge is higher than when they are asked to spontaneously mention methods.

Men and women who have never married or never had sex are less knowledgeable about ways of avoiding HIV/AIDS, compared with those who have married or had sex.

Table 13.3 Knowledge of programmatically important ways to avoid HIV/AIDS

Percent distribution of women and men by knowledge of three programmatically important ways to avoid HIV/AIDS, and percentage who know of two specific ways to avoid HIV/AIDS, according to background characteristics, Zambia 2001-2002

	Women							Men						
	Knowledge of ways to avoid HIV/AIDS				Specific ways to avoid HIV/AIDS			Knowledge of ways to avoid HIV/AIDS				Specific ways to avoid HIV/AIDS		
Background characteristic	None[1]	One way	Two or three ways	Total	Use condoms	Limit number sexual partners[2]	Number of women	None[1]	One way	Two or three ways	Total	Use condoms	Limit number sexual partners[2]	Number of men
Age														
15-19	20.9	6.5	72.6	100.0	66.7	73.8	1,811	14.4	10.5	75.1	100.0	73.9	72.5	459
20-24	12.9	6.9	80.3	100.0	74.6	84.6	1,664	7.8	3.9	88.3	100.0	81.0	87.4	346
25-29	12.2	7.3	80.5	100.0	76.1	85.9	1,376	5.1	5.0	89.8	100.0	85.3	90.1	361
30-39	11.4	7.7	80.9	100.0	74.1	87.1	1,738	4.3	5.6	90.0	100.0	80.2	93.3	523
40-49	17.0	7.9	75.1	100.0	65.3	81.4	1,069	5.3	6.8	87.9	100.0	78.3	90.0	287
50-59	na	na	na	na	na	na	na	9.6	9.7	80.8	100.0	67.1	86.9	171
Marital status														
Never married	17.6	4.9	77.5	100.0	70.8	77.2	1,897	11.1	7.7	81.2	100.0	75.3	79.7	782
Ever had sex	14.5	4.2	81.3	100.0	78.7	81.8	990	8.9	7.0	84.1	100.0	79.0	82.6	579
Never had sex	21.0	5.6	73.4	100.0	62.3	72.3	907	17.4	9.9	72.8	100.0	64.6	71.5	202
Married or living together	13.9	8.7	77.4	100.0	71.3	84.4	4,694	5.4	6.5	88.1	100.0	80.2	90.7	1,248
Divorced/separated/ widowed	14.1	4.9	81.0	100.0	74.1	83.1	1,067	10.2	2.9	86.9	100.0	82.2	85.0	116
Residence														
Urban	7.3	4.4	88.2	100.0	82.0	90.5	3,073	5.4	4.6	90.0	100.0	81.4	90.8	851
Rural	19.9	9.1	71.0	100.0	64.6	77.0	4,585	9.3	8.2	82.6	100.0	76.7	83.5	1,294
Province														
Central	23.6	10.5	65.9	100.0	62.4	73.2	562	5.1	4.7	90.2	100.0	86.2	90.2	165
Copperbelt	7.5	5.0	87.5	100.0	79.2	90.0	1,544	7.1	5.6	87.2	100.0	78.6	87.6	447
Eastern	14.5	11.6	73.8	100.0	69.0	81.7	926	7.8	5.9	86.3	100.0	80.5	88.7	268
Luapula	9.9	7.0	83.1	100.0	70.1	88.7	622	3.9	14.4	81.8	100.0	76.8	93.4	166
Lusaka	7.8	2.6	89.6	100.0	85.3	91.2	1,132	5.0	4.2	90.8	100.0	80.3	90.8	314
Northern	10.7	10.4	78.9	100.0	64.6	88.0	1,040	8.0	5.5	86.5	100.0	73.1	85.3	292
North-Western	9.0	4.7	86.4	100.0	80.6	89.9	354	6.3	0.8	92.9	100.0	81.9	92.4	93
Southern	24.0	6.8	69.2	100.0	71.4	70.2	814	15.1	7.3	77.6	100.0	78.0	78.5	232
Western	40.6	8.1	51.3	100.0	49.6	55.1	663	10.8	15.3	73.9	100.0	74.5	70.1	169
Education														
No education	30.1	10.3	59.5	100.0	50.6	66.7	925	23.6	9.2	67.3	100.0	56.6	70.4	108
Primary	17.1	7.9	74.9	100.0	68.4	80.1	4,439	10.6	9.1	80.4	100.0	75.6	81.2	1,100
Secondary	4.8	4.7	90.4	100.0	85.7	92.6	2,061	3.0	3.5	93.5	100.0	84.6	93.4	808
Higher	0.7	2.2	97.1	100.0	91.7	99.3	234	0.0	5.7	94.3	100.0	84.7	100.0	129
Total	14.9	7.2	77.9	100.0	71.6	82.4	7,658	7.7	6.8	85.5	100.0	78.5	86.4	2,145

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

na = Not applicable

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

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

There are rural-urban variations regarding knowledge of ways to avoid HIV/AIDS. Urban women and men are more knowledgeable about ways to avoid HIV infection than their rural counterparts. Women and men in Western province are least knowledgeable about ways of contracting HIV/AIDS. The most knowledgeable are women in Copperbelt, Lusaka, and North-Western provinces and men in Central, Lusaka, and North-Western provinces.

Knowledge of HIV prevention methods is strongly related to education level. Among women, 30 percent of those without education do not know any programmatically important way of avoiding HIV/AIDS, compared with 1 percent of those with more than secondary education. The pattern for men is similar to that of women.

13.3 Knowledge of HIV/AIDS Transmission and its Effects

Table 13.4 shows responses to *prompted* questions on knowledge about other important issues related to HIV/AIDS. The data show that 77 percent of women and 79 percent of men know that a healthy-looking person can have AIDS. Among both women and men, age is related to knowledge. The percentage of women who say that a healthy-looking person can have the AIDS virus generally increases with age. Women and men 15-19 are less likely to know that a healthy-looking person can have the AIDS virus than respondents in other age groups.

The percentage of both women and men who know that a healthy-looking can person can have HIV/AIDS is higher in urban than rural areas, and higher among the more educated than the less educated. Among the provinces, Lusaka province has the largest proportion of women with this knowledge, while Central province has the largest proportion of men with this knowledge.

In the 2001-2002 ZDHS, respondents were asked whether they know that HIV can be transmitted from mother to child during delivery, pregnancy and breastfeeding. In all, 65 percent of women and 64 percent of men know that HIV can be transmitted during delivery, 79 percent of women and 78 percent of men know that it can be transmitted during pregnancy and 71 percent of women and 65 percent of men know that it can be transmitted through breastfeeding.

Those proportions vary little by background characteristics. Education level and residence appear to influence levels of knowledge about mother-to-child transmission. Men and women with education, as well as women in urban areas are more knowledgeable about the transmission of HIV/AIDS from mother to child through breastfeeding, during pregnancy and delivery. However, men in Lusaka province were the least knowledgeable about mother-to-child transmission.

A comparison of the provinces shows that the highest proportion of respondents who know that HIV/AIDS can be transmitted through breastfeeding, during delivery and pregnancy is in North-Western province for women and Northern province for men.

Table 13.4 Knowledge of HIV/AIDS-related issues

Percentage of women and men who gave specific responses to questions on various HIV/AIDS-related issues, according to background characteristics, Zambia 2001-2002

	Percentage of women who:						Percentage of men who:					
	Say a healthy-looking person can have the AIDS virus	Know HIV can be transmitted from mother to child			Know someone personally who has AIDS or has died of AIDS	Number of women	Say a healthy-looking person can have the AIDS virus	Know HIV can be transmitted from mother to child			Know someone personally who has AIDS or has died of AIDS	Number of men
Background characteristic		During delivery	During pregnancy	Through breast-feeding				During delivery	During pregnancy	Through breast-feeding		
Age												
15-19	69.1	53.1	68.1	58.8	68.9	1,811	65.6	47.2	62.1	49.1	62.1	459
20-24	79.4	65.1	78.7	71.7	79.3	1,664	82.8	63.9	80.8	67.2	69.6	346
25-29	80.8	67.7	81.0	73.3	81.2	1,376	84.8	67.4	81.5	69.5	78.5	361
30-39	81.1	71.2	83.5	77.1	82.9	1,738	83.3	69.1	84.3	69.0	83.1	523
40-49	75.8	72.0	84.3	75.6	85.9	1,069	82.9	73.7	82.4	70.8	80.7	287
50-59	na	na	na	na	na	na	78.6	70.8	86.4	70.3	87.1	171
Marital status												
Never married	71.7	54.7	69.3	59.2	70.1	1,897	73.4	54.2	69.3	56.8	66.5	782
Ever had sex	75.2	59.7	72.1	65.7	74.2	990	77.0	57.0	72.9	59.2	70.4	579
Never had sex	67.8	49.4	66.1	52.2	65.6	907	63.3	46.1	59.0	49.9	55.3	202
Married or living together	78.7	68.5	81.0	74.7	82.3	4,694	82.7	69.9	83.5	69.4	81.5	1,248
Divorced/separated/ widowed	79.7	68.5	83.8	73.7	80.0	1,067	81.0	67.7	85.5	70.6	74.3	116
Residence												
Urban	86.9	65.8	81.1	73.1	82.1	3,073	86.7	65.1	80.0	59.7	79.0	851
Rural	70.5	64.7	76.7	69.1	76.8	4,585	74.3	63.4	77.4	68.3	73.5	1,294
Province												
Central	82.7	60.3	80.4	70.5	75.3	562	89.9	68.8	81.5	70.7	80.1	165
Copperbelt	85.0	65.2	83.5	72.2	80.8	1,544	86.1	69.9	83.5	63.2	82.0	447
Eastern	80.9	65.8	75.7	74.5	80.4	926	84.8	69.9	74.6	70.7	84.8	268
Luapula	76.4	70.4	81.6	74.4	86.7	622	70.7	48.1	81.8	63.0	79.0	166
Lusaka	90.7	65.7	77.6	74.6	85.6	1,132	88.7	49.0	69.0	48.5	74.5	314
Northern	67.6	65.0	74.3	61.7	83.7	1,040	69.7	78.0	90.2	75.5	90.5	292
North-Western	74.7	78.7	84.7	83.5	84.9	354	73.9	71.0	80.7	72.7	77.3	93
Southern	70.6	62.5	81.2	70.9	67.2	814	71.2	49.8	69.8	59.0	56.6	232
Western	50.1	58.0	67.7	59.3	60.6	663	63.1	70.1	72.6	72.0	38.9	169
Education												
No education	59.8	57.0	67.5	63.0	71.4	925	61.7	51.5	61.9	58.2	61.3	108
Primary	74.1	64.3	79.2	71.6	78.8	4,439	71.6	60.0	74.4	63.1	72.1	1,100
Secondary	88.9	68.4	82.8	71.5	81.3	2,061	89.1	68.7	85.5	67.0	79.9	808
Higher	97.2	82.8	71.1	77.6	90.7	234	97.8	80.2	82.1	72.2	92.1	129
Total	77.1	65.1	78.5	70.7	78.9	7,658	79.2	64.1	78.4	64.9	75.7	2,145

na = Not applicable

13.4 Perception of HIV/AIDS

13.4.1 Discussion of HIV/AIDS with Partners

Discussion of HIV/AIDS with a spouse or partner is important in preventing HIV infection of either or both members of a couple. Currently married respondents and those living with a partner were asked whether they had ever discussed HIV/AIDS prevention with their partners.

Table 13.5 shows that 68 percent of women and 87 percent of men report ever having discussed HIV/AIDS prevention with their partners. The proportion of women who reported having discussed HIV\AIDS prevention with their partners varies with age, residence and level of education. Older women, those residing in urban areas and more educated women and men are more likely to discuss AIDS prevention with their partners.

Table 13.5 Discussion of HIV/AIDS with partner

Percent distribution of currently married women and men by whether they ever discussed HIV/AIDS prevention with their spouse/partner, according to background characteristics, Zambia 2001-2002

	Women						Men					
Background characteristic	Ever discussed HIV/AIDS prevention	Never discussed HIV/AIDS prevention	Don't know/ missing	Has not heard of AIDS	Total	Number of women	Ever discussed HIV/AIDS prevention	Never discussed HIV/AIDS prevention	Don't know/ missing	Has not heard of AIDS	Total	Number of men
Age												
15-19	50.1	48.6	0.3	0.9	100.0	438	49.0	34.3	0.0	16.7	100.0	7
20-24	61.9	37.5	0.1	0.5	100.0	1,086	78.0	22.0	0.0	0.0	100.0	91
25-29	70.4	29.0	0.2	0.4	100.0	1,056	87.0	13.0	0.0	0.0	100.0	272
30-39	75.6	24.2	0.1	0.1	100.0	1,347	89.0	10.8	0.0	0.2	100.0	455
40-49	67.8	31.4	0.0	0.8	100.0	767	88.4	11.2	0.5	0.0	100.0	264
50-59	na	na	na	na	na	na	86.9	12.1	0.0	1.6	100.0	160
Residence												
Urban	76.6	23.0	0.2	0.3	100.0	1,662	89.5	10.2	0.3	0.0	100.0	443
Rural	62.7	36.7	0.1	0.5	100.0	3,032	85.8	13.7	0.0	0.5	100.0	805
Province												
Central	60.4	39.2	0.0	0.4	100.0	346	96.4	3.6	0.0	0.0	100.0	82
Copperbelt	79.1	20.4	0.2	0.4	100.0	871	91.4	7.9	0.0	0.7	100.0	235
Eastern	70.4	29.3	0.2	0.2	100.0	644	87.5	12.5	0.0	0.0	100.0	184
Luapula	64.7	35.1	0.0	0.2	100.0	399	86.2	13.0	0.0	0.8	100.0	113
Lusaka	73.4	26.4	0.2	0.0	100.0	640	85.6	13.6	0.8	0.0	100.0	173
Northern	65.4	33.7	0.1	0.8	100.0	678	87.0	13.0	0.0	0.0	100.0	178
North-Western	78.9	20.6	0.4	0.2	100.0	215	90.3	9.7	0.0	0.0	100.0	52
Southern	55.8	43.9	0.0	0.2	100.0	532	78.0	21.3	0.0	0.8	100.0	144
Western	50.4	47.9	0.0	1.7	100.0	369	83.7	16.2	0.0	0.0	100.0	86
Education												
No education	49.3	48.8	0.3	1.5	100.0	663	78.7	20.0	0.0	1.3	100.0	73
Primary	66.2	33.4	0.1	0.3	100.0	2,905	83.7	15.6	0.2	0.4	100.0	642
Secondary	81.1	18.7	0.2	0.0	100.0	1,006	92.5	7.5	0.0	0.0	100.0	431
Higher	90.3	9.7	0.0	0.0	100.0	120	92.0	8.0	0.0	0.0	100.0	102
Total	67.6	31.8	0.1	0.4	100.0	4,694	87.1	12.5	0.1	0.3	100.0	1,248

na = Not applicable

A provincial comparison shows that Copperbelt and North-Western have the largest proportion of women who report ever discussing HIV prevention with their partners (79 percent), while Western province has the lowest with 50 percent. These proportions are higher for men and range from 78 percent in Southern province to 96 percent in Central province.

13.4.2 Stigma Associated with HIV/AIDS

Results of the survey indicate that social stigma is a major social, health, and economic challenge. People living with AIDS are stigmatised and experience discrimination. This is in part due to beliefs that HIV/AIDS is associated with illicit sex. Some of the adverse consequences of such stigma include delays in seeking health care and negligence by communities in responding to the HIV epidemic and working toward its prevention. Discrimination in the workplace against those infected with HIV is a human rights abuse and has the potential to further weaken the Zambian workforce.

To assess whether society has accepted people living with HIV/AIDS, ZDHS respondents were asked four questions related to stigma, namely: if a family member became HIV-positive, whether they would want it to remain a secret; whether they would be willing to care for a relative who is sick with

AIDS in their own household; whether a worker who is sick with AIDS should be allowed to keep working; and whether they would buy vegetables from an HIV-positive shopkeeper or food seller. Respondents were also asked whether they thought children age 12-14 years should be taught about using a condom to avoid AIDS. It is proposed that, as a public health intervention, children should be introduced to AIDS prevention messages *before* they reach an age at which sexual activity typically begins.

Table 13.6 shows that two in five women and about one in three men believe that the HIV positive status of a family member should be kept a secret. This sentiment does not vary much with age, marital status, and level of education.

Table 13.6 Social aspects of HIV/AIDS

Among women and men who have heard of AIDS, percentage who gave specific responses to questions on social aspects of HIV/AIDS, by background characteristics, Zambia 2001-2002

	Women						Men					
Background characteristic	Believes HIV positive status of a family member should be kept secret	Not willing to care for relative with AIDS at home	Believes worker sick with AIDS should not be allowed to work	Would not buy vegetables from a shopkeeper with HIV	Believes children should not be taught to use condoms	Number of women	Believes HIV positive status of a family member should be kept secret	Not willing to care for relative with AIDS at home	Believes worker sick with AIDS should not be allowed to work	Would not buy vegetables from a shopkeeper with HIV	Believes children should not be taught to use condoms	Number of men
Age												
15-19	41.9	12.7	71.1	64.8	38.9	1,783	34.0	16.0	67.0	57.1	36.8	434
20-24	39.5	8.2	62.3	59.7	36.8	1,655	33.1	7.4	56.2	47.4	28.9	344
25-29	39.3	7.3	61.2	60.8	38.8	1,370	30.4	7.4	58.7	52.6	28.3	361
30-39	36.9	5.4	62.0	59.1	39.4	1,735	28.6	7.7	55.5	50.0	28.2	522
40-49	36.3	6.3	64.9	61.2	42.7	1,061	24.6	8.3	59.0	52.9	31.7	287
50-59	na	na	na	na	na	na	24.0	12.4	73.9	57.9	43.2	169
Marital status												
Never married	40.6	10.2	62.5	58.2	37.9	1,868	33.9	12.2	57.7	50.7	35.5	756
Ever had sex	41.2	9.3	61.7	57.6	33.2	978	32.4	11.6	54.3	49.0	32.5	569
Never had sex	40.0	11.3	63.4	58.8	43.0	890	38.5	14.0	68.0	55.7	44.8	187
Married or living together	38.2	8.1	65.5	62.9	39.6	4,674	26.7	7.9	61.4	53.3	30.0	1,244
Divorced/separated/ widowed	39.4	4.9	63.2	58.7	38.7	1,061	36.0	13.9	68.3	56.1	26.6	116
Residence												
Urban	41.0	5.4	57.5	53.5	43.9	3,068	31.9	6.6	44.9	42.2	30.8	849
Rural	37.6	10.0	69.1	66.4	35.8	4,535	28.4	11.9	70.9	59.4	32.4	1,267
Province												
Central	33.9	7.8	70.0	67.9	42.2	561	33.5	7.3	43.3	41.1	34.2	165
Copperbelt	49.1	6.8	67.3	57.5	46.9	1,539	30.0	4.9	49.4	46.0	34.2	441
Eastern	45.9	3.3	56.7	53.2	32.4	921	40.7	4.3	69.2	41.9	28.1	265
Luapula	32.0	14.6	82.5	62.2	46.6	618	20.1	22.9	81.6	59.8	34.6	164
Lusaka	31.9	3.6	51.6	52.1	42.5	1,132	28.5	8.4	39.7	39.3	27.6	314
Northern	40.7	8.7	60.7	61.9	47.5	1,031	28.8	10.2	69.3	70.3	37.8	288
North-Western	27.0	12.8	59.4	73.8	32.1	352	14.8	19.0	73.0	65.0	19.0	93
Southern	40.5	11.0	71.7	69.3	32.1	809	32.1	18.4	77.0	57.7	39.8	222
Western	30.0	14.0	68.9	72.2	12.7	640	27.5	5.9	66.7	71.2	19.6	164
Education												
No education	35.7	12.3	68.5	67.6	37.3	906	32.2	16.9	73.9	64.2	28.0	100
Primary	39.0	9.3	71.9	68.7	40.0	4,403	28.3	13.7	76.0	65.2	34.5	1,079
Secondary	41.8	4.8	52.4	46.7	38.8	2,061	31.2	4.9	46.4	39.4	30.2	808
Higher	26.5	0.7	14.7	22.9	31.2	234	32.1	1.5	8.2	19.3	21.7	129
Total	39.0	8.2	64.4	61.2	39.1	7,603	29.8	9.8	60.5	52.5	31.8	2,116

na = Not applicable

The view that HIV status of a family member should be kept secret is slightly more widespread in urban areas than in rural ones. However, on the other three questions related to stigma, views reflecting more anti-AIDS stigma are more widespread in rural areas.

Less than 10 percent of both women and men are *not* willing to care for a relative with AIDS at their own home. This proportion decreases with increasing age and increasing level of completed education. This proportion is higher in rural than urban areas.

Almost two thirds of women and three in five men believe that a worker who is sick with AIDS should not be allowed to keep working. Almost as many respondents (61 percent of women and 53 percent of men) say they would not buy vegetables from an HIV-positive food seller or shopkeeper.

It seems that there is considerable resistance in Zambia to teaching youth about condom use, with more than one-third of respondents not approving. The proportion of women who believe children 12-14 years old should not be taught to use condoms is slightly higher (39 percent) than that of men (32 percent). There is no association between openness to teaching pre-adolescents about condom use and respondents' level of education.

13.4.3 Discussions of Condoms in the Media

Women and men were asked whether they think it is acceptable for condoms to be discussed in the media. Table 13.7 shows the percentage of women and men who have heard of AIDS and who think that discussion of condoms in the media is acceptable by media type and background characteristics. Over 80 percent of both women and men think it is acceptable for condoms to be discussed in the media. Men are slightly more likely than women to consider such discussion in the media acceptable. Older women are less likely to consider condom discussion acceptable, although this is not true of older men. By province, such discussion is considered least acceptable by women in Northern province and men in Central province, while both women and men in Western province are the most likely to consider it acceptable. Condom discussion in the media is more acceptable to respondents with higher education.

"Trendsetters" is a newspaper designed to increase knowledge and awareness of young people concerning HIV/AIDS and STIs. Table 13.8 shows that 11 percent of women and 17 percent of men reported that they had ever seen "Trendsetters" newspaper. Women and men age 20-24 report having seen "Trendsetters" newspaper more than those in other age groups. "Trendsetters" newspaper is most widely known in Lusaka and Copperbelt provinces, and least popular in Eastern province. Respondents with more than secondary education are more likely to report having seen "Trendsetters" newspaper (57 percent for females and 51 percent for males) and those with no education the least likely (1 percent for females and 3 percent for males).

Table 13.7 Discussion of condoms in the media

Among women and men who have heard of AIDS, percentage who think that discussion of condoms in the media is acceptable, by media type and background characteristics, Zambia 2001-2002

	Women					Men				
Background characteristic	On radio	On TV	In news-paper	Not acceptable in any media	Number of women	On radio	On TV	In news-paper	Not acceptable in any media	Number of men
Age										
15-19	79.4	77.6	79.6	18.5	1,783	82.4	79.4	83.1	15.2	434
20-24	85.4	83.3	84.8	13.3	1,655	86.9	84.7	86.2	11.9	344
25-29	84.1	82.4	85.4	13.6	1,370	92.6	91.2	94.2	4.4	361
30-39	80.2	77.8	80.9	17.7	1,735	86.7	84.3	89.2	9.5	522
40-49	68.0	65.4	69.2	29.3	1,061	78.5	74.9	82.1	16.7	287
50-59	na	na	na	na	na	64.8	62.9	66.1	32.2	169
Marital status										
Never married	79.0	77.2	79.4	18.9	1,868	84.3	81.6	84.9	13.3	756
Ever had sex	86.2	83.9	86.8	12.0	978	88.4	86.5	88.5	9.8	569
Never had sex	71.1	69.8	71.3	26.4	890	71.6	66.8	73.8	24.0	187
Married or living together	81.1	79.0	81.5	17.0	4,674	83.7	81.1	85.8	12.7	1,244
Divorced/separated/ widowed	77.9	75.2	78.8	19.5	1,061	85.5	85.5	86.3	13.7	116
Residence										
Urban	79.0	77.2	80.9	18.0	3,068	85.0	83.1	88.8	10.8	849
Rural	80.9	78.6	80.4	17.7	4,535	83.3	80.5	83.3	14.5	1,267
Province										
Central	80.8	79.6	81.7	17.1	561	74.5	74.5	77.1	22.2	165
Copperbelt	75.5	74.5	76.4	22.8	1,539	83.7	82.1	87.1	12.9	441
Eastern	86.5	84.0	85.5	12.4	921	85.8	84.2	85.0	14.2	265
Luapula	81.2	78.6	81.7	17.4	618	82.7	76.5	80.4	13.4	164
Lusaka	79.6	76.5	83.9	15.1	1,132	88.3	84.9	92.1	7.5	314
Northern	68.6	65.6	68.0	30.1	1,031	74.6	69.7	76.2	20.4	288
North-Western	88.2	87.0	87.8	10.5	352	83.1	81.9	82.7	16.9	93
Southern	85.8	84.6	85.1	13.5	809	89.3	88.3	91.3	6.6	222
Western	88.6	85.6	87.0	9.2	640	94.1	92.8	93.5	5.2	164
Education										
No education	70.5	68.1	70.6	27.5	906	81.6	78.3	81.3	14.5	100
Primary	79.7	77.3	79.5	18.5	4,403	80.9	78.0	82.0	15.9	1,079
Secondary	84.9	83.4	86.8	12.6	2,061	87.5	85.5	89.7	9.8	808
Higher	85.2	82.9	85.6	13.2	234	90.0	88.3	92.5	7.5	129
Total	80.2	78.0	80.6	17.8	7,603	84.0	81.5	85.5	13.0	2,116

na = Not applicable

Table 13.8 Knowledge of "Trendsetters" newspaper

Percentage of women and men who have seen the newspaper called "Trendsetters," by background characteristics, Zambia 2001-2002

Background characteristic	Women		Men	
	Percentage	Number	Percentage	Number
Age				
15-19	11.9	1,811	12.6	459
20-24	13.5	1,664	22.1	346
25-29	12.2	1,376	19.0	361
30-34	11.2	972	16.6	281
35-39	7.2	766	18.8	241
40-44	6.7	601	19.0	174
45-49	5.9	467	16.8	113
50-54	na	na	16.5	100
55-59	na	na	6.7	71
Residence				
Urban	20.9	3,073	30.7	851
Rural	4.3	4,585	8.2	1,294
Province				
Central	10.5	562	13.4	165
Copperbelt	21.7	1,544	30.8	447
Eastern	3.8	926	2.7	268
Luapula	6.5	622	3.3	166
Lusaka	20.1	1,132	36.4	314
Northern	4.4	1,040	18.3	292
North-Western	5.3	354	8.4	93
Southern	6.2	814	3.9	232
Western	4.0	663	6.4	169
Education				
No education	1.1	925	2.8	108
Primary	5.0	4,439	7.8	1,100
Secondary	23.0	2,061	26.5	808
Higher	57.4	234	50.7	129
Total	11.0	7,658	17.2	2,145

13.5 TESTING FOR HIV

Respondents were asked whether they had been tested for HIV and, if not, whether they would like to be tested. Those who were tested for HIV in the past were further asked about the source of their testing.

Table 13.9.1 shows that only 9 percent of women have been tested for the AIDS virus. Women in urban areas are more likely to have been tested (14 percent) than rural women (6 percent). Women who have never been married and those who have never had sex are less likely to have been tested than those who have ever been married and those who have never married but have had sex, respectively. Nevertheless, it is surprising that 5 percent of women who have never had sex report that they have had an HIV test. Furthermore, the percentage of women who have been tested increases with increasing level of education.

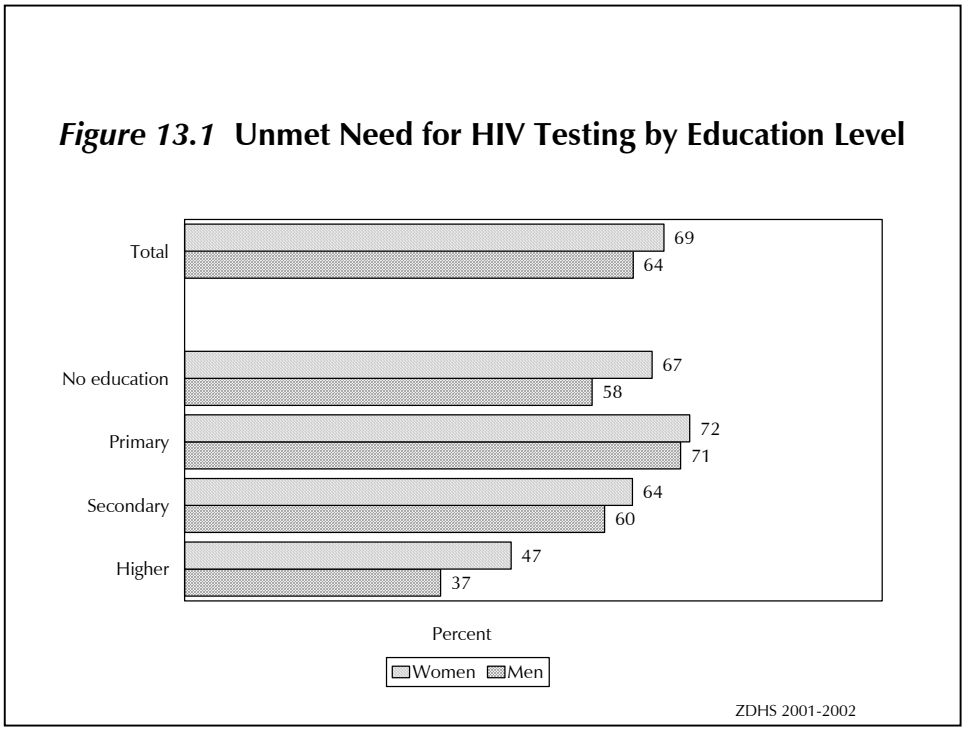
Table 13.9.1 Testing for the AIDS virus: women

Percent distribution of all women by whether tested for the AIDS virus and desire to be tested, and percent distribution of women who have been tested by source of testing, and percentage of women who have not been tested who know a source for the test, according to background characteristics, Zambia 2001-2002

Background characteristic	Tested for the AIDS virus	Not tested for the AIDS virus: Want to be tested	Do not want to be tested	Don't know/ missing[1]	Total	Number of women	Among those tested, source of testing: Public	Private medical	Missing	Total	Number of women tested	Among those not tested, know a source for the test	Number of women not tested[2]
Age													
15-19	6.6	71.2	17.1	5.1	100.0	1,811	76.9	22.5	0.3	100.0	120	53.1	1,662
20-24	11.5	68.1	17.5	2.9	100.0	1,664	68.2	30.6	1.2	100.0	191	63.8	1,464
25-29	11.7	68.6	16.5	3.3	100.0	1,376	70.9	27.7	1.4	100.0	160	65.7	1,209
30-39	9.7	68.5	18.7	3.1	100.0	1,738	56.1	43.3	0.0	100.0	168	64.2	1,567
40-49	7.7	66.0	22.0	4.3	100.0	1,069	57.0	41.7	1.3	100.0	82	60.9	979
Marital status													
Never married	8.3	68.2	18.9	4.6	100.0	1,897	62.7	37.1	0.0	100.0	158	57.7	1,710
Ever had sex	11.1	70.6	15.4	2.9	100.0	990	60.5	39.2	0.0	100.0	110	64.7	868
Never had sex	5.3	65.6	22.7	6.4	100.0	907	67.7	32.3	0.0	100.0	48	50.4	842
Married/living together	9.6	69.5	17.5	3.4	100.0	4,694	66.8	32.0	1.0	100.0	452	62.3	4,222
Divorced/separated/ widowed	10.5	66.3	19.7	3.5	100.0	1,067	68.6	30.2	1.1	100.0	112	62.8	949
Residence													
Urban	14.0	62.4	21.3	2.3	100.0	3,073	69.3	30.1	0.6	100.0	430	67.2	2,639
Rural	6.4	73.0	16.0	4.7	100.0	4,585	61.6	36.7	1.2	100.0	293	57.5	4,243
Province													
Central	6.3	74.1	18.0	1.7	100.0	562	83.9	16.1	0.0	100.0	35	69.4	526
Copperbelt	11.7	65.0	21.2	2.1	100.0	1,544	58.2	41.8	0.0	100.0	181	68.3	1,358
Eastern	7.9	71.3	16.0	4.8	100.0	926	66.2	31.0	2.8	100.0	74	48.4	848
Luapula	3.5	81.2	13.7	1.6	100.0	622	63.6	31.8	4.5	100.0	22	61.3	596
Lusaka	16.5	58.3	22.9	2.3	100.0	1,132	76.4	22.3	1.4	100.0	187	63.1	945
Northern	6.7	68.0	17.8	7.4	100.0	1,040	74.7	25.3	0.0	100.0	70	54.3	961
North-Western	11.0	69.5	17.4	2.2	100.0	354	49.5	48.5	1.0	100.0	39	75.8	313
Southern	7.1	75.4	14.7	2.8	100.0	814	58.0	42.0	0.0	100.0	58	59.1	752
Western	8.6	68.3	15.2	8.0	100.0	663	57.1	41.1	0.0	100.0	57	59.1	583
Education													
No education	3.2	67.0	22.1	7.7	100.0	925	56.5	36.7	6.8	100.0	30	41.9	876
Primary	7.7	72.4	16.1	3.8	100.0	4,439	70.0	28.5	1.2	100.0	343	58.5	4,060
Secondary	14.3	64.2	20.0	1.6	100.0	2,061	65.7	34.2	0.0	100.0	295	74.0	1,766
Higher	23.4	46.8	25.3	4.5	100.0	234	50.1	49.9	0.0	100.0	55	90.6	179
Total	9.4	68.7	18.1	3.7	100.0	7,658	66.2	32.8	0.8	100.0	722	61.2	6,881

[1] Includes those who have not heard of AIDS
[2] Excludes women who have not heard of AIDS

Almost 7 in 10 women say they would like to be tested for HIV. A higher proportion of rural women (73 percent) have a desire to be tested than urban women (62 percent). Luapula province has the lowest proportion of women who have been tested for HIV, but the highest proportion (81 percent) who are willing to be tested. Because relatively fewer rural women have had a chance to be tested for HIV than urban women, the demands for testing among rural women are very high. The proportion of women who want to be but have not yet been tested generally declines with women's level of education (Figure 13.1).



Among women who have been tested, the public sector is the most common source for HIV testing where 66 percent of women got tested. This pattern is similar across all marital status categories, residence and level of education. However, for women with higher education and those in the North-Western province, the proportions who got tested in public and private medical institution are close. Three of five women who have not been tested say they know a place where they could get tested.

Table 13.9.2 shows that 14 percent of male respondents have been tested for HIV, 64 percent would like to be tested and 19 percent would not like to be tested. The more educated men, those in urban areas, particularly in Lusaka, and men who are married or living with a woman are more likely to have been tested for HIV. There are no major variations in the proportions of men who would like to be tested, by age, marital status and residence. However, Southern province has the highest level of men who have not yet been tested but say they would like to be. The proportion of men who want to be but have not yet been tested is higher for men with primary education than for those with no education, but drops with increasing level of education (Figure 13.1).

Among men who have been tested, almost two in three were tested in public institutions and one in five in private medical institutions.

Almost 70 percent of men not tested know a source for testing. Knowledge of a source for testing increases with increasing level of education.

Table 13.9.2 Testing for the AIDS virus: men

Percent distribution of all men by whether tested for the AIDS virus and desire to be tested, and percent distribution of men who have been tested by source of testing, and percentage of men who have not been tested who know a source for the test, according to background characteristics, Zambia 2001-2002

Background characteristic	Tested for the AIDS virus	Not tested for the AIDS virus: Want to be tested	Do not want to be tested	Don't know/ missing[1]	Total	Number of men	Among those tested, source of testing: Public	Private medical	Other	Missing	Total	Number of men tested	Among those not tested know a source for the test	Number of men not tested[2]
Age														
15-19	5.6	67.4	20.2	6.8	100.0	459	*	*	*	*	100.0	26	55.2	408
20-24	9.4	72.1	16.8	1.7	100.0	346	(52.5)	(23.4)	(24.1)	(0.0)	100.0	33	70.3	311
25-29	17.0	62.6	19.4	1.0	100.0	361	63.1	18.2	17.3	1.5	100.0	61	75.5	299
30-39	17.6	61.2	18.7	2.5	100.0	523	65.3	21.1	13.6	0.0	100.0	92	75.9	430
40-49	17.9	59.9	20.9	1.2	100.0	287	65.4	14.1	18.8	1.7	100.0	51	70.5	235
50-59	19.0	60.3	17.5	3.2	100.0	171	(71.5)	(21.3)	(4.4)	(2.7)	100.0	32	67.1	136
Marital status														
Never married	8.3	67.5	19.7	4.5	100.0	782	57.3	14.0	25.7	3.0	100.0	65	63.3	691
Ever had sex	9.9	69.6	18.3	2.2	100.0	579	55.0	15.8	25.8	3.4	100.0	57	67.5	512
Never had sex	3.8	61.5	23.7	11.0	100.0	202	*	*	*	*	100.0	8	51.4	179
Married/living together	17.2	61.5	19.4	2.0	100.0	1,248	66.1	18.7	14.4	0.8	100.0	215	73.7	1,029
Divorced/separated/ widowed	13.4	72.9	11.0	2.7	100.0	116	*	*	*	*	100.0	16	57.7	100
Residence														
Urban	16.9	58.2	22.8	2.0	100.0	851	65.3	29.4	5.3	0.0	100.0	144	77.4	704
Rural	11.7	68.3	16.5	3.5	100.0	1,294	61.5	8.6	26.8	3.1	100.0	151	63.5	1,116
Province														
Central	8.3	66.7	23.2	1.8	100.0	165	*	*	*	*	100.0	14	67.5	151
Copperbelt	12.4	61.3	24.1	2.3	100.0	447	(51.5)	(42.4)	(6.1)	(0.0)	100.0	55	77.0	386
Eastern	18.0	56.6	22.3	3.1	100.0	268	(39.1)	(6.5)	(52.2)	(2.2)	100.0	48	57.5	217
Luapula	13.8	66.3	18.2	1.7	100.0	166	(76.0)	(4.0)	(12.0)	(8.0)	100.0	23	71.4	141
Lusaka	22.2	54.4	20.9	2.5	100.0	314	69.8	26.4	3.8	0.0	100.0	70	73.1	244
Northern	19.6	67.6	10.4	2.4	100.0	292	78.1	9.4	9.4	3.1	100.0	57	77.2	231
North-Western	8.4	69.7	20.6	1.3	100.0	93	*	*	*	*	100.0	8	65.4	85
Southern	2.9	79.0	13.2	4.9	100.0	232	*	*	*	*	100.0	7	67.4	215
Western	8.3	69.4	15.9	6.4	100.0	169	*	*	*	*	100.0	14	47.9	150
Education														
No education	7.6	58.4	24.5	9.6	100.0	108	*	*	*	*	100.0	8	46.0	92
Primary	11.0	71.1	15.1	2.8	100.0	1,100	69.1	12.6	14.4	3.9	100.0	121	59.7	958
Secondary	16.3	60.2	21.3	2.2	100.0	808	61.9	21.7	16.3	0.0	100.0	132	81.9	676
Higher	26.9	36.7	33.3	3.1	100.0	129	(52.5)	(33.2)	(14.3)	(0.0)	100.0	35	90.6	94
Total	13.8	64.3	19.0	2.9	100.0	2,145	63.4	18.7	16.3	1.6	100.0	295	68.9	1,820

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 available
[1] Includes those who have not heard of AIDS
[2] Excludes men who have not heard of AIDS

13.6 Men's Attitudes Toward Condoms

In the 2001-2002 ZDHS, men were asked whether they agree or disagree with certain statements regarding condoms. Table 13.10 shows that 52 percent of men feel that condoms decrease a man's sexual pleasure, 41 percent are of the view that condoms are inconvenient to use, and 6 percent think a condom can be reused. The data further show that 77 percent of men feel that condoms are effective in preventing HIV and other diseases, 36 percent believe that a woman has no right to tell a man to use a condom and 84 percent feel that condoms are effective in preventing pregnancy.

Table 13.10 Men's attitudes toward condoms

Percentage of men who agree with specific statements about condoms, by background characteristics, Zambia 2001-2002

Background characteristic	Percentage of men who agree with the following statements about condoms: Condoms decrease a man's sexual pleasure	Condoms are incon-venient to use	A condom can be reused	Condoms are effective in preventing HIV and and other diseases	A woman has no right to tell a man to use a condom	Condoms are effective in preventing pregnancy	Number of men
Age							
15-19	39.1	27.4	6.5	70.3	34.3	70.8	459
20-24	52.5	37.8	6.6	75.4	36.1	89.4	346
25-29	59.6	41.3	7.2	81.4	38.5	91.1	361
30-34	56.6	46.9	7.8	84.4	34.5	91.5	281
35-39	61.4	47.1	4.8	77.3	29.1	84.6	241
40-44	51.9	44.3	2.6	83.8	36.9	90.2	174
45-49	46.6	48.5	8.8	75.1	40.8	85.2	113
50-54	46.3	51.5	3.9	68.2	40.8	76.5	100
55-59	46.2	53.9	5.4	71.6	46.8	76.2	71
Residence							
Urban	52.5	42.8	6.6	78.1	26.2	88.6	851
Rural	50.8	39.3	6.0	76.1	42.5	81.4	1,294
Province							
Central	47.5	26.4	4.0	73.9	55.4	76.1	165
Copperbelt	51.9	44.4	9.4	75.2	23.7	85.3	447
Eastern	31.2	27.0	11.3	72.7	46.9	87.9	268
Luapula	61.9	37.0	1.7	81.2	34.8	88.4	166
Lusaka	55.6	46.4	3.3	82.0	25.5	89.1	314
Northern	59.0	56.0	7.6	71.3	47.7	80.7	292
North-Western	44.5	43.3	1.7	74.8	28.2	81.1	93
Southern	60.5	33.7	4.4	90.7	40.0	91.7	232
Western	47.1	41.4	4.5	69.4	31.8	68.2	169
Education							
No education	44.1	38.3	8.0	64.8	45.7	69.2	108
Primary	52.3	43.1	6.3	77.5	42.5	81.1	1,100
Secondary	51.8	38.3	6.0	78.0	30.1	90.7	808
Higher	48.7	36.7	5.8	75.5	9.8	83.7	129
Condom use							
Used at last sex	56.4	37.4	7.4	84.3	33.2	95.6	339
Ever used (not at last sex)	63.8	43.7	8.2	85.7	32.0	92.3	693
Never used	42.4	39.8	4.7	69.2	39.4	75.8	1,113
Current marital status							
Never married	43.7	31.5	6.1	71.0	33.3	77.0	782
Married/living together	56.0	46.1	6.3	80.2	37.3	88.4	1,248
Divorced/separated / widowed	55.9	44.6	7.1	81.4	40.1	88.0	115
Total	51.5	40.7	6.2	76.9	36.0	84.3	2,145

There are no major variations in most of men's attitudes towards condoms between rural and urban areas, except that men in rural areas are almost twice as likely to think that a woman has no right to tell a man to use a condom as those in urban areas. The proportion of male respondents holding this view decreases with increasing level of education.

Larger proportions of men in Luapula, Southern and Northern feel that condoms decrease a man's sexual pleasure compared with the rest of the provinces.

13.7 Absence from Home and Use of Alcohol

Absence from home can sometimes lead both men and women to engage in sexual activities with people other than their usual sexual partners. In the ZDHS, men were asked about the number of any trips that involved sleeping away from home in 12 months prior to the survey. These activities put persons at risk of contracting an STI if they engage in unprotected sexual activity with people other than their usual sexual partners.

13.7.1 Absence from Home

Table 13.11 shows that 17 percent of men in Zambia slept away from home for a duration of more than one month in the past 12 months. Almost half of men did not leave home at all overnight, whereas one-third made 1-3 overnight trips and 17 percent took 4 or more trips.

Table 13.11 Frequency and length of travel away from home

Percent distribution of men by number of trips in the past 12 months that involved sleeping away from their home community, and the percentage of men who have slept away from their community for more than one month at a time in the past 12 months, by background characteristics, Zambia 2001/2002

Background characteristic	Number of trips that involved sleeping away from home					Missing	Total	Slept away from home for more than one month	Number of men
	0	1-3	4-6	7-9	10+				
Age									
15-19	57.2	34.2	5.0	1.4	1.4	0.9	100.0	16.3	459
20-29	44.4	36.9	10.6	2.2	5.6	0.3	100.0	19.8	706
30-39	40.0	37.0	11.5	2.6	8.2	0.8	100.0	17.5	523
40-49	47.0	33.3	9.6	2.7	6.7	0.7	100.0	12.3	287
50-59	53.3	36.8	5.4	1.8	2.7	0.0	100.0	8.7	171
Marital status									
Never married	52.4	35.6	7.1	2.1	2.3	0.6	100.0	17.3	782
Married or living together	44.1	35.4	10.5	2.2	7.2	0.6	100.0	15.6	1,248
Divorced/separated/widowed	43.9	43.1	7.2	2.2	3.5	0.0	100.0	22.2	116
Residence									
Urban	48.1	34.8	9.0	2.3	5.3	0.6	100.0	15.0	851
Rural	46.4	36.6	9.2	2.1	5.2	0.6	100.0	17.7	1,294
Occupation									
Professional/technical/ managerial	14.4	44.3	15.4	5.0	20.8	0.0	100.0	19.6	93
Clerical	*	*	*	*	*	*	100.0	*	13
Sales and services	51.4	33.6	8.5	1.6	4.6	0.3	100.0	16.5	307
Skilled manual	53.3	29.8	7.9	3.4	4.6	1.0	100.0	10.9	273
Unskilled manual	*	*	*	*	*	*	100.0	*	23
Domestic service	45.6	30.5	6.3	1.9	15.4	0.4	100.0	11.3	104
Agriculture	44.1	37.8	10.7	2.2	4.8	0.5	100.0	17.8	862
Not working	52.7	37.6	6.1	1.6	1.5	0.7	100.0	18.8	451
Total	47.1	35.9	9.1	2.2	5.2	0.6	100.0	16.6	2,145

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

Men in sales and services and skilled manual occupations are least likely to make 10 or more trips that involve sleeping away from home, while those in professional/technical/managerial jobs are most likely to do so; 21 percent of men in professional/technical/managerial occupations made at least 10 such trips in the last 12 months compared with 5 percent of those working in sales and services and skilled manual occupations. Men 20-49 years old are more likely to make 10 or more trips that involve sleeping away from home compared with those under age 20 or age 50 and over.

13.7.2 Alcohol Consumption

Alcohol consumption can lead to drunkenness and sometimes uncontrolled sexual behaviour. During the survey, respondents were asked whether they had consumed alcohol and/or been drunk.

Tables 13.12.1 and 13.12.2 show that 77 percent of women have never consumed a beverage containing alcohol, compared with 24 percent of men. Nine percent of women reported consuming alcohol in the month prior to the survey, while 14 percent have consumed alcohol at some time but not in the past month. Among women, alcohol consumption increases with age.

Table 13.12.1 Alcohol consumption: women

Percent distribution of women by whether they have ever consumed a beverage containing alcohol, and of those, percent distribution by whether they have ever been drunk, according to current age, Zambia 2001-2002

	Age				
Alcohol consumption	15-19	20-29	30-39	40-49	Total
Consumption of alcohol					
Consumed alcohol in past month	5.3	8.0	10.4	17.0	9.2
Consumed alcohol at some time, but not in past month	9.1	12.8	17.2	19.6	13.9
Never consumed alcohol	85.5	78.9	71.6	63.2	76.6
Missing	0.2	0.3	0.8	0.2	0.4
Total	100.0	100.0	100.0	100.0	100.0
Number of women	1,811	3,040	1,738	1,069	7,658
Whether been drunk					
Been drunk in past month	11.5	14.1	11.2	22.9	14.9
Been drunk at some time, but not in past month	23.2	26.3	34.7	29.3	28.8
Never been drunk	64.4	59.5	53.9	47.6	56.1
Missing	1.0	0.2	0.2	0.2	0.3
Total	100.0	100.0	100.0	100.0	100.0
Number of women who ever drank alcohol	259	633	480	391	1,763

Data further show that 15 percent of women who had ever drunk alcohol had been drunk in the past month, 29 percent have been drunk but not in the past month, while 56 percent have never been drunk.

Table 13.12.2 shows that 45 percent of men consumed alcohol in the past 3 months, while 31 percent have consumed alcohol but not in the past 3 months. The table also shows that of men reporting having ever consumed alcohol, 57 percent got drunk in the past 3 months, 27 percent got drunk but not in the past 3 months, while 16 percent have never been drunk.

Table 13.12.2 Alcohol consumption: men

Percent distribution of men by whether they have ever consumed a beverage containing alcohol, and of those, percent distribution by whether they have ever been drunk, according to current age, Zambia 2001-2002

Alcohol consumption	Age 15-19	20-29	30-39	40-49	50-59	Total
Consumption of alcohol						
Consumed alcohol beverage in past 3 months	22.4	48.0	55.2	57.3	44.6	45.2
Consumed alcohol at some time, but not in past 3 months	10.8	16.7	19.9	19.8	31.4	17.8
Never consumed alcohol	66.6	35.2	24.9	22.6	24.1	36.8
Missing	0.2	0.1	0.0	0.4	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	459	706	523	287	171	2,145
Whether been drunk						
Been drunk in past 3 months	46.6	62.3	58.9	62.1	37.3	57.1
Been drunk at some time, but not in past 3 months	22.5	23.2	27.6	24.3	43.2	26.5
Never been drunk	30.9	14.1	13.3	13.6	19.5	16.2
Missing	0.0	0.4	0.2	0.0	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of men who ever drank alcohol	152	457	393	221	130	1,352

Alcohol consumption varies somewhat with marital status, residence, and level of education. Table 13.13 shows that women who are divorced/separated/widowed, those in urban areas, those in Copperbelt, Lusaka, and Northern provinces, and more educated women are more likely to report consumption of alcohol than other women. Women in Eastern and North-Western provinces are the least likely to report alcohol consumption or drunkenness in the last month. Also, women in some occupations (clerical, sales and service, domestic service) are slightly more likely to consume alcohol than women employed in other occupations.

Table 13.13 shows that the alcohol consumption pattern in men is similar to that of women. Like women, men who are divorced/separated/widowed, those in urban areas and the more educated are more likely to consume alcohol than others. As in the case of women, men in Lusaka, Copperbelt, and Northern provinces are more likely to report alcohol use than respondents from other provinces.

Table 13.13 Alcohol consumption by background characteristics

Percentage of women and men who consumed a beverage containing alcohol in the past month (women) or in the past three months (men), and percentage who were drunk in the past month (women) or in the past three months (men), by background characteristics, Zambia 2001-2002

Background characteristic	Women			Men		
	Consumed alcohol in past month	Was drunk in past month	Number of women	Consumed alcohol in the past 3 months	Was drunk in the past 3 months	Number of women
Marital status						
Never married	5.7	2.0	1,897	33.5	27.6	782
Married or living together	9.4	4.1	4,694	51.2	45.0	1,248
Divorced/separated/widowed	14.1	9.0	1,067	59.9	57.7	116
Residence						
Urban	12.3	6.0	3,073	57.7	50.5	851
Rural	7.1	3.1	4,585	37.0	31.9	1,294
Province						
Central	5.6	2.6	562	35.1	29.0	165
Copperbelt	12.0	5.9	1,544	57.9	49.6	447
Eastern	1.5	0.6	926	30.9	27.7	268
Luapula	5.4	3.4	622	44.8	33.7	166
Lusaka	12.9	5.7	1,132	59.8	55.2	314
Northern	17.6	6.5	1,040	46.5	40.4	292
North-Western	3.2	1.8	354	23.5	21.0	93
Southern	4.5	2.7	814	38.0	37.1	232
Western	8.9	5.2	663	37.6	28.0	169
Education						
No education	9.3	4.9	925	35.5	29.1	108
Primary	8.8	4.1	4,439	40.7	35.3	1,100
Secondary	9.4	4.1	2,061	51.9	45.9	808
Higher	12.5	4.9	234	50.3	40.8	129
Occupation						
Professional/technical/ managerial	9.9	4.0	175	46.9	38.9	93
Clerical	10.4	3.2	71	*	*	13
Sales and services	12.2	6.8	1,095	59.6	52.9	307
Skilled manual	7.8	4.6	200	60.8	54.9	273
Unskilled manual	*	*	13	*	*	23
Domestic service	12.4	5.9	449	57.6	52.2	104
Agriculture	9.2	3.7	2,354	42.8	36.6	862
Not working	7.7	3.6	3,274	26.8	22.3	451
Total	9.2	4.3	7,658	45.2	39.3	2,145

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

13.8 Knowledge of Symptoms of Sexually Transmitted Infections

Sexually transmitted infections (STIs) have been identified as co-factors in HIV transmission. The response of the Government to the epidemic has been to reduce transmission of the AIDS virus through education, condom promotion and STI treatment. Community-based and clinic-based interventions to control STIs are being carried out by the Central Board of Health, the National AIDS Council and non-governmental organisations. It is important that people experiencing symptoms of STIs have the knowledge to be able to recognise them and seek appropriate treatment. People who do not know the symptoms of the disease may fail to recognise it and consequently may not get treatment.

In the 2001-2002 ZDHS, respondents were asked whether they ever heard about infections that can be transmitted through sexual contact. If the reply was "yes," the respondents were asked to *spontaneously* mention what symptoms a woman and a man with a sexually transmitted disease might have. Data concerning knowledge of symptoms of STIs are shown in Tables 13.14.1 and 13.14.2. The data indicate that 10 percent of women and 9 percent of men have no knowledge of STIs (not including HIV/AIDS).

Table 13.14.1 Knowledge of symptoms of STDs: women

Percentage of women with knowledge of symptoms associated with sexually transmitted diseases (STDs) in a man and in a woman, by background characteristics, Zambia 2001-2002

Background characteristic	No knowledge of STDs	Knowledge of symptoms of STDs in a man: No symptoms mentioned	Knowledge of symptoms of STDs in a man: One symptom mentioned	Knowledge of symptoms of STDs in a man: Two or more symptoms mentioned	Knowledge of symptoms of STDs in a woman: No symptoms mentioned	Knowledge of symptoms of STDs in a woman: One symptom mentioned	Knowledge of symptoms of STDs in a woman: Two or more symptoms mentioned	Number of women
Age								
15-19	20.9	20.3	27.7	31.0	21.4	26.8	30.8	1,811
20-24	8.3	16.4	26.5	48.8	15.8	25.8	50.1	1,664
25-29	6.2	11.8	21.2	60.8	11.9	20.5	61.5	1,376
30-39	4.9	10.1	21.4	63.6	9.5	20.9	64.7	1,738
40-49	6.8	8.9	18.7	65.5	8.3	17.2	67.6	1,069
Marital status								
Never married	18.3	20.2	26.8	34.8	20.9	25.5	35.3	1,897
Ever had sex	10.8	19.1	27.1	42.9	18.2	27.1	43.9	990
Never had sex	26.4	21.3	26.5	25.8	23.9	23.8	25.9	907
Married/living together	7.2	12.1	22.9	57.8	12.0	22.3	58.5	4,694
Divorced/separated/ widowed	7.1	11.6	20.9	60.4	10.1	19.9	62.8	1,067
Residence								
Urban	6.1	14.3	21.6	58.0	14.6	20.3	58.9	3,073
Rural	12.5	13.8	25.0	48.7	13.5	24.5	49.6	4,585
Province								
Central	8.4	14.9	33.4	43.2	14.3	34.7	42.6	562
Copperbelt	7.3	11.1	21.3	60.3	12.0	18.4	62.2	1,544
Eastern	13.4	13.8	31.3	41.5	14.2	30.1	42.3	926
Luapula	6.7	3.8	20.8	68.7	4.6	19.8	68.8	622
Lusaka	5.1	18.5	21.4	54.9	17.1	21.0	56.8	1,132
Northern	10.7	19.0	19.1	51.2	18.1	18.4	52.8	1,040
North-Western	9.9	5.3	11.1	73.7	4.9	8.4	76.8	354
Southern	19.5	16.3	18.7	45.5	16.3	21.2	43.0	814
Western	10.6	16.4	36.0	37.1	16.7	34.9	37.8	663
Education								
No education	20.2	12.3	24.6	42.9	12.3	22.1	45.4	925
Primary	10.9	14.2	24.0	50.9	13.9	23.4	51.8	4,439
Secondary	4.3	15.3	23.2	57.3	15.7	22.7	57.3	2,061
Higher	0.0	6.1	16.3	77.6	6.7	14.7	78.6	234
Total	9.9	14.0	23.6	52.4	14.0	22.8	53.3	7,658

Table 13.14.2 Knowledge of symptoms of STDs: men

Percentage of men with knowledge of symptoms associated with sexually transmitted diseases (STDs) in a man and in a woman, by background characteristics, Zambia 2001-2002

Background characteristic	No knowledge of STDs	Knowledge of symptoms of STDs in a man: No symptoms mentioned	One symptom mentioned	Two or more symptoms mentioned	Knowledge of symptoms of STDs in a woman: No symptoms mentioned	One symptom mentioned	Two or more symptoms mentioned	Number of men
Age								
15-19	29.6	15.8	20.8	33.7	30.2	16.1	24.1	459
20-24	5.1	6.9	22.2	65.8	32.6	19.5	42.7	346
25-29	4.0	6.8	12.7	76.6	32.1	13.4	50.5	361
30-39	2.2	7.5	12.8	77.5	30.2	14.4	53.2	523
40-49	3.7	8.0	7.4	80.9	27.5	9.1	59.7	287
50-59	4.7	7.2	14.4	73.6	23.4	15.3	56.6	171
Marital status								
Never married	20.1	12.7	21.7	45.6	33.8	17.0	29.1	782
Ever had sex	12.4	11.2	24.4	52.0	35.9	18.3	33.4	579
Never had sex	42.0	17.0	13.9	27.1	27.9	13.2	16.9	202
Married/living together	3.1	7.2	11.8	78.0	27.9	13.1	55.9	1,248
Divorced/separated/ widowed	2.4	6.0	11.8	79.8	26.2	18.7	52.7	116
Residence								
Urban	6.2	10.4	18.1	65.3	38.8	16.2	38.9	851
Rural	11.3	8.3	13.6	66.9	24.2	13.9	50.6	1,294
Province								
Central	9.8	4.7	17.0	68.5	14.9	18.1	57.2	165
Copperbelt	9.0	13.5	17.3	60.2	41.7	16.2	33.1	447
Eastern	6.6	7.4	11.7	74.2	21.1	13.7	58.6	268
Luapula	5.5	3.3	9.9	81.2	14.9	8.3	71.3	166
Lusaka	7.9	14.2	18.0	59.8	41.4	15.9	34.7	314
Northern	8.6	9.8	12.5	69.1	36.1	8.9	46.5	292
North-Western	12.2	2.5	26.9	58.4	8.0	26.1	53.8	93
Southern	16.6	4.4	16.6	62.4	37.6	19.0	26.8	232
Western	8.9	9.6	12.1	69.4	12.7	12.1	66.2	169
Education								
No education	23.0	9.1	14.3	53.6	21.4	12.2	43.4	108
Primary	12.9	9.3	15.5	62.3	27.4	15.2	44.5	1,100
Secondary	3.9	9.5	16.2	70.4	34.4	14.7	47.1	808
Higher	0.0	5.5	10.1	84.4	32.2	14.3	53.5	129
Total	9.2	9.1	15.4	66.3	30.0	14.8	46.0	2,145

Among both women and men, the younger age group (15-19) is less likely to have knowledge about STIs than the older age groups. Rural men and women are less likely to be knowledgeable about STIs than their urban counterparts. However, in Luapula province, a rural province, the proportion of women and men who know two or more symptoms of STIs is higher than most other provinces. There is a strong positive relationship between level of education and knowledge of STIs.

Similar proportions of men and women report no knowledge of STIs. Not surprisingly, men are more familiar with male symptoms of STI and women with female symptoms. Those who report never having sex or not being married are less familiar with STIs. Rural respondents are more likely than their urban counterparts to report no knowledge of STIs. However, urban males are less familiar with female STI symptoms than their rural counterparts.

13.9 Reports of Recent Sexually Transmitted Infections

During the survey, women and men who had ever had sex were asked whether they had an STI in 12 months prior to the survey. Table 13.15 shows the percentage of men and women who have ever had sex who had an STI and associated symptoms. The data show that overall, 6 percent of women and 8 percent of men reported that they had either an STI or one of the STI symptoms in the past 12 months. Three percent of women and 5 percent of men reported having had an STI; 3 percent of women and 4 percent of men reported having had a genital discharge, and 4 percent of women and 5 percent of men reported having had a genital sore or ulcer. Women in urban areas, those living in Lusaka, Southern, and Western provinces, and women with secondary or higher education are more likely to report having had an STI or STI symptoms. There are also variations in the reporting of STIs among men. Men in urban areas, Copperbelt, Lusaka, and Southern and those with less than higher education are slightly more likely to report an STI or STI symptoms than other men (Figure 13.2).

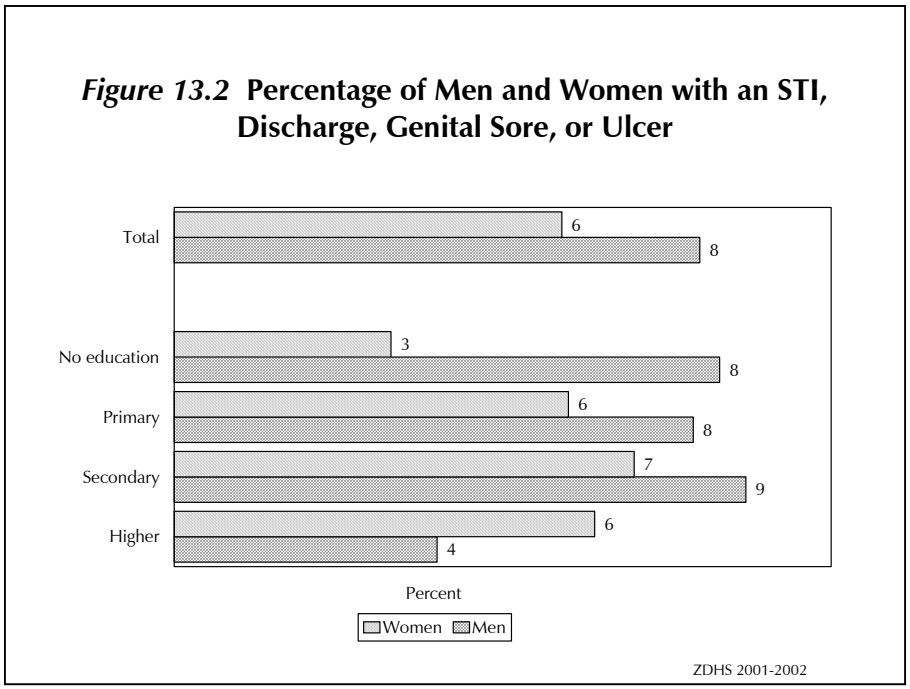
Table 13.15 Self-reporting of sexually transmitted infections and STI symptoms

Among women and men who ever had sex, percentage who report having an STI and/or associated symptoms in the 12 months preceding the survey, by background characteristics, Zambia 2001-2002

	Percentage of women with:					Percentage of men with:				
Background characteristic	An STI	Genital discharge	Genital sore/ ulcer	An STI/ discharge/ genital sore/ulcer	Number of women	An STI	Genital discharge	Genital sore/ ulcer	An STI/ discharge/ genital sore/ulcer	Number of men
Age										
15-19	1.8	3.2	3.8	5.8	1,038	2.1	3.6	3.4	5.6	291
20-24	3.6	3.1	4.7	7.5	1,567	8.2	8.2	7.1	12.3	319
25-29	4.0	2.6	5.1	7.2	1,346	6.5	5.3	8.4	10.6	356
30-39	2.3	2.9	3.1	5.4	1,732	5.2	4.4	6.1	9.5	520
40-49	1.4	1.8	2.0	2.8	1,069	3.4	1.4	2.1	4.2	286
50-59	na	na	na	na	na	0.0	0.0	0.5	0.5	171
Residence										
Urban	3.5	3.1	4.7	7.2	2,621	7.3	7.2	7.2	10.9	793
Rural	2.2	2.5	3.2	5.1	4,130	3.0	2.2	3.8	6.0	1,150
Province										
Central	1.7	2.4	4.2	6.1	494	3.6	3.2	3.2	5.7	148
Copperbelt	2.5	2.1	5.1	6.4	1,301	6.1	5.3	6.1	8.9	415
Eastern	1.2	1.5	1.6	3.2	841	2.1	3.8	3.0	6.0	246
Luapula	1.5	0.9	1.5	2.2	534	3.7	2.5	3.1	5.5	149
Lusaka	4.6	4.3	5.4	8.6	997	5.9	8.2	8.6	12.3	289
Northern	1.3	1.6	2.0	2.8	896	2.5	3.2	4.6	6.8	250
North-Western	2.0	1.2	1.2	2.7	324	3.3	1.4	1.4	3.3	83
Southern	4.4	4.4	5.2	8.6	737	8.7	2.7	6.0	10.4	207
Western	4.5	5.7	5.2	9.9	628	4.1	2.8	5.5	6.9	156
Education										
No education	1.4	2.0	2.1	3.3	875	2.7	4.9	5.6	8.3	97
Primary	2.8	2.8	3.9	6.0	3,989	4.9	4.3	5.8	7.9	975
Secondary	3.0	3.1	4.3	7.0	1,679	5.1	4.6	5.0	8.7	745
Higher	3.9	3.4	4.1	6.4	208	3.0	1.3	1.4	4.0	126
Total	2.7	2.8	3.8	5.9	6,751	4.7	4.2	5.2	8.0	1,943

na = Not applicable

The peak age for having STI symptoms is 20-24 for both women and men. After this peak, the percentage declines with age for both women and men.



A sub-sample of the 2001-2002 eligible respondents was tested for syphilis. For more information on syphilis prevalence, see Chapter 14.

13.10 Treatment Seeking and Protection of a Partner from STIs

Respondents who reported having an STI infection or an STI symptom in the 12 months preceding the survey were asked whether they sought advice or treatment. Table 13.16 shows that among women and men who reported having an STI in the last 12 months, more than half (51 percent) sought treatment or advice from a clinic, hospital or private doctor. Men are more than twice as likely as women to seek advice from friends or relatives or from a shop or pharmacy when they have an STI. About two-thirds of women and men sought advice or treatment from some source. Compared with women, men reporting STIs are much less likely to seek care from a clinic and more likely to seek advice or treatment from a traditional practitioner, shop, or friends.

Table 13.16 Source of treatment of STIs

Percentage of women and men who had an STI and/or associated symptoms in the 12 months preceding the survey, by source of treatment or advice and STI/associated symptom, Zambia 2001-2002

Symptom	Source of treatment of STI[1]				Advice or treatment from any source	No advice or treatment	Number of women/ men with an STI [2]
	Clinic/ hospital/ private doctor	Tradi-tional healer	Shop/ pharmacy	Advice from friends/ relatives			
WOMEN							
STI	80.9	24.1	17.6	20.3	93.0	7.0	184
Genital discharge	52.1	17.2	16.7	22.7	69.5	29.9	186
Genital sore/ulcer	49.8	17.3	15.0	17.2	66.0	33.1	255
Total	51.2	17.5	13.2	17.1	66.5	32.9	398
MEN							
STI	68.5	34.7	35.4	47.0	81.4	18.6	92
Genital discharge	52.4	32.7	38.5	49.0	71.6	28.4	82
Genital sore/ulcer	48.5	33.5	36.2	41.2	69.2	30.8	101
Total	51.3	29.6	33.3	42.4	69.7	30.3	156

[1] Respondents were able to report more than one source of treatment.
[2] Includes women reporting having had an STI or genital discharge, ulcer or sore in the preceding 12 months.

Respondents who reported having an STI in the past 12 months were also asked whether they informed their sexual partner(s). Table 13.17 shows that 72 percent of the women and 58 percent of the men did, while 22 percent of the women and 32 percent of the men did not. The data show that when women report that they had an STI (as opposed to having STI-like symptoms), a higher percentage (91 percent) inform their sexual partners compared with those who had various STI symptoms (71 percent and 75 percent, respectively). A much lower proportion of men who report having had an STI in the past 12 months inform their partners (63 percent).

Table 13.17 Efforts to protect partners from infection among women and men with STI

Percent distribution of women and men who had an STI and/or associated symptoms in the 12 months preceding the survey by whether they informed partner(s) of their condition, and percentage who took specific actions to protect partner(s) from infection, according to STI/associated symptom, Zambia 2001-2002

Symptom	Informed partner(s)				Total	Action taken to protect partner(s)						Number of women/ men with an STI
	Yes	Some, not all	No	No partner/ missing		Stopped having sex	Used con-doms	Used medicine	Any action	No action	Partner already infected	
WOMEN												
STI	90.5	0.0	6.0	3.4	100.0	35.5	13.9	47.3	53.7	12.6	30.3	184
Genital discharge	70.8	0.5	24.1	4.6	100.0	34.9	13.4	35.1	47.7	27.4	18.4	186
Genital sore/ulcer	74.6	0.4	20.3	4.7	100.0	29.7	12.9	31.6	43.8	31.1	19.6	255
Total	72.3	0.3	21.6	5.9	100.0	32.0	11.2	33.8	45.7	29.1	18.1	398
MEN												
STI	63.1	2.9	27.5	6.5	100.0	45.7	21.1	47.6	58.9	31.6	2.7	92
Genital discharge	60.7	1.6	33.0	4.7	100.0	41.0	20.2	41.0	56.5	32.7	5.9	82
Genital sore/ulcer	59.5	2.6	31.3	6.6	100.0	33.4	19.8	41.7	52.3	37.4	2.6	101
Total	58.0	2.5	32.1	7.4	100.0	37.3	19.1	43.8	56.9	31.7	3.4	156

The respondents were further asked what action they took to protect their partner(s) when they had an STI. Thirty-seven percent of men reported that they stopped having sex, 19 percent used condoms, 44 percent used medicine. On the other hand, 32 percent of women stopped having sex, 11 percent

used condoms, 34 percent took medicine. About one in three women (29 percent) and men (32 percent) took no action to protect their partner.

13.11 Sexual Behaviour

The sexual behaviour of an individual greatly affects the chances of getting infected with an STI. In this section, two aspects of sexual behaviour are studied: number of sexual partners and use of condoms for STI prevention.

13.11.1 Number of Sexual Partners

Information on sexual behaviour is important in designing and monitoring intervention programmes to control the spread of STIs. The 2001-2002 ZDHS included questions on the respondents' last three sexual partners in the 12 months preceding the survey. Two types of partners are recognised: those who are cohabiting with the respondent (mostly spouses) and those who are not cohabiting with the respondent at the time of the last sexual encounter. Information on use of condoms at last sexual encounter with each of these partner types was also collected.

Table 13.18 shows that 98 percent of married women and 81 percent of men say they had no sexual partner other than their spouse or cohabiting partner in the 12 months preceding the survey. Two percent of married women say they only had one partner other than their spouse or cohabiting partner, and almost none had two or more partners. Differences among women by background characteristics are negligible.

Table 13.18 Number of extramarital sexual partners: married women and men

Percent distribution of currently married women and men by number of persons (excluding spouses or cohabiting partners) they had sexual intercourse with in the 12 months preceding the survey, according to background characteristics, Zambia 2001-2002

	Women					Men					
Background characteristic	0	1	2+	Total	Number of women	0	1	2+	Don't know/ missing	Total	Number of men
Age											
15-19	97.2	2.8	0.0	100.0	438	86.9	13.1	0.0	0.0	100.0	7
20-24	97.8	2.1	0.1	100.0	1,086	68.0	23.8	8.2	0.0	100.0	91
25-29	98.4	1.5	0.2	100.0	1,056	77.3	18.1	4.2	0.3	100.0	272
30-39	98.7	1.2	0.1	100.0	1,347	79.5	16.8	3.5	0.2	100.0	455
40-49	98.4	1.5	0.1	100.0	767	83.6	11.7	4.7	0.0	100.0	264
50-59	na	na	na	na	na	92.0	6.5	1.5	0.0	100.0	160
Residence											
Urban	97.7	2.0	0.2	100.0	1,662	76.9	16.5	6.5	0.0	100.0	443
Rural	98.5	1.5	0.0	100.0	3,032	82.8	14.4	2.6	0.2	100.0	805
Province											
Central	99.3	0.7	0.0	100.0	346	83.2	14.6	2.2	0.0	100.0	82
Copperbelt	98.1	1.7	0.2	100.0	871	85.0	13.6	1.4	0.0	100.0	235
Eastern	99.4	0.6	0.0	100.0	644	81.8	15.3	2.8	0.0	100.0	184
Luapula	99.3	0.5	0.2	100.0	399	91.1	6.5	2.4	0.0	100.0	113
Lusaka	97.6	2.4	0.0	100.0	640	72.7	15.9	11.4	0.0	100.0	173
Northern	98.8	1.0	0.0	100.0	678	92.0	7.0	0.0	1.0	100.0	178
North-Western	99.1	0.7	0.2	100.0	215	78.4	18.7	3.0	0.0	100.0	52
Southern	96.8	3.0	0.2	100.0	532	70.1	24.4	5.5	0.0	100.0	144
Western	95.9	3.9	0.3	100.0	369	62.5	28.7	8.7	0.0	100.0	86
Education											
No education	99.1	0.9	0.0	100.0	663	80.5	15.8	3.7	0.0	100.0	73
Primary	98.0	1.9	0.1	100.0	2,905	81.9	15.0	3.1	0.0	100.0	642
Secondary	98.1	1.6	0.3	100.0	1,006	77.7	16.4	5.4	0.4	100.0	431
Higher	100.0	0.0	0.0	100.0	120	86.0	10.1	3.9	0.0	100.0	102
Total	98.2	1.7	0.1	100.0	4,694	80.7	15.2	4.0	0.1	100.0	1,248

na = Not applicable

Married men, however, are more likely than married women to have multiple partners. Overall, 19 percent of married men have had one or more partners other than their spouse or cohabiting partner in the previous year. The practice of having extramarital partners is more common among younger married men (age 20-29), men living in urban areas, and men in Lusaka, Southern, and Western provinces.

The same questions were asked of respondents who are not currently married. Table 13.19 shows that 69 percent of unmarried women did not have any sexual partner in the 12 months preceding the survey, 29 percent had only one sexual partner, and 3 percent had two or more partners. Unmarried men are less likely than women to have had no partner (45 percent compared with 69 percent, respectively) and are much more likely to report having had multiple partners (17 percent compared with 3 percent).

Table 13.19 Number of sexual partners: unmarried women and men

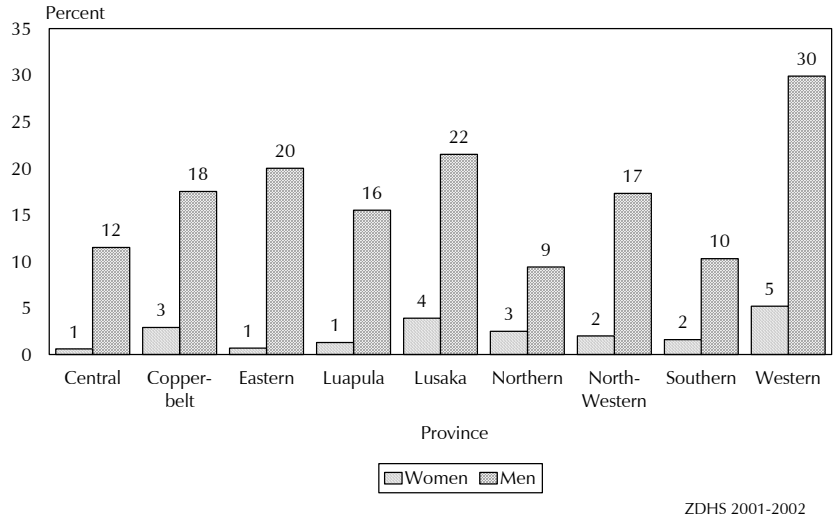
Percent distribution of unmarried women and men by number of persons they had sexual intercourse with in the past 12 months and mean number of sexual partners, according to background characteristics, Zambia 2001-2002

	Women							Men						
Background characteristic	0	1	2+	Don't know/ missing	Total	Number of women	Mean number of sexual partners	0	1	2+	Don't know/ missing	Total	Number of men	Mean number of sexual partners
Age														
15-19	71.5	25.6	2.9	0.1	100.0	1,374	0.3	56.0	32.1	11.9	0.0	100.0	452	0.6
20-24	59.8	38.2	2.1	0.0	100.0	578	0.4	31.5	44.2	24.4	0.0	100.0	255	1.2
25-29	62.2	34.6	3.2	0.0	100.0	320	0.4	25.7	48.1	24.8	1.5	100.0	89	1.7
30-39	68.2	29.7	2.0	0.0	100.0	391	0.3	40.5	41.9	17.6	0.0	100.0	68	0.9
40-49	80.9	17.0	2.2	0.0	100.0	301	0.2	61.9	23.9	14.1	0.0	100.0	23	0.5
50-59	na	na	na	na	na	na	na	55.3	44.7	0.0	0.0	100.0	10	0.4
Marital status														
Never married	66.4	30.7	2.8	0.1	100.0	1,897	0.4	46.2	37.3	16.3	0.2	100.0	782	0.9
Divorced, separated, widowed	72.8	25.0	2.2	0.0	100.0	1,067	0.3	36.4	41.2	22.5	0.0	100.0	116	1.3
Residence														
Urban	71.8	25.6	2.6	0.0	100.0	1,411	0.3	41.9	39.4	18.4	0.3	100.0	408	1.0
Rural	65.9	31.5	2.5	0.1	100.0	1,553	0.4	47.6	36.5	16.0	0.0	100.0	489	0.8
Province														
Central	73.2	26.2	0.6	0.0	100.0	217	0.3	54.0	34.5	11.5	0.0	100.0	83	0.7
Copperbelt	75.6	21.5	2.9	0.0	100.0	672	0.3	44.4	38.1	17.5	0.0	100.0	212	0.9
Eastern	75.1	24.2	0.7	0.0	100.0	283	0.3	46.3	33.8	20.0	0.0	100.0	84	0.9
Luapula	81.3	17.4	1.3	0.0	100.0	222	0.2	51.7	32.8	15.5	0.0	100.0	53	1.2
Lusaka	66.8	29.3	3.9	0.0	100.0	491	0.4	40.2	37.4	21.5	0.9	100.0	140	1.2
Northern	83.1	14.5	2.5	0.0	100.0	362	0.2	57.5	33.1	9.4	0.0	100.0	113	0.5
North-Western	51.4	46.5	2.0	0.0	100.0	139	0.5	41.3	41.3	17.3	0.0	100.0	41	0.8
Southern	53.9	44.1	1.6	0.4	100.0	282	0.5	42.3	47.4	10.3	0.0	100.0	88	0.7
Western	42.1	52.8	5.2	0.0	100.0	295	0.6	27.3	42.9	29.9	0.0	100.0	83	1.2
Education														
No education	70.8	26.6	2.6	0.0	100.0	262	0.3	43.7	45.3	11.0	0.0	100.0	35	0.7
Primary	67.9	28.9	3.2	0.0	100.0	1,534	0.4	45.0	37.7	17.4	0.0	100.0	458	0.9
Secondary	69.6	28.4	1.9	0.1	100.0	1,055	0.3	43.6	38.4	17.9	0.0	100.0	377	1.0
Higher	66.5	32.2	1.3	0.0	100.0	114	0.3	65.7	21.7	7.7	4.9	100.0	27	0.5
Total	68.7	28.7	2.6	0.0	100.0	2,964	0.3	45.0	37.8	17.1	0.1	100.0	897	0.9

na = Not applicable

The practice of having multiple partners is more common among respondents who are in their twenties. Western province has the largest proportion (30 percent of men and 5 percent of women) who had multiple sexual partners. The proportion of respondents reporting multiple sexual partners varies significantly among provinces, with women and men in Western province much more likely to report such partnerships than those in other provinces. For both unmarried women and men, those with higher than secondary education are less likely to report multiple sexual partners. Figure 13.3 shows that unmarried men in all provinces are more likely to report at least two sexual partners than their female counterparts.

Figure 13.3 **Percentage of Unmarried Women and Men with at Least Two Partners, by Province**



13.11.2 Knowledge of Condom Sources and Condom Use for Disease Prevention

Condom use is one of the programmatically emphasised approaches to avoiding STI infection. Therefore, knowledge of, access to, and use of condoms are essential to controlling the spread of STIs. Table 13.20 shows that knowledge of a source for male condoms was found to be 78 percent for women and 83 percent for men. The level of knowledge increases with increasing level of education. Knowledge is also higher in urban than in rural areas. Variation by province and by marital status is less pronounced.

Table 13.20 further shows that only 45 percent of women say they could get a condom if they wanted, compared with 72 percent of men. Variations are similar to those observed in the knowledge of where to get a male condom.

Table 13.20 Knowledge of source for male condoms, and access to condoms

Percentage of women and men who know a source for male condoms, and percentage who think they themselves could get a male condom, by background characteristics, Zambia 2001-2002

Background characteristic	Women			Men		
	Knows a source for male condoms	Could get a male condom	Number of women	Knows a source for male condoms	Could get a male condom	Number of men
Age						
15-19	67.2	33.2	1,811	70.1	57.3	459
20-24	83.4	54.5	1,664	90.1	84.1	346
25-29	84.7	56.3	1,376	92.8	87.0	361
30-39	82.0	49.8	1,738	89.4	79.5	523
40-49	69.4	30.3	1,069	84.4	69.1	287
50-59	na	na	na	60.1	42.2	171
Marital status						
Never married	70.3	35.7	1,897	78.2	67.3	782
Ever had sex	80.6	49.6	990	85.6	78.4	579
Never had sex	59.0	20.4	907	56.9	35.6	202
Married /living together	80.2	49.7	4,694	85.4	74.8	1,248
Divorced/separated/ widowed	78.9	43.5	1,067	88.8	80.9	116
Residence						
Urban	84.1	52.5	3,073	89.8	79.4	851
Rural	73.1	40.6	4,585	78.5	67.8	1,294
Province						
Central	73.3	46.1	562	81.9	67.4	165
Copperbelt	83.8	51.5	1,544	88.3	78.9	447
Eastern	77.0	46.4	926	84.8	73.4	268
Luapula	71.2	36.3	622	75.1	56.9	166
Lusaka	82.8	55.8	1,132	89.1	79.1	314
Northern	67.2	30.1	1,040	78.6	66.4	292
North-Western	83.8	53.1	354	91.2	84.0	93
Southern	80.9	46.1	814	86.8	79.0	232
Western	72.9	38.3	663	61.1	56.1	169
Education						
No education	57.7	29.5	925	63.4	58.0	108
Primary	75.3	41.6	4,439	75.5	65.6	1,100
Secondary	89.1	57.2	2,061	93.6	81.7	808
Higher	97.1	74.2	234	97.0	84.5	129
Total	77.5	45.4	7,658	83.0	72.4	2,145

na = Not applicable

Table 13.21 shows the percentage of women and men who used a condom during last sexual intercourse, among those who had sexual intercourse in the past year, by type of partner. Overall, condom use is low (12 percent among women and 19 percent among men); however, there is a wide gap between condom use with a spouse/cohabiting partner and with a non-cohabiting partner. One-third of women and 44 percent of men report that a condom was used the last time they had sex with a non-cohabiting partner.

Table 13.21 Use of condoms by type of partner

Among women and men who had sexual intercourse in the past year, percentage who used a condom during last sexual intercourse with spouse or cohabiting partner, with non-cohabiting partner, and with any partner, by background characteristics, Zambia 2001-2002

	Women						Men					
	Spouse or cohabiting partner		Non-cohabiting partner		Any partner		Spouse or cohabiting partner		Non-cohabiting partner		Any partner	
Background characteristic	Percentage	Number of women	Percentage	Number of women	Percentage	Number of women	Percentage	Number of men	Percentage	Number of men	Percentage	Number of men
Age												
15-19	10.7	441	30.2	396	19.7	826	17.8	6	32.5	197	32.1	203
20-24	9.5	1,096	38.2	250	14.5	1,324	16.0	88	51.9	201	38.9	264
25-29	7.9	1,076	40.6	133	11.4	1,197	15.0	268	46.7	125	22.7	335
30-39	6.8	1,345	33.2	136	8.9	1,464	9.9	449	49.3	130	13.3	492
40-49	3.9	745	16.5	70	4.9	802	5.3	261	40.1	51	7.3	273
50-59	na	na	na	na	na	na	1.7	156	38.0	16	3.5	159
Marital status												
Never married	na	na	33.6	620	33.6	620	na	na	41.6	411	41.6	411
Married /living together	7.5	4,478	30.4	82	7.6	4,496	8.9	1,206	46.2	236	10.1	1,230
Divorced/separated/ widowed	9.1	225	32.9	283	22.4	497	*	22	51.0	74	46.2	86
Residence												
Urban	8.5	1,692	46.6	427	15.8	2,090	12.2	436	52.1	334	26.4	671
Rural	7.0	3,010	22.7	558	9.4	3,523	8.0	792	37.2	387	15.0	1,056
Province												
Central	6.1	354	26.6	59	9.1	410	7.5	80	44.8	52	18.5	120
Copperbelt	5.1	898	41.3	179	10.7	1,062	12.9	235	52.8	149	27.1	347
Eastern	6.5	637	34.7	75	9.4	708	10.5	180	54.7	78	20.3	227
Luapula	1.4	412	(16.7)	42	2.6	451	1.6	114	(18.9)	34	5.3	139
Lusaka	12.9	644	50.4	176	20.5	806	15.8	175	55.6	130	27.2	256
Northern	6.9	657	22.4	68	8.1	720	9.7	175	47.1	61	16.8	223
North-Western	33.3	214	46.8	64	36.3	275	6.3	49	40.0	33	14.7	74
Southern	3.8	544	30.9	142	9.3	671	5.5	144	33.7	91	13.3	196
Western	6.0	341	14.5	182	8.9	511	5.7	75	23.3	92	14.9	144
Education												
No education	4.9	646	11.5	82	5.6	724	7.0	70	(26.9)	34	11.2	92
Primary	7.0	2,913	24.6	534	9.5	3,389	8.9	631	31.5	362	15.3	892
Secondary or higher	10.6	1,144	50.2	369	19.9	1,500	10.6	527	59.9	325	25.3	743
Total	7.6	4,702	33.1	985	11.8	5,613	9.5	1,228	44.1	721	19.4	1,727

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

Condom use with non-cohabiting partners is moderately high among women age 25-29 (40 percent), those who have never married (34 percent), urban women, and those in Lusaka province (50 percent). Use of condoms with non-cohabiting partners increases sharply with increasing level of education. Among men, use of condoms with non-cohabiting partners is the highest for those who are divorced, separated, or widowed, men living in urban areas (52 percent), in Lusaka (56 percent), and those with secondary or higher education (60 percent). It is worth noting that the province with the highest reported rates of non-marital sex—Western province—has the lowest rates of condom use with such partners among women and second lowest rate among men.

13.11.3 Payment for Sexual Relations

Table 13.22 shows that among men who ever had sex, 10 percent reported having paid for sex in the 12 months prior to the survey. Payment for sex is more common among the divorced/separated/widowed, and those in North-Western province. This phenomenon is less common among married men, men living in Eastern province, and men with secondary or higher education.

Men who paid for sex were asked whether they used a condom the last time they had such an encounter. More than two in five men used a condom in such sexual activities. The reported use of a condom in paid sex increases with increasing education, is more common in urban areas, particularly in Lusaka, and among those who have ever been married.

Table 13.22 Payment for sex and condom use during last paid sex

Among men who have ever had sex, the percentage who paid for sex in the 12 months preceding the survey and the percentage who used a condom during last paid sexual intercourse, by background characteristics, Zambia 2001-2002

Background characteristic	Paid for sex in past 12 months	Number who ever had sex	Used condom at last paid sex	Number who paid for sex in past 12 months
Age				
15-19	17.1	291	24.2	50
20-24	17.7	319	56.1	57
25-29	10.7	356	(42.1)	38
30-39	7.7	520	(63.2)	40
40-49	4.8	286	*	14
50-59	0.9	171	*	1
Marital status				
Never married	17.2	579	38.9	100
Married/living together	5.4	1,248	50.6	67
Divorced/separated/ widowed	28.3	116	(51.0)	33
Residence				
Urban	10.7	793	62.5	85
Rural	10.0	1,150	31.6	114
Province				
Central	12.1	148	(50.0)	18
Copperbelt	8.5	415	*	35
Eastern	5.1	246	*	13
Luapula	6.1	149	*	9
Lusaka	12.3	289	(70.4)	35
Northern	7.5	250	*	19
North-Western	22.5	83	(41.7)	19
Southern	12.0	207	*	25
Western	17.2	156	(32.0)	27
Education				
No education	11.3	97	*	11
Primary	13.0	975	39.4	127
Secondary or higher	7.1	871	62.7	62
Total	10.3	1,943	44.8	200

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.

PREVALENCE OF HIV AND SYPHILIS

14

Kumbutso Dzekedzeke

Zambia has used the antenatal care (ANC) sentinel surveillance data as a principal means of monitoring the spread of HIV for almost a decade (Fylkesnes et al., 1998). The ANC sentinel surveillance system includes both urban and rural sites with at least two sites in each of the country's nine provinces. Over time, there has grown a need to expand the tools for monitoring HIV trends in the general population with population-based surveys.

UNAIDS recommends carrying out population-based surveys in catchment areas of ANC sentinel surveillance sites to calibrate the results of routine surveillance systems (UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, 2000). A number of population-based surveys have been carried out in specific catchment areas of the ANC sentinel surveillance system in Zambia to calibrate the results of the ANC system to the general population and to monitor HIV trends in the general population. (For a comparison of ANC surveillance estimates and the ZDHS rates, see Section 14.4.) However, the 2001-2002 ZDHS is the first nationally-representative population-based survey to estimate the prevalence of HIV in Zambia. In addition to HIV testing, syphilis was included from among other sexually transmitted infections (STIs) because it is an important bio-marker of the prevalence of STIs which are a major risk factor in the heterosexual transmission of HIV in the Zambian population.

In the ZDHS, all women and men interviewed in the one-half of households selected for the men's survey were asked to volunteer for a syphilis and HIV test of their venous blood. Consent was sought separately for the syphilis and HIV tests such that respondents could refuse or agree to take one or both of the two tests. Test results for syphilis have been linked to other variables collected during the survey while those for HIV are unlinked. A full description of the sample collection, testing, and syphilis treatment procedures is discussed in Chapter 1.

Table 14.1 Coverage for syphilis testing by urban-rural residence (unweighted)

Percent distribution of de facto women and men eligible for syphilis testing by testing status, according to urban-rural residence, Zambia 2001-2002

Testing status	Residence		
	Urban	Rural	Total
Women 15-49			
Tested	79.6	79.1	79.2
Refused	15.1	15.6	15.4
Absent/other	3.2	3.0	3.0
Interviewed in DHS	1.7	0.7	1.0
Not interviewed in DHS	1.5	2.3	2.0
Result missing	2.1	2.4	2.3
Total	100.0	100.0	100.0
Unweighted number	873	1,816	2,689
Men 15-59			
Tested	66.5	76.5	73.1
Refused	15.6	14.5	14.8
Absent/other	13.3	5.4	8.1
Interviewed in DHS	3.6	0.9	1.8
Not interviewed in DHS	9.7	4.6	6.3
Result missing	4.7	3.6	4.0
Total	100.0	100.0	100.0
Unweighted number	814	1,604	2,418
Total 15-49			
Tested	73.4	77.8	76.4
Refused	15.3	15.1	15.1
Absent/other	8.1	4.2	5.5
Interviewed in DHS	2.6	0.8	1.4
Not interviewed in DHS	5.5	3.4	4.1
Result missing	3.2	2.9	3.0
Total	100.0	100.0	100.0
Unweighted number	1,631	3,297	4,928

14.1 COVERAGE FOR HIV AND SYPHILIS TESTING

14.1.1 Coverage for Syphilis Testing by Residence

Tables 14.1 and 14.2 summarise coverage rates for the syphilis testing component of the ZDHS by residence. Among the women and men eligible for testing, 76 percent consented to the syphilis test, 15 percent refused to be tested, and 6 percent were absent from the household when the nurse/nurse counselor visited. The 2001-2002 ZDHS household record did not include a syphilis result code for the remaining individuals (3 percent). Most of the latter individuals were not interviewed in the 2001-2002 ZDHS, so it is likely they were also absent at the time the household was visited for the testing.

The coverage rate for syphilis testing was higher for women than men; this was largely due to the greater likelihood that men were absent from the household at the time of the survey. Refusal rates were around 15 percent for both eligible men and women.

Table 14.1 shows that coverage rates for rural women and men were generally comparable; 79 percent of women in rural areas agreed to the syphilis test compared with 77 percent of men. In urban areas, there was a substantial difference in the coverage levels between men and women; 80 percent of women were tested compared with 67 percent of men. Again, this was primarily due to the men's likelihood of being absent from the household (13 percent for men versus 3 percent for women) rather than to a higher refusal rate among men than women.

Looking at provincial patterns (Table 14.2), the coverage rate for syphilis testing was the highest in Southern province (86 percent) and lowest in Eastern province (61 percent). Generally, the highly urbanised provinces (Copperbelt and Lusaka) had lower coverage rates than the rest of the provinces, except for Eastern and Western. The overall patterns of syphilis testing coverage by province were similar for women and men. However, as mentioned earlier, men in the urban provinces (Copperbelt and Lusaka) had substantially lower coverage rates than women in the same provinces.

Table 14.2 Coverage of syphilis testing by province (unweighted)

Percent distribution of de facto women and men eligible for syphilis testing by testing status, according to province, Zambia 2001-2002

	Province									
Testing status	Central	Copperbelt	Eastern	Luapula	Lusaka	Northern	North-Western	Southern	Western	Total
Women 15-49										
Tested	87.3	82.8	63.7	82.2	77.0	77.1	83.6	87.7	72.7	79.2
Refused	11.0	12.2	28.9	11.2	18.4	17.2	10.2	9.8	17.7	15.4
Absent /other	1.7	3.6	4.7	0.5	2.6	2.9	6.1	0.8	3.6	3.0
Interviewed in DHS	0.6	1.8	0.3	0.0	2.0	1.7	1.4	0.0	0.9	1.0
Not interviewed in DHS	1.2	1.8	4.3	0.5	0.7	1.2	4.8	0.8	2.7	2.0
Result missing	0.0	1.5	2.8	6.1	2.0	2.7	0.0	1.6	5.9	2.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted number	347	337	322	214	305	407	293	244	220	2,689
Men 15-59										
Tested	83.0	68.5	59.3	81.2	62.9	76.8	83.5	83.6	60.9	73.1
Refused	11.6	12.2	27.0	12.9	19.8	13.4	8.1	10.2	17.2	14.8
Absent	5.1	14.1	10.3	0.5	12.0	6.0	6.5	2.2	13.5	8.1
Interviewed in DHS	1.0	4.5	1.0	0.5	4.2	0.8	0.8	0.0	2.6	1.8
Not interviewed in DHS	4.1	9.6	9.3	0.0	7.8	5.2	5.8	2.2	10.9	6.3
Result missing	0.3	5.1	3.3	5.4	5.3	3.8	1.9	4.0	8.3	4.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted number	294	311	300	186	283	367	260	225	192	2,418
Total 15-49										
Tested	85.4	75.2	61.3	82.4	70.9	77.2	83.4	86.3	66.8	76.4
Refused	11.1	12.7	28.1	11.3	18.7	15.5	9.5	9.5	17.5	15.1
Absent	3.4	8.8	7.5	0.5	7.0	4.3	6.2	1.6	8.5	5.5
Interviewed in DHS	0.8	3.0	0.7	0.3	3.0	1.3	1.1	0.0	1.8	1.4
Not interviewed in DHS	2.6	5.8	6.8	0.3	4.0	3.0	5.0	1.6	6.8	4.1
Result missing	0.2	3.4	3.2	5.8	3.3	3.0	0.9	2.7	7.3	3.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted number	622	624	602	380	571	742	536	451	400	4,928

14.1.2 Coverage for HIV Testing by Residence

Tables 14.3 and 14.4 summarise coverage rates for HIV testing in the 2001-2002 ZDHS by residence. Overall, three out of every four eligible individuals were tested for HIV.

Women in the ZDHS were slightly more likely to have been tested than men (79 percent versus 73 percent). The coverage rate among women eligible for HIV testing in the 2001-2002 ZDHS falls within the range reported in the population-based survey used to calibrate the ANC sentinel surveillance system. The acceptance rate for voluntary participation in that study varied from 70-90 percent among women (Fylkesnes et al., 1999).

Table 14.3 Coverage for HIV testing by urban-rural residence (unweighted)

Percent distribution of de facto women and men eligible for HIV testing by testing status, according to urban-rural residence, Zambia 2001-2002

	Residence		
Testing status	Urban	Rural	Total
Women 15-49			
Tested	79.5	79.3	79.4
Refused	15.6	15.7	15.7
Absent/other	3.3	2.9	3.0
Interviewed in DHS	1.8	0.7	1.1
Not interviewed in DHS	1.5	2.2	2.0
Result missing	1.6	2.1	1.9
Total	100.0	100.0	100.0
Unweighted number	873	1,816	2,689
Men 15-59			
Tested	66.5	76.8	73.3
Refused	16.2	14.3	14.9
Absent/other	13.1	5.5	8.1
Interviewed in DHS	3.4	0.9	1.7
Not interviewed in DHS	9.7	4.6	6.3
Result missing	4.2	3.4	3.7
Total	100.0	100.0	100.0
Unweighted number	814	1,604	2,418
Total 15-49			
Tested	73.3	78.1	76.5
Refused	15.8	15.0	15.3
Absent/other	8.1	4.2	5.5
Interviewed in DHS	2.6	0.8	1.4
Not interviewed in DHS	5.5	3.4	4.1
Result missing	2.8	2.7	2.7
Total	100.0	100.0	100.0
Unweighted number	1,631	3,297	4,928

Table 14.3 shows that there were no differences in coverage for HIV testing between urban (80 percent) and rural women (79 percent). However, rural men were more likely to have been tested than urban men (77 percent and 67 percent, respectively). Provincial differentials (Table 14.4) indicate that Luapula province had the highest coverage rate (88 percent), while Eastern province had the lowest (61 percent). As in the case of syphilis coverage, the highly urbanised provinces (Copperbelt and Lusaka) had generally lower coverage rates than the rest of the provinces, except for Eastern and Western. Similar proportions of women and men in different provinces were tested for HIV. The only exception is noticed in Copperbelt and Lusaka provinces where men were substantially less likely to be tested for HIV than women in the same provinces.

Table 14.4 Coverage of HIV testing by province (unweighted)

Percent distribution of de facto women and men eligible for HIV testing by testing status, according to province, Zambia 2001-2002

	Province									
Testing status	Central	Copper-belt	Eastern	Luapula	Lusaka	Northern	North-Western	Southern	Western	Total
Women 15-49										
Tested	87.3	81.3	63.4	87.9	76.7	77.1	83.3	87.7	72.3	79.4
Refused	11.0	13.4	29.2	11.2	18.7	17.2	10.2	9.8	17.7	15.7
Absent	1.7	3.6	4.7	0.5	2.6	2.9	6.5	0.8	3.2	3.0
Interviewed in DHS	0.6	1.8	0.3	0.0	2.0	1.7	1.7	0.0	0.9	1.1
Not interviewed in DHS	1.2	1.8	4.3	0.5	0.7	1.2	4.8	0.8	2.3	2.0
Result missing	0.0	1.8	2.8	0.5	2.0	2.7	0.0	1.6	6.8	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted number	347	337	322	214	305	407	293	244	220	2,689
Men 15-59										
Tested	83.0	67.8	59.3	86.0	62.5	76.8	83.5	83.6	60.4	73.3
Refused	11.6	12.5	27.0	12.9	20.8	13.1	7.7	10.2	17.2	14.9
Absent	5.1	14.5	10.3	0.5	11.3	6.0	7.3	2.2	13.0	8.1
Interviewed in DHS	1.0	4.8	1.0	0.5	3.5	0.8	1.2	0.0	2.1	1.7
Not interviewed in DHS	4.1	9.6	9.3	0.0	7.8	5.2	6.2	2.2	10.9	6.3
Result missing	0.3	5.1	3.3	0.5	5.3	4.1	1.5	4.0	9.4	3.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted number	294	311	300	186	283	367	260	225	192	2,418
Total 15-49										
Tested	85.4	74.0	61.1	87.6	70.6	77.2	83.2	86.3	66.5	76.5
Refused	11.1	13.5	28.2	11.3	19.4	15.4	9.3	9.5	17.3	15.3
Absent	3.4	9.0	7.5	0.5	6.7	4.3	6.7	1.6	8.0	5.5
Interviewed in DHS	0.8	3.2	0.7	0.3	2.6	1.3	1.5	0.0	1.5	1.4
Not interviewed in DHS	2.6	5.8	6.8	0.3	4.0	3.0	5.2	1.6	6.5	4.1
Result missing	0.2	3.5	3.2	0.5	3.3	3.1	0.7	2.7	8.3	2.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted number	622	624	602	380	571	742	536	451	400	4,928

14.1.3 Approach to Weighting Syphilis and HIV Data for Non-Response

In the 2001-2002 ZDHS, special weights were calculated for use in the analysis of the HIV and syphilis test results. These sampling weights take into account differences in the coverage of the testing by province and sex. The fact that only sex, age, and residence information is available for the HIV data preclude other adjustments. Moreover, the results in Table 14.5, which presents the weighted percentages tested for HIV among women and men interviewed in the ZDHS by background characteristics, show no evidence of systematic biases in response rates in directions related to known patterns of HIV infection.

Table 14.5 Percentage of respondents tested for HIV

Percentage of men and women interviewed in the ZDHS who were tested for HIV, by background characteristics (weighted), Zambia 2001-2002

	Women		Men		Total	
Background characteristic	Percentage tested	Number of women	Percentage tested	Number of men	Percentage tested	Number of respondents
Age group						
15-19	81.1	629	75.2	459	78.6	1,088
20-24	80.3	570	83.4	346	81.4	916
25-29	80.9	455	79.0	361	80.1	815
30-34	81.5	334	80.5	281	81.0	615
35-39	84.5	250	87.3	241	85.9	491
40-44	81.3	202	80.6	174	81.0	375
45-49	78.8	164	76.9	113	78.0	278
50-54	na	na	86.8	100	86.8	100
55-59	na	na	74.2	71	74.2	71
Marital status						
Never married, never had sex	74.8	309	72.9	202	74.1	511
Never married, ever had sex	83.1	336	79.3	579	80.7	915
Married/living together	81.4	1,592	81.5	1,087	81.5	2,680
Divorced/separated/widowed	83.3	366	84.4	105	83.5	471
Partners						
Married, no sex	72.8	71	*	11	72.8	82
Married, spouse only	81.7	1,484	81.3	851	81.5	2,335
Married, 1 other partner	*	8	*	17	89.4	26
Married, 2+ other partners	88.1	29	82.0	207	82.8	236
Not married, no sex	76.0	611	75.6	387	75.9	997
Not married, 1 partner	86.9	368	82.6	340	84.8	708
Not married, 2+ partners	96.8	32	76.3	161	79.7	192
Education						
No education	77.6	299	75.7	97	77.1	396
Primary	81.8	1,522	81.8	1,002	81.8	2,524
Secondary+	81.0	782	78.8	875	79.8	1,657
HIV test status						
Tested for HIV	74.6	233	74.0	263	74.3	496
Not tested, want test	87.5	1,797	88.1	1,276	87.7	3,073
Not tested, don't want test	61.9	473	58.1	379	60.2	853
Don't know	73.0	100	76.9	56	74.4	156
Total	81.1	2,603	80.1	1,974	80.7	4,578

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

For example, HIV levels typically vary substantially by age, with low levels in the youngest age groups and peaks at older ages. The 2001-2002 ZDHS results were examined for evidence that coverage levels varied across age groups. Figure 14.1 shows no evidence that coverage rates in the ZDHS were markedly lower in age groups where HIV rates are typically highest.

Figure 14.1 **Percentage of Respondents 15-49 Tested for HIV in the 2001-2002 ZDHS, by Age Group**

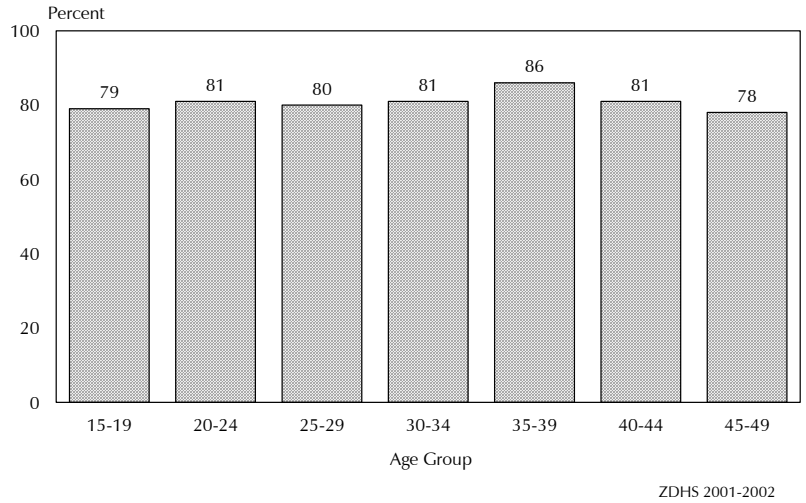


Table 14.5 also shows the variation in the coverage of testing by two variables relating to sexual activity: marital status and number of partners. HIV infection levels in Zambia have been shown to be higher in the unmarried sexually active population than among those who are married (Fylkesnes et al., 1997). In Table 14.5 there is no evidence that unmarried sexually active individuals were less likely to be tested than married individuals. In fact, the only major difference in testing coverage by marital status is the substantially lower rates among women and men who report they had never had intercourse. The number of sexual partners that an individual has had is another factor related to HIV infection risk. Unmarried men who report having two or more partners in the 12 months prior to the survey were somewhat less likely to be tested than other men; however, three in four of men in this category were tested.

In Zambia, education is another variable related to HIV infection levels, with rates rising directly with increasing education attainment (Fylkesnes et al., 1997). The variation in coverage rates by education status shown in Table 14.5 do not parallel the known pattern of infection levels by education; in fact, the differentials in HIV testing coverage rates across education groups are comparatively small, with coverage rates lowest among women and men with no education, the group known to have the lowest HIV infection levels.

Table 14.5 also shows coverage rates by the respondent's prior HIV test status and interest in being tested. Coverage rates are lowest for individuals who had not previously been tested and did not want to be tested (roughly 60 percent among both women and men) and highest for individuals who had not been tested but indicated that they wanted to be tested (nearly 90 percent of women and men). Around three in four of women and men who were previously tested agreed to be tested in the 2001-2002 survey. Although the variation in coverage rates is more marked in the case of this variable than for the other variables shown in Table 14.5, it is difficult to assess the nature and direction of the bias that these differentials might represent.

14.2 SYPHILIS PREVALENCE RATES[1]

Table 14.6 presents the findings from the syphilis testing. The table shows that 9 percent of the eligible individuals who were tested for syphilis were found to be positive on the screening test (RPR) and 7 percent were found to be positive on both the screening and the confirmatory tests. The data indicate that 7 percent of women 15-49 and 8 percent of men 15-49 in Zambia have syphilis.

Table 14.6 Syphilis testing by age

Prevalence of syphilis among women and men age 15-49 (and men age 15-59), by age group and type of test, Zambia 2001-2002

	Women			Men			Total		
Age	Percent positive on screening test	Percent positive on screening and confirmatory test	Number tested	Percent positive on screening test	Percent positive on screening and confirmatory test	Number tested	Percent positive on screening test	Percent positive on screening and confirmatory test	Number tested
15-19	4.9	2.9	484	3.6	1.6	365	4.3	2.3	849
20-24	9.8	8.2	447	5.5	4.6	309	8.0	6.7	756
25-29	11.8	9.4	350	13.6	11.8	306	12.7	10.5	657
30-34	9.5	6.6	263	10.2	8.5	242	9.9	7.5	505
35-39	7.2	6.0	206	11.6	9.6	226	9.5	7.9	432
40-44	6.7	5.1	158	13.8	12.6	150	10.1	8.7	308
45-49	8.2	8.2	125	15.3	12.7	95	11.3	10.2	220
50-54	na	na	na	5.9	4.0	95	na	na	na
55-59	na	na	na	4.8	4.8	54	na	na	na
Total 15-49	8.3	6.5	2,033	9.3	7.7	1,693	8.8	7.0	3,726
Total 15-59	na	na	na	14.8	11.9	1,842	na	na	na

na = Not applicable

The population testing positive on both syphilis tests rises rapidly with age, from a low of 3 percent in the 15-19 age group to a peak of 11 percent in the 25-29 age group, then falls slightly to 8 or 9 percent in the 30-44 age groups, before rising again in the 45-49 age group. The same pattern is seen for women and men.

Table 14.7 shows that the proportions found to be positive for syphilis are higher for urban women and men compared with their rural counterparts. The rates in the urban provinces, Lusaka and Copperbelt are above the national average. Two rural provinces, Eastern and Western provinces also have rates above the national average. Syphilis prevalence rates in the rest of the rural provinces are below the national average.

[1] The syphilis prevalence rates are calculated based on individual weights. Therefore, the figures may be slightly different from previously published data where houshold weights were used.

Table 14.7 Syphilis prevalence by background characteristics

Prevalence of syphilis among women and men age 15-49 (and men age 15-59), by background characteristics, Zambia 2001-2002

Background characteristics	Women		Men		Total	
	Percent syphilis positive	Number tested	Percent syphilis positive	Number tested	Percent syphilis positive	Number tested
Residence						
Urban	7.7	797	9.4	660	8.5	1,457
Rural	5.7	1,236	6.5	1,033	6.1	2,269
Province						
Central	3.0	168	2.2	133	2.7	302
Copperbelt	9.0	417	10.6	343	9.7	761
Eastern	7.8	248	11.0	214	9.3	462
Luapula	7.5	154	7.5	121	7.5	275
Lusaka	8.5	292	11.5	257	9.9	548
Northern	1.9	279	2.3	231	2.1	510
North-Western	6.9	90	5.4	75	6.3	165
Southern	3.3	217	5.2	187	4.1	404
Western	8.8	167	6.7	133	7.9	300
Education						
No education	8.2	232	11.2	80	9.0	312
Primary	6.8	1,193	6.8	865	6.8	2,058
Secondary/higher	5.2	608	8.2	749	6.9	1,357
Total 15-49	6.5	2,033	7.7	1,693	7.0	3,726
Total 15-59	na	na	7.4	1,842	na	na

na = Not applicable

Table 14.8 shows syphilis prevalence by age, sex, and urban-rural residence. The proportion who tested positive for syphilis rises rapidly with age, from a low of 2 percent to a peak of 11 percent in the 25-29 age group, and then falls slightly to a level of 8 percent for respondents age 30 and above. Looking at urban-rural differentials, syphilis prevalence is generally higher among urban women and men in all age groups compared with rural women and men. In urban areas, syphilis prevalence reaches its peak among women age 20-24, while in rural areas it peaks among those age 25-29. Among men, the proportion positive for syphilis is highest in the 25-29 age group.

Table 14.8 Syphilis prevalence by age, sex, and urban-rural residence

Syphilis prevalence rates among women 15-49 and men 15-59 by age, sex, and residence, Zambia 2001-2002

	Urban		Rural		Total	
Age	Percent syphilis positive	Number tested	Percent syphilis positive	Number tested	Percent syphilis positive	Number tested
Women						
15-19	4.5	209	1.7	275	2.9	484
20-24	9.7	186	7.2	260	8.2	447
25-29	9.4	148	9.4	202	9.4	350
30-34	7.7	105	5.9	158	6.6	263
35+	7.9	149	5.6	340	6.3	489
Total 15-49	7.7	797	5.7	1,236	6.5	2,033
Men						
15-19	2.9	131	0.9	234	1.6	365
20-24	3.7	149	5.4	160	4.6	309
25-29	15.5	113	9.7	193	11.8	306
30-34	13.2	103	4.9	139	8.5	242
35+	10.6	218	9.0	402	9.5	620
Total 15-49	9.4	660	6.5	1,033	7.7	1,693
Total 15-59	8.9	715	6.4	1,127	7.4	1,842
Total						
15-19	3.9	340	1.3	510	2.3	849
20-24	7.0	335	6.5	420	6.7	756
25-29	12.0	262	9.5	395	10.5	657
30-34	10.5	208	5.4	297	7.5	505
35+	9.5	367	7.4	742	8.1	1,109
Total 15-49	8.5	1,457	6.1	2,269	7.0	3,726

Table 14.9 shows that pregnant women have slightly higher syphilis rates than non-pregnant women. Among the sexually active never-married population, women are almost twice as likely to be infected with syphilis as men (5 percent versus 3 percent). The fact that 1 percent of women and men who reported they had never had sex were found to have syphilis is evidence of the underreporting of past sexual activity. Among married women and men, more men (10 percent) than women (7 percent) are infected. Divorced, separated, or widowed men have a very high risk of being infected, with 25 percent infected, compared with 9 percent of their female counterparts.

The prevalence of syphilis increases with an increase in the number of partners for both married and unmarried respondents, although the rates are much lower among unmarried than married respondents. Among the married women and men with one extramarital partner, prevalence is about three times higher for men than women (20 percent and 7 percent, respectively). Men who have paid for sex are more than twice as likely to be infected with syphilis as those who have not (15 percent versus 7 percent).

Table 14.9 Syphilis prevalence by reproductive and sexual activity characteristics

Prevalence of syphilis among women and men 15-49 by current pregnancy status (women only), current marital status, recent exposure to high-risk sex, recent exposure to multiple partners, recent paid sex encounter (men only), and reporting of recent STI symptoms, Zambia 2001-2002

	Women		Men		Total	
Characteristic	Percent syphilis positive	Number tested	Percent syphilis positive	Number tested	Percent syphilis positive	Number tested
Pregnancy status						
Currently pregnant	7.1	200	na	na	na	na
Not pregnant/not sure	6.4	1,833	na	na	na	na
Marital status						
Never married						
Ever had sex	5.1	268	2.5	490	3.4	758
Never had sex	1.0	217	1.2	154	1.0	371
Married/living together	7.2	1,256	9.6	952	8.2	2,208
Divorced/separated/widowed	8.9	293	25.0	97	12.9	389
Recent exposure to high-risk sex[1]						
Had sex with non-marital, non-cohabiting partner	8.4	292	11.3	624	10.4	916
No high-risk sex	6.9	1,524	6.2	915	6.7	2,439
No sex	1.0	217	1.2	154	1.0	371
Recent exposure to multiple partners[1]						
Married						
No sex	4.6	52	*	9	4.0	61
Sex with spouse(s) only[2]	7.3	1,172	7.0	742	7.2	1,914
Sex with partner other than spouse						
1 partner	7.4	31	19.5	168	17.6	199
2+ partners	*	0	21.1	34	20.8	34
Unmarried						
No sex	3.1	446	1.7	309	2.6	755
Sex with 1 partner	7.3	303	6.2	300	6.7	603
Sex with 2+ partners	19.2	29	10.8	133	12.3	161
Recent paid sex encounter[1]						
Paid for sex	na	na	15.3	187	na	na
No paid sex	na	na	6.7	1,506	na	na
STI/STI symptoms[1]						
Had STI	21.2	55	26.9	86	24.7	141
Had STI symptoms	13.8	67	24.4	59	18.8	126
No STI/STI symptoms	5.8	1,911	5.9	1,548	5.9	3,460
Total	6.5	2,033	7.7	1,693	7.0	3,726

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Refers to 12-month period before survey
[2] Includes men reporting polygynous unions

The 2001-2002 ZDHS data can be used to assess the extent to which people with syphilis appear to be taking precautions not to infect their sexual partners. Table 14.10 shows that 63 percent of men found to have syphilis have used a condom at some time compared with 28 percent of women. However, the table also shows that 19 percent of the syphilis-positive respondents (29 percent of men and 9 percent of women) did not use a condom in the last high-risk sexual encounter. Twenty-two percent of the respondents with syphilis reported having had STI symptoms in the 12-month period preceding the survey. Less than one in five of these individuals reported using a condom when the last STI symptom occurred. Overall, these results suggest that, despite the relatively high prevalence of condom use, condoms are to a great extent not used in high-risk sexual encounters (when they should be). This has to be addressed by the promoters of condoms.

Table 14.10 Syphilis prevention and treatment experience

Percent distribution of women and men age 15-49 found to be syphilis positive, by experience with use of condoms and treatment for STIs, Zambia 2001-2002

Condom use/treatment	Women	Men	Total
Ever used condoms			
Used condom	27.8	62.9	45.2
Never used/Don't know	72.2	37.1	54.8
Condom use in last sexual encounter[1]			
Used condom	16.2	22.1	19.1
Did not use condom	71.4	73.8	72.6
No encounter	12.4	4.1	8.3
Condom use in last high-risk sexual encounter[1]			
Used condom	9.7	25.8	17.7
Did not use condom	8.8	28.6	18.7
No high-risk encounter	81.4	45.5	63.6
Condom use in paid sex encounter[1]			
Used condom	na	10.9	na
Did not use condom	na	11.2	na
No encounter	na	77.9	na
Condom use when last had STI/STI symptom[1]			
Used condom	1.9	6.9	4.4
Did not use condom	14.0	22.0	18.0
No STI/STI symptom	84.1	71.1	77.6
Reported recent treatment for STI/ STI symptoms[1]			
Treated for STI	8.2	15.3	11.7
Treated for STI symptoms	2.9	9.2	6.0
Not treated	4.8	4.4	4.6
No STI/STI symptom	84.1	71.1	77.6
Total	100.0	100.0	100.0
Number	132	130	261

na = Not applicable
[1] Refers to 12-month period before survey

14.3 HIV Prevalence Rates

Table 14.11 presents the findings from the HIV testing in the 2001-2002 ZDHS. The table shows that 16 percent of the individuals tested were found to be HIV positive. Women are more likely to be HIV positive than men (18 percent versus 13 percent). Overall, the proportion HIV positive rises with age from 5 percent among those 15-19 to 25 percent in the 30-34 age group, before falling to 17 percent among those 45-49. Among women, the proportion found to be HIV positive rises abruptly with age, from 7 percent among the 15-19 cohort to 29 percent in the 30-34 age group and then drops off to 14 percent in the 45-49 cohort. Among men, HIV prevalence is below 5 percent among those under age 25, rises to 15 percent in the 25-29 age group, peaks at 22 percent in the 35-39 age group and stays around 20 percent in the 40-49 age group. HIV prevalence is higher in the 55-59 cohort (12 percent) than in the 50-54 cohort (7 percent).

Table 14.11 HIV prevalence by background characteristics

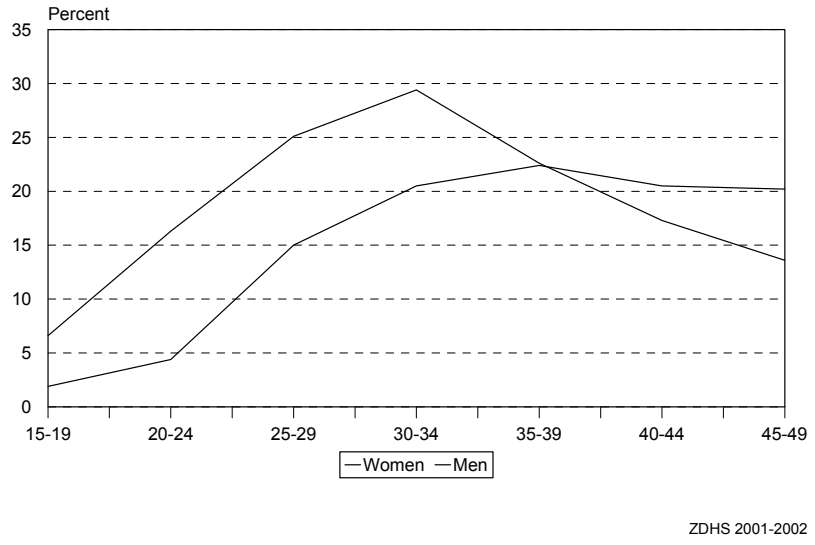
Prevalence of HIV among women and men age 15-49 (and men age 15-59), by background characteristics, Zambia 2001-2002

Background characteristic	Women		Men		Total	
	Percent HIV-positive	Number tested	Percent HIV-positive	Number tested	Percent HIV-positive	Number tested
Age						
15-19	6.6	497	1.9	366	4.6	864
20-24	16.3	443	4.4	309	11.4	752
25-29	25.1	363	15.0	318	20.4	681
30-34	29.4	274	20.5	260	25.1	534
35-39	22.6	210	22.4	227	22.5	437
40-44	17.3	154	20.5	153	18.9	307
45-49	13.6	131	20.2	101	16.5	232
50-54	na	na	7.3	91	na	na
55-59	na	na	11.7	52	na	na
Residence						
Urban	26.3	808	19.2	676	23.1	1,484
Rural	12.4	1,265	8.9	1,058	10.8	2,323
Province						
Central	16.8	171	13.4	135	15.3	306
Copperbelt	22.1	423	17.3	352	19.9	775
Eastern	16.1	252	11.0	219	13.7	471
Luapula	13.3	167	8.6	133	11.2	299
Lusaka	25.0	296	18.7	263	22.0	559
Northern	10.0	283	6.2	234	8.3	517
North-Western	8.8	92	9.5	75	9.2	166
Southern	20.2	220	14.6	188	17.6	408
Western	16.9	169	8.3	136	13.1	306
Total 15-49	17.8	2,073	12.9	1,734	15.6	3,807
Total 15-59	na	na	12.6	1,877	na	na

Note: The rates for men shown by residence and province are based on men 15-49 in order to be comparable to the rates for women.
na = Not applicable

Figure 14.2 illustrates the distinct differences in the age pattern of HIV infection for women and men. It shows that infection rates among women are higher than those among men until age 35-39, after which infection rates among men overtake and pass those of women. The peak infection age groups are 30-34 years for women and 35-39 years for men.

Figure 14.2 **HIV Prevalence by Sex and Age**



Residence is closely associated with HIV levels. HIV prevalence is twice as high in urban areas as in rural areas (23 percent and 11 percent, respectively). Provinces with levels above the national average include Lusaka (22 percent), Copperbelt (20 percent), and Southern (18 percent). The lowest levels are found in Northern province (8 percent) and North-Western province (9 percent). Infection rates are higher in women than in men in all provinces except North-Western.

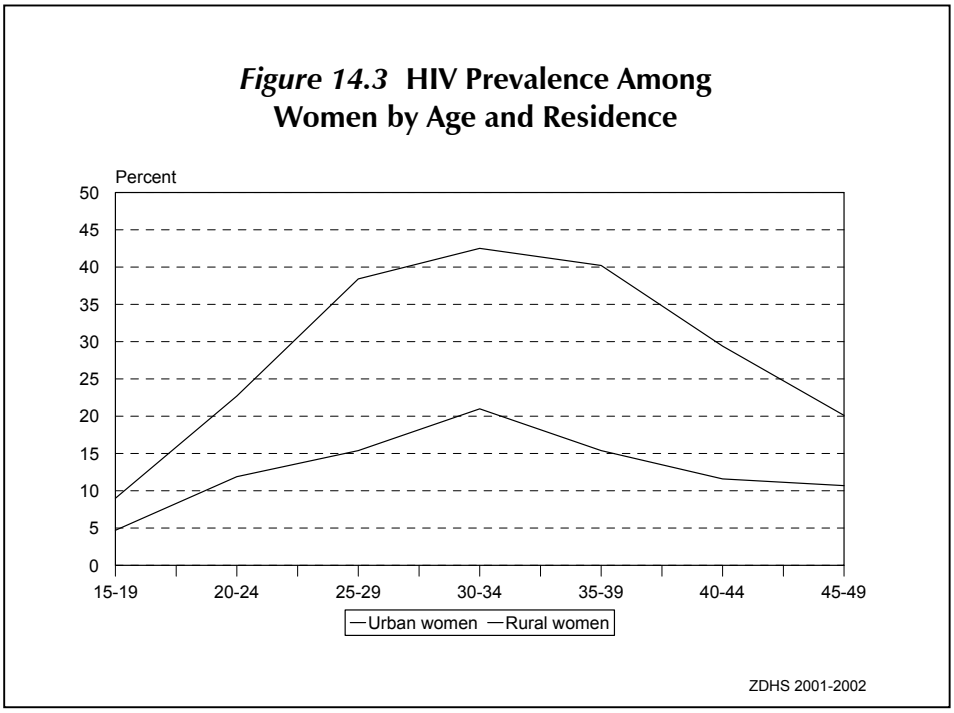
Table 14.12 shows the variations in infection levels among women and men by age and residence. For women in all age groups, HIV prevalence is more than twice as high in urban areas as in rural areas, and exceeds 40 percent in age groups 30-34 and 35-39. Among men, HIV prevalence in urban areas is twice that in rural areas for most age groups.

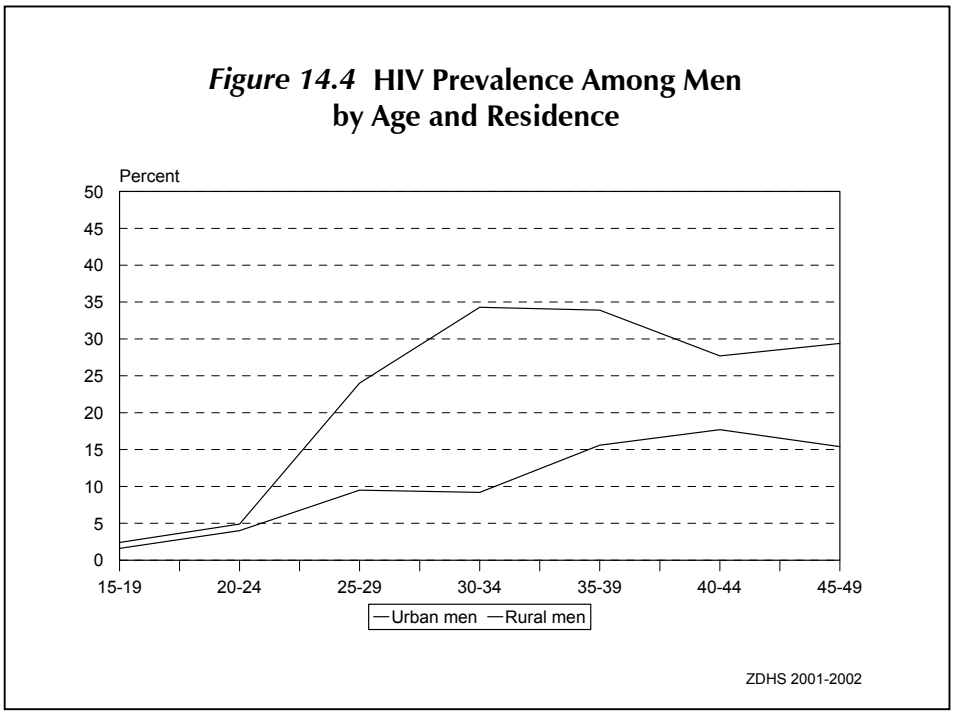
Table 14.12 HIV prevalence by age, sex, and urban-rural residence

HIV prevalence rates among women 15-49 and men 15-59 by age, residence, and sex, Zambia 2001-2002

	Urban		Rural		Total	
Age	Percent HIV-positive	Number tested	Percent HIV-positive	Number tested	Percent HIV-positive	Number tested
Women						
15-19	9.0	215	4.7	282	6.6	497
20-24	22.7	179	11.9	264	16.3	443
25-29	38.4	154	15.4	209	25.1	363
30-34	42.5	108	21.0	167	29.4	274
35-39	40.2	61	15.4	149	22.6	210
40-44	29.4	50	11.6	104	17.3	154
45-49	20.1	41	10.7	90	13.6	131
Total 15-49	26.3	808	12.4	1,265	17.8	2,073
Men						
15-19	2.4	134	1.6	232	1.9	366
20-24	4.9	142	4.0	167	4.4	309
25-29	24.0	120	9.5	198	15.0	318
30-34	34.3	116	9.2	144	20.5	260
35-39	33.9	84	15.6	143	22.4	227
40-44	27.2	46	17.7	108	20.5	153
45-49	29.4	35	15.4	66	20.2	101
50-54	4.5	32	8.8	59	7.3	91
55-59	27.4	14	5.9	38	11.7	52
Total 15-49	19.2	676	8.9	1,058	12.9	1,734
Total 15-59	18.7	722	8.8	1,155	12.6	1,877
Total						
15-19	6.5	349	3.3	514	4.6	864
20-24	14.8	321	8.9	431	11.4	752
25-29	32.1	274	12.5	407	20.4	681
30-34	38.2	224	15.5	310	25.1	534
35-39	36.6	145	15.5	291	22.5	436
40-44	28.4	95	14.7	212	18.9	307
45-49	24.4	76	12.7	157	16.5	232
Total 15-49	23.1	1,484	10.8	2,323	15.6	3,807

Figures 14.3 and 14.4 illustrate age patterns in HIV infection rates among urban and rural residents. The urban-rural gap is wider at all ages among women than men, a clear indication of the critical level of the epidemic among urban women. At the peak ages of infection—30-39 years, two in five urban women are infected with HIV compared with less than one in five rural women. Figure 14.4 shows that for men, prevalence peaks later in rural areas than in urban areas (30-34 in urban areas and 40-44 in rural areas).





14.4 Comparison of ANC Surveillance Estimates and the ZDHS Rates

As discussed earlier, prior to the 2001-2002 ZDHS, ANC surveillance provided the data on which the national seroprevalence estimates for the adult population were based. The use of ANC data for this purpose was based on the assumption that the HIV level among pregnant women provides a reasonable estimate of the HIV level in the general population. However, the HIV prevalence rate for the adult population based on the 2001-2002 Zambia ANC surveillance (Dzekedzeke, 2003) is 19 percent, roughly 20 percent higher than the 2001-2002 ZDHS estimate for the adult population age 15-49 of 16 percent.

In looking at issues that might cause the difference between the two estimates, potential biases and differences in methodology between ANC surveillance and ZDHS need to be recognised. ANC sentinel surveillance collects HIV prevalence data by testing currently pregnant women age 15-39 who attend antenatal care clinics during their pregnancy. These data are then used to derive estimates of HIV prevalence in the general population. It is recognized that there are a number of potential problems with this approach (UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, 2000). First, there is a gender gap due to the fact that men are not tested in ANC clinics, and HIV prevalence levels typically differ between men and women. Furthermore, women who attend antenatal care clinics are de facto sexually active. Thus, the HIV prevalence will necessarily be higher in this group than in the female population as a whole, where some women are not sexually active and hence not exposed to the virus. HIV prevalence levels also vary with age, and women who attend antenatal care clinics have a different age distribution than the female population at large. Geographic coverage is another issue with the ANC sentinel data. Generally, the data come from a limited number of antenatal care clinic sites that tend to be concentrated in urban or semi-urban areas, where HIV rates are higher. In the ANC surveillance in Zambia in 1998, there were 22 ANC sentinel sites, only 5 of which were characterised as rural.

Results from population-based surveys like the 2001-2002 ZDHS can more accurately portray the HIV prevalence in a community because they involve nationally representative samples. Thus, the pool of people tested closely mirrors the entire population. However, surveys are not completely without problems. First, a survey involves a sample of the population and, thus, is subject to natural variability inherent in the process of drawing a sample. Participation biases can also affect the representativeness of the survey data. Because individuals can refuse to be tested, population-based surveys may under-represent some groups. As discussed earlier (see Section 14.1.3), the ZDHS HIV data were weighted to take into account differential response rates by sex and province.

In assessing the factors that might underlie the difference between the 2001-2002 ZDHS and the ANC surveillance estimates, two approaches are employed (Dzekedzeke, 2003). First, to more directly compare the ZDHS and ANC results, a "catchment" approach is used. For this approach, all ZDHS clusters within a 2-kilometer radius of urban antenatal care sentinel sites and within a 5-kilometer radius of rural sentinel sites were identified. There were 29 of these "catchment" clusters, out of a total of 320 clusters in the 2001-2002 ZDHS. The "catchment" clusters were located near 16 of a total of 22 antenatal care sentinel sites. HIV prevalence estimates were recalculated for the "catchment" subsets from the ZDHS and ANC surveillance. Results show that the HIV prevalence rate for the ANC clients in these 16 antenatal care sentinel sites is 20 percent, while the rate for the adult population 15-49 in the 29 ZDHS "catchment" clusters is 19 percent.

A second approach was used to explore the hypothesis that the limited coverage of ANC sentinel sites and specifically the concentration of sites in urbanized locations might be responsible for the difference between the survey and surveillance estimates. Nearly 3 out of every 5 women tested in the ANC surveillance were tested at sites classified as urban. In contrast, only around 30 percent of pregnant women in the ZDHS sample live in urban areas. In the second approach, HIV prevalence rates for urban and rural areas estimated based on the ANC surveillance were weighted using the urban-rural distribution of currently pregnant women in the 2001-2002 ZDHS. When the ZDHS urban-rural distribution is applied to the ANC surveillance results, the adjusted HIV prevalence rate for the total population is 17 percent compared with the overall rate of 16 percent as estimated in the 2001-2002 ZDHS.

Based on these analyses, it can be concluded that there is fairly close correspondence between the 2001-2002 ZDHS and ANC surveillance HIV prevalence rates when adjusted for the biased geographic coverage of the ANC surveillance system.

ADULT MORTALITY 15

Ann A. Way

Data collected in the 2001-2002 ZDHS on the survivorship of respondents' siblings allows for the estimation of adult mortality. This information is useful in assessing the impact of the AIDS epidemic on survivorship of adults in Zambia. The inclusion of questions to determine if the deaths of female siblings were maternity-related also permits the estimation of the level of maternal mortality, a major indicator of maternal health and well-being.

15.1 ADULT MORTALITY DATA

15.1.1 Data Collection Procedures

Women in the 2001-2002 ZDHS were asked about the survivorship of all live births of their natural mother (i.e., their siblings). To obtain these data, each female respondent was first asked to give the total number of her mother's live births. Then she was asked to provide a list of the children born to her mother starting with the first-born. For each sibling named, information was obtained on whether the sibling was still alive at the survey date. For living siblings, current age was collected; for deceased siblings, age at death and years since death were collected. Interviewers were instructed that when a respondent could not provide precise information on age at death or years since death, approximate answers were acceptable. For sisters who died at age 12 or older, three questions were used to determine if the death was maternity-related: "*Was [NAME OF SISTER] pregnant when she died?*" and if negative, "*Did she die during childbirth?*" and if negative, "*Did she die within six weeks of the birth of a child or pregnancy termination?*"

The direct approach to estimating adult and maternal mortality maximises use of these data for estimating adult mortality. The number of person-years of exposure to mortality risk for all siblings and the number of sibling deaths is aggregated for defined calendar periods. Rates of maternal (and adult) mortality are obtained for the calendar periods by dividing maternal (or all female and male adult) deaths by person-years of exposure (Rutenberg and Sullivan, 1991).

15.1.2 Data Quality Assessment

Estimation of adult and maternal mortality requires reasonably accurate reporting of the number of sisters and brothers that the respondent ever had, the number who have died, and the number of sisters who have died of maternity-related causes. There is no definitive procedure for establishing the completeness or accuracy of retrospective data on sibling survivorship. However, Table 15.1 looks at several indicators relevant to the quality of sibling survivorship data including the sex ratio of the siblings reported by respondents and the completeness of the data on siblings' survival status (i.e., current age, age at death, and years since death).

The sex ratio of enumerated siblings (the ratio of brothers to sisters) is 1.01, only slightly lower than the expected value of 1.02 or 1.03 (see Table 15.1). Respondents were knowledgeable about their siblings' survival status, with only 9 out of over 50,000 siblings missing this information. Ages were missing for only a few living siblings (0.1 percent). In the case of deceased siblings, complete reporting of age at death and years since death were also nearly universal; almost all (>99 percent) of deceased

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 2001-2002

Survival status of siblings and completeness of reporting	Sisters		Brothers		All siblings	
	Number	Percentage	Number	Percentage	Number	Percentage
All siblings	23,721	100.0	24,035	100.0	47,755	100.0
Living	18,955	79.9	18,938	78.8	37,893	79.3
Dead	4,761	20.1	5,093	21.2	9,853	20.6
Status missing	5	0.0	4	0.0	9	0.0
Living siblings	18,955	100.0	18,938	100.0	37,893	100.0
Age reported	18,939	99.9	18,912	99.9	37,850	99.9
Age missing	17	0.1	26	0.1	43	0.1
Dead siblings	4,761	100.0	5,093	100.0	9,853	100.0
AD and YSD reported	4,721	99.2	5,046	99.1	9,767	99.1
AD missing	28	0.6	36	0.7	64	0.7
YSD missing	4	0.1	2	0.0	6	0.1
AD and YSD missing	7	0.1	9	0.2	16	0.2

siblings have both age at death and years since death reported. Rather than exclude the small number of siblings with missing data from further analysis, information on the birth order of siblings in conjunction with other information was used to impute the missing data.[1] The sibling survivorship data, including cases with imputed values, were used in the direct estimation of adult and maternal mortality.

15.2 Direct Estimates of Adult Mortality

15.2.1 Levels and Trends in Adult Mortality

Table 15.2 presents the age-specific rates of female and male mortality (15-49 years) for the five-year period before the 2001-2002 ZDHS. This period was chosen in order to allow an assessment of the level of adult mortality during the period following the 1996 ZDHS. The centre of the reference period for the estimates is the calendar year 1999. To allow an assessment of adult mortality trends over roughly the past decade in Zambia, estimates from the 1996 ZDHS are presented in the final column of the table; these estimates refer to a five-year period before the 1996 ZDHS, a period cantered on 1995.

The results in Table 15.2 indicate that, the adult mortality rate over the age range 15-49 years was 14.3 deaths per 1,000 for the five-year period prior to the 2001-2002 ZDHS. The rate was somewhat higher among women than men (14.8 deaths per 1,000 versus 13.9 per 1,000, respectively).

[1] The imputation procedure is based on the assumption that the reported birth ordering of siblings in the history is correct. The first step is to calculate birth dates. For each living sibling with a reported age and each deceased sibling with complete information on both age at death and years since death, the birth date was calculated. For a sibling missing these data, a birth date was imputed within the range defined by the birth dates of the bracketing siblings. In the case of living siblings, an age was then calculated from the imputed birth date. In the case of deceased siblings, if either the age at death or years since death were reported, that information was combined with the birth date to produce the missing information. If both pieces of information were missing, the distribution of the ages at death for siblings for whom the years since death were unreported, but age at death was reported, was used as a basis for imputing the age at death.

Table 15.2 Adult mortality rates

Direct estimates of age-specific mortality rates for men and women age 15-49 for the period 0-4 years preceding the 2001-2002 ZDHS and the 1996 ZDHS

	2001-2002 ZDHS			1996 ZDHS
Age	Deaths	Exposure (person-years)	Mortality rate[1]	mortality rate[1]
		WOMEN		
15-19	66	14,695	4.5	4.3
20-24	167	16,230	10.3	9.0
25-29	253	14,187	17.8	15.8
30-34	241	11,043	21.9	16.9
35-39	193	7,656	25.3	18.2
40-44	107	4,690	22.9	15.9
45-49	54	2,765	19.6	15.4
15-49	1,082	71,265	14.8[a]	11.7[a]
		MEN		
15-19	57	14,207	4.0	3.6
20-24	99	16,436	6.0	6.0
25-29	174	15,194	11.5	12.9
30-34	251	11,057	22.7	19.5
35-39	228	7,779	29.3	25.5
40-44	137	4,642	29.5	26.6
45-49	60	2,563	23.6	25.9
15-49	1,007	71,877	13.9[a]	12.9[a]
		TOTAL		
15-19	123	28,902	4.3	4.0
20-24	266	32,666	8.1	7.5
25-29	427	29,381	14.5	14.3
30-34	493	22,100	22.3	18.2
35-39	421	15,434	27.3	21.8
40-44	244	9,332	26.2	20.9
45-49	115	5,327	21.5	20.5
15-49	2,089	143,142	14.3[a]	12.2[a]

[1] Expressed per 1,000 person-years of exposure

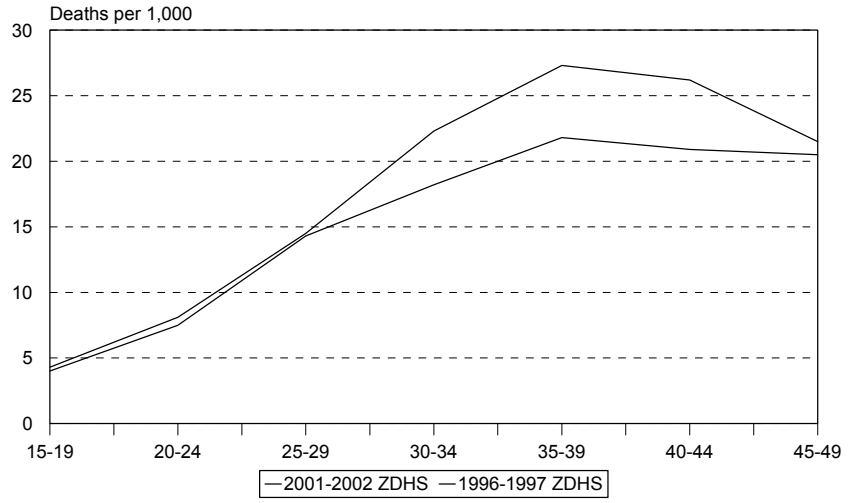
[a] Age-adjusted rates

For both women and men, mortality rates rise rapidly with age. The rise is steeper for women than for men in the younger age ranges; however, levels are higher for men than for women at older ages. Both patterns are consistent with the gender differences in the age patterns of HIV infection described in the previous chapters (i.e., infection levels are higher for women than men at younger ages and higher for men than women at older ages).

Comparison of adult mortality estimates from the 2001-2002 ZDHS with those from in the 1996 ZDHS suggests that mortality rates for all adults 15-49 rose by more than 15 percent during the period between the two surveys.[2] As Figure 15.1 shows, most of the increased mortality was due to higher mortality among women and men age 25 and over.

[2] The adult mortality estimates presented here are for a five-year reference period preceding the 1996 and 2001-2002 surveys. The decision to employ this reference period was made to avoid any overlap of the time periods to which the estimates pertain. An earlier publication of estimates of adult mortality based on data from the 1996 survey was for the seven-year period preceding that survey (1996 ZDHS). The overall adult mortality estimates based on a seven-year period preceding both the 1996 and the 2001-2002 surveys are 10.9 and 14.1 per 1,000, which implies an increase in the mortality level of about 25 percent (similar results pertain to male and female adult mortality estimates). Thus, basing the analysis on the reference period used for earlier published results does not change the conclusion that adult mortality in Zambia has increased sharply over the past decade.

Figure 15.1 **Trends in Age-specific Mortality among Adults 15-49**



15.2.2 Differentials in Adult Mortality Levels

Table 15.3 presents differentials in adult mortality by residence and province for the 2001-2002 ZDHS respondents. In interpreting these differentials, it is important to remember that, for some subgroups, the numbers of deaths are small (particularly when gender is taken into account). Also of concern in interpreting the results is that the characteristic referred to relates to the status of the 2001-2002 ZDHS respondent who provided the information and not to the status of the sibling(s) who died. To the extent that respondents differ in a consistent direction from their siblings in the characteristics shown, the rates will be biased. For example, if respondents are more likely to have migrated from rural to urban areas than their siblings, the urban-rural rates will not accurately reflect the actual mortality differentials between urban and rural areas in Zambia. It is, however, likely that there is considerable consistency among siblings in the characteristics shown.

Table 15.3 Adult mortality rates by residence and province

Direct estimates of mortality rates for women and men age 15-49 for the period 0-4 years preceding the 2001-2002 ZDHS, by urban-rural residence and province, Zambia

Characteristic	Women	Men	Total
Residence			
Urban	16.9	15.7	16.2
Rural	10.1	10.8	10.4
Province			
Lusaka/Copperbelt/South	17.4	15.1	16.2
West/East/Central	13.0	13.3	13.1
North/North-west/Luapula	12.0	12.5	12.2
Total	14.8	13.9	14.3

Note: All rates are age-adjusted.

While again not definitive, the results in Table 15.3 indicate that adult mortality levels are around 25 percent higher in urban than rural areas in Zambia. The provinces in Table 15.3 have been categorised into three groups according to HIV prevalence (see Chapter 14); Lusaka, Copperbelt, and Southern provinces have the highest HIV rates, and Northern, North-Western, and Luapula have the lowest infection rates. The patterns of adult mortality shown in Table 15.3 parallel the patterns of HIV prevalence; adult mortality is nearly 60 percent higher in Lusaka, Copperbelt, and Southern provinces than in Northern, North-Western, and Luapula provinces.

15.3 Estimates of Maternal Mortality

Data collected on the reported survivorship of sisters was used to derive direct estimates of maternal mortality (Table 15.4). The number of female deaths occurring during pregnancy, at delivery, or within six weeks of delivery is not large. As a result, maternal mortality estimates are typically subject to larger sampling errors than adult mortality estimates. Therefore, reflecting standard DHS procedures, the maternal mortality estimates shown in Table 15.4 are calculated for a seven-year period before the survey rather than the five-year period that was used to calculate adult mortality. This seven-year period centres on 1998.

Based on the 2001-2002 ZDHS data, the rate of mortality associated with pregnancy and childbearing is 1.44 per thousand. Except for the 40-44 group, the age-specific rates shown in Table 15.4 exhibit a plausible pattern, being higher at the peak childbearing ages of the twenties and thirties than at younger and older age groups.

Table 15.4 Direct estimates of maternal mortality

Direct estimates of maternal mortality for the period 0-6 years prior to the 2001-2002 ZDHS and 1996 ZDHS

	2001-2002 ZDHS			
Age	Deaths	Exposure (woman-years)	Mortality rate[1]	1996 ZDHS mortality rate[1]
15-19	16.4	21,291	0.77	0.75
20-24	29.6	22,600	1.27	1.40
25-29	51.0	19,360	2.64	2.14
30-34	27.7	14,772	1.81	1.96
35-39	12.7	10,036	1.16	1.46
40-44	12.3	6,077	2.04	0.50
45-49	0.4	3,492	0.12	0.82
15-49	147	97,629	1.44[a]	1.34[a]
General fertility rate			0.198[a]	0.206[a]
Maternal mortality ratio[2]			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

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 time period. In this way, the obstetrical risk of pregnancy and childbearing is underlined. Using this procedure, the maternal mortality ratio during the seven-year period prior to the 2001-2002 ZDHS is estimated as 729 maternal deaths per 100,000 live births.

Estimates of maternal mortality from the 2001-2002 ZDHS can be compared with estimates from the 1996 ZDHS (also shown in Table 15.4) to obtain insight into the probable trend of maternal mortality levels during the 1990s. The comparison suggests that maternal mortality levels remained moderately high in Zambia throughout the period between the two surveys, and may even have been rising slightly toward the end of the decade. This is consistent with the general pattern of rising adult female mortality described earlier. However, 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 decade.

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SAMPLE DESIGN

Appendix **A**

A.1 INTRODUCTION

The 2001-2002 Zambia Demographic and Health Survey (ZDHS) is a comprehensive nationally representative population and health survey carried out by the Central Statistical Office in partnership with the Central Board of Health. ORC Macro provided financial and technical assistance for the survey through the USAID-funded MEASURE *DHS+* programme. Additional funding for the ZDHS was received from the Government of Japan, UNFPA, and DANIDA.

A.2 SURVEY OBJECTIVES

The principal objective of the ZDHS is to provide current and reliable data on fertility and family planning behaviour, child mortality, children's nutritional status, the utilization of maternal, child health services, knowledge and prevalence of HIV and syphilis.

The population covered by the 2001-2002 ZDHS is defined as the universe of all women age 15-49 in Zambia and all men age 15-59. A sample of households was selected and all women age 15-49 identified in the households were interviewed. In addition, in a subsample of one-third of all the households selected for the ZDHS, all men 15-59 were eligible to be interviewed if they were either permanent residents or visitors present in the household on the night before the survey.

A.3 SAMPLE DOMAINS

The Zambia DHS collected demographic and health information from a nationally representative sample of women and men age 15-49 and 15-59, respectively. The primary focus of the 2001 Zambia DHS is to provide estimates of key population and health indicators, including fertility and mortality rates, for the country as a whole, and for urban and rural areas separately. Also, the sample was designed to provide estimates of key variables for the nine provinces, namely, 1) Central, 2) Copperbelt, 3) Eastern, 4) Luapula, 5) Lusaka, 6) Northern, 7) North-Western, 8) Southern, and 9) Western. In addition, the sample provides basic information for a total of 12 combined districts (not each separately) that are the special focus of the Zambia Integrated Health Programme (Livingstone, Kalomo, Chibombo, Kabwe Urban, Ndola Urban, Kitwe, Chipata, Lundazi, Chama, Kasama, Samfya, and Mwense).

A.4 SAMPLE FRAME

Zambia is divided into nine provinces. In turn, each province is subdivided in districts, each district into constituencies, and each constituency into wards. In addition to these administrative units, during the 2000 population census, each ward was subdivided into convenient areas called census supervisory areas (CSAs), and in turn each CSA into standard enumeration areas (SEAs). In total Zambia has 72 districts, 150 constituencies, 1,289 wards, about 4,400 CSAs, and about 16,400 SEAs. Preliminary information on the counts of households and population, as well as cartographic materials were available from the 2000 population census for the SEAs. Therefore, the sample frame for this survey was the list of SEAs developed from the 2000 population census.

A.5 STRATIFICATION

In the preliminary census frame, the SEAs were grouped by CSAs, by CSAs within a ward, by wards within a constituency, by constituencies within a district and by districts within a province for purposes of the ZDHS. The SEAs were further stratified separately by urban and rural areas within each province.

A.6 SAMPLE ALLOCATION

The primary sampling unit (PSU), the cluster for the 2001-2002 ZDHS, is defined on the basis of SEAs from the census frame. A minimum requirement of 85 households for the cluster size was imposed in the design. If an SEA did not have 85 households, it was combined with an adjacent SEA; thus, the ZDHS cluster comprised one or more SEAs. The number of clusters in each district was not allocated proportional to the total population due to the need to present estimates by each of the nine provinces. Zambia is a country where two-thirds of the population reside in rural areas, and one-third in urban areas. Table A.1 shows the proportional and the squared root allocations of 320 clusters

Table A.1. Proportional allocation and squared root allocation of 320 clusters by province

Province	Percentage of households (Census 2000)	Allocation for a sample of 320 clusters		
		Proportional	Square root	Adjusted
Central	9.81	31	35	31
Copperbelt	15.32	49	44	44
Eastern	13.57	44	37	40
Luapula	9.04	29	32	30
Lusaka	13.35	43	40	40
Northern	14.80	47	40	43
North-Western	6.10	19	26	30
Southern	9.90	32	35	32
Western	8.10	26	30	30
Total	100.00	320	320	320

The target for the 2001-2002 ZDHS sample was 8,000 completed interviews. Based on the level of non-response found in the 1996 ZDHS, to achieve this target, approximately 8,200 households were selected, with all women age 15-49 being interviewed. The target was to reach a minimum of 750 completed interviews per province. In each province the number of households was distributed proportionately among the urban and rural areas. Table A.2 shows the distribution of about 8,200 households by province.

Table A.2. Expected number of selected households to reach the target of completed interviews by province

Province	Expected number of completed interviews 2001-2002 ZDHS	Completed interviews 1996 ZDHS	Selected households 1996 ZDHS	Expected households selected 2001-2002 ZDHS
Central	775	748	861	892
Copperbelt	1,100	1,129	845	823
Eastern	1,000	1,118	1,154	1,032
Luapula	750	896	866	725
Lusaka	1,000	1,074	867	807
Northern	1,075	783	941	1,292
North-Western	750	567	861	1,139
Southern	800	846	711	672
Western	750	860	910	794
Total	8,000			8,176

The urban-rural distribution was also considered in distributing the sample. The selected households were distributed in 320 clusters in Zambia, 100 clusters in the urban areas, and 220 clusters in the rural areas. Table A.3 shows the distribution of urban and rural clusters selected for the 2001-2002 ZDHS.

Table A.3 Final allocation of women 15-49 with completed interviews and clusters in each province by urban and rural residence

Province	Expected number of completed interviews	Number of clusters		
		Urban	Rural	Total
Central	775	8	23	31
Copperbelt	1,100	32	12	44
Eastern	1,000	3	37	40
Luapula	750	5	25	30
Lusaka	1,000	33	7	40
Northern	1,075	5	38	43
North-Western	750	3	27	30
Southern	800	8	24	32
Western	750	3	27	30
Total	8,000	100	220	320

Under this final allocation, the 12 combined districts of the Zambia Integrated Health Programme have 77 selected clusters, 36 in urban areas and 41 in rural areas.

A.7 SAMPLE SELECTION

The 2001-2002 ZDHS sample was selected using a stratified two-stage cluster design consisting of 320 clusters, 100 in urban and 220 in rural areas. Once the number of households was allocated to each combination of province by urban and rural areas, the number of clusters was calculated based on an average sample take of 25 completed interviews among women 15-49 years. In each urban or rural area in a given province, clusters were selected systematically with probability proportional to the number of households in each cluster. The selection was done using the following formula:

$$P_{1i} = (a * M_i) / (\mathrm{O}M_i)$$

where

a is the number of clusters to be selected in the given combination of province by residence area,

M_i is the number of households of the ith clusters reported in the 2000 summary census information,

$\mathrm{O}M_i$ is the number of households in the urban (or rural) area in the province according to the 2000 summary census information.

In each selected cluster, a complete household listing operation was carried out and households were selected to achieve a self-weighted sampling fraction in each province. However, since the 2001-2002 ZDHS sample is unbalanced among provinces, a final weighing adjustment procedure is required to provide estimates at every other domain of study.

In a given province, if the overall sampling fraction (f) has been calculated, and if c_i is the number of households selected out of the total households (L_i)—found in the 2001 listing process—for the ith cluster, then the self-weighting condition can be expressed as

$$f = P_{1i} * (c_i / L_i)$$

The final number of households in the ith cluster could be calculated as

$$c_i = (f * L_i) / P_{1i}$$

and the household selection interval for the ith cluster is given as

$$I_i = L_i / c_i$$

$$I_i = P_{1i} / f$$

A.8 RESPONSE RATES

Information on the household and individual interviews for women and men is presented in Tables A.4 and A.5. A total of 8,050 potential households were selected for the 2001-2002 ZDHS, of which 7,261 were actual households. Household interviews were completed for 98.2 percent of the actual households. A total of 7,944 eligible women were found in these households, and 96.4 percent of the women were successfully interviewed. The overall response rate for women was 94.6 percent.

Similarly, a total of 2,658 potential households were selected for the men's survey, of which 2,408 were actual households. Household interviews were completed for 98.3 percent of the actual households. A total of 2,418 eligible men were found in these households and interviews were completed with 88.7 percent of the men. The overall response rate for men was 87.2 percent.

There is no difference by urban-rural residence in the overall response rate for eligible women; however rural men are more likely than urban men to have completed the interview (89.4 percent and 83.0 percent, respectively). The overall response rate among women by province is relatively high and ranges from 90.1 percent for Western province to 97.3 for Luapula province. The overall response rate for men ranges from 78.1 for Western province to 96.9 for Luapula province.

Table A.4 Sample implementation: women's sample

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 province, Zambia 2001-2002

	Residence		Province									
Result	Urban	Rural	Central	Copper-belt	Eastern	Luapula	Lusaka	Northern	North-Western	Southern	Western	Total
Selected households												
Completed (C)	92.9	86.9	89.0	92.9	90.1	87.9	95.4	88.0	84.1	88.3	82.2	88.5
HH present but no competent respondent at home (HP)	1.3	0.7	0.7	0.8	0.7	0.1	1.5	0.2	0.9	0.6	2.5	0.9
Refused (R)	0.5	0.2	0.2	0.6	0.0	0.0	0.5	0.4	0.4	0.1	0.1	0.3
Dwelling not found (DNF)	0.3	0.6	0.4	0.1	0.3	0.8	0.0	0.9	0.0	1.4	1.0	0.5
Household absent (HA)	0.5	2.2	0.8	0.4	1.3	1.1	0.5	2.1	4.1	0.7	3.7	1.8
Dwelling vacant/address not a dwelling (DV)	3.3	6.3	6.8	3.9	5.2	4.9	2.0	5.9	5.8	7.7	6.9	5.5
Dwelling destroy (DD)	1.2	3.0	2.0	1.1	2.3	5.2	0.0	2.4	4.7	1.0	3.0	2.5
Other (O)	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.5	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
Number of sampled households	2,167	5,883	848	793	1,070	717	789	1,273	1,074	698	788	8,050
Household response rate (HRR)	97.8	98.3	98.6	98.4	98.9	98.9	97.9	98.3	98.5	97.6	95.7	98.2
Eligible women												
Completed (EWC)	96.3	96.5	97.1	95.1	94.4	98.4	96.9	97.6	96.4	97.8	94.1	96.4
Not at home (EWNH)	2.3	2.3	1.4	3.2	4.3	0.6	1.7	1.2	2.2	1.0	4.9	2.3
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Refused (EWR)	0.8	0.4	0.3	0.7	0.5	0.3	0.9	0.4	0.8	0.3	0.1	0.5
Partly completed (EWPC)	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.2	0.0	0.1	0.1
Incapacitated (EWI)	0.6	0.7	1.1	0.9	0.6	0.6	0.4	0.7	0.4	0.6	0.4	0.7
Other (EWO)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.3	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 women	2,650	5,294	918	987	947	636	925	1,200	914	723	694	7,944
Eligible woman response rate (EWRR)	96.3	96.5	97.1	95.1	94.4	98.4	96.9	97.6	96.4	97.8	94.1	96.4
Overall response rate (ORR)	94.1	94.8	95.7	93.6	93.3	97.3	94.8	96.0	94.9	95.5	90.1	94.6

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 \times C}{C + HP + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 \times EWC}{EWC + EWNH + EWR + EWPC + EWI + EWO}$$

Table A.5 Sample implementation: men's sample

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 province, Zambia 2001-2002

	Residence		Province									
Result	Urban	Rural	Central	Copper-belt	Eastern	Luapula	Lusaka	Northern	North-Western	Southern	Western	Total
Selected households												
Completed (C)	92.9	87.7	91.2	92.7	91.5	88.7	96.5	88.4	83.1	89.5	81.9	89.1
HH present but no competent respondent at home (HP)	1.3	0.7	0.7	1.1	0.6	0.0	0.8	0.5	1.1	0.9	2.3	0.9
Refused (R)	0.1	0.3	0.4	0.4	0.0	0.0	0.0	0.2	0.6	0.0	0.4	0.2
Dwelling not found (DNF)	0.4	0.4	0.4	0.0	0.0	0.4	0.0	0.7	0.0	1.3	1.2	0.4
Household absent (HA)	0.6	2.5	0.7	0.4	0.6	1.3	0.0	3.3	5.6	0.0	3.8	2.0
Dwelling vacant/address not a dwelling (DV)	3.6	5.9	5.3	3.4	6.0	5.5	2.7	5.0	5.4	7.4	6.9	5.3
Dwelling destroy (DD)	1.0	2.4	1.4	1.5	1.4	4.2	0.0	1.9	4.2	0.4	2.7	2.0
Other (O)	0.1	0.2	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.8	0.2
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	720	1,938	283	261	352	238	259	421	355	229	260	2,658
Household response rate (HRR)	98.1	98.4	98.5	98.4	99.4	99.5	99.2	98.4	98.0	97.6	95.5	98.3
Eligible men												
Completed (EMC)	84.6	90.8	93.9	85.5	85.3	97.3	84.5	89.1	91.5	91.1	81.8	88.7
Not at home (EMNH)	12.0	5.9	4.1	11.3	13.3	0.5	11.3	5.7	6.5	3.1	14.1	7.9
Postponed (EMP)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.1
Refused (EMR)	2.1	1.1	0.0	2.3	0.0	1.1	2.8	1.9	0.8	2.7	1.6	1.4
Partly completed (EMPC)	0.1	0.1	0.0	0.0	0.0	0.5	0.4	0.0	0.0	0.0	0.0	0.1
Incapacitated (EMI)	0.7	0.9	1.7	1.0	1.0	0.0	0.7	0.8	0.4	0.4	1.0	0.8
Other (EMO)	0.4	1.2	0.3	0.0	0.3	0.5	0.4	2.5	0.8	2.7	0.5	0.9
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	814	1,604	294	311	300	186	283	367	260	225	192	2,418
Eligible man response rate (EMRR)	84.6	90.8	93.9	85.5	85.3	97.3	84.5	89.1	91.5	91.1	81.8	88.7
Overall response rate (ORR)	83.0	89.4	92.4	84.1	84.8	96.9	83.8	87.7	89.7	88.9	78.1	87.2

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 \times C}{C + HP + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 \times EWC}{EWC + EWNH + EWR + EWPC + EWI + EWO}$$

ESTIMATES OF SAMPLING ERRORS

Appendix **B**

The estimates from a sample survey are affected by two types of errors: 1) nonsampling errors and 2) sampling errors. Nonsampling errors are the result 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 2001-2002 ZDHS to minimise this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2001-2002 ZDHS 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 2001-2002 ZDHS sample is the result of a multistage stratified design, and consequently, it was necessary to use more complex formulas. The computer software used to calculate sampling errors for the 2001-2002 ZDHS is the ISSA Sampling Error Module (ISSAS). This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The 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:

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

in which

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

where h represents the stratum which varies from 1 to H,
m_h is the total number of enumeration areas selected in the hth stratum,
y_{hi} is the sum of the values of variable y in EA i in the hth stratum,
x_{hi} is the sum of the number of cases in EA i in the hth stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The 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 2001-2002 ZDHS, there were 320 nonempty clusters (PSUs). Hence, 320 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) \mid \ \mathrm{var}(r) \mid \ \frac{1}{k(k\ 4\ 1)} \frac{k}{i \mid 1} (r_i\ 4\ r)^2$$

in which

$$r_i = kr\ 4\ (k\ 4\ 1\ )\ r_{(i)}$$

where r is the estimate computed from the full sample of 320 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 319 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

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

Sampling errors for the 2001-2002 ZDHS women and men are calculated for selected variables considered to be of primary interest including HIV and syphilis prevalence. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for each of the 9 subdomains (provinces) in the country. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.13 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE) for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1).

In general, the relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. There are some differentials in the relative standard error for the estimates of subpopulations. For example, for the variable "currently using any contraceptive method" for currently married women age 15-49, the relative standard errors as a percentage of the estimated mean for the whole country, for urban areas, and for rural areas are 2.5 percent, 3.6 percent, and 3.2 percent, respectively.

The confidence interval (e.g., as calculated for "currently using any contraceptive method" for currently married women age 15-49) can be interpreted as follows: the overall national sample proportion is 0.342 and its standard error is 0.009. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e. 0.342±2(0.009). There is a high probability (95 percent) that the true average proportion of contraceptive use for currently married women age 15-49 is between 0.325 and 0.359.

Table B.1 List of selected variables for sampling errors, Zambia 2001-2002

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 6-10 years
Never married	Proportion	All women
Currently married	Proportion	All women
Married before age 20	Proportion	All women
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 sterilisation	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 received tetanus injection for last birth	Proportion	Women with at least one live birth in five years before survey
Mother received medical assistance at delivery	Proportion	Births in past 5 years[1]
Had diarrhoea in the 2 weeks before survey	Proportion	Children age 0 to 59 months
Treated with oral rehydration salts (ORS)	Proportion	Children with diarrhoea in two weeks before interview
Taken to a health provider	Proportion	Children with diarrhoea in two weeks before interview
Vaccination card seen	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received DPT 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	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	All women
Neonatal mortality	Rate	Children exposed to the risk of mortality
Postneonatal mortality	Rate	Children exposed to the risk of mortality
Infant mortality	Rate	Children exposed to the risk of mortality
Child mortality	Rate	Children exposed to the risk of mortality
Under-five mortality	Rate	Children exposed to the risk of mortality
HIV positive	Proportion	All women 15-49
Syphilis positive	Proportion	All women 15-49
MEN		
Urban residence	Proportion	All men age 15-59
No education	Proportion	All men age 15-59
Secondary education or higher	Proportion	All men age 15-59
Never married	Proportion	All men age 15-59
Currently married	Proportion	All men age 15-59
Knows any contraceptive method	Proportion	Currently married men
Knows any modern method	Proportion	Currently married men
Ever used any contraceptive method	Proportion	Currently married men
Want no more children	Proportion	Currently married men
Want to delay birth at least 2 years	Proportion	Currently married men
Ideal family size	Mean	All men age 15-59
HIV positive	Proportion	All men 15-49
HIV positive	Proportion	All men 15-59
Syphilis positive	Proportion	All men 15-49
Syphilis positive	Proportion	All men 15-59

Table B.2 Sampling errors for selected variables, total sample, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Urban residence	0.401	0.010	7658	7658	1.797	0.025	0.381	0.421
Literate	0.606	0.010	7658	7658	1.795	0.017	0.586	0.626
No education	0.121	0.006	7658	7658	1.662	0.051	0.108	0.133
Secondary education or higher	0.300	0.011	7658	7658	2.184	0.038	0.277	0.322
Net attendance ratio	0.661	0.010	6902	6950	1.505	0.015	0.641	0.681
Never married	0.248	0.008	7658	7658	1.634	0.033	0.232	0.264
Currently married	0.613	0.008	7658	7658	1.422	0.013	0.597	0.629
Married before age 20	0.697	0.010	5852	5847	1.658	0.014	0.677	0.717
Currently pregnant	0.102	0.003	7658	7658	1.005	0.034	0.095	0.109
Children ever born	3.031	0.042	7658	7658	1.248	0.014	2.947	3.115
Children surviving	2.503	0.034	7658	7658	1.205	0.014	2.435	2.570
Children ever born to women 40-49	7.112	0.107	1093	1069	1.202	0.015	6.898	7.327
Knows any contraceptive method	0.993	0.001	4731	4694	1.172	0.001	0.990	0.996
Ever used any contraceptive method	0.700	0.008	4731	4694	1.170	0.011	0.684	0.716
Currently using any contraceptive method	0.342	0.009	4731	4694	1.241	0.025	0.325	0.359
Currently using pill	0.119	0.006	4731	4694	1.286	0.051	0.107	0.131
Currently using IUD	0.001	0.000	4731	4694	1.041	0.577	0.000	0.001
Currently using female sterilisation	0.020	0.003	4731	4694	1.397	0.141	0.015	0.026
Currently using periodic abstinence	0.011	0.001	4731	4694	0.955	0.129	0.008	0.014
Used public sector source	0.609	0.021	1208	1314	1.483	0.034	0.567	0.651
Want no more children	0.335	0.009	4731	4694	1.351	0.028	0.316	0.353
Want to delay birth at least 2 years	0.374	0.008	4731	4694	1.158	0.022	0.358	0.390
Ideal family size	4.722	0.042	7132	7195	1.685	0.009	4.639	4.805
Mother received tetanus injection for last birth	0.748	0.007	4495	4402	1.130	0.010	0.733	0.762
Mother received medical assistance at delivery	0.434	0.013	6877	6649	1.740	0.029	0.409	0.460
Had diarrhoea in two weeks before survey	0.212	0.006	5997	5787	1.094	0.028	0.200	0.224
Treated with oral rehydration salts (ORS)	0.532	0.017	1228	1225	1.141	0.032	0.498	0.566
Taken to a health provider	0.428	0.019	1228	1225	1.288	0.044	0.390	0.466
Vaccination card seen	0.795	0.013	1329	1299	1.153	0.017	0.769	0.821
Received BCG	0.940	0.008	1329	1299	1.118	0.008	0.924	0.955
Received DPT (3 doses)	0.800	0.015	1329	1299	1.334	0.019	0.770	0.831
Received polio (3 doses)	0.802	0.016	1329	1299	1.427	0.020	0.770	0.835
Received measles	0.844	0.013	1329	1299	1.264	0.015	0.818	0.870
Received all vaccinations	0.700	0.017	1329	1299	1.319	0.024	0.666	0.735
Height-for-age (-2 SD)	0.468	0.008	5902	5784	1.156	0.017	0.452	0.484
Weight-for-height (-2 SD)	0.050	0.003	5902	5784	0.987	0.058	0.044	0.056
Weight-for-age (-2 SD)	0.281	0.008	5902	5784	1.268	0.028	0.266	0.297
BMI <18.5	0.157	0.006	6124	6152	1.218	0.036	0.146	0.169
TFR 0-3 years	5.881	0.136	na	21351	1.452	0.023	5.610	6.152
Neonatal mortality 0-4 years	36.749	2.751	6914	6689	1.059	0.075	31.248	42.250
Post-neonatal mortality 0-4 years	58.289	3.392	6947	6722	1.164	0.058	51.505	65.072
Infant mortality 0-4 years	95.038	4.359	6948	6723	1.142	0.046	86.319	103.757
Infant mortality 5-9 years	92.687	4.759	5990	5895	1.198	0.051	83.170	102.205
Infant mortality 10-14 years	95.014	5.144	4408	4315	1.035	0.054	84.726	105.303
Child mortality 0-4 years	80.845	4.515	7065	6832	1.195	0.056	71.814	89.875
Under-five mortality 0-4 years	168.199	6.197	7100	6867	1.228	0.037	155.806	180.593
HIV prevalence (15-49)	0.178	0.010	2133	2073	1.178	0.055	0.158	0.197
Syphilis positive (15-49)	0.064	0.006	2134	2044	1.154	0.095	0.052	0.077
MEN								
Urban residence	0.397	0.013	2145	2145	1.225	0.033	0.371	0.423
No education	0.050	0.006	2145	2145	1.218	0.114	0.039	0.062
Secondary education or higher	0.437	0.015	2145	2145	1.405	0.034	0.407	0.467
Never married	0.364	0.012	2145	2145	1.195	0.034	0.340	0.389
Currently married	0.582	0.013	2145	2145	1.186	0.022	0.556	0.607
Knows at least one method	0.996	0.002	1249	1248	1.093	0.002	0.992	1.000
Knows any modern method	0.996	0.002	1249	1248	1.064	0.002	0.992	1.000
Ever used any method	0.809	0.012	1249	1248	1.115	0.015	0.784	0.833
Want no more children	0.310	0.015	1249	1248	1.162	0.049	0.279	0.340
Want to delay birth at least 2 years	0.272	0.013	1249	1248	1.053	0.049	0.245	0.298
Ideal family size	5.298	0.066	2020	2036	1.015	0.012	5.166	5.430
HIV prevalence (15-49)	0.129	0.010	1679	1734	1.209	0.077	0.109	0.149
HIV prevalence (15-59)	0.126	0.009	1817	1877	1.207	0.075	0.107	0.145
Syphilis positive (15-49)	0.076	0.008	1624	1703	1.175	0.102	0.061	0.092
Syphilis positive (15-59)	0.073	0.007	1760	1850	1.170	0.099	0.059	0.088

na = Not applicable

Table B.3 Sampling errors for selected variables, urban sample, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Literate	0.788	0.014	2551	3073	1.757	0.018	0.760	0.817
No education	0.037	0.005	2551	3073	1.267	0.128	0.028	0.047
Secondary education or higher	0.504	0.020	2551	3073	2.030	0.040	0.464	0.544
Net attendance ratio	0.781	0.015	2039	2530	1.508	0.019	0.751	0.811
Never married	0.308	0.016	2551	3073	1.764	0.052	0.275	0.340
Currently married	0.541	0.014	2551	3073	1.437	0.026	0.512	0.569
Married before age 20	0.616	0.020	1912	2310	1.791	0.032	0.576	0.656
Currently pregnant	0.075	0.005	2551	3073	1.041	0.073	0.064	0.085
Children ever born	2.551	0.071	2551	3073	1.318	0.028	2.409	2.693
Children surviving	2.182	0.062	2551	3073	1.320	0.028	2.059	2.305
Children ever born to women 40-49	6.828	0.175	320	379	1.102	0.026	6.479	7.178
Knows any contraceptive method	0.997	0.002	1365	1662	1.268	0.002	0.993	1.001
Ever used any contraceptive method	0.822	0.012	1365	1662	1.140	0.014	0.798	0.845
Currently using any contraceptive method	0.457	0.016	1365	1662	1.212	0.036	0.425	0.490
Currently using pill	0.215	0.012	1365	1662	1.118	0.058	0.190	0.240
Currently using IUD	0.001	0.001	1365	1662	0.946	0.706	0.000	0.003
Currently using female sterilisation	0.037	0.007	1365	1662	1.416	0.197	0.022	0.051
Currently using periodic abstinence	0.011	0.003	1365	1662	0.995	0.254	0.006	0.017
Used public sector source	0.574	0.029	647	795	1.493	0.051	0.516	0.632
Want no more children	0.411	0.018	1365	1662	1.344	0.044	0.375	0.447
Want to delay birth at least 2 years	0.336	0.016	1365	1662	1.281	0.049	0.303	0.369
Ideal family size	4.036	0.059	2480	2990	1.637	0.015	3.918	4.154
Mother received tetanus injection for last birth	0.784	0.012	1252	1499	1.051	0.016	0.759	0.808
Mother received medical assistance at delivery	0.789	0.020	1725	2050	1.743	0.025	0.750	0.829
Had diarrhoea in two weeks before survey	0.211	0.013	1508	1796	1.206	0.061	0.185	0.236
Treated with oral rehydration salts (ORS)	0.564	0.030	318	379	1.045	0.053	0.504	0.623
Taken to a health provider	0.406	0.043	318	379	1.497	0.106	0.320	0.492
Vaccination card seen	0.813	0.030	306	379	1.315	0.036	0.754	0.872
Received BCG	0.955	0.013	306	379	1.139	0.014	0.928	0.981
Received DPT (3 doses)	0.879	0.026	306	379	1.351	0.029	0.828	0.931
Received polio (3 doses)	0.851	0.029	306	379	1.427	0.035	0.793	0.910
Received measles	0.855	0.023	306	379	1.154	0.027	0.809	0.901
Received all vaccinations	0.769	0.034	306	379	1.417	0.045	0.700	0.838
Height-for-age (-2 SD)	0.368	0.016	1503	1813	1.168	0.043	0.336	0.399
Weight-for-height (-2 SD)	0.051	0.005	1503	1813	0.873	0.100	0.040	0.061
Weight-for-age (-2 SD)	0.234	0.014	1503	1813	1.182	0.060	0.206	0.262
BMI <18.5	0.121	0.010	1812	2195	1.266	0.080	0.102	0.140
TFR 0-3 years	4.282	0.187	na	8853	1.314	0.044	3.909	4.656
Neonatal mortality last 10 years	30.721	3.720	3465	4173	1.113	0.121	23.281	38.161
Postneonatal mortality last 10 years	45.993	3.885	3475	4183	1.106	0.084	38.224	53.763
Infant mortality last 10 years	76.714	5.653	3476	4184	1.180	0.074	65.409	88.019
Child mortality last 10 years	68.579	5.602	3497	4205	1.178	0.082	57.375	79.784
Under-five mortality last 10 years	140.032	8.378	3509	4218	1.289	0.060	123.277	156.788
HIV prevalence (15-49)	0.263	0.020	700	808	1.177	0.075	0.224	0.302
Syphilis positive (15-49)	0.076	0.013	697	802	1.252	0.165	0.051	0.101
MEN								
No education	0.016	0.006	689	851	1.152	0.342	0.005	0.027
Secondary education or higher	0.662	0.025	689	851	1.411	0.038	0.611	0.713
Never married	0.413	0.023	689	851	1.239	0.056	0.367	0.460
Currently married	0.520	0.024	689	851	1.261	0.046	0.472	0.568
Knows at least one method	1.000	0.000	352	443	na	0.000	1.000	1.000
Knows any modern method	1.000	0.000	352	443	na	0.000	1.000	1.000
Ever used any method	0.884	0.017	352	443	1.015	0.020	0.849	0.919
Want no more children	0.402	0.034	352	443	1.290	0.084	0.334	0.469
Want to delay birth at least 2 years	0.259	0.027	352	443	1.146	0.104	0.205	0.312
Ideal family size	4.373	0.095	666	827	1.063	0.022	4.184	4.562
HIV prevalence (15-49)	0.192	0.021	523	676	1.231	0.110	0.150	0.235
HIV prevalence (15-59)	0.187	0.021	557	722	1.244	0.110	0.146	0.228
Syphilis positive (15-49)	0.094	0.015	497	663	1.120	0.156	0.064	0.123
Syphilis positive (15-59)	0.089	0.014	537	718	1.161	0.161	0.060	0.117

na = Not applicable

Table B.4 Sampling errors for selected variables, rural sample, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Literate	0.484	0.012	5107	4585	1.696	0.025	0.460	0.507
No education	0.177	0.009	5107	4585	1.770	0.053	0.158	0.196
Secondary education or higher	0.163	0.010	5107	4585	1.926	0.061	0.143	0.183
Net attendance ratio	0.593	0.012	4863	4420	1.428	0.020	0.569	0.617
Never married	0.208	0.007	5107	4585	1.246	0.034	0.194	0.222
Currently married	0.661	0.008	5107	4585	1.263	0.013	0.645	0.678
Married before age 20	0.749	0.009	3940	3537	1.342	0.012	0.731	0.768
Currently pregnant	0.121	0.004	5107	4585	0.974	0.037	0.112	0.129
Children ever born	3.352	0.048	5107	4585	1.119	0.014	3.257	3.447
Children surviving	2.717	0.037	5107	4585	1.048	0.014	2.644	2.791
Children ever born to women 40-49	7.268	0.138	773	689	1.278	0.019	6.992	7.545
Knows any contraceptive method	0.990	0.002	3366	3032	1.176	0.002	0.987	0.994
Ever used any contraceptive method	0.633	0.010	3366	3032	1.186	0.016	0.614	0.653
Currently using any contraceptive method	0.279	0.009	3366	3032	1.153	0.032	0.261	0.297
Currently using pill	0.066	0.006	3366	3032	1.302	0.084	0.055	0.078
Currently using IUD	0.000	0.000	3366	3032	1.072	1.000	0.000	0.001
Currently using female sterilisation	0.012	0.002	3366	3032	1.066	0.169	0.008	0.016
Currently using periodic abstinence	0.011	0.002	3366	3032	0.908	0.145	0.008	0.015
Used public sector source	0.662	0.025	561	519	1.251	0.038	0.612	0.712
Want no more children	0.293	0.010	3366	3032	1.312	0.035	0.273	0.314
Want to delay birth at least 2 years	0.395	0.009	3366	3032	1.050	0.022	0.377	0.412
Ideal family size	5.210	0.050	4652	4206	1.579	0.010	5.110	5.309
Mother received tetanus injection for last birth	0.729	0.009	3243	2904	1.190	0.013	0.710	0.748
Mother received medical assistance at delivery	0.276	0.014	5152	4599	1.955	0.052	0.247	0.305
Had diarrhoea in two weeks before survey	0.212	0.006	4489	3991	1.033	0.031	0.199	0.225
Treated with oral rehydration salts (ORS)	0.518	0.021	910	847	1.199	0.040	0.477	0.559
Taken to a health provider	0.437	0.020	910	847	1.158	0.045	0.398	0.477
Vaccination card seen	0.788	0.014	1023	920	1.068	0.018	0.760	0.815
Received BCG	0.933	0.009	1023	920	1.135	0.010	0.915	0.951
Received DPT (3 doses)	0.768	0.018	1023	920	1.346	0.024	0.731	0.804
Received polio (3 doses)	0.782	0.019	1023	920	1.443	0.024	0.744	0.820
Received measles	0.839	0.016	1023	920	1.331	0.019	0.808	0.871
Received all vaccinations	0.672	0.019	1023	920	1.283	0.029	0.634	0.711
Height-for-age (-2 SD)	0.513	0.009	4399	3971	1.139	0.018	0.495	0.532
Weight-for-height (-2 SD)	0.050	0.004	4399	3971	1.044	0.071	0.043	0.057
Weight-for-age (-2 SD)	0.303	0.010	4399	3971	1.306	0.032	0.284	0.322
BMI <18.5	0.178	0.007	4312	3957	1.204	0.039	0.164	0.192
TFR 0-3 years	6.920	0.126	na	12798	1.165	0.018	6.668	7.173
Neonatal mortality last 10 years	34.583	2.334	9406	8381	1.085	0.067	29.915	39.251
Postneonatal mortality last 10 years	67.971	3.423	9428	8401	1.249	0.050	61.124	74.818
Infant mortality last 10 years	102.553	4.266	9428	8401	1.250	0.042	94.021	111.085
Child mortality last 10 years	88.817	4.304	9526	8491	1.248	0.048	80.209	97.424
Under-five mortality last 10 years	182.262	5.587	9548	8511	1.248	0.031	171.088	193.435
HIV prevalence (15-49)	0.124	0.011	1433	1265	1.233	0.087	0.102	0.145
Syphilis positive (15-49)	0.057	0.006	1437	1241	0.980	0.105	0.045	0.069
MEN								
No education	0.073	0.009	1456	1294	1.296	0.121	0.055	0.090
Secondary education or higher	0.288	0.017	1456	1294	1.455	0.060	0.254	0.323
Never married	0.332	0.014	1456	1294	1.112	0.041	0.305	0.360
Currently married	0.622	0.014	1456	1294	1.089	0.022	0.594	0.650
Knows at least one method	0.994	0.003	897	805	1.153	0.003	0.988	1.000
Knows any modern method	0.994	0.003	897	805	1.123	0.003	0.988	1.000
Ever used any method	0.767	0.016	897	805	1.161	0.021	0.734	0.800
Want no more children	0.259	0.015	897	805	1.035	0.059	0.229	0.289
Want to delay birth at least 2 years	0.279	0.014	897	805	0.967	0.052	0.250	0.308
Ideal family size	5.930	0.087	1354	1209	1.025	0.015	5.756	6.104
HIV prevalence (15-49)	0.089	0.010	1156	1058	1.160	0.109	0.070	0.108
HIV prevalence (15-59)	0.088	0.009	1260	1155	1.165	0.106	0.069	0.107
Syphilis positive (15-49)	0.065	0.008	1127	1040	1.151	0.130	0.048	0.082
Syphilis positive (15-59)	0.064	0.008	1223	1132	1.098	0.120	0.048	0.079

na = Not applicable

Table B.5 Sampling errors for selected variables, Central province, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Urban residence	0.278	0.033	891	562	2.174	0.117	0.213	0.344
Literate	0.646	0.028	891	562	1.726	0.043	0.591	0.702
No education	0.080	0.011	891	562	1.262	0.144	0.057	0.103
Secondary education or higher	0.294	0.041	891	562	2.705	0.141	0.211	0.377
Net attendance ratio	0.700	0.021	799	518	1.120	0.029	0.658	0.741
Never married	0.241	0.018	891	562	1.234	0.073	0.206	0.277
Currently married	0.615	0.019	891	562	1.190	0.032	0.576	0.654
Married before age 20	0.728	0.038	668	422	2.192	0.052	0.652	0.803
Currently pregnant	0.120	0.011	891	562	1.030	0.093	0.098	0.143
Children ever born	3.236	0.142	891	562	1.338	0.044	2.952	3.520
Children surviving	2.655	0.119	891	562	1.330	0.045	2.417	2.894
Children ever born to women 40-49	7.579	0.333	140	88	1.236	0.044	6.913	8.244
Knows any contraceptive method	0.996	0.003	548	346	1.026	0.003	0.991	1.002
Ever used any contraceptive method	0.648	0.019	548	346	0.920	0.029	0.610	0.685
Currently using any contraceptive method	0.257	0.020	548	346	1.060	0.077	0.218	0.297
Currently using pill	0.119	0.017	548	346	1.240	0.144	0.084	0.153
Currently using IUD	0.000	0.000	548	346	na	na	0.000	0.000
Currently using female sterilisation	0.013	0.004	548	346	0.895	0.337	0.004	0.021
Currently using periodic abstinence	0.004	0.004	548	346	1.477	1.044	0.000	0.011
Used public sector source	0.642	0.040	134	85	0.968	0.063	0.561	0.722
Want no more children	0.396	0.029	548	346	1.398	0.074	0.338	0.454
Want to delay birth at least 2 years	0.372	0.022	548	346	1.059	0.059	0.328	0.416
Ideal family size	4.467	0.131	861	543	1.853	0.029	4.206	4.728
Mother received tetanus injection for last birth	0.695	0.027	505	319	1.308	0.039	0.641	0.749
Mother received medical assistance at delivery	0.342	0.036	796	502	1.809	0.105	0.270	0.413
Had diarrhoea in two weeks before survey	0.200	0.017	674	425	1.145	0.086	0.166	0.235
Treated with oral rehydration salts (ORS)	0.444	0.057	135	85	1.313	0.128	0.331	0.558
Taken to a health provider	0.319	0.060	135	85	1.488	0.188	0.199	0.438
Vaccination card seen	0.806	0.044	144	91	1.336	0.055	0.717	0.894
Received BCG	0.951	0.017	144	91	0.957	0.018	0.917	0.986
Received DPT (3 doses)	0.813	0.038	144	91	1.170	0.047	0.737	0.888
Received polio (3 doses)	0.819	0.040	144	91	1.239	0.049	0.740	0.899
Received measles	0.833	0.038	144	91	1.182	0.046	0.757	0.909
Received all vaccinations	0.701	0.043	144	91	1.111	0.061	0.615	0.788
Height-for-age (-2 SD)	0.459	0.021	693	450	1.061	0.045	0.417	0.500
Weight-for-height (-2 SD)	0.042	0.009	693	450	1.207	0.213	0.024	0.060
Weight-for-age (-2 SD)	0.266	0.022	693	450	1.212	0.082	0.222	0.309
BMI <18.5	0.194	0.020	640	415	1.252	0.101	0.155	0.233
TFR 0-3 years	6.234	0.341	na	1539	1.235	0.055	5.552	6.916
Neonatal mortality last 10 years	34.655	5.404	1504	949	1.086	0.156	23.847	45.463
Postneonatal mortality last 10 years	57.332	7.412	1509	953	1.163	0.129	42.507	72.156
Infant mortality last 10 years	91.987	8.497	1509	953	1.057	0.092	74.994	108.980
Child mortality last 10 years	110.217	16.173	1530	966	1.508	0.147	77.870	142.563
Under-five mortality last 10 years	192.065	15.567	1535	969	1.222	0.081	160.932	223.198
HIV prevalence (15-49)	0.168	0.022	309	171	1.038	0.132	0.124	0.213
Syphilis positive (15-49)	0.030	0.009	301	168	0.895	0.294	0.012	0.047
MEN								
Urban residence	0.257	0.028	276	165	1.051	0.108	0.202	0.313
No education	0.051	0.014	276	165	1.071	0.279	0.022	0.079
Secondary education or higher	0.406	0.038	276	165	1.286	0.094	0.330	0.482
Never married	0.431	0.024	276	165	0.804	0.056	0.383	0.479
Currently married	0.496	0.031	276	165	1.027	0.062	0.434	0.558
Knows at least one method	1.000	0.000	137	82	na	0.000	1.000	1.000
Knows any modern method	1.000	0.000	137	82	na	0.000	1.000	1.000
Ever used any method	0.766	0.045	137	82	1.232	0.058	0.677	0.856
Want no more children	0.358	0.040	137	82	0.985	0.113	0.277	0.439
Want to delay birth at least 2 years	0.255	0.048	137	82	1.273	0.186	0.160	0.351
Ideal family size	5.049	0.263	264	158	1.562	0.052	4.523	5.576
HIV prevalence (15-49)	0.134	0.019	238	135	0.848	0.140	0.097	0.172
HIV prevalence (15-59)	0.129	0.017	255	145	0.831	0.135	0.094	0.164
Syphilis positive (15-49)	0.022	0.011	225	133	1.078	0.478	0.001	0.043
Syphilis positive (15-59)	0.021	0.010	241	143	1.084	0.481	0.001	0.041

na = Not applicable

Table B.6 Sampling errors for selected variables, Copperbelt province, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Urban residence	0.816	0.015	939	1544	1.218	0.019	0.785	0.847
Literate	0.787	0.020	939	1544	1.526	0.026	0.746	0.828
No education	0.033	0.006	939	1544	1.103	0.195	0.020	0.046
Secondary education or higher	0.472	0.029	939	1544	1.760	0.061	0.414	0.529
Net attendance ratio	0.755	0.027	817	1353	1.500	0.036	0.701	0.809
Never married	0.295	0.026	939	1544	1.725	0.087	0.244	0.346
Currently married	0.564	0.025	939	1544	1.514	0.043	0.515	0.613
Married before age 20	0.661	0.028	704	1158	1.594	0.043	0.604	0.717
Currently pregnant	0.091	0.009	939	1544	0.929	0.096	0.073	0.108
Children ever born	2.744	0.112	939	1544	1.212	0.041	2.520	2.969
Children surviving	2.351	0.098	939	1544	1.228	0.042	2.155	2.548
Children ever born to women 40-49	7.237	0.322	118	194	1.296	0.045	6.593	7.882
Knows any contraceptive method	0.998	0.002	530	871	0.992	0.002	0.994	1.002
Ever used any contraceptive method	0.819	0.016	530	871	0.959	0.020	0.787	0.851
Currently using any contraceptive method	0.451	0.024	530	871	1.127	0.054	0.402	0.500
Currently using pill	0.213	0.017	530	871	0.943	0.079	0.180	0.247
Currently using IUD	0.000	0.000	530	871	na	na	0.000	0.000
Currently using female sterilisation	0.057	0.012	530	871	1.243	0.221	0.032	0.082
Currently using periodic abstinence	0.013	0.005	530	871	0.912	0.343	0.004	0.022
Used public sector source	0.522	0.050	228	375	1.519	0.096	0.421	0.623
Want no more children	0.408	0.031	530	871	1.471	0.077	0.345	0.470
Want to delay birth at least 2 years	0.351	0.028	530	871	1.332	0.079	0.296	0.406
Ideal family size	4.248	0.108	910	1496	1.720	0.026	4.032	4.465
Mother received tetanus injection for last birth	0.714	0.021	465	765	1.020	0.030	0.671	0.757
Mother received medical assistance at delivery	0.715	0.038	648	1065	1.784	0.053	0.639	0.790
Had diarrhoea in two weeks before survey	0.193	0.017	566	931	1.040	0.089	0.158	0.227
Treated with oral rehydration salts (ORS)	0.550	0.052	109	179	1.058	0.095	0.446	0.655
Taken to a health provider	0.486	0.078	109	179	1.548	0.161	0.330	0.643
Vaccination card seen	0.799	0.042	139	229	1.171	0.053	0.714	0.883
Received BCG	0.921	0.025	139	229	1.018	0.027	0.870	0.971
Received DPT (3 doses)	0.871	0.039	139	229	1.242	0.045	0.793	0.948
Received polio (3 doses)	0.856	0.044	139	229	1.363	0.051	0.768	0.944
Received measles	0.849	0.034	139	229	1.076	0.040	0.781	0.917
Received all vaccinations	0.791	0.050	139	229	1.379	0.064	0.691	0.892
Height-for-age (-2 SD)	0.399	0.026	556	921	1.179	0.065	0.348	0.451
Weight-for-height (-2 SD)	0.065	0.007	556	921	0.681	0.111	0.050	0.079
Weight-for-age (-2 SD)	0.290	0.023	556	921	1.102	0.078	0.244	0.335
BMI <18.5	0.157	0.015	650	1077	1.053	0.096	0.127	0.187
TFR 0-3 years	4.482	0.317	na	4262	1.371	0.071	3.849	5.116
Neonatal mortality last 10 years	24.265	5.273	1363	2241	1.150	0.217	13.718	34.811
Postneonatal mortality last 10 years	43.301	5.444	1366	2246	1.018	0.126	32.414	54.189
Infant mortality last 10 years	67.566	7.826	1366	2246	1.129	0.116	51.915	83.217
Child mortality last 10 years	70.900	9.130	1370	2253	1.207	0.129	52.641	89.160
Under-five mortality last 10 years	133.676	12.598	1373	2258	1.297	0.094	108.480	158.872
HIV prevalence (15-49)	0.221	0.025	280	423	1.019	0.114	0.171	0.272
Syphilis positive (15-49)	0.090	0.018	278	417	1.058	0.202	0.054	0.126
MEN								
Urban residence	0.820	0.029	266	447	1.217	0.035	0.762	0.877
No education	0.019	0.010	266	447	1.223	0.543	0.000	0.039
Secondary education or higher	0.680	0.036	266	447	1.274	0.054	0.607	0.753
Never married	0.414	0.037	266	447	1.217	0.089	0.340	0.487
Currently married	0.526	0.039	266	447	1.277	0.074	0.448	0.605
Knows at least one method	0.993	0.007	140	235	1.005	0.007	0.979	1.007
Knows any modern method	0.993	0.007	140	235	1.005	0.007	0.979	1.007
Ever used any method	0.857	0.031	140	235	1.033	0.036	0.796	0.918
Want no more children	0.450	0.058	140	235	1.364	0.128	0.335	0.565
Want to delay birth at least 2 years	0.293	0.040	140	235	1.046	0.138	0.212	0.374
Ideal family size	4.580	0.155	262	440	1.085	0.034	4.270	4.891
HIV prevalence (15-49)	0.173	0.028	197	351	1.031	0.161	0.117	0.228
HIV prevalence (15-59)	0.169	0.027	219	391	1.050	0.158	0.116	0.222
Syphilis positive (15-49)	0.106	0.024	188	343	1.083	0.229	0.058	0.155
Syphilis positive (15-59)	0.095	0.022	211	385	1.111	0.237	0.050	0.140

na = Not applicable

Table B.7 Sampling errors for selected variables, Eastern province, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Urban residence	0.094	0.016	894	926	1.661	0.173	0.062	0.126
Literate	0.478	0.034	894	926	2.033	0.071	0.410	0.546
No education	0.227	0.021	894	926	1.471	0.091	0.186	0.268
Secondary education or higher	0.204	0.029	894	926	2.147	0.142	0.146	0.261
Net attendance ratio	0.534	0.023	884	916	1.165	0.043	0.488	0.580
Never married	0.186	0.020	894	926	1.505	0.105	0.147	0.225
Currently married	0.695	0.016	894	926	1.049	0.023	0.662	0.727
Married before age 20	0.788	0.015	702	727	1.000	0.020	0.757	0.819
Currently pregnant	0.110	0.009	894	926	0.875	0.083	0.091	0.128
Children ever born	3.187	0.132	894	926	1.359	0.041	2.924	3.450
Children surviving	2.601	0.102	894	926	1.275	0.039	2.397	2.804
Children ever born to women 40-49	7.210	0.300	119	123	1.145	0.042	6.611	7.809
Knows any contraceptive method	0.994	0.004	621	644	1.219	0.004	0.986	1.001
Ever used any contraceptive method	0.596	0.021	621	644	1.057	0.035	0.554	0.637
Currently using any contraceptive method	0.295	0.019	621	644	1.063	0.066	0.256	0.334
Currently using pill	0.092	0.014	621	644	1.174	0.148	0.065	0.119
Currently using IUD	0.003	0.002	621	644	0.999	0.706	0.000	0.008
Currently using female sterilisation	0.014	0.005	621	644	1.122	0.372	0.004	0.025
Currently using periodic abstinence	0.010	0.004	621	644	0.919	0.374	0.002	0.017
Used public sector source	0.596	0.044	136	141	1.046	0.074	0.507	0.684
Want no more children	0.317	0.021	621	644	1.132	0.067	0.275	0.360
Want to delay birth at least 2 years	0.399	0.021	621	644	1.088	0.054	0.357	0.442
Ideal family size	4.855	0.093	792	821	1.356	0.019	4.668	5.042
Mother received tetanus injection for last birth	0.714	0.017	566	587	0.919	0.024	0.679	0.749
Mother received medical assistance at delivery	0.317	0.028	859	890	1.528	0.088	0.261	0.372
Had diarrhoea in two weeks before survey	0.223	0.018	754	781	1.168	0.081	0.187	0.259
Treated with oral rehydration salts (ORS)	0.625	0.044	168	174	1.143	0.071	0.536	0.714
Taken to a health provider	0.518	0.028	168	174	0.682	0.053	0.463	0.573
Vaccination card seen	0.768	0.034	181	188	1.047	0.044	0.701	0.835
Received BCG	0.967	0.012	181	188	0.895	0.012	0.943	0.991
Received DPT (3 doses)	0.818	0.043	181	188	1.453	0.053	0.732	0.904
Received polio (3 doses)	0.757	0.045	181	188	1.360	0.060	0.667	0.847
Received measles	0.890	0.025	181	188	1.019	0.028	0.840	0.939
Received all vaccinations	0.685	0.040	181	188	1.131	0.059	0.605	0.766
Height-for-age (-2 SD)	0.594	0.019	707	732	0.961	0.031	0.557	0.631
Weight-for-height (-2 SD)	0.052	0.008	707	732	0.951	0.162	0.035	0.069
Weight-for-age (-2 SD)	0.321	0.023	707	732	1.227	0.071	0.276	0.367
BMI <18.5	0.151	0.018	828	858	1.437	0.118	0.115	0.187
TFR 0-3 years	6.785	0.298	na	2617	1.136	0.044	6.189	7.381
Neonatal mortality last 10 years	28.913	4.847	1591	1649	1.076	0.168	19.218	38.607
Postneonatal mortality last 10 years	55.345	7.205	1597	1655	1.141	0.130	40.935	69.754
Infant mortality last 10 years	84.257	7.597	1597	1655	1.003	0.090	69.063	99.452
Child mortality last 10 years	89.409	8.983	1615	1674	1.138	0.100	71.443	107.376
under 5 mortality last 10 years	166.133	11.343	1621	1680	1.114	0.068	143.447	188.820
HIV prevalence (15-49)	0.161	0.032	205	252	1.229	0.196	0.098	0.224
Syphilis positive (15-49)	0.078	0.021	205	248	1.097	0.264	0.037	0.119
MEN								
Urban residence	0.117	0.014	256	268	0.677	0.116	0.090	0.144
No education	0.125	0.025	256	268	1.184	0.196	0.076	0.174
Secondary education or higher	0.324	0.039	256	268	1.333	0.121	0.246	0.402
Never married	0.285	0.025	256	268	0.880	0.087	0.235	0.335
Currently married	0.688	0.029	256	268	0.994	0.042	0.630	0.745
Knows at least one method	1.000	0.000	176	184	na	0.000	1.000	1.000
Knows any modern method	1.000	0.000	176	184	na	0.000	1.000	1.000
Ever used any method	0.767	0.033	176	184	1.039	0.043	0.701	0.833
Want no more children	0.301	0.029	176	184	0.842	0.097	0.243	0.360
Want to delay birth at least 2 years	0.227	0.034	176	184	1.076	0.150	0.159	0.295
Ideal family size	5.486	0.185	253	265	0.969	0.034	5.117	5.855
HIV prevalence (15-49)	0.110	0.028	172	219	1.178	0.256	0.054	0.167
HIV prevalence (15-59)	0.109	0.027	184	234	1.189	0.252	0.054	0.163
Syphilis positive (15-49)	0.110	0.023	164	214	0.942	0.210	0.064	0.156
Syphilis positive (15-59)	0.119	0.020	177	231	0.806	0.166	0.079	0.158

na = Not applicable

Table B.8 Sampling errors for selected variables, Luapula province, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Urban residence	0.169	0.018	626	622	1.232	0.109	0.132	0.206
Literate	0.412	0.027	626	622	1.352	0.065	0.359	0.465
No education	0.147	0.025	626	622	1.788	0.172	0.096	0.198
Secondary education or higher	0.125	0.020	626	622	1.493	0.158	0.085	0.164
Net attendance ratio	0.541	0.036	499	516	1.383	0.067	0.468	0.614
Never married	0.216	0.011	626	622	0.697	0.053	0.193	0.239
Currently married	0.642	0.017	626	622	0.908	0.027	0.607	0.677
Married before age 20	0.812	0.018	467	464	1.014	0.023	0.775	0.848
Currently pregnant	0.129	0.014	626	622	1.077	0.112	0.100	0.158
Children ever born	3.367	0.128	626	622	0.993	0.038	3.111	3.623
Children surviving	2.542	0.111	626	622	1.119	0.044	2.319	2.764
Children ever born to women 40-49	7.248	0.407	101	100	1.207	0.056	6.433	8.062
Knows any contraceptive method	0.988	0.007	402	399	1.180	0.007	0.975	1.001
Ever used any contraceptive method	0.682	0.024	402	399	1.022	0.035	0.634	0.729
Currently using any contraceptive method	0.318	0.018	402	399	0.777	0.057	0.282	0.355
Currently using pill	0.035	0.010	402	399	1.068	0.281	0.015	0.054
Currently using IUD	0.000	0.000	402	399	na	na	0.000	0.000
Currently using female sterilisation	0.005	0.005	402	399	1.385	0.978	0.000	0.015
Currently using periodic abstinence	0.017	0.006	402	399	0.945	0.355	0.005	0.030
Used public sector source	0.727	0.109	33	33	1.379	0.149	0.510	0.944
Want no more children	0.231	0.029	402	399	1.375	0.125	0.173	0.289
Want to delay birth at least 2 years	0.480	0.030	402	399	1.193	0.062	0.421	0.540
Ideal family size	5.363	0.091	568	564	1.102	0.017	5.180	5.546
Mother received tetanus injection for last birth	0.751	0.030	374	371	1.341	0.040	0.691	0.811
Mother received medical assistance at delivery	0.286	0.032	629	625	1.422	0.110	0.223	0.349
Had diarrhoea in two weeks before survey	0.234	0.017	512	508	0.876	0.074	0.200	0.269
Treated with oral rehydration salts (ORS)	0.600	0.065	120	119	1.372	0.108	0.471	0.729
Taken to a health provider	0.533	0.052	120	119	1.105	0.098	0.429	0.638
Vaccination card seen	0.832	0.038	107	106	1.036	0.045	0.756	0.907
Received BCG	0.916	0.032	107	106	1.170	0.034	0.853	0.979
Received DPT (3 doses)	0.701	0.070	107	106	1.541	0.100	0.560	0.841
Received polio (3 doses)	0.729	0.077	107	106	1.735	0.106	0.575	0.883
Received measles	0.822	0.061	107	106	1.576	0.074	0.700	0.944
Received all vaccinations	0.617	0.069	107	106	1.439	0.113	0.478	0.756
Height-for-age (-2 SD)	0.576	0.023	524	542	1.008	0.039	0.531	0.622
Weight-for-height (-2 SD)	0.038	0.009	524	542	1.147	0.248	0.019	0.057
Weight-for-age (-2 SD)	0.330	0.022	524	542	1.022	0.067	0.286	0.374
BMI <18.5	0.191	0.009	518	536	0.541	0.049	0.172	0.210
TFR 0-3 years	7.322	0.363	na	1723	1.163	0.050	6.595	8.049
Neonatal mortality last 10 years	36.004	5.372	1111	1103	0.835	0.149	25.259	46.748
Postneonatal mortality last 10 years	118.012	10.173	1114	1106	1.027	0.086	97.666	138.358
Infant mortality last 10 years	154.016	12.130	1114	1106	1.098	0.079	129.755	178.277
Child mortality last 10 years	111.651	12.887	1125	1117	1.185	0.115	85.876	137.426
Under-five mortality last 10 years	248.471	16.216	1128	1120	1.203	0.065	216.039	280.902
HIV prevalence (15-49)	0.133	0.017	181	167	0.686	0.131	0.098	0.167
Syphilis positive (15-49)	0.070	0.018	186	165	0.948	0.254	0.034	0.105
MEN								
Urban residence	0.155	0.020	181	166	0.747	0.130	0.114	0.195
No education	0.044	0.020	181	166	1.315	0.456	0.004	0.084
Secondary education or higher	0.232	0.042	181	166	1.322	0.179	0.149	0.315
Never married	0.287	0.040	181	166	1.194	0.140	0.207	0.368
Currently married	0.680	0.041	181	166	1.191	0.061	0.597	0.762
Knows at least one method	1.000	0.000	123	113	na	0.000	1.000	1.000
Knows any modern method	1.000	0.000	123	113	na	0.000	1.000	1.000
Ever used any method	0.699	0.040	123	113	0.952	0.057	0.620	0.778
Want no more children	0.211	0.030	123	113	0.824	0.144	0.150	0.272
Want to delay birth at least 2 years	0.293	0.036	123	113	0.874	0.123	0.221	0.365
Ideal family size	5.781	0.243	146	134	1.137	0.042	5.294	6.268
HIV prevalence (15-49)	0.086	0.018	139	133	0.755	0.209	0.050	0.122
HIV prevalence (15-59)	0.086	0.016	152	145	0.723	0.193	0.053	0.118
Syphilis positive (15-49)	0.071	0.024	142	129	1.090	0.333	0.024	0.118
Syphilis positive (15-59)	0.064	0.021	157	143	1.077	0.330	0.022	0.106

na = Not applicable

Table B.9 Sampling errors for selected variables, Lusaka province, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Urban residence	0.860	0.019	896	1132	1.636	0.022	0.823	0.898
Literate	0.703	0.025	896	1132	1.636	0.036	0.653	0.753
No education	0.076	0.014	896	1132	1.557	0.182	0.048	0.103
Secondary education or higher	0.417	0.032	896	1132	1.916	0.076	0.354	0.481
Net attendance ratio	0.749	0.031	724	938	1.730	0.041	0.687	0.810
Never married	0.285	0.021	896	1132	1.416	0.075	0.242	0.327
Currently married	0.566	0.018	896	1132	1.112	0.033	0.529	0.603
Married before age 20	0.611	0.034	692	874	1.844	0.056	0.543	0.680
Currently pregnant	0.078	0.010	896	1132	1.095	0.126	0.058	0.098
Children ever born	2.482	0.104	896	1132	1.193	0.042	2.274	2.690
Children surviving	2.131	0.082	896	1132	1.074	0.038	1.967	2.294
Children ever born to women 40-49	6.480	0.292	98	124	0.953	0.045	5.895	7.064
Knows any contraceptive method	0.996	0.004	507	640	1.414	0.004	0.988	1.004
Ever used any contraceptive method	0.817	0.020	507	640	1.138	0.024	0.777	0.856
Currently using any contraceptive method	0.471	0.024	507	640	1.092	0.051	0.423	0.520
Currently using pill	0.213	0.022	507	640	1.221	0.104	0.169	0.257
Currently using IUD	0.000	0.000	507	640	na	na	0.000	0.000
Currently using female sterilisation	0.014	0.006	507	640	1.119	0.421	0.002	0.025
Currently using periodic abstinence	0.004	0.003	507	640	0.990	0.700	0.000	0.009
Used public sector source	0.607	0.032	262	331	1.048	0.052	0.544	0.670
Want no more children	0.406	0.026	507	640	1.212	0.065	0.353	0.459
Want to delay birth at least 2 years	0.335	0.023	507	640	1.107	0.069	0.289	0.382
Ideal family size	3.887	0.072	864	1091	1.241	0.018	3.744	4.030
Mother received tetanus injection for last birth	0.844	0.014	467	590	0.816	0.016	0.816	0.871
Mother received medical assistance at delivery	0.749	0.026	637	805	1.342	0.035	0.696	0.802
Had diarrhoea in two weeks before survey	0.245	0.021	563	711	1.141	0.085	0.203	0.287
Treated with oral rehydration salts (ORS)	0.587	0.046	138	174	1.089	0.079	0.494	0.680
Taken to a health provider	0.341	0.058	138	174	1.382	0.172	0.224	0.458
Vaccination card seen	0.842	0.038	120	152	1.147	0.046	0.765	0.918
Received BCG	0.992	0.008	120	152	1.007	0.008	0.975	1.008
Received DPT (3 doses)	0.900	0.032	120	152	1.158	0.035	0.836	0.964
Received polio (3 doses)	0.875	0.034	120	152	1.130	0.039	0.807	0.943
Received measles	0.867	0.029	120	152	0.920	0.033	0.809	0.924
Received all vaccinations	0.783	0.040	120	152	1.066	0.051	0.703	0.864
Height-for-age (-2 SD)	0.356	0.024	548	710	1.115	0.067	0.308	0.404
Weight-for-height (-2 SD)	0.051	0.009	548	710	0.992	0.180	0.033	0.070
Weight-for-age (-2 SD)	0.217	0.023	548	710	1.250	0.105	0.171	0.263
BMI <18.5	0.077	0.013	678	878	1.277	0.170	0.051	0.103
TFR 0-3 years	4.349	0.366	na	3189	1.252	0.084	3.617	5.081
Neonatal mortality last 10 years	29.233	6.047	1232	1556	1.068	0.207	17.140	41.326
Postneonatal mortality last 10 years	40.945	5.314	1234	1559	0.925	0.130	30.318	51.573
Infant mortality last 10 years	70.178	7.498	1234	1559	0.956	0.107	55.181	85.175
Child mortality last 10 years	71.905	10.256	1247	1575	1.277	0.143	51.393	92.417
Under-five mortality last 10 years	137.037	12.519	1249	1578	1.122	0.091	111.999	162.075
HIV prevalence (15-49)	0.250	0.031	240	296	1.099	0.123	0.188	0.312
Syphilis positive (15-49)	0.085	0.021	234	292	1.133	0.243	0.044	0.127
MEN								
Urban residence	0.828	0.035	239	314	1.435	0.042	0.758	0.899
No education	0.038	0.019	239	314	1.532	0.502	0.000	0.075
Secondary education or higher	0.586	0.047	239	314	1.473	0.080	0.492	0.680
Never married	0.372	0.035	239	314	1.112	0.094	0.303	0.442
Currently married	0.552	0.029	239	314	0.908	0.053	0.494	0.611
Knows at least one method	1.000	0.000	132	173	na	0.000	1.000	1.000
Knows any modern method	1.000	0.000	132	173	na	0.000	1.000	1.000
Ever used any method	0.879	0.029	132	173	1.012	0.033	0.821	0.937
Want no more children	0.394	0.038	132	173	0.887	0.096	0.318	0.470
Want to delay birth at least 2 years	0.212	0.024	132	173	0.675	0.114	0.164	0.260
Ideal family size	4.167	0.102	228	299	0.696	0.025	3.962	4.371
HIV prevalence (15-49)	0.187	0.038	182	263	1.325	0.206	0.110	0.264
HIV prevalence (15-59)	0.184	0.037	190	274	1.315	0.201	0.110	0.258
Syphilis positive (15-49)	0.114	0.023	166	258	0.909	0.197	0.069	0.159
Syphilis positive (15-59)	0.115	0.023	174	271	0.960	0.203	0.068	0.162

na = Not applicable

Table B.10 Sampling errors for selected variables, Northern province, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Urban residence	0.174	0.017	1171	1040	1.541	0.098	0.140	0.208
Literate	0.532	0.029	1171	1040	1.999	0.055	0.474	0.590
No education	0.144	0.022	1171	1040	2.136	0.152	0.100	0.188
Secondary education or higher	0.229	0.027	1171	1040	2.163	0.116	0.176	0.282
Net attendance ratio	0.592	0.025	1074	986	1.544	0.043	0.541	0.643
Never married	0.225	0.015	1171	1040	1.264	0.069	0.194	0.255
Currently married	0.652	0.016	1171	1040	1.149	0.025	0.620	0.684
Married before age 20	0.744	0.018	883	784	1.237	0.024	0.708	0.780
Currently pregnant	0.113	0.009	1171	1040	0.944	0.077	0.095	0.130
Children ever born	3.303	0.093	1171	1040	1.035	0.028	3.117	3.489
Children surviving	2.677	0.072	1171	1040	0.980	0.027	2.534	2.820
Children ever born to women 40-49	7.171	0.234	175	155	1.066	0.033	6.703	7.640
Knows any contraceptive method	0.988	0.004	763	678	1.060	0.004	0.980	0.996
Ever used any contraceptive method	0.729	0.018	763	678	1.103	0.024	0.693	0.764
Currently using any contraceptive method	0.317	0.020	763	678	1.206	0.064	0.277	0.358
Currently using pill	0.063	0.009	763	678	1.019	0.142	0.045	0.081
Currently using IUD	0.000	0.000	763	678	na	na	0.000	0.000
Currently using female sterilisation	0.017	0.006	763	678	1.280	0.352	0.005	0.029
Currently using periodic abstinence	0.005	0.003	763	678	1.009	0.504	0.000	0.011
Used public sector source	0.647	0.077	119	106	1.755	0.119	0.493	0.801
Want no more children	0.286	0.017	763	678	1.021	0.058	0.252	0.319
Want to delay birth at least 2 years	0.384	0.013	763	678	0.765	0.035	0.357	0.411
Ideal family size	5.141	0.101	1103	980	1.600	0.020	4.940	5.343
Mother received tetanus injection for last birth	0.774	0.012	730	649	0.782	0.016	0.750	0.798
Mother received medical assistance at delivery	0.276	0.036	1135	1008	2.252	0.131	0.203	0.348
Had diarrhoea in two weeks before survey	0.199	0.013	995	884	0.971	0.064	0.174	0.224
Treated with oral rehydration salts (ORS)	0.444	0.036	198	176	0.968	0.081	0.372	0.517
Taken to a health provider	0.424	0.044	198	176	1.197	0.103	0.337	0.512
Vaccination card seen	0.719	0.031	228	203	1.026	0.043	0.658	0.781
Received BCG	0.917	0.014	228	203	0.744	0.015	0.889	0.944
Received DPT (3 doses)	0.684	0.036	228	203	1.153	0.052	0.613	0.755
Received polio (3 doses)	0.728	0.042	228	203	1.433	0.058	0.643	0.813
Received measles	0.807	0.033	228	203	1.279	0.041	0.740	0.874
Received all vaccinations	0.605	0.038	228	203	1.157	0.062	0.530	0.680
Height-for-age (-2 SD)	0.548	0.021	938	861	1.235	0.037	0.507	0.589
Weight-for-height (-2 SD)	0.076	0.009	938	861	0.981	0.119	0.058	0.094
Weight-for-age (-2 SD)	0.338	0.020	938	861	1.223	0.058	0.299	0.377
BMI <18.5	0.163	0.014	943	866	1.133	0.084	0.136	0.191
TFR 0-3 years	6.910	0.243	na	2911	1.276	0.035	6.423	7.396
Neonatal mortality last 10 years	38.645	5.615	2098	1864	1.160	0.145	27.416	49.874
Postneonatal mortality last 10 years	74.192	6.297	2103	1868	1.085	0.085	61.599	86.786
Infant mortality last 10 years	112.837	7.618	2103	1868	1.022	0.068	97.601	128.074
Child mortality last 10 years	83.789	8.026	2124	1887	1.124	0.096	67.736	99.842
Under-five mortality last 10 years	187.172	9.800	2129	1891	0.966	0.052	167.572	206.772
HIV prevalence (15-49)	0.100	0.022	319	283	1.317	0.221	0.056	0.145
Syphilis positive (15-49)	0.019	0.008	312	279	0.983	0.398	0.004	0.035
MEN								
Urban residence	0.156	0.027	327	292	1.365	0.176	0.101	0.211
No education	0.031	0.009	327	292	0.909	0.283	0.013	0.048
Secondary education or higher	0.330	0.029	327	292	1.108	0.087	0.273	0.388
Never married	0.361	0.030	327	292	1.136	0.084	0.300	0.421
Currently married	0.612	0.026	327	292	0.978	0.043	0.559	0.664
Knows at least one method	1.000	0.000	200	178	na	0.000	1.000	1.000
Knows any modern method	1.000	0.000	200	178	na	0.000	1.000	1.000
Ever used any method	0.855	0.028	200	178	1.141	0.033	0.798	0.912
Want no more children	0.220	0.037	200	178	1.256	0.168	0.146	0.294
Want to delay birth at least 2 years	0.360	0.033	200	178	0.976	0.092	0.294	0.426
Ideal family size	6.275	0.172	320	285	0.932	0.027	5.930	6.620
HIV prevalence (15-49)	0.062	0.012	273	234	0.846	0.199	0.037	0.087
HIV prevalence (15-59)	0.057	0.012	298	255	0.855	0.202	0.034	0.080
Syphilis positive (15-49)	0.023	0.009	258	231	0.979	0.396	0.005	0.042
Syphilis positive (15-59)	0.025	0.009	281	252	0.986	0.369	0.007	0.043

na = Not applicable

Table B.11 Sampling errors for selected variables, North-Western province, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Urban residence	0.167	0.016	881	354	1.248	0.094	0.135	0.198
Literate	0.533	0.044	881	354	2.608	0.082	0.446	0.621
No education	0.175	0.030	881	354	2.320	0.170	0.115	0.234
Secondary education or higher	0.229	0.034	881	354	2.400	0.148	0.161	0.297
Net attendance ratio	0.763	0.023	882	362	1.406	0.030	0.717	0.809
Never married	0.233	0.023	881	354	1.590	0.097	0.187	0.278
Currently married	0.607	0.022	881	354	1.307	0.035	0.564	0.650
Married before age 20	0.742	0.018	683	275	1.089	0.025	0.706	0.779
Currently pregnant	0.104	0.010	881	354	1.000	0.099	0.084	0.125
Children ever born	3.436	0.129	881	354	1.274	0.038	3.177	3.694
Children surviving	2.941	0.109	881	354	1.243	0.037	2.724	3.158
Children ever born to women 40-49	7.310	0.262	129	52	1.098	0.036	6.786	7.835
Knows any contraceptive method	0.985	0.006	535	215	1.200	0.006	0.972	0.998
Ever used any contraceptive method	0.596	0.029	535	215	1.365	0.049	0.538	0.654
Currently using any contraceptive method	0.282	0.016	535	215	0.818	0.056	0.250	0.314
Currently using pill	0.049	0.009	535	215	0.972	0.186	0.031	0.067
Currently using IUD	0.000	0.000	535	215	na	na	0.000	0.000
Currently using female sterilisation	0.028	0.006	535	215	0.886	0.226	0.015	0.041
Currently using periodic abstinence	0.036	0.009	535	215	1.086	0.245	0.018	0.053
Used public sector source	0.627	0.063	118	47	1.417	0.101	0.500	0.754
Want no more children	0.279	0.022	535	215	1.128	0.079	0.235	0.322
Want to delay birth at least 2 years	0.439	0.026	535	215	1.204	0.059	0.388	0.491
Ideal family size	5.390	0.128	749	301	1.640	0.024	5.134	5.645
Mother received tetanus injection for last birth	0.742	0.021	561	226	1.139	0.028	0.699	0.784
Mother received medical assistance at delivery	0.474	0.052	887	357	2.534	0.109	0.370	0.577
Had diarrhoea in two weeks before survey	0.136	0.017	811	326	1.413	0.127	0.101	0.170
Treated with oral rehydration salts (ORS)	0.609	0.051	110	44	1.071	0.084	0.507	0.712
Taken to a health provider	0.473	0.067	110	44	1.378	0.142	0.338	0.607
Vaccination card seen	0.867	0.021	165	66	0.809	0.025	0.824	0.910
Received BCG	0.933	0.027	165	66	1.369	0.029	0.880	0.987
Received DPT (3 doses)	0.776	0.046	165	66	1.402	0.059	0.684	0.867
Received polio (3 doses)	0.800	0.049	165	66	1.576	0.062	0.701	0.899
Received measles	0.824	0.038	165	66	1.285	0.046	0.748	0.901
Received all vaccinations	0.685	0.060	165	66	1.660	0.088	0.564	0.806
Height-for-age (-2 SD)	0.448	0.028	828	340	1.525	0.062	0.393	0.503
Weight-for-height (-2 SD)	0.028	0.006	828	340	1.077	0.228	0.015	0.040
Weight-for-age (-2 SD)	0.271	0.024	828	340	1.399	0.089	0.223	0.319
BMI <18.5	0.234	0.015	770	316	0.984	0.064	0.204	0.264
TFR 0-3 years	6.754	0.350	na	989	1.199	0.052	6.054	7.454
Neonatal mortality last 10 years	24.710	4.126	1642	661	1.032	0.167	16.459	32.962
Postneonatal mortality last 10 years	49.441	6.489	1646	662	1.194	0.131	36.463	62.419
Infant mortality last 10 years	74.151	6.953	1646	662	1.041	0.094	60.244	88.058
Child mortality last 10 years	60.271	7.129	1656	666	1.065	0.118	46.014	74.529
Under-five mortality last 10 years	129.953	8.917	1660	668	0.993	0.069	112.118	147.788
HIV prevalence (15-49)	0.088	0.027	226	92	1.430	0.306	0.034	0.143
Syphilis positive (15-49)	0.069	0.020	245	90	1.241	0.291	0.029	0.110
MEN								
Urban residence	0.134	0.017	238	93	0.753	0.124	0.101	0.168
No education	0.071	0.019	238	93	1.115	0.261	0.034	0.109
Secondary education or higher	0.374	0.054	238	93	1.728	0.145	0.265	0.483
Never married	0.412	0.038	238	93	1.184	0.092	0.336	0.487
Currently married	0.563	0.038	238	93	1.194	0.068	0.486	0.640
Knows at least one method	0.985	0.011	134	52	1.004	0.011	0.964	1.006
Knows any modern method	0.978	0.013	134	52	0.997	0.013	0.952	1.003
Ever used any method	0.672	0.046	134	52	1.132	0.069	0.579	0.764
Want no more children	0.209	0.025	134	52	0.707	0.119	0.159	0.259
Want to delay birth at least 2 years	0.343	0.041	134	52	0.998	0.120	0.261	0.425
Ideal family size	6.104	0.237	212	83	0.865	0.039	5.631	6.577
HIV prevalence (15-49)	0.095	0.031	199	75	1.507	0.330	0.033	0.158
HIV prevalence (15-59)	0.097	0.030	217	81	1.482	0.308	0.037	0.156
Syphilis positive (15-49)	0.054	0.018	202	75	1.101	0.324	0.019	0.090
Syphilis positive (15-59)	0.051	0.016	217	80	1.093	0.322	0.018	0.083

na = Not applicable

Table B.12 Sampling errors for selected variables, Southern province, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Urban residence	0.225	0.025	707	814	1.593	0.111	0.175	0.275
Literate	0.615	0.026	707	814	1.443	0.043	0.562	0.668
No education	0.123	0.016	707	814	1.322	0.133	0.090	0.156
Secondary education or higher	0.262	0.029	707	814	1.778	0.112	0.203	0.320
Net attendance ratio	0.701	0.019	679	809	0.898	0.027	0.663	0.739
Never married	0.225	0.024	707	814	1.526	0.107	0.177	0.273
Currently married	0.653	0.025	707	814	1.420	0.039	0.603	0.704
Married before age 20	0.701	0.027	541	623	1.374	0.039	0.646	0.755
Currently pregnant	0.102	0.009	707	814	0.811	0.091	0.083	0.120
Children ever born	3.228	0.120	707	814	1.051	0.037	2.988	3.468
Children surviving	2.757	0.100	707	814	1.014	0.036	2.556	2.958
Children ever born to women 40-49	7.324	0.278	111	128	1.003	0.038	6.769	7.880
Knows any contraceptive method	0.996	0.003	462	532	1.052	0.003	0.989	1.002
Ever used any contraceptive method	0.654	0.031	462	532	1.386	0.047	0.592	0.715
Currently using any contraceptive method	0.286	0.026	462	532	1.236	0.091	0.234	0.338
Currently using pill	0.108	0.018	462	532	1.248	0.167	0.072	0.144
Currently using IUD	0.002	0.002	462	532	0.989	0.989	0.000	0.006
Currently using female sterilisation	0.009	0.005	462	532	1.218	0.607	0.000	0.019
Currently using periodic abstinence	0.024	0.005	462	532	0.698	0.208	0.014	0.034
Used public sector source	0.726	0.047	117	135	1.148	0.065	0.632	0.821
Want no more children	0.364	0.025	462	532	1.135	0.070	0.313	0.414
Want to delay birth at least 2 years	0.333	0.016	462	532	0.745	0.049	0.301	0.366
Ideal family size	4.782	0.153	687	791	1.939	0.032	4.475	5.088
Mother received tetanus injection for last birth	0.743	0.024	421	485	1.139	0.033	0.695	0.792
Mother received medical assistance at delivery	0.321	0.042	664	764	1.869	0.131	0.237	0.405
Had diarrhoea in two weeks before survey	0.239	0.017	594	684	0.935	0.070	0.205	0.273
Treated with oral rehydration salts (ORS)	0.472	0.051	142	163	1.125	0.108	0.370	0.574
Taken to a health provider	0.345	0.039	142	163	0.940	0.114	0.266	0.424
Vaccination card seen	0.847	0.031	124	143	0.966	0.037	0.784	0.909
Received BCG	0.935	0.019	124	143	0.872	0.021	0.897	0.974
Received DPT (3 doses)	0.879	0.034	124	143	1.156	0.039	0.811	0.947
Received polio (3 doses)	0.863	0.049	124	143	1.588	0.057	0.764	0.961
Received measles	0.871	0.040	124	143	1.264	0.046	0.791	0.951
Received all vaccinations	0.774	0.052	124	143	1.342	0.067	0.670	0.878
Height-for-age (-2 SD)	0.402	0.024	589	702	1.096	0.061	0.354	0.451
Weight-for-height (-2 SD)	0.039	0.008	589	702	0.991	0.199	0.024	0.055
Weight-for-age (-2 SD)	0.236	0.030	589	702	1.584	0.128	0.176	0.296
BMI <18.5	0.173	0.018	531	633	1.105	0.105	0.137	0.210
TFR 0-3 years	6.143	0.381	na	2258	1.324	0.062	5.381	6.905
Neonatal mortality last 10 years	29.351	4.685	1210	1393	0.864	0.160	19.981	38.720
Postneonatal mortality last 10 years	47.034	6.376	1212	1395	1.064	0.136	34.283	59.785
Infant mortality last 10 years	76.385	9.157	1213	1396	1.136	0.120	58.071	94.698
Child mortality last 10 years	77.049	8.825	1226	1411	0.967	0.115	59.398	94.700
Under-five mortality last 10 years	147.548	13.493	1230	1416	1.193	0.091	120.563	174.533
HIV prevalence (15-49)	0.202	0.039	213	220	1.398	0.191	0.125	0.279
Syphilis positive (15-49)	0.033	0.014	214	217	1.123	0.418	0.005	0.060
MEN								
Urban residence	0.215	0.016	205	232	0.558	0.075	0.183	0.247
No education	0.029	0.010	205	232	0.818	0.330	0.010	0.049
Secondary education or higher	0.356	0.042	205	232	1.242	0.117	0.273	0.439
Never married	0.302	0.035	205	232	1.086	0.115	0.233	0.372
Currently married	0.620	0.041	205	232	1.200	0.066	0.538	0.701
Knows at least one method	0.992	0.008	127	144	1.002	0.008	0.976	1.008
Knows any modern method	0.992	0.008	127	144	1.002	0.008	0.976	1.008
Ever used any method	0.843	0.041	127	144	1.259	0.048	0.761	0.924
Want no more children	0.260	0.045	127	144	1.164	0.175	0.169	0.351
Want to delay birth at least 2 years	0.213	0.038	127	144	1.033	0.177	0.137	0.288
Ideal family size	5.453	0.197	203	230	1.106	0.036	5.060	5.847
HIV prevalence (15-49)	0.146	0.024	171	188	0.871	0.161	0.099	0.193
HIV prevalence (15-59)	0.141	0.022	185	203	0.869	0.158	0.096	0.185
Syphilis positive (15-49)	0.052	0.024	174	187	1.405	0.457	0.004	0.099
Syphilis positive (15-59)	0.048	0.022	187	200	1.419	0.463	0.004	0.093

na = Not applicable

Table B.13 Sampling errors for selected variables, Western province, Zambia 2001-2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
WOMEN								
Urban residence	0.101	0.029	653	663	2.432	0.284	0.044	0.158
Literate	0.489	0.030	653	663	1.544	0.062	0.428	0.549
No education	0.194	0.028	653	663	1.802	0.144	0.139	0.250
Secondary education or higher	0.196	0.033	653	663	2.150	0.170	0.129	0.263
Net attendance ratio	0.570	0.032	544	551	1.302	0.056	0.506	0.634
Never married	0.270	0.023	653	663	1.330	0.086	0.223	0.316
Currently married	0.556	0.028	653	663	1.459	0.051	0.499	0.613
Married before age 20	0.566	0.029	512	520	1.343	0.052	0.508	0.625
Currently pregnant	0.101	0.011	653	663	0.911	0.106	0.080	0.123
Children ever born	3.043	0.118	653	663	1.091	0.039	2.807	3.278
Children surviving	2.366	0.080	653	663	0.928	0.034	2.207	2.525
Children ever born to women 40-49	6.539	0.322	102	104	1.122	0.049	5.896	7.182
Knows any contraceptive method	0.983	0.008	363	369	1.250	0.009	0.967	1.000
Ever used any contraceptive method	0.543	0.034	363	369	1.297	0.063	0.475	0.611
Currently using any contraceptive method	0.209	0.025	363	369	1.181	0.121	0.159	0.260
Currently using pill	0.030	0.011	363	369	1.170	0.348	0.009	0.051
Currently using IUD	0.000	0.000	363	369	na	na	0.000	0.000
Currently using female sterilisation	0.000	0.000	363	369	na	na	0.000	0.000
Currently using periodic abstinence	0.003	0.003	363	369	1.035	1.035	0.000	0.008
Used public sector source	0.738	0.058	61	62	1.017	0.078	0.622	0.853
Want no more children	0.207	0.025	363	369	1.161	0.120	0.157	0.256
Want to delay birth at least 2 years	0.339	0.023	363	369	0.930	0.068	0.293	0.385
Ideal family size	5.759	0.145	598	608	1.399	0.025	5.469	6.049
Mother received tetanus injection for last birth	0.724	0.035	406	412	1.564	0.048	0.655	0.794
Mother received medical assistance at delivery	0.314	0.033	622	632	1.512	0.106	0.247	0.380
Had diarrhoea in two weeks before survey	0.205	0.017	528	536	0.941	0.083	0.171	0.238
Treated with oral rehydration salts (ORS)	0.463	0.038	108	110	0.757	0.082	0.387	0.539
Taken to a health provider	0.407	0.039	108	110	0.787	0.095	0.330	0.485
Vaccination card seen	0.760	0.039	121	123	1.004	0.051	0.682	0.839
Received BCG	0.926	0.040	121	123	1.660	0.043	0.846	1.005
Received DPT (3 doses)	0.711	0.061	121	123	1.460	0.086	0.588	0.834
Received polio (3 doses)	0.785	0.039	121	123	1.013	0.050	0.707	0.863
Received measles	0.802	0.055	121	123	1.526	0.069	0.691	0.913
Received all vaccinations	0.603	0.063	121	123	1.403	0.105	0.477	0.730
Height-for-age (-2 SD)	0.426	0.026	519	525	1.118	0.061	0.374	0.478
Weight-for-height (-2 SD)	0.025	0.006	519	525	0.950	0.258	0.012	0.038
Weight-for-age (-2 SD)	0.237	0.021	519	525	1.094	0.089	0.195	0.279
BMI <18.5	0.166	0.024	566	573	1.522	0.143	0.118	0.214
TFR 0-3 years	6.402	0.346	na	1864	1.062	0.054	5.710	7.094
Neonatal mortality last 10 years	60.295	7.881	1120	1138	0.907	0.131	44.533	76.056
Postneonatal mortality last 10 years	78.913	10.838	1122	1140	1.184	0.137	57.237	100.589
Infant mortality last 10 years	139.208	14.757	1122	1140	1.198	0.106	109.695	168.722
Child mortality last 10 years	71.902	11.535	1130	1148	1.306	0.160	48.832	94.972
Under-five mortality last 10 years	201.101	15.944	1132	1150	1.143	0.079	169.213	232.988
HIV prevalence (15-49)	0.169	0.027	160	169	0.908	0.160	0.115	0.223
Syphilis positive (15-49)	0.088	0.020	159	167	0.866	0.222	0.049	0.127
MEN								
Urban residence	0.108	0.011	157	169	0.447	0.103	0.086	0.131
No education	0.096	0.021	157	169	0.881	0.217	0.054	0.137
Secondary education or higher	0.255	0.030	157	169	0.862	0.118	0.195	0.315
Never married	0.420	0.042	157	169	1.062	0.100	0.336	0.504
Currently married	0.510	0.039	157	169	0.969	0.076	0.432	0.587
Knows at least one method	0.987	0.012	80	86	0.972	0.012	0.963	1.012
Knows any modern method	0.987	0.012	80	86	0.972	0.012	0.963	1.012
Ever used any method	0.737	0.049	80	86	0.996	0.067	0.639	0.836
Want no more children	0.188	0.048	80	86	1.083	0.254	0.092	0.283
Want to delay birth at least 2 years	0.287	0.052	80	86	1.012	0.179	0.184	0.391
Ideal family size	6.689	0.300	132	142	0.949	0.045	6.090	7.289
HIV prevalence (15-49)	0.083	0.030	108	136	1.136	0.364	0.023	0.144
HIV prevalence (15-59)	0.085	0.030	117	148	1.167	0.355	0.025	0.146
Syphilis positive (15-49)	0.067	0.022	105	133	0.906	0.332	0.022	0.111
Syphilis positive (15-59)	0.061	0.021	115	146	0.924	0.340	0.020	0.102

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 2001-2002

	Male		Female			Male		Female	
Age	Number	Percentage	Number	Percentage	Age	Number	Percentage	Number	Percentage
0	661	3.7	679	3.7	36	200	1.0	234	1.0
1	669	3.8	703	3.8	37	182	1.0	194	1.1
2	630	3.5	623	3.4	38	187	1.0	161	0.9
3	603	3.4	568	3.1	39	124	0.7	145	0.8
4	599	3.4	591	3.2	40	113	0.6	130	0.7
5	573	3.2	580	3.1	41	117	0.7	113	0.6
6	607	3.4	620	3.4	42	131	0.7	132	0.7
7	641	3.6	605	3.3	43	126	0.7	151	0.8
8	594	3.3	621	3.4	44	103	0.6	117	0.6
9	554	3.1	555	3.0	45	117	0.7	108	0.6
10	575	3.2	561	3.0	46	91	0.5	102	0.6
11	526	3.0	480	2.6	47	86	0.5	105	0.6
12	540	3.0	546	3.0	48	68	0.4	89	0.5
13	463	2.6	490	2.7	49	91	0.5	84	0.5
14	494	2.8	467	2.5	50	67	0.4	83	0.5
15	375	2.1	397	2.2	51	63	0.4	95	0.5
16	405	2.3	358	1.9	52	88	0.5	111	0.6
17	372	2.1	351	1.9	53	60	0.3	71	0.4
18	388	2.2	446	2.4	54	59	0.3	84	0.5
19	408	2.3	386	2.1	55	65	0.4	80	0.4
20	327	1.8	395	2.1	56	63	0.4	72	0.4
21	282	1.6	374	2.0	57	49	0.3	50	0.3
22	254	1.4	342	1.9	58	48	0.3	64	0.3
23	292	1.6	308	1.7	59	70	0.4	63	0.3
24	244	1.4	341	1.9	60	77	0.4	61	0.3
25	281	1.6	294	1.6	61	58	0.3	56	0.3
26	257	1.4	279	1.5	62	65	0.4	79	0.4
27	295	1.7	327	1.8	63	48	0.3	52	0.3
28	280	1.6	251	1.4	64	44	0.2	59	0.3
29	252	1.4	296	1.6	65	45	0.2	68	0.4
30	270	1.5	238	1.3	66	44	0.2	33	0.2
31	220	1.2	206	1.1	67	37	0.2	32	0.2
32	224	1.3	214	1.2	68	28	0.2	51	0.3
33	207	1.2	209	1.1	69	48	0.3	38	0.2
34	150	0.8	156	0.8	70+	321	1.8	297	1.6
35	190	1.1	153	0.8	Don't know/				
36	129	0.7	159	0.9	missing	0	0.0	2	0.0
					Total	17,811	100.0	18,399	100.0

Table C.2.1 Age distribution of eligible and interviewed women

Five year age distribution of the de facto household population of women aged 10-54, and of interviewed women aged 15-49, and percentage of eligible women who were interviewed (weighted), by five-year age groups, Zambia 2001-2002

	Household population of women 10-54		Interviewed women age 15-49		Percentage of eligible women interviewed
Age group	Number	Percent	Number	Percent	
10-14	2,543	31.4	na	na	na
15-19	1,938	23.9	1,849	23.7	95.4
20-24	1,759	21.7	1,701	21.8	96.7
25-29	1,448	17.9	1,404	18.0	97.0
30-34	1,022	12.6	985	12.6	96.3
25-39	811	10.0	784	10.0	96.6
40-44	644	7.9	613	7.8	95.2
45-49	487	6.0	473	6.1	97.1
50-54	444	5.5	na	na	na
15-49	8,109	0.0	7,809	100.0	96.3

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household schedule.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

Five year age distribution of the de facto household population of men aged 10-64, and of interviewed men aged 15-59, and percentage of eligible men who were interviewed (weighted), by five-year age groups, Zambia 2001-2002

	Household population of men 10-64		Interviewed men age 15-59		Percentage of eligible men interviewed
Age group	Number	Percent	Number	Percent	
10-14	900	36.3	na	na	na
15-19	529	21.3	470	21.5	88.8
20-24	390	15.7	346	15.9	88.7
25-29	417	16.8	366	16.7	87.7
30-34	348	14.0	292	13.4	83.8
25-39	279	11.2	246	11.3	88.4
40-44	192	7.7	174	8.0	90.7
45-49	142	5.7	119	5.4	83.6
50-54	106	4.3	98	4.5	92.8
55-59	80	3.2	72	3.3	90.8
60-64	100	4.0	na	na	na
15-59	2,482	0.0	2,183	100.0	88.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before interview. Weights for both household population of men and interviewed men are household weights. Age is based on the household schedule.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Zambia 2001-2002

Subject	Reference group	Percentage of reference group with missing information	Number of cases
Birth date	Births in past 15 years		
Month only		1.48	16,849
Month and year		0.04	16,849
Age at death	Dead children in past 15 years	0.16	2,693
Age/date at first union[1]	Ever-married women 15-49	0.42	5,761
Respondent's education	All women 15-49	0.19	7,658
Diarrhoea in last 2 weeks	Living children age 0-59 months	2.46	5,787
Anthropometry	Living children age 0-59 months in household		
Height		3.56	6,292
Weight		3.24	6,292
Height or weight		3.60	6,292

[1] Both year and age missing

Table C.4 Births by calendar years

Distribution of births by calendar yeas since birth for living, dead, and all children, according to completeness of birth dates, sex ratio at birth, and ratio of births by calendar year (weighted), Zambia 2001-2002

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
Year	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
2002	217	5	222	100.0	100.0	100.0	76.5	169.0	77.9	na	na	na
2001	1,254	90	1,344	99.9	100.0	99.9	97.6	125.9	99.3	na	na	na
2000	1,265	195	1,459	99.9	97.1	99.5	96.6	100.5	97.1	106.9	126.8	109.2
1999	1,112	217	1,329	99.9	95.2	99.1	102.5	154.6	109.5	96.0	111.4	98.3
1998	1,052	195	1,246	99.3	96.6	98.9	106.3	110.2	106.9	94.4	94.8	94.5
1997	1,115	194	1,309	99.7	98.2	99.5	97.7	114.8	100.0	112.2	104.4	110.9
1996	937	177	1,113	99.0	97.0	98.7	100.6	105.8	101.4	85.6	82.6	85.1
1995	1,074	234	1,308	98.6	95.9	98.1	97.6	130.8	102.8	112.1	122.2	113.8
1994	979	206	1,185	98.4	94.5	97.7	115.9	112.6	115.4	97.0	92.3	96.1
1993	945	213	1,158	98.0	93.4	97.1	93.6	94.7	93.8	102.7	108.4	103.7
1998-2002	4,899	702	5,601	99.8	96.7	99.4	99.2	121.5	101.7	na	na	na
1993-1997	5,049	1,024	6,073	98.8	95.7	98.2	100.7	111.6	102.5	na	na	na
1988-1992	3,686	850	4,536	98.4	95.2	97.8	102.3	106.4	103.1	na	na	na
1983-1987	2,600	617	3,218	98.1	94.5	97.4	94.8	113.2	98.1	na	na	na
< 1983	2,930	853	3,783	97.2	90.3	95.6	102.8	95.3	101.1	na	na	na
All	19,165	4,046	23,211	98.6	94.5	97.9	100.1	108.7	101.6	na	na	na

na= Not applicable
[1]Both year and month of birth given
[2]$(B_m/B_f)*100$, where B_m and B_f are the numbers of male and female births, respectively
[3]$[2B_x/(B_{x-1}+B_{x+1})]*100$, where B_x is the number births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under 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, Zambia 2001-2002

Age at death (days)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1	60	42	34	26	162
1	23	20	17	17	77
2	21	13	14	3	51
3	10	13	13	7	43
4	8	10	2	9	29
5	7	3	3	3	15
6	1	1	2	5	9
7	53	33	23	20	129
8	3	0	1	0	4
9	3	3	1	0	7
10	4	1	1	2	9
11	1	1	0	0	2
12	0	0	2	1	3
13	1	0	0	0	2
14	28	19	10	9	67
15	2	0	1	0	3
16	1	0	0	0	1
18	1	1	0	0	2
19	0	0	1	0	1
21	14	10	6	2	32
24	1	0	1	0	2
27	1	0	0	0	1
28	0	1	0	0	2
29	0	0	1	0	1
30	0	2	0	0	2
31+	0	0	1	0	1
Percentage early neonatal[1]	53	58	64	67	59

[1] Ò 6 days/Ò 30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under one month of age by age at death in months and the percentage of neonatal deaths reported to occur under one month, for five-year periods of birth preceding the survey, Zambia 2001-2002

Age at death (months)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1[a]	244	174	135	103	656
1	31	41	32	15	120
2	40	38	32	21	131
3	49	47	25	15	135
4	33	33	20	15	102
5	28	38	19	12	97
6	38	43	30	21	133
7	30	27	24	14	95
8	29	31	30	10	100
9	30	36	39	15	121
10	13	14	11	3	40
11	19	19	11	3	53
12	29	41	44	27	141
13	10	15	7	5	37
14	11	15	9	2	37
15	11	4	5	3	22
16	8	10	6	2	26
17	10	7	6	2	25
18	15	16	18	8	56
19	7	9	6	5	27
20	8	14	6	3	31
21	5	4	5	1	15
22	4	4	3	1	11
23	6	9	4	3	22
24+	5	2	2	3	11
Missing	2	0	0	0	2
1 Year	42	39	46	16	143
Percent neonatal[b]	42	32	33	42	37
Total 0-11	584	542	409	248	1,783

[a] Includes deaths under 1 month reported in days
[b] Under 1 month/under 1 year

SURVEY PERSONNEL

Appendix ***D***

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Dr Gavin B. Silwamba	Central Board of Health
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Dr Simon K. Miti	Central Board of Health
Dr Ben U. Chirwa	Central Board of Health
Dr Musonda R. Sunkutu	Central Board of Health
Ms Efreda Chulu	Central Statistical Office
Dr Buleti Nsemukila	Central Statistical Office
Mr Modesto S. Banda	Central Statistical Office
Mr Kumbutso Dzekedzeke	Central Statistical Office

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Mr David S. Diangamo	Central Statistical Office
Dr Simon Miti	Central Board of Health
Dr Ben U. Chirwa	Central Board of Health
Dr Musonda R. Sunkutu	Central Board of Health
Ms Efreda Chulu	Central Statistical Office
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Dr Albert M. Sitali	Central Board of Health
Dr Elijah Sinyinza	Central Board of Health
Dr Velepi Mtonga	Central Board of Health
Dr Victor Mukonka	Central Board of Health
Mr Bornwell Sikateyo	Central Board of Health
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Mr Patrick M. Chewe	Central Statistical Office
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Dr Rosemary Musonda	Tropical Diseases Research Centre
Mr Lovemore Kaetano	Tropical Diseases Research Centre
Ms Chanda Mulenga	Tropical Diseases Research Centre
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Dr Steve Hodgins	United States Agency for International Development
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Dr Peggy Chibuye	United States Agency for International Development
Mr Perry Mwangala	United States Agency for International Development
Mr Shiro Kitazawa	Japan International Cooperation Agency
Ms Naomi Toyoshi	Japan International Cooperation Agency
Ms Margaret O'Callaghan	United Nations Population Fund
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Dr Goran Carlson	Swedish International Development Agency
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Ms Margaret Ndakala	Central Statistical Office
Mr Kenius Masaka	Central Board of Health

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Mr Shadreck Chakamisha	Copperbelt Province	Ms Judith Museba	Northern Province
Mr Dickson Chitansha	Copperbelt Province	Mr Henry Banda	Northern Province
Mr Kalonga S. Banda	Eastern Province	Mr Alphonsio Susiku	North-Western Province
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Mr Overson P Ndhlovu	Luapula Province	Mr Martin Tolosi	Western Province
Mr Edgar M. Chani	Lusaka Province		

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Nyaunde Mwangala	Female Interviewer
Agatha Chinyimba	Female Interviewer
Josephine Inkaya	Female Interviewer
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QUESTIONNAIRES

Appendix **E**

September 28, 2001

2001 ZAMBIA DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD QUESTIONNAIRE
CENTRAL BOARD 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 . . . . . .

LINE NUMBER OF WOMAN SELECTED FOR Qs. 720A - 720L . . . . . .

HOUSEHOLD SELECTED FOR MEN'S SURVEY? (YES = 1, NO = 2) . . . . . .

HOUSEHOLD SELECTED FOR SUGAR SAMPLE? (YES= 1, NO= 2) . . . . . .

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR
INTERVIEWER'S NAME	_____	_____	_____	NAME
RESULT*	_____	_____	_____	RESULT
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS
TIME	_____	_____		

* RESULT CODES

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN

TOTAL ELIGIBLE MEN

LINE NO. OF RESP. TO HOUSEHOLD QUEST.

LANGUAGE OF QUESTIONNAIRE: ENGLISH 0 1

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

HOUSEHOLD SCHEDULE

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

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	ELIGIBILITY			
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household?*	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILD-REN UNDER AGE 6	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NO. OF WOMAN SELEC-TED FOR Qs. 720A-720L
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9A)	(9B)
			M F	YES NO	YES NO	IN YEARS				
01			1 2	1 2	1 2		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

* 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 = NEPHEW OR NIECE
10 = CO-WIFE
11 = OTHER RELATIVE
12 = ADOPTED/FOSTER/ STEPCHILD
13 = NOT RELATED
98 = DON'T KNOW

LINE NO.	PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD**				EDUCATION						
	Is (NAME)'s natural mother alive?	IF ALIVE Does (NAME)'s natural mother live in this house-hold? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER	Is (NAME)'s natural father alive?	IF ALIVE Does (NAME)'s natural father live in this house-hold? IF YES: What is his name? RECORD FATHER'S LINE NUMBER	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS				
					Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? What is the highest grade (NAME) completed at that level?***	Is (NAME) currently attend-ing school/ Did (NAME) attend school in 2001?	During the current school year/ year 2001, did (NAME) attend school at any time?	During the current school year/year 2001, what level and grade [is/was] (NAME) attending?***	During the previous school year/ year 2000, did (NAME) attend school at any time?	During that school year/year 2000, what level and grade did (NAME) attend?***
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	YES NO DK		YES NO DK		YES NO	LEVEL GRADE	YES NO	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE
01	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
02	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
03	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
04	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
05	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
06	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
07	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
08	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
09	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
10	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	

** Q.10 THROUGH Q.13
THESE QUESTIONS REFER TO THE BIOLOGICAL PARENTS OF THE CHILD.
IN Q.11 AND Q.13, RECORD '00' IF PARENT NOT LISTED IN HOUSEHOLD SCHEDULE.

***CODES FOR Qs. 15, 18 AND 20
EDUCATION LEVEL:
0 = NURSERY SCHOOL, KINDERGARTEN
1 = PRIMARY
2 = SECONDARY
3 = HIGHER
8 = DON'T KNOW

EDUCATION GRADE:
00 = LESS THAN 1 YEAR COMPLETED
98 = DON'T KNOW

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	ELIGIBILITY			
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household?*	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILD-REN UNDER AGE 6	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NO. OF WOMAN SELEC-TED FOR DV QUES-TIONS
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9A)	(9B)
			M F	YES NO	YES NO	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
06			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

* 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 = NEPHEW OR NIECE
10 = CO-WIFE
11 = OTHER RELATIVE
12 = ADOPTED/FOSTER/ STEPCHILD
13 = NOT RELATED
98 = DON'T KNOW

** Q.10 THROUGH Q.13 THESE QUESTIONS REFER TO THE BIOLOGICAL PARENTS OF THE CHILD.
IN Q.11 AND Q.13, RECORD '00' IF PARENT NOT LISTED IN HOUSEHOLD SCHEDULE.

***CODES FOR Qs. 15, 18 AND 20
EDUCATION LEVEL:
0 = NURSERY, KINDERGARTEN
1 = PRIMARY
2 = SECONDARY
3 = HIGHER
8 = DON'T KNOW

EDUCATION GRADE:
00 = LESS THAN 1 YEAR COMPLETED
98 = DON'T KNOW

LINE NO.	PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD**				EDUCATION						
	Is (NAME)'s natural mother alive?	IF ALIVE	Is (NAME)'s natural father alive?	IF ALIVE	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS				
		Does (NAME)'s natural mother live in this house-hold? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER		Does (NAME)'s natural father live in this house-hold? IF YES: What is his name? RECORD FATHER'S LINE NUMBER	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended?*** What is the highest grade (NAME) completed at that level?***	Is (NAME) currently attend-ing school/ Did (NAME) attend school in 2001?	During the current school year/ year 2001, did (NAME) attend school at any time?	During the current school year/year 2001, what level and grade [is/was] (NAME) attending?***	During the previous school year/ year 2000, did (NAME) attend school at any time?	During that school year/year 2000, what level and grade did (NAME) attend?***
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	YES NO DK		YES NO DK		YES NO	LEVEL GRADE	YES NO	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE
11	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
12	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
13	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
14	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
15	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
16	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
17	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
18	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
19	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
20	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	

Just to make sure that I have a complete listing:

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

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

3) Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed? IF YES, ENTER EACH IN TABLE NO ☐

TICK HERE IF CONTINUATION SHEET USED ☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
21	What is the main source of drinking water for members of your household?	**PIPED WATER** PIPED INTO DWELLING . . . . . 11 PIPED INTO YARD/PLOT . . . . . 12 COMMUNAL TAP . . . . . 13 **WATER FROM OPEN WELL** OPEN WELL IN YARD/PLOT . . . . . 21 OPEN PUBLIC WELL . . . . . 22 **COVERED WELL/BOREHOLE** PROTECTED WELL IN YARD/PLOT . . . . . 31 PROTECTED PUBLIC WELL . . . . 32 **SURFACE WATER** SPRING . . . . . 41 RIVER/STREAM . . . . . 42 POND/LAKE/DAM . . . . . 43 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 BOTTLED WATER . . . . . 71 OTHER _____ 96 (SPECIFY)	<23 <23 <23 <23 <23 <23
22	How long does it take you to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] ON PREMISES 996	
23	How do you store your drinking water?	CLOSED CONTAINER/ JERRY CAN . 1 OPEN CONTAINER / BUCKET . . . . . 2 OTHER _____ 6 (SPECIFY)	
24	Do you usually boil your drinking water?	YES, MOST OF THE TIME . . . . . 1 YES, SOME OF THE TIME . . . . . 2 NO 3	
25	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	<29
26	Where have you seen or heard messages about *Clorin*? CIRCLE ALL MENTIONED.	RADIO . . . . . A TELEVISION . . . . . B SHOP . . . . . C LEAFLETS / BOOKLETS . . . . . D POSTER . . . . . E COMMUNITY-BASED AGENT . . . . . F OTHER _____ G (SPECIFY)	
27	Is your household water currently treated with *Clorin* from a bottle or packet?	YES . . . . . 1 NO 2	
29	What kind of toilet facilities does your household have?	FLUSH TOILET . . . . . 11 TRADITIONAL PIT LATRINE . . . . . 21 VENTILATED IMPROVED PIT (VIP) LATRINE . . . . . 22 NO FACILITY/BUSH/FIELD . . . . . 31 OTHER _____ 96 (SPECIFY)	<31
30	Do you share these facilities with other households?	YES . . . . . 1 NO 2	
31	Does your household have: Electricity? Solar Power? A radio? A television? A telephone or cell phone? A refrigerator?	YES NO ELECTRICITY . . . . . 1 2 SOLAR POWER . . . . . 1 2 RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 TELEPHONE . . . . . 1 2 REFRIGERATOR 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
32	What is the main source of energy used for cooking?	ELECTRICITY . . . . . 01 GAS . . . . . 02 SOLAR . . . . . 03 PARAFFIN / KEROSENE . . . . . 04 COAL, LIGNITE . . . . . 05 CHARCOAL . . . . . 06 WOOD . . . . . 07 COW DUNG . . . . . 08 OTHER _____ 96 (SPECIFY)	
33	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH / MUD / DUNG . . . . . 11 RUDIMENTARY FLOOR WOOD PLANKS . . . . . 21 FINISHED FLOOR PARQUET / WOOD TILES . . . . . 31 BRICK . . . . . 32 TERRAZO / CERAMIC TILES . . . . 33 CONCRETE / CEMENT . . . . . 34 CARPET . . . . . 35 OTHER _____ 96 (SPECIFY)	
34	Does any member of your household own: A bicycle? A motorcycle or motor scooter? A car or truck?	YES NO BICYCLE . . . . . 1 2 MOTORCYCLE/SCOOTER . . . . 1 2 CAR/TRUCK 1 2	
35	Does your household own any mosquito nets that can be used to protect against mosquitoes while sleeping?	YES . . . . . 1 NO 2	—< 42
36	How many mosquito nets does your household own?	NUMBER OF NETS . . . . . [ ]	

	ASK THE FOLLOWING QUESTIONS FOR EACH NET.	NET # 1	NET #2	NET #3
37	How long ago did your household obtain the mosquito net? MOs AGO = MONTHS AGO. IF LESS THAN 1 MONTH, RECORD '00'.	MOs AGO . [ ][ ] MORE THAN 3 YEARS AGO . 96	MOs AGO . [ ][ ] MORE THAN 3 YEARS AGO . 96	MOs AGO [ ][ ] MORE THAN 3 YEARS AGO 96
38	Was the mosquito net treated with insecticide to repel mosquitoes or bugs when you obtained it?	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE . . . 8
39	Since you got the mosquito net, was it ever soaked or dipped in a liquid to repel mosquitoes or bugs?	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE . . . 8
40	Who slept under this mosquito net last night? RECORD THE RESPECTIVE LINE NUMBER FROM THE HOUSEHOLD SCHEDULE.	LINE NO [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ]	LINE NO [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ]	LINE NO [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ]
41		GO BACK TO 37 IN NEXT COLUMN; OR, IF NO MORE NETS, GO TO 42.	GO BACK TO 37 IN NEXT COLUMN; OR, IF NO MORE NETS, GO TO 42.	GO TO 42.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
42	Do you have any sugar in your house now?	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	 —< 44 —< 44
43	ASK RESPONDENT TO BRING THE PACKAGE OF SUGAR. RECORD TYPE OF SUGAR PACKAGE. IF HOUSEHOLD IS SELECTED FOR SUGAR SAMPLE, COLLECT SUGAR AS INSTRUCTED.	**OPAQUE** PACKAGE LABELED ZAMBIA SUGAR /KALUNGWISHI . . . . . 1 **TRANSPARENT** PLASTIC LABELED ZAMBIA SUGAR /KALUNGWISHI . . . . . 2 LABELED, NOT FROM ZAMBIA . . . . . 3 TRANSPARENT PLASTIC, NO LABEL . . . . . 4 OTHER, NOT SEEN 8	
44	Approximately how much sugar does this household usually consume in one week?	NONE. . . . . 1 LESS THAN 250 GRAMS . . . . 2 ABOUT HALF A KILO . . . . . 3 ABOUT ONE KG . . . . . 4 MORE THAN ONE KG . . . . . 5 DOES NOT KNOW/ NOT SURE 8	
45	ASK RESPONDENT FOR A TEASPOONFUL OF SALT. TEST SALT FOR IODINE. RECORD PPM (PARTS PER MILLION).	0 PPM (NO IODINE) / NO COLOUR . . . . . 1 7 PPM . . . . . 2 15 PPM . . . . . 3 30 PPM OR MORE . . . . . 4 NO SALT IN THE HH . . . . . 5 SALT NOT TESTED_____6 (SPECIFY REASON)	
46	These days, would you say that this household usually has enough food to eat, sometimes has enough food to eat, seldom has enough food to eat, or never has enough food to eat?	USUALLY/ALWAYS . . . . . 1 SOMETIMES . . . . . 2 SELDOM . . . . . 3 NEVER 4	
47	In the last 12 months, have you or any member of this household been denied care from a health facility because you couldn't pay?	YES . . . . . 1 NO . . . . . 2 DO NOT KNOW/ NOT SURE . . 8	
48	In the last 12 months, have you or any member of this household been prescribed medicine that you didn't obtain because you couldn't pay?	YES . . . . . 1 NO . . . . . 2 DO NOT KNOW /NOT SURE . . 8	

TABLE OF THE SELECTION OF WOMEN FOR THE DOMESTIC VIOLENCE QUESTIONS

Take the last digit of the sequential questionnaire number. This is the number of the row you should go to. See 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. Circle the number that appears in the box. This is the number of the woman who will be asked the domestic violence questions.. Then, go to Column 9(B) in the household schedule and circle the corresponding line number of the eligible woman (e.g. if the number in the box is '2' and there are three woman in the household whose line numbers are '02', '03', and '07, the line number of the eligible woman for domestic violence questions is '03') .

Last digit of the questionnaire number	Total number of eligible women in the household							
	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

WEIGHT AND HEIGHT MEASUREMENT

CHECK COLUMNS (8) AND (9A): RECORD THE LINE NUMBER, NAME AND AGE OF ALL WOMEN AGE 15-49 AND ALL CHILDREN UNDER AGE 6.

WOMEN 15-49				WEIGHT AND HEIGHT MEASUREMENT OF WOMEN 15-49			
LINE NO. FROM COL.(8)	NAME FROM COL.(2)	AGE FROM COL.(7)	What is (NAME)'s date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)
				.	.		
				.	.		
				.	.		

CHILDREN UNDER AGE 6				WEIGHT AND HEIGHT OF CHILDREN BORN IN 1996 OR LATER			
LINE NO. FROM COL.(9)	NAME FROM COL.(2)	AGE FROM COL.(7)	What is (NAME)'s date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
		YEARS	DAY MO. YEAR			LYING STAND.	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	

TICK HERE IF CONTINUATION SHEET USED ☐

There will be an education survey done at a later point in time. Your household may or may not be asked to participate in this survey. If your household is included in the survey, someone will return to your house and ask additional questions about education.

INFORMED CONSENT FOR SYPHILIS AND HIV TESTS

SYPHILIS TESTING

Hello, my name is (YOUR NAME) and I am from the Ministry of Health. As my colleague has informed you already, we are doing a health survey. In this survey, we are studying syphilis among women 15-49 of age and men 15-59 of age in Zambia. 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.

We encourage you to participate in this test by giving a small amount of blood form your arm. For this test we use sterile instruments that are clean and completely without risk. The blood will be analyzed this evening and I will be back tomorrow to give you the results if you tell me when you will be here. If the test results show that you have syphilis, we would provide free treatment for you and your partner(s) at home or at the nearest health center. No one will know the results of your test except you and me.

At this moment, do you have any questions?

Now, will you tell me if you accept to participate in the syphilis test? GO BACK TO COLUMN (62). CIRCLE THE APPROPRIATE CODE AND SIGN.

IF RESPONDENT IS AGE 15-17, ASK PARENT/GUARDIAN: Now, will you tell me if you accept for (NAME OF YOUTH) to participate in the syphilis test? GO TO COLUMN (62). CIRCLE THE APPROPRIATE CODE AND SIGN. THEN READ THE CONSENT FORM TO YOUTH.

IF CONSENTED, TAKE BLOOD. THEN ASK: If the test shows that you have syphilis and we can't find you for treatment at home, we would like to give that information to the health authorities so that they can follow up. Do you agree that we can give your name and the location of this house to the health authorities if the test shows that you need treatment? CIRCLE CODE FOR ' YES' OR ' NO' IN COLUMN (63).

HIV TESTING

CHECK SYPHILIS CONSENT STATEMENT:

CONSENTED

?

NOT CONSENTED

?

We are also studying HIV among women and men in our survey. HIV is a serious health problem. As you may know, HIV is the virus that causes AIDS, which is usually fatal. This survey will assist the government to develop programs for preventing HIV and AIDS. We request that you participate in the HIV testing part of this survey by authorizing us to use a few drops of the blood that we have already collected for the syphilis test. To ensure the confidentiality of this test result, no individual names will be attached to the blood sample; therefore, we will not be able to give you the result of your HIV test and no one will be able to trace the test back to you. However, if you want to know your HIV status you will be referred to the nearest health facility which will offer you free testing and counseling. At this moment, do you have any questions? Now, will you tell me if you accept to participate in the HIV test? GO BACK TO COLUMN (64). CIRCLE THE APPROPRIATE CODE AD SIGN. IF RESPONDENT IS AGE 15-17, ASK PARENT/GUARDIAN: Now, will you tell me if you accept for (NAME OF YOUTH) to participate in the HIV test? GO BACK TO COLUMN (64). CIRCLE THE APPROPRIATE CODE AND SIGN. THEN READ CONSENT FORM TO YOUTH.	We are also studying HIV among women and men in our survey. HIV is a serious health problem. As you may know, HIV is the virus that causes AIDS, which is usually fatal. This survey will assist the government to develop programs for preventing HIV and AIDS. We ask that you participate in this test by giving a few drops of blood from your finger. For this test we use sterile instruments that are clean and completely without risk. Blood will be tested later in the laboratory. To ensure the confidentiality of this test result, no individual names will be attached to the blood sample; therefore, we will not be able to give you the result of your HIV test and no one will be able to trace the test back to you. However, if you want to know your HIV status you will be referred to the nearest health facility which will offer you free testing and counseling. At this moment, do you have any questions? Now, will you tell me if you accept to participate in the HIV test? GO BACK TO COLUMN (64). CIRCLE THE APPROPRIATE CODE AD SIGN. IF RESPONDENT IS AGE 15-17, ASK PARENT/GUARDIAN: Now, will you tell me if you accept for (NAME OF YOUTH) to participate in the HIV test? GO BACK TO COLUMN (64). CIRCLE THE APPROPRIATE CODE AND SIGN. THEN READ CONSENT FORM TO YOUTH.

NOTE FOR THE NURSE/COUNSELOR:

THE RESPONDENT HAS THE RIGHT TO REFUSE HIV/SYPHILIS TEST(S), AND THEREFORE SHOULD NOT BE FORCED.

2001 ZAMBIA DEMOGRAPHIC AND HEALTH SURVEY
QUESTIONNAIRE FOR INDIVIDUAL WOMEN
CENTRAL BOARD OF HEALTH/CENTRAL STATISTICAL OFFICE

IDENTIFICATION

LOCALITY NAME _____	
NAME OF HOUSEHOLD HEAD _____	
CLUSTER NUMBER	+)))0)))0))) * * * *
HOUSEHOLD NUMBER	/)))3)))3)))1 * * * *
PROVINCE	.)))2)))3)))1 * *
URBAN/RURAL (URBAN=1, RURAL=2)	/)))1 * *
LUSAKA/OTHER CITY/TOWN/VILLAGE . . . . . . (LUSAKA=1, OTHER CITY=2, TOWN=3, VILLAGE=4)	/)))1 * * +)))3)))1 * * *
NAME AND LINE NUMBER OF WOMAN _____	.)))3)))1 * *
WOMAN SELECTED FOR Qs. 720A - 720L? (YES = 1, NO = 2)	.)))-

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY +))0)), * * * MONTH /))3))1 * * *
INTERVIEWER'S NAME	_____	_____	_____	YEAR +))0))3))3))1 * * * * * NAME .))2))3))3))1 * * *
RESULT*	_____	_____	_____	RESULT .))3))1 * * .))-
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS +)), * *
TIME	_____	_____		.))-

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER
3	POSTPONED	6	INCAPACITATED		_____ (SPECIFY)

LANGUAGE OF QUESTIONNAIRE** ENGLISH	+)))0))) *!0!* 1!*
LANGUAGE OF INTERVIEW**	/)))3)))1 * * *
RESPONDENT'S LOCAL LANGUAGE**	/)))3)))1 * * *
TRANSLATOR USED (1=NOT AT ALL; 2=SOMETIME; 3=ALL THE TIME)	.)))3)))1 * * .))-

** 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 _____ +)))0))) , * * *	NAME _____ +)))0))) , * * *	+)))0))), * * * .)))2)))-	+)))0))), * * * .)))2)))-
DATE _____ .)))2))) -	DATE _____ .)))2))) -		

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with CBOH/CSO. We are conducting a national survey about the health of women and children. We would very much appreciate your participation in this survey. I would like to ask you about your health (and the health of your children). This information will help the government to plan health services. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

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.	+)))0)), HOUR . . . . . * * * /)))3)))1 MINUTES . . . . . * * * .)))2)))-	
103	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	+)))0)), YEARS . . . . . * * * .)))2)))- ALWAYS . . . . . 95 VISITOR 96	),)2▸105
104	Just before you moved here, did you live in Lusaka, in another city, in a town, or in a village?	LUSAKA . . . . . 1 OTHER CITY . . . . . 2 TOWN . . . . . 3 VILLAGE 4	
105	In what month and year were you born?	+)))0)), MONTH . . . . . * * * .)))2)))- DON'T KNOW MONTH . . . . . 98 +)))0)))0)))0)), YEAR . . . . . * * * * * .)))2)))2)))2)))- DON'T KNOW YEAR 9998	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	+)))0)), AGE IN COMPLETED YEARS . * * * .)))2)))-	
107	Have you ever attended school?	YES . . . . . 1 NO 2	))▸111
108	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER 3	
109	What is the highest grade you completed at that level?	+)))0)), GRADE . . . . . * * * .)))2)))-	
110	CHECK 108: PRIMARY +)))), /)))- ▾ SECONDARY OR HIGHER +)))), .)))2))))))))))))))))))))))))))))))))		))▸114

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT*. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE . . . 3 NO CARD WITH REQUIRED LANGUAGE_____ 4 (SPECIFY LANGUAGE)	
112	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	
113	CHECK 111: CODE '2', '3' OR '4' CIRCLED +)))/)))- ▾ CODE '1' CIRCLED +))), .)))2))))))))))))))))))))))))))))))))))))))		))▸115
114	Do you read a newspaper almost every day, at least once 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 ALMOST NEVER/NOT AT ALL 4	
115	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 ALMOST NEVER/NOT AT ALL 4	
116	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 ALMOST NEVER/NOT AT ALL 4	
117	What is your religion?	CATHOLIC . . . . . 1 PROTESTANT . . . . . 2 MUSLIM . . . . . 3 OTHER _____ 6 (SPECIFY)	
118	What tribe do you belong to?	+)))0))), _____ * * * .)))2)))-	

* Examples:

1 - Children should go to school.
2 - Today is a sunny day.
3 - Birds fly in the sky.
4 - The child is reading a book.
5 - The rains came late this year.

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 . . . . . +)))0)))* * * DAUGHTERS AT HOME . . . . . /)))3)))* * * .)))2)))	
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 . . . . . +)))0)))* * * DAUGHTERS ELSEWHERE . . . . /)))3)))* * * .)))2)))	
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 . . . . . +)))0)))* * * GIRLS DEAD . . . . . /)))3)))* * * .)))2)))	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL . . . . . +)))0)))* * * .)))2)))	
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 +))) .)))2))▸ PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS +)))/)))▾ NO BIRTHS +))) .)))2))		))▸226

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had. RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.

212 What name was given to your (first/next) baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME)?
01	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . 1 YEAR . . . 2	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER (NEXT BIRTH)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	
02	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . 1 YEAR . . . 2	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	YES . . . 1 NO 2
03	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . 1 YEAR . . . 2	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	YES . . . 1 NO 2
04	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . 1 YEAR . . . 2	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	YES . . . 1 NO 2
05	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . 1 YEAR . . . 2	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	YES . . . 1 NO 2
06	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . 1 YEAR . . . 2	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	YES . . . 1 NO 2
07	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . 1 YEAR . . . 2	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	YES . . . 1 NO 2

212 What name was given to your next baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME)?
08	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . . YEAR . . .	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER → (GO TO 221)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	YES . . . 1 NO 2
09	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . . YEAR . . .	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER → (GO TO 221)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	YES . . . 1 NO 2
10	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . . YEAR . . .	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER → (GO TO 221)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	YES . . . 1 NO 2
11	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . . YEAR . . .	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER → (GO TO 221)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	YES . . . 1 NO 2
12	SING 1 MULT 2	BOY 1 GIRL 2	MONTH . . . . YEAR . . .	YES . 1 NO . . 2 → 220	AGE IN YEARS	YES . . 1 NO . . . 2	LINE NUMBER → (GO TO 221)	DAYS . . . 1 MON . . . . 2 YEARS . . 3	YES . . . 1 NO 2

222	Have you had any live births since the birth of (NAME OF LAST BIRTH)?	YES . . . . . 1 NO 2

223	COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME → CHECK: NUMBERS ARE DIFFERENT → (PROBE AND RECONCILE) FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED. FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS.
224	CHECK 215 AND ENTER THE NUMBER OF BIRTHS IN 1996 OR LATER. IF NONE, RECORD '0'.

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
226	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	),)2▸229
227	How many months pregnant are you?	+)))0)), MONTHS . . . . . * * * .)))2))-	
228	At the time you became pregnant did you want to become pregnant <u>then</u>, did you want to wait until <u>later</u>, or did you <u>not want</u> to have any (more) children at all?	THEN . . . . . 1 LATER . . . . . 2 NOT AT ALL 3	
229	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	))▸237
230	When did the last such pregnancy end?	+)))0)), MONTH . . . . . * * * +)))0)))3)))3)))1 YEAR . . . . . * * * * * .)))2)))2)))2))-	
231	How many months pregnant were you when the last such pregnancy ended?	+)))0)), MONTHS . . . . . * * * .)))2))-	
232	CHECK 230: LAST PREGNANCY ENDED IN JAN. 1996 OR LATER +)))/)))- ▾ LAST PREGNANCY ENDED BEFORE JAN. 1996 +))) .)))2))		))▸237
233	Have you ever had any other pregnancies that did not result in a live birth?	YES . . . . . 1 NO 2	))▸237
234	When did the previous such pregnancy end?	+)))0)), MONTH . . . . . * * * +)))0)))3)))3)))1 YEAR . . . . . * * * * * .)))2)))2)))2))-	
235	How many months pregnant were you when that pregnancy ended?	+)))0)), MONTHS . . . . . * * * .)))2))-	
237	When did your last menstrual period start? _____ (DATE, IF GIVEN)	+)))0)), DAYS AGO . . . . . 1 * * * /)))3)))1 WEEKS AGO . . . . . 2 * * * /)))3)))1 MONTHS AGO . . . . . 3 * * * /)))3)))1 YEARS AGO . . . . . 4 * * * .)))2))- 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	),)2▸301

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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

Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.

301	Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO . . . . . 2), ▾	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO . . . . . 2), ▾	Have you ever had a partner who had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	PILL Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO . . . . . 2), ▾	YES . . . . . 1 NO 2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO . . . . . 2), ▾	YES . . . . . 1 NO 2
05	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	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	FOAM TABLETS, DIAPHRAGM OR JELLY Women can place a suppository, a diaphragm, jelly, or cream in their vagina before intercourse.	YES . . . . . 1 NO . . . . . 2), ▾	YES . . . . . 1 NO 2
10	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
11	RHYTHM OR NATURAL FAMILY PLANNING 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
12	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO . . . . . 2), ▾	YES . . . . . 1 NO 2
13	EMERGENCY CONTRACEPTION Women can take pills up to three days after sexual intercourse to avoid becoming pregnant.	YES . . . . . 1 NO . . . . . 2), ▾	YES . . . . . 1 NO 2
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	YES . . . . . 1 NO . . . . . 2 YES . . . . . 1 NO 2

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
303	CHECK 302: NOT A SINGLE "YES" (NEVER USED) +)))/)))- ▾ AT LEAST ONE "YES" (EVER USED) +))) .)))2))		))▸307
304	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	))▸329
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 . . . . . +)))0))), * * * .)))2)))-	
308	CHECK 302 (01): WOMAN NOT STERILIZED +)))/)))- ▾ WOMAN STERILIZED +))) .)))2))		))▸311A
309	CHECK 226: NOT PREGNANT OR UNSURE +)))/)))- ▾ PREGNANT +))) .)))2))		))▸329
310	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	))▸329
311

312	What brand of pills are you using? ASK TO SEE THE PACKAGE IF RESPONDENT DOES NOT REMEMBER NAME OF BRAND.	SAFEPLAN . . . . . 01 MICROGYNON . . . . . 02 MICROLUT . . . . . 03 EUGYNON . . . . . 04 LOGYNON . . . . . 05 NORDETTE . . . . . 06 OTHER_____96 (SPECIFY) PACKAGE NOT SEEN/DK 98	), * * * /▸316A * * *)-

NO.	QUESTION AND FILTERS	CODING CATEGORIES	SKIP
313	In what facility did the sterilization take place? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/SURGEY . . . . . 21 MISSION HOSPITAL/CLINIC . . . . . 22 PRIVATE DOCTOR'S OFFICE . . . . . 23 WORK PLACE . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
314	CHECK 311: CODE 'A' CIRCLED +)), /))- * ▾ Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation? CODE 'A' NOT 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	

NO.	QUESTION AND FILTERS	CODING CATEGORIES	SKIP
316	In what month and year was the sterilization performed?	MONTH . . . . . * * *	
316A	In what month and year did you start using (CURRENT METHOD) without stopping? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	YEAR . . . . . * * * * *	
317	CHECK 316/316A: YEAR IS 1996 OR LATER YEAR IS BEFORE 1996		))▸327
319	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 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM/FOAM/JELLY . . . . . 09 LACTATIONAL AMEN. METHOD . . . . . 10 NATURAL FAMILY PLANNING . . . . . 11 WITHDRAWAL . . . . . 12 OTHER METHOD 96	))▸331))▸327))▸327))▸327))▸327))▸331))▸331))▸331
323	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	))▸327
324	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
327	CHECK 311/311A: CIRCLE METHOD CODE:	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTIONS . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM/FOAM/JELLY . . . . . 09 LACTATIONAL AMEN. METHOD . . . . . 10 NATURAL FAMILY PLANNING . . . . . 11 WITHDRAWAL . . . . . 12 OTHER _____ 96 (SPECIFY)	))▸331))▸331))▸328A), /▸331)-

NO.	QUESTION AND FILTERS	CODING CATEGORIES	SKIP
328	Where did you obtain (CURRENT METHOD) the last time? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. Where did you learn to use Lactational Amenorrhea Method? 328A _____ (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 COMMUNITY-BASED AGENT . . . . . 32 FRIEND/RELATIVE . . . . . 33 OTHER _____ 96 (SPECIFY)	), * * * * * * * * /▸331 * * * * * * * * * *)-
329	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	))▸331
330	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL PLACES MENTIONED.	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B HEALTH POST . . . . . C OTHER PUBLIC_____D (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/SURGERY . . . . . E MISSION HOSPITAL/CLINIC . . . . . F PHARMACY . . . . . G PRIVATE DOCTOR . . . . . H WORK PLACE . . . . . I OTHER PRIVATE MEDICAL _____ K (SPECIFY) OTHER SOURCE SHOP . . . . . L COMMUNITY-BASED AGENT . . . . . M FRIEND/RELATIVE . . . . . N OTHER _____ X (SPECIFY)	
331 331A	In the last 12 months, was anybody in your house visited by a member of the community who is a health worker? What services did they provide? RECORD ALL MENTIONED.	YES . . . . . 1 NO . . . . . 2 PILLS, CONDOMS, FOAM TABLETS . . . A ORS PACKETS . . . . . B CLORIN . . . . . C ANTIMALARIAL MEDICINE . . . . . D WEIGHED BABY . . . . . E MOSQUITO NET . . . . . F VITAMIN A . . . . . G INFORMATION, EDUCATION, COUNSELING . . . . . H OTHER_____X	))▸332

NO.	QUESTION AND FILTERS	CODING CATEGORIES	SKIP
332	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES . . . . . 1 NO 2	)) ▸401
333	Did any staff member at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	

401	CHECK 224: ONE OR MORE BIRTHS IN 1996 OR LATER NO BIRTHS IN 1996 OR LATER		▸487
402	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 1996 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately.)		
403	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER	NEXT-TO-LAST BIRTH LINE NUMBER . . . . .
404	FROM 212 AND 216	NAME _____ LIVING DEAD	NAME _____ LIVING DEAD
405	At the time you became pregnant with (NAME), did you want to become pregnant <u>then</u>, did you want to wait until <u>later</u>, or did you <u>not want</u> 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 423) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 423)
406	How much longer would you like to have waited?	MONTHS . . . . . 1 YEARS . . . . . 2 DON'T KNOW 998	MONTHS . . . . . 1 YEARS . . . . . 2 DON'T KNOW 998
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR . . . . . A CLINICAL OFFICER . . . . . B NURSE/MIDWIFE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . D OTHER _____ X (SPECIFY) NO ONE . . . . . Y (SKIP TO 414B)	

407A	Where did the first antenatal visit take place? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	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 MEDICAL SECTOR PVT. HOSPITAL/SURGERY . . . 31 MISSION HOSPITAL/CLINIC . . . 32 WORK PLACE . . . . . 33 OTHER PVT. MEDICAL_____36 (SPECIFY) OTHER _____ 96 (SPECIFY)	
408	How many months pregnant were you when you first received antenatal care for this pregnancy?	+)))0)), MONTHS . . . . . * * * .)))2)))- DON'T KNOW 98	
		LAST BIRTH NAME_____	NEXT-TO-LAST-BIRTH NAME_____
409	How many times did you receive antenatal care during this pregnancy?	+)))0)), NO. OF TIMES . . . . . * * * .)))2)))- DON'T KNOW 98	
410	CHECK 409: NUMBER OF TIMES RECEIVED ANTENATAL CARE	ONCE +)), /)))- ▾ (SKIP TO 412) MORE THAN ONCE OR DK +)), /)))- ▾	
411	How many months pregnant were you the last time you received antenatal care?	+)))0)), MONTHS . . . . . * * * .)))2)))- DON'T KNOW 98	
412	During this pregnancy, were any of the following done at least once? Were you weighed? Was your height measured? Was your blood pressure measured? Did you give a urine sample? Did you give a blood sample?	YES NO WEIGHT . . . . . 1 2 HEIGHT . . . . . 1 2 BLOOD PRESSURE . . . . . 1 2 URINE SAMPLE . . . . . 1 2 BLOOD SAMPLE 1 2	
412A	During this pregnancy, were you offered counseling and testing for the virus that causes AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
414A	CHECK 407A: DID RESPONDENT RECEIVE ANTENATAL CARE AT HOME?	CARE AT HOME +)), /))- ▾ CARE AT FACILITY +)), .))1 (SKIP TO 415)◂))-	

		LAST BIRTH NAME_____	NEXT-TO-LAST-BIRTH NAME_____
414B	What is the main reason you did not go to a health facility for antenatal care?	COST TOO MUCH . . . . . 1 DISTANCE/TRANSPORT . . . . . 2 SERVICE NOT AVAILABLE AT THAT TIME . . . . . 3 DID NOT FEEL NEED . . . . . 4 OTHER_____6 (SPECIFY)	
414C	Did you ever try to go for antenatal care but the health facility staff told you to go away and come back another day?	YES . . . . . 1 NO 2	
415	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, spasms or jerks in the first month after birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 417)◂)))))))1 DON'T KNOW 8	
416	During this pregnancy, how many times did you get this injection?	+)))), TIMES . . . . . * * .)))- DON'T KNOW 8	
417	During this pregnancy, were you given or did you buy any iron tablets or iron syrup or folic acid? SHOW TABLET/SYRUP.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 421)◂)))))))1 DON'T KNOW 8	
418	During the whole pregnancy, for how many days did you take the iron tablets or iron syrup? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	NUMBER OF +)))0)))0)))), DAYS . . . . . * * * * .)))2)))2)))- DON'T KNOW 998	
421	During this pregnancy, did you take any drugs to prevent you from getting malaria?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 423)◂)))))))1 DON'T KNOW 8	
422	What drugs did you take? RECORD ALL MENTIONED. IF TYPE OF DRUG IS NOT DETERMINED, SHOW TYPICAL ANTIMALARIAL DRUGS TO RESPONDENT.	CHLOROQUINE. . . . . A FANSIDAR . . . . . B OTHER_____ X (SPECIFY) DON'T KNOW . . . . . Z	
422A	CHECK 407: DID YOU SEE ANYONE FOR ANTENATAL CARE DURING THIS PREGNANCY?	"ANY ONE" (A - X) +)), /))- •	"NO ONE" (Y) +)), /))- .▸(SKIP TO 423)	

		LAST BIRTH NAME_____	NEXT-TO-LAST-BIRTH NAME_____
422B	Did you get these drugs during an antenatal visit, another visit to health facility or from some other source?	ANTENATAL VISIT . . . . . 1 ANOTHER FACILITY VISITS . . . . . 2 OTHER SOURCE _____ 6 (SPECIFY)	
423	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
424	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 426)◂)))))))1 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 426)◂)))))))1 DON'T KNOW 8
425	How much did (NAME) weigh? RECORD WEIGHT FROM HEALTH CARD, IF AVAILABLE.	GRAMS FROM +)))0)))0)))0)), CARD . . . . . 1 * * * * * .)))2)))2)))2)))- GRAMS FROM +)))0)))0)))0)), RECALL . . . . . 2 * * * * * .)))2)))2)))2)))- DON'T KNOW 99998	GRAMS FROM +)))0)))0)))0)), CARD . . . . . 1 * * * * * .)))2)))2)))2)))- GRAMS FROM +)))0)))0)))0)), RECALL . . . . . 2 * * * * * .)))2)))2)))2)))- DON'T KNOW 99998
426	Who assisted with the delivery of (NAME)? Anyone else? IF RELATIVE OR FRIEND, PROBE TO SEE IF BELONGS TO ANOTHER CATEGORY.	HEALTH PROFESSIONAL DOCTOR . . . . . A CLINICAL OFFICER . . . . . B NURSE/MIDWIFE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . D RELATIVE/FRIEND . . . . . E OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PROFESSIONAL DOCTOR . . . . . A CLINICAL OFFICER . . . . . B NURSE/MIDWIFE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . D RELATIVE/FRIEND . . . . . E OTHER _____ X (SPECIFY) NO ONE . . . . . Y
427	Where did you give birth to (NAME)? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) (LAST BIRTH) _____ (NAME OF PLACE) (NEXT-TO-LAST BIRTH)	HOME YOUR HOME . . . . . 11 (SKIP TO 429)◂)))))))1 OTHER HOME . . . . . 12 PUBLIC SECTOR GOVT. HOSPITAL . . . . . 21 GOVT. HEALTH CENTER . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . 31 MISSION HOSPITAL/CLINIC . . . 32 OTHER PVT. MEDICAL _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) * (SKIP TO 429)◂)))))))-	HOME YOUR HOME . . . . . 11 (SKIP TO 429)◂)))))))1 OTHER HOME . . . . . 12 PUBLIC SECTOR GOVT. HOSPITAL . . . . . 21 GOVT. HEALTH CENTER . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . 31 MISSION HOSPITAL/CLINIC . . . 32 OTHER PVT. MEDICAL _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) * (SKIP TO 429)◂)))))))-
428	Was (NAME) delivered by caesarean section?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2

		LAST BIRTH NAME_____	NEXT-TO-LAST-BIRTH NAME_____
429	After (NAME) was born, did a health professional or a traditional birth attendant check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433)◂)))))))-	YES . . . . . 1 NO 2
430	How many days or weeks after delivery did the first check take place? RECORD '00' DAYS IF SAME DAY.	+)))0)))), DAYS AFTER DEL . . . 1 * * * /)))3)))1 WEEKS AFTER DEL . . 2 * * * .)))2)))- DON'T KNOW 998	
431	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PROFESSIONAL DOCTOR . . . . . 11 CLINICAL OFFICER . . . . . 12 NURSE/MIDWIFE . . . . . 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . 21 OTHER _____ 96 (SPECIFY)	
432	Where did this first check take place? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	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 MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . 31 MISSION HOSPITAL/CLINIC . . . 32 OTHER PVT. MEDICAL_____36 (SPECIFY) OTHER _____ 96 (SPECIFY)	
433	In the first one month after delivery, did you receive a vitamin A dose like this? SHOW CAPSULE.	YES . . . . . 1 NO 2	
434	Has your period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 436)◂)))))))- NO . . . . . 2 (SKIP TO 437)◂)))))))-	
435	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 439)◂)))))))-
436	For how many months after the birth of (NAME) did you <u>not</u> have a period?	+)))0)))), MONTHS . . . . . * * * .)))2)))- DON'T KNOW 98	+)))0)))), MONTHS . . . . . * * * .)))2)))- DON'T KNOW 98
437	CHECK 226: IS RESPONDENT PREGNANT?	NOT +)), PREGNANT +)), PREG- /))- OR UNSURE .))1 NANT ▾ (SKIP TO 439)◂))-	

		LAST BIRTH NAME_____	NEXT-TO-LAST-BIRTH NAME_____
438	Have you resumed sexual relations since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 440)◂)))))))-	
439	For how many months after the birth of (NAME) did you <u>not</u> have sexual relations?	+)))0)))), MONTHS . . . . . * * * .)))2)))- DON'T KNOW 98	+)))0)))), MONTHS . . . . . * * * .)))2)))- DON'T KNOW 98
440	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 447)◂)))))))-	YES . . . . . 1 NO . . . . . 2 (SKIP TO 447)◂)))))))-
441	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 +)))0)))), HOURS . . . . . 1 * * * /)))3)))1 DAYS . . . . . 2 * * * .)))2)))-	IMMEDIATELY . . . . . 000 +)))0)))), HOURS . . . . . 1 * * * /)))3)))1 DAYS . . . . . 2 * * * .)))2)))-
442	In the first three days after delivery, before your milk began flowing regularly, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 444)◂)))))))-	YES . . . . . 1 NO . . . . . 2 (SKIP TO 444)◂)))))))-
443	What was (NAME) given to drink before your milk began flowing regularly? 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)	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)
444	CHECK 404: CHILD ALIVE?	ALIVE +)), DEAD +)), /))- .))1 ▾ (SKIP TO 446)◂))-	ALIVE +)), DEAD +)), /))- .))1 ▾ (SKIP TO 446)◂))-
445	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 448)◂)))))))- NO 2	YES . . . . . 1 (SKIP TO 448)◂)))))))- NO 2
446	For how many months did you breastfeed (NAME)?	+)))0)))), MONTHS . . . . . * * * .)))2)))- DON'T KNOW 98	+)))0)))), MONTHS . . . . . * * * .)))2)))- DON'T KNOW 98
447	CHECK 404: IS CHILD LIVING?	LIVING +)), DEAD +)), /))- /))- * ▾ * (GO BACK TO * 405 IN NEXT * COLUMN; OR, IF * NO MORE ▾ BIRTHS, GO TO (SKIP TO 450) 454)	LIVING +)), DEAD +)), /))- /))- * ▾ * (GO BACK TO 405 * IN LAST COLUMN * OF NEW * QUESTIONNAIRE; ▾ OR, IF NO MORE (SKIP TO 450) BIRTHS, GO TO 454)

		LAST BIRTH NAME_____	NEXT-TO-LAST-BIRTH NAME_____
448	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 . . . +)))0))) * * * .)))2)))-	NUMBER OF NIGHTTIME FEEDINGS . . . +)))0))) * * * .)))2)))-
449	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS . . . +)))0))) * * * .)))2)))-	NUMBER OF DAYLIGHT FEEDINGS . . . +)))0))) * * * .)))2)))-
450	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
451	Was sugar added to any of the foods or liquids (NAME) ate yesterday?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
452	How many <u>times</u> did (NAME) 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	+))) NUMBER OF TIMES . . . . . * * .)))- DON'T KNOW 8
453		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 454.	GO BACK TO 405 IN LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 454.

454	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 1996 OR LATER. (IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL QUESTIONNAIRES).		
455	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER	NEXT-TO-LAST BIRTH LINE NUMBER . . . . .
456	FROM 212 AND 216	NAME _____ LIVING DEAD (GO TO 456 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 484)	NAME _____ LIVING DEAD (GO TO 456 IN LAST COLUMN OF NEW QUESTION-NAIRE; OR, IF NO MORE BIRTHS, GO TO 484)
458	Do you have an Under 5 Card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 460) YES, NOT SEEN . . . . . 2 (SKIP TO 462) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 460) YES, NOT SEEN . . . . . 2 (SKIP TO 462) NO CARD 3
459	Did you ever have an Under 5 Card for (NAME)?	YES . . . . . 1 (SKIP TO 462) NO 2	YES . . . . . 1 (SKIP TO 462) NO 2
460	(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. BCG POLIO 0 (POLIO GIVEN AT BIRTH) POLIO 1 POLIO 2 POLIO 3 DPT 1 DPT 2 DPT 3 MEASLES VITAMIN A (MOST RECENT)	DAY MONTH YEAR BCG . . . . . 1 OPV0 . . . . . 1 OPV1 . . . . . 1 OPV2 . . . . . 1 OPV3 . . . . . 1 DPT1 . . . . . 1 DPT2 . . . . . 1 DPT3 . . . . . 1 MEASLES . . . . 1 VIT. A	DAY MONTH YEAR BCG . . . . . 1 OPV0 . . . . . 1 OPV1 . . . . . 1 OPV2 . . . . . 1 OPV3 . . . . . 1 DPT1 . . . . . 1 DPT2 . . . . . 1 DPT3 . . . . . 1 MEASLES . . . . 1 VIT. A . . . . .

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
461	Has (NAME) received any vaccinations that are not recorded on this card, including vaccinations received in a national immunization day, “Bye Bye Polio” or in a Child Health Week campaign? RECORD ‘YES’ ONLY IF RESPONDENT MENTIONS BCG, POLIO 0-3, DPT 1-3, AND/OR MEASLES VACCINE(S).	YES . . . . . 1 (PROBE FOR VACCINATIONS ◂)- AND WRITE ‘66’ IN THE CORRESPONDING DAY COLUMN IN 460))))))))), (SKIP TO 464)◂)))))))- NO . . . . . 2 (SKIP TO 464)◂)))))))1 DON’T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS ◂)- AND WRITE ‘66’ IN THE CORRESPONDING DAY COLUMN IN 460))))))))), (SKIP TO 464)◂)))))))- NO . . . . . 2 (SKIP TO 464)◂)))))))1 DON’T KNOW 8
462	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization day, “Bye Bye Polio” or in a Child Health Week campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 466)◂)))))))1 DON’T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 466)◂)))))))1 DON’T KNOW 8
463	Please tell me if (NAME) received any of the following vaccinations:		
463A	A BCG vaccination against tuberculosis, that is, an injection in the forearm that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON’T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON’T KNOW 8
463B	Polio vaccine, that is, drops in the mouth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463E) ◂)))))))1 DON’T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463E) ◂)))))))1 DON’T KNOW 8
463C	When was the first polio vaccine received, just after birth or later?	JUST AFTER BIRTH . . . . . 1 LATER 2	JUST AFTER BIRTH . . . . . 1 LATER 2
463D	How many times was the polio vaccine received?	+)))), NUMBER OF TIMES . . . . . * * .)))-	+)))), NUMBER OF TIMES . . . . . * * .)))-
463E	A DPT vaccination, that is, an injection given in the thigh, sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463G) ◂)))))))1 DON’T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 463G) ◂)))))))1 DON’T KNOW 8
463F	How many times?	+)))), NUMBER OF TIMES . . . . . * * .)))-	+)))), NUMBER OF TIMES . . . . . * * .)))-
463G	An injection in the upper arm to prevent measles?	YES . . . . . 1 NO . . . . . 2 DON’T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON’T KNOW 8
464	Do you remember the most recent “Bye Bye Polio” or Child Health Week campaign in February (August) this year?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 466)◂)-	YES . . . . . 1 NO . . . . . 2 (SKIP TO 466)◂)-
465	Did (NAME) receive a Vitamin A supplement at this event?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 465B) ◂)))))))1 DON’T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 465B) ◂)))))))1 DON’T KNOW 8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
465A	How was vitamin A given? RECORD ALL MENTIONED. DO NOT READ RESPONSES TO RESPONDENT.	BLUE/RED CAPSULE TAKEN WHOLE . . . . . A CAPSULE CUT WITH SCISSORS . . B CAPSULE CUT WITH RAZOR/SURGICAL BLADE . . . . . C CAPSULE PRICKED WITH NEEDLE D OTHER_____X (SPECIFY)	BLUE/RED CAPSULE TAKEN WHOLE . . . . . A CAPSULE CUT WITH SCISSORS . . B CAPSULE CUT WITH RAZOR/SURGICAL BLADE . . . . . C CAPSULE PRICKED WITH NEEDLE D OTHER_____X (SPECIFY)
465B	Did (NAME) receive any immunizations during this campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 465D)◂)))))))1 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 465D)◂)))))))1 DON'T KNOW 8
465C	did (NAME) receive: BCG . . . . . . POLIO . . . . . . DPT . . . . . . MEASLES	YES NO DK BCG. . . . . 1 2 8 POLIO. . . . 1 2 8 DPT. . . . . 1 2 8 MEASLES. 1 2 8	YES NO DK BCG. . . . . 1 2 8 POLIO. . . . 1 2 8 DPT. . . . . 1 2 8 MEASLES. 1 2 8
465D	CHECK 465: "YES" IN 465 +)),/))-▾ You told me that (NAME) received a Vitamin A capsule. Did this happen in the last six months? "NO/DON'T KNOW" IN 465 +)),/))-▾ In the last six months, did (NAME) receive a Vitamin A red or blue capsule?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
466	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 467)◂)))))))1 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 467)◂)))))))1 DON'T KNOW 8
466A	Does (NAME) have a fever now?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
467	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 469)◂)))))))1 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 469)◂)))))))1 DON'T KNOW 8
468	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
469	CHECK 466 AND 467: FEVER OR COUGH?	"YES" IN 466 OR 467 +)),/))-▾ OTHER +)),/))-* ▾ (SKIP TO 475)	"YES" IN 466 OR 467 +)),/))-▾ OTHER +)),/))-* ▾ (SKIP TO 475)
470	Did you seek advice or treatment for the fever/cough?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 471A)◂)))))))-	YES . . . . . 1 NO . . . . . 2 (SKIP TO 471A)◂)))))))-

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
471	Where did you seek advice or treatment? Anywhere else? RECORD ALL SOURCES MENTIONED.	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 TRAD. 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 TRAD. PRACTITIONER . . . . . L OTHER _____ X (SPECIFY)
471A	Has (NAME) been ill with convulsions or fits at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
472A	CHECK 466 AND 471A: HAD FEVER OR CONVULSIONS OR FITS?	"YES" IN 466 OR 471A +)), /))- * ▾ "NO"/"DK" IN 466 AND 471A +)), /))- ▾ (SKIP TO 475)	"YES" IN 466 OR 471A +)), /))- * ▾ "NO"/"DK" IN 466 AND 471A +)), /))- ▾ (SKIP TO 475)
473	Did (NAME) take any medicine for the (fever/convulsions/fits)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 474N)◂)))))))1 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 474N)◂)))))))1 DON'T KNOW 8
474	What drugs did (NAME) take? RECORD ALL MENTIONED. ASK TO SEE DRUG(S) IF TYPE OF DRUG IS NOT KNOWN. IF TYPE OF DRUG IS STILL NOT DETERMINED, SHOW TYPICAL ANTIMALARIAL DRUGS TO RESPONDENT.	ANTI-MALARIAL CHLOROQUINE . . . . . A FANSIDAR . . . . . B QUININE . . . . . C OTHER DRUGS ASPIRIN . . . . . D PANADOL . . . . . E HERBS/TRADITIONAL MEDICINE . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTI-MALARIAL CHLOROQUINE . . . . . A FANSIDAR . . . . . B QUININE . . . . . C OTHER DRUGS ASPIRIN . . . . . D PANADOL . . . . . E HERBS/TRADITIONAL MEDICINE . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z
474A	Did (NAME) get any injection or suppository for the (fever/convulsions/fits)?	INJECTION . . . . . A SUPPOSITORY . . . . . B NONE . . . . . Y DON'T KNOW . . . . . Z	INJECTION . . . . . A SUPPOSITORY . . . . . B NONE . . . . . Y DON'T KNOW . . . . . Z

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
474B	CHECK 474: CHLOROQUINE?	CODE "A" CIRCLED (CHLOROQUINE) +)), /))- * ▾ CODE "A" NOT CIRCLED +)), /))- ▾ (SKIP TO 474F)	CODE "A" CIRCLED (CHLOROQUINE) +)), /))- * ▾ CODE "A" NOT CIRCLED +)), /))- ▾ (SKIP TO 474F)
474C	How long after the (fever/convulsions/fits) started did (NAME) first take Chloroquine?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . 2 THREE OR MORE DAYS AFTER THE FEVER . . . . . 3 DON'T KNOW 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . 2 THREE OR MORE DAYS FTER THE FEVER . . . . . 3 DON'T KNOW 8
474D	For how many days did (NAME) take the Chloroquine? IF 7 OR MORE DAYS, RECORD '7'.	+)))), DAYS . . . . . * * .))))- DON'T KNOW 8	+)))), DAYS . . . . . * * .))))- DON'T KNOW 8
474E	Did you have the chloroquine at home or you got it from somewhere else?	AT HOME . . . . . 1 OTHER SOURCE . . . . . 2 DON'T KNOW 8	AT HOME . . . . . 1 OTHER SOURCE . . . . . 2 DON'T KNOW 8
474F	CHECK 474: FANSIDAR?	CODE "B" CIRCLED (FANSIDAR) +)), /))- * ▾ CODE "B" NOT CIRCLED +)), /))- ▾ (SKIP TO 474J)	CODE "B" CIRCLED (FANSIDAR) +)), /))- * ▾ CODE "B" NOT CIRCLED +)), /))- ▾ (SKIP TO 474J)
474G	How long after the (fever/convulsions/fits) started did (NAME) first take Fansidar?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . 2 THREE OR MORE DAYS AFTER THE FEVER . . . . . 3 DON'T KNOW 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . 2 THREE OR MORE DAYS AFTER THE FEVER . . . . . 3 DON'T KNOW 8
474H	For how many days did (NAME) take Fansidar? IF 7 OR MORE DAYS, RECORD '7'.	+)))), DAYS . . . . . * * .))))- DON'T KNOW 8	+)))), DAYS . . . . . * * .))))- DON'T KNOW 8
474I	Did you have the Fansidar at home or you got it from somewhere else? IF MORE THAN ONE SOURCE MENTIONED, ASK WHERE DID YOU GET THE FANSIDAR FIRST.	AT HOME . . . . . 1 OTHER SOURCE . . . . . 2 DON'T KNOW 8	AT HOME . . . . . 1 OTHER SOURCE . . . . . 2 DON'T KNOW 8
474J	CHECK 474: QUININE?	CODE "C" CIRCLED (QUININE) +)), /))- * ▾ CODE "C" NOT CIRCLED +)), /))- ▾ (SKIP TO 474N)	CODE "C" CIRCLED (QUININE) +)), /))- * ▾ CODE "C" NOT CIRCLED +)), /))- ▾ (SKIP TO 474N)

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
474K	How long after the (fever/convulsions/fits) started did (NAME) first take Quinine?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . 2 THREE OR MORE DAYS AFTER THE FEVER . . . . . 3 DON'T KNOW 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER THE FEVER . 2 THREE OR MORE DAYS AFTER THE FEVER . . . . . 3 DON'T KNOW 8
474L	For how many days did (NAME) take Quinine? IF 7 OR MORE DAYS, RECORD '7'.	+)))), DAYS . . . . . * * .))))- DON'T KNOW 8	+)))), DAYS . . . . . * * .))))- DON'T KNOW 8
474M	Did you have the Quinine at home or you got it from somewhere else?	AT HOME . . . . . 1 OTHER SOURCE . . . . . 2 DON'T KNOW 8	AT HOME . . . . . 1 OTHER SOURCE . . . . . 2 DON'T KNOW 8
474N	Was anything else done about (NAME)'s (fever/convulsions/fits)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 475) ◂))))1 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 475) ◂))))1 DON'T KNOW 8
474O	What was done about (NAME)'s (fever/convulsions/fits)?	CONSULTED TRADITIONAL HEALER . . . . . A GAVE TEPID SPONGING . . . . . B GAVE HERBS . . . . . C OTHER _____ X (SPECIFY)	CONSULTED TRADITIONAL HEALER . . . . . A GAVE TEPID SPONGING . . . . . B GAVE HERBS . . . . . C OTHER _____ X (SPECIFY)
475	Has (NAME) had diarrhea in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 482A)◂)))))))1 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 482A)◂)))))))1 DON'T KNOW 8
476	Now I would like to know how much (NAME) was offered to drink during the diarrhea. Was he/she offered less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she offered much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 NOTHING TO DRINK . . . . . 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 NOTHING TO DRINK . . . . . 5 DON'T KNOW 8
477	When (NAME) had diarrhea, was he/she offered less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she offered much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 STOPPED FOOD . . . . . 5 NEVER GAVE FOOD . . . . . 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 STOPPED FOOD . . . . . 5 NEVER GAVE FOOD . . . . . 6 DON'T KNOW 8
478	Was he/she given a fluid made from a special packet called Madzi-a-Moyo or ORS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
479	Was anything (else) given to treat the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 481)◂)))))))1 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 481)◂)))))))1 DON'T KNOW 8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
480	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS MENTIONED.	PILL OR SYRUP . . . . . A INJECTION . . . . . B (I.V.) INTRAVENOUS . . . . . C HOME REMEDIES/ HERBAL MEDICINES . . . . . D OTHER _____ X (SPECIFY)	PILL OR SYRUP . . . . . A INJECTION . . . . . B (I.V.) INTRAVENOUS . . . . . C HOME REMEDIES/ HERBAL MEDICINES . . . . . D OTHER _____ X (SPECIFY)
481	Did you seek advice or treatment for the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 482A)◂)))))))-	YES . . . . . 1 NO . . . . . 2 (SKIP TO 482A)◂)))))))-
482	Where did you seek advice or treatment? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) (LAST BIRTH) _____ (NAME OF PLACE) (NEXT-TO-LAST BIRTH) Anywhere else? RECORD ALL PLACES MENTIONED.	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 TRAD. 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 TRAD. PRACTITIONER . . . . . L OTHER _____ X (SPECIFY)
482A	Has (NAME) received any injection in the past 3 months?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 483)◂)))))))1 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 483)◂)))))))1 DON'T KNOW 8
482B	Did you bring your own syringe and needle for this injection or was it provided at the facility?	CLIENT PROVIDED . . . . . 1 HLTH FACILITY PROVIDED . . . . . 2 DON'T KNOW 8	CLIENT PROVIDED . . . . . 1 HLTH FACILITY PROVIDED . . . . . 2 DON'T KNOW 8
482C	Had the syringe and needle been used before or was it a new syringe and needle?	USED SYRINGE/NEEDLE . . . . . 1 NEW SYRINGE/NEEDLE . . . . . 2 DON'T KNOW 8	USED SYRINGE/NEEDLE . . . . . 1 NEW SYRINGE/NEEDLE . . . . . 2 DON'T KNOW 8
482D	Did you keep this needle and syringe after it was used?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
483		GO BACK TO 456 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 484.	GO BACK TO 456 IN LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 484.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
484	CHECK 456, ALL COLUMNS: NUMBER OF LIVING CHILDREN BORN IN 1996 OR LATER	ONE OR MORE +))), /)))- ▼ NONE +))), .)))2))))))))))))))))))))))))))))))))))))))	))►487
486	CHECK 478:	NO CHILD RECEIVED FLUID FROM ORS PACKET +))), /)))- ▼ ANY CHILD RECEIVED FLUID FROM ORS PACKET +))), .)))2))))))))))))))))))))))))))))))))))))))	))►488
487	Have you ever heard of a special product called Madzi-a-Moyo or ORS you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	
488	When a child is sick with fever, what signs of illness would tell you that she or he should be taken to a health facility or a health worker? RECORD ALL MENTIONED.	FEVER TWO OR MORE DAYS . . . . . A SEIZURE/SHAKING . . . . . B CHEST INDRAWING . . . . . C NOT EATING/NOT DRINKING WELL . . . D GETTING SICKER/VERY SICK . . . . . E NOT GETTING BETTER . . . . . F OTHER_____X (SPECIFY) DON'T KNOW . . . . . Y	
490	Now I would like to ask you some questions about medical care for you yourself. Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not for you?	BIG PROBLEM / NOT A BIG PROBLEM	
	Knowing where to go.	1 / 2	
	Getting permission to go.	1 / 2	
	Getting money needed for treatment or transport.	1 / 2	
	The distance to the health facility.	1 / 2	
	Availability of transport.	1 / 2	
491	CHECK 215 AND 218: RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE TO 492) _____ (NAME)	HAS AT LEAST ONE CHILD BORN IN 1998 OR LATER AND LIVING WITH HER +))), /)))- ▼ DOES NOT HAVE ANY CHILDREN BORN IN 1998 OR LATER AND LIVING WITH HER +))), .)))2))))))))))	))►494

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
492	Now I would like to ask you about liquids (NAME FROM Q. 491) drank yesterday. In total, how many times yesterday during the day or at night did (NAME FROM Q. 491) drink (ITEM)?	YESTERDAY/LAST NIGHT	
a	Plain water?	a [ ]	
b	Commercially produced infant formula?	b [ ]	
c	Any other milk such as tinned, powdered, or fresh animal milk?	c [ ]	
d	Fruit juice?	d [ ]	
e	Any other liquids such as sugar water, tea, coffee, carbonated drinks, or soup broth?	e [ ]	
	IF 7 OR MORE TIMES, RECORD '7'. IF DON'T KNOW, RECORD '8'.		
493	Now I would like to ask you about the types of foods (NAME FROM Q. 491) ate yesterday. In total, how many times yesterday during the day or at night did (NAME FROM Q. 491) eat (ITEM)?	YESTERDAY/LAST NIGHT	
a	Any food made from grains like maize, millet, sorghum, rice, wheat, or other grains?	a [ ]	
b	Pumpkin, red or yellow yams or squash, carrots, or yellow or orange sweet potatoes?	b [ ]	
c	Any other food made from roots or tubers like white potatoes, white yams, manioc, cassava, or other local roots/tuber?	c [ ]	
d	Any green leafy vegetables like spinach, wild spinach, cassava leaves, sweet potato leaves, pumpkin leaves, black jack leaves, bean leaves?	d [ ]	
e	Mango or papaya?	e [ ]	
f	Any other fruits and vegetables like bananas, apples/sauce, green beans, avocados, tomatoes, oranges, mandarines, citrus fruits, lemons, wild fruits and vegetables?	f [ ]	
g	Meat, chicken, fish, kapenta, chisense, caterpillars, or eggs?	g [ ]	
h	Legumes, lentils, beans, soybeans, pulses, peanuts, or pounded pumpkin seeds?	h [ ]	
i	Any food prepared with oil, fat, or butter?	i [ ]	
	IF 7 OR MORE TIMES, RECORD '7'. IF DON'T KNOW, RECORD '8'.		
494	In your whole life, how many tetanus injections have you received?	NO OF TIMES . . . . . DON'T KNOW 98	
496	Do you currently smoke cigarettes or tobacco? IF YES: What type of tobacco do you smoke? RECORD ALL TYPES MENTIONED.	YES, CIGARETTES . . . . A YES, PIPE . . . . . B YES, OTHER TOBACCO . . . . . C NO . . . . . Y	
497	CHECK 496: CODE 'A' CIRCLED CODE 'A' NOT CIRCLED		▸499 A
498	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES	

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
499A	Have you ever drunk alcohol?	YES . . . . . 1 NO 2	))▸501
499B	In the last month, on how many days did you drink alcohol? IF EVERY DAY: RECORD '30'.	+)))0)), NO OF DAYS . * * * .)))2)))- NONE 95	
499C	Have you ever gotten "drunk" from drinking alcohol?	YES . . . . . 1 NO 2	))▸501
499D	CHECK 499B: DRANK ALCOHOL ON AT LEAST ONE DAY +), /)- ▾ NONE +), .)2))))))))))))))))))))))))))))))))))		))▸501
499E	In the last month, on how many occasions did you get "drunk"?	+)))0)), NO OF TIMES . * * * .)))2)))- NONE/NEVER 95	

SECTION 5. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	Are you currently married or living with a man?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A MAN . . . . . 2 NO, NOT IN UNION 3	),)2▸505
502	Have you ever been married or lived with a man?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A MAN . . . . . 2 NO 3	))▸510))▸514
504	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	),)3▸510)-
505	Is your husband/partner living with you now or is he staying elsewhere?	LIVING WITH HER . . . . . 1 STAYING ELSEWHERE 2	
506	RECORD THE HUSBAND'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ +)))0))) * * * LINE NO. . . . . .)))2)))-	
507	Does your husband/partner have any other wives besides yourself?	YES . . . . . 1 NO 2	))▸510
508	How many other wives does he have?	+)))0))) NUMBER . . . . . * * * .)))2)))- DON'T KNOW 98	))▸510
509	Are you the first, second, ... wife?	+)))0))) RANK . . . . . * * * .)))2)))-	
510	Have you been married or lived with a man only once, or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	
511	CHECK 510: MARRIED/ LIVED WITH A MAN ONLY ONCE +))), /)))- * ▾ In what month and year did you start living with your husband/partner? MARRIED/ LIVED WITH A MAN MORE THAN ONCE +))), /)))- * ▾ Now we will talk about your first husband/partner. In what month and year did you start living with him?	+)))0))) MONTH . . . . . * * * .)))2)))- DON'T KNOW MONTH . . . . . 98 +)))0)))0)))0))) YEAR . . . . . * * * * * .)))2)))2)))2)))- DON'T KNOW YEAR 9998	))▸514
512	How old were you when you started living with him?	+)))0))) AGE . . . . . * * * .)))2)))-	
514	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you first had sexual intercourse (if ever)?	NEVER . . . . . 00 +)))0))) AGE IN YEARS . . . . . * * * .)))2)))- FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER . . 95	))▸524
515	When was the last time you had sexual intercourse? RECORD 'YEARS AGO' ONLY IF LAST INTERCOURSE WAS ONE OR MORE YEARS AGO. IF 12 MONTHS OR MORE, ANSWER MUST BE RECORDED IN YEARS.	+)))0))) DAYS AGO . . . . . 1 * * * /)))3)))1 WEEKS AGO . . . . . 2 * * * /)))3)))1 MONTHS AGO . . . . . 3 * * * /)))3)))1 YEARS AGO . . . . . 4 * * * .)))2)))-	))▸524

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
516	The last time you had sexual intercourse, was a condom used? IF YES, PROBE FOR TYPE OF CONDOM USED.	YES, MALE . . . . . 1 YES, FEMALE . . . . . 2 NO 3	))▸516 B
516A	What was the main reason you used a condom on that occasion?	RESPONDENT WANTED TO PREVENT STD/HIV . . . . . 01 RESPONDENT WANTED TO PREVENT PREGNANCY . . . . . 02 RESPONDENT WANTED TO PREVENT BOTH STD/HIV AND PREGNANCY . 03 DID NOT TRUST PARTNER/FELT PARTNER HAD OTHER PARTNERS 04 PARTNER REQUESTED/INSISTED . . . . 05 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	), * * * * * /▸517 * * * * * *)-
516B	What is the main reason you did <u>not</u> use a condom that time?	NOT AVAILABLE . . . . . 01 COST TOO MUCH . . . . . 02 USED FAMILY PLANNING METHOD . . 03 TRUSTED PARTNER . . . . . 04 PARTNER TESTS NEGATIVE/ NO RISK . . . . . 05 RESPONDENT DOESN'T LIKE . . . . . 06 PARTNER REFUSED/OBJECTED . . . . . 07 PARTNER DRUNK/ON DRUGS . . . . . 08 WANTED TO GET PREGNANT . . . . . 09 OTHER_____96 (SPECIFY)	
517	What is your relationship to the man with whom you last had sex? IF MAN IS "BOYFRIEND" OR "FIANCÉ", ASK: Was your boyfriend/fiancé living with you when you last had sex? IF YES, CIRCLE '01'. IF NO, CIRCLE '02'.	SPOUSE/COHABITING PARTNER . . . . 01 MAN IS BOYFRIEND/FIANCÉ . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX WORKER . . . . . 06 OTHER _____ 96 (SPECIFY)	))▸519
518	For how long have you had sexual relations with this man?	+)))0)), DAYS . . . . . 1 * * * /)))3)))1 WEEKS . . . . . 2 * * * /)))3)))1 MONTHS . . . . . 3 * * * /)))3)))1 YEARS . . . . . 4 * * * .)))2)))-	
519	Have you had sex with any other man in the last 12 months?	YES . . . . . 1 NO 2	))▸524
520	The last time you had sexual intercourse with another man, was a condom used? IF YES, PROBE FOR TYPE OF CONDOM USED.	YES, MALE . . . . . 1 YES, FEMALE . . . . . 2 NO 3	))▸520 B

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
520A	What was the main reason you used a condom on that occasion?	RESPONDENT WANTED TO PREVENT STD/HIV . . . . . 01 RESPONDENT WANTED TO PREVENT PREGNANCY . . . . . 02 RESPONDENT WANTED TO PREVENT BOTH STD/HIV AND PREGNANCY . 03 DID NOT TRUST PARTNER/FELT PARTNER HAD OTHER PARTNERS 04 PARTNER REQUESTED/INSISTED . . . . 05 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	), * * * * * /▸521 * * * * * *)-
520B	What is the main reason you did not use a condom that time?	NOT AVAILABLE . . . . . 01 COST TOO MUCH . . . . . 02 USED FAMILY PLANNING METHOD . . 03 TRUSTED PARTNER . . . . . 04 PARTNER TESTS NEGATIVE/ NO RISK . . . . . 05 RESPONDENT DOESN'T LIKE . . . . . 06 PARTNER REFUSED/OBJECTED . . . . . 07 PARTNER DRUNK/ON DRUGS . . . . . 08 WANTED TO GET PREGNANT . . . . . 09 OTHER_____96 (SPECIFY)	
521	What is your relationship to this man? IF MAN IS "BOYFRIEND" OR "FIANCÉ", ASK: Was your boyfriend/fiancé living with you when you last had sex with him? IF YES, CIRCLE '01'. IF NO, CIRCLE '02'.	SPOUSE/COHABITING PARTNER . . . . 01 MAN IS BOYFRIEND/FIANCÉ . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX WORKER . . . . . 06 OTHER _____ 96 (SPECIFY)	))▸522 A
522	For how long have you had sexual relations with this man?	+)))0)), DAYS . . . . . 1 * * * /)))3)))1 WEEKS . . . . . 2 * * * /)))3)))1 MONTHS . . . . . 3 * * * /)))3)))1 YEARS . . . . . 4 * * * .)))2)))-	
522A	Other than these two men, have you had sex with any other man in the last 12 months?	YES . . . . . 1 NO 2	))▸524
522B	The last time you had sex with this other man, was a condom used?	YES, MALE . . . . . 1 YES, FEMALE . . . . . 2 NO 3	)▸522D

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
522C	What was the main reason you used a condom on that occasion?	RESPONDENT WANTED TO PREVENT STD/HIV . . . . . 01 RESPONDENT WANTED TO PREVENT PREGNANCY . . . . . 02 RESPONDENT WANTED TO PREVENT BOTH STD/HIV AND PREGNANCY . 03 DID NOT TRUST PARTNER/FELT PARTNER HAD OTHER PARTNERS 04 PARTNER REQUESTED/INSISTED . . . . 05 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	), * * * * * /▸522E * * * * * *)-
522D	What is the main reason you did not use a condom that time?	NOT AVAILBALE . . . . . 01 COST TOO MUCH . . . . . 02 USED FAMILY PLANNING METHOD . . 03 TRUSTED PARTNER . . . . . 04 PARTNER TESTS NEGATIVE/ NO RISK . . . . . 05 RESPONDENT DOESN'T LIKE . . . . . 06 PARTNER REFUSED/OBJECTED . . . . . 07 PARTNER DRUNK/ON DRUGS . . . . . 08 WANTED TO GET PREGNANT . . . . . 09 OTHER_____96 (SPECIFY)	
522E	What is your relationship to this man? IF MAN IS "BOYFRIEND" OR "FIANCÉ", ASK: Was your boyfriend/fiancé living with you when you last had sex with him? IF YES, CIRCLE '01'. IF NO, CIRCLE '02'.	SPOUSE/COHABITING PARTNER . . . . 01 MAN IS BOYFRIEND/FIANCÉ . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX WORKER . . . . . 06 OTHER _____ 96 (SPECIFY)	))▸523
522F	For how long have you had sexual relations with this man?	+)))0)), DAYS . . . . . 1 * * * /)))3)))1 WEEKS . . . . . 2 * * * /)))3)))1 MONTHS . . . . . 3 * * * /)))3)))1 YEARS . . . . . 4 * * * .)))2)))-	
523	In total, with how many different men have you had sex in the last 12 months?	+)))0)), NUMBER OF PARTNERS . . . . . * * * .)))2)))-	
524	Do you know of a place where a person can get male condoms?	YES . . . . . 1 NO 2	))▸526B

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
525	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL SOURCES MENTIONED.	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 OTHER PRIVATE MEDICAL _____ I (SPECIFY) OTHER SOURCE SHOP . . . . . J COMMUNITY-BASED AGENT/ HEALTH WORKER . . . . . K FRIEND/RELATIVE. . . . . L SCHOOL . . . . . M BAR, HOTEL . . . . . N OTHER _____ X (SPECIFY)	
526	If you wanted to, could you yourself get a male condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	))▸526 B
526A	Why not?	NO MONEY/TOO EXPENSIVE . . . . . 1 TOO EMBARRASSED . . . . . 2 NO TRANSPORT . . . . . 3 OTHER _____ 6 (SPECIFY)	
526B	Do you think you could ask your partner to use a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE 8	
527	CHECK 301(08): EVER HEARD OF FEMALE CONDOM CODE '1' CIRCLED +))), /)))- ▾ CODE '2' CIRCLED +))), .)))2))		))▸601
528	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	))▸530

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
529	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL SOURCES MENTIONED.	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 OTHER PRIVATE MEDICAL _____ I (SPECIFY) OTHER SOURCE SHOP . . . . . J COMMUNITY-BASED AGENT/ HEALTH WORKER . . . . . K FRIEND/RELATIVE. . . . . L SCHOOL . . . . . M BAR, HOTEL . . . . . N OTHER _____ X (SPECIFY)	
530	Which brand of female condom have you heard of? RECORD ALL MENTIONED. ASK Q. 531 IF 'CARE' IS MENTIONED.	CARE . . . . . A FEMIDOM . . . . . B NONE . . . . . C OTHER_____ X (SPECIFY)	), /▸601)-
531	Where have you seen or heard messages about the CARE female condom? RECORD ALL MENTIONED.	RADIO . . . . . A TV . . . . . B SHOP . . . . . C LEAFLETS/BOOKLETS . . . . . D POSTER . . . . . E COMMUNITY-BASED AGENT/ HEALTH WORKER . . . . . F OTHER_____X (SPECIFY)	

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 311/311A: NEITHER STERILIZED +)))/)))- ▼ HE OR SHE STERILIZED +)))2))		))▸614
602	CHECK 226: NOT PREGNANT OR UNSURE +)))/)))- * ▼ 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 you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT . . . 3 UNDECIDED/DON'T KNOW: AND PREGNANT . . . . . 4 AND NOT PREGNANT OR UNSURE 5	))▸604))▸614))▸610))▸608
603	CHECK 226: NOT PREGNANT OR UNSURE +)))/)))- * ▼ PREGNANT +)))/)))- * ▼ How long would you like to wait from now before the birth of (a/another) child? After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	+)))0)))/)))3)))1 * * * MONTHS . . . . . 1 +)))/)))2)))- * * * YEARS . . . . . 2 SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT . 994 AFTER MARRIAGE . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	))▸609))▸614), * *)▸609 *)-
604	CHECK 226: NOT PREGNANT OR UNSURE +)))/)))- ▼ PREGNANT +)))2))		))▸610
605	CHECK 310: USING A CONTRACEPTIVE METHOD? NOT ASKED +)))/)))- ▼ NOT CURRENTLY USING +)))/)))- ▼ CURRENTLY USING +)))2))))))))))))))))))))))))		))▸608
606	CHECK 603: NOT ASKED +)))/)))- ▼ 24 OR MORE MONTHS OR 02 OR MORE YEARS +)))/)))- ▼ 00-23 MONTHS OR 00-01 YEAR +)))2))))))))))))))))))		))▸610

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
607	CHECK 602: WANTS TO HAVE A/ANOTHER CHILD +)),/))-▾ You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy. Can you tell me why? Any other reason? RECORD ALL REASONS MENTIONED. WANTS NO MORE/ NONE +)),/))-▾ You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy. Can you tell me why? Any other reason?	NOT MARRIED . . . . . A FERTILITY-RELATED REASONS NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY. . . . D INFERTILE . . . . . 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	
608	In the next few weeks, if you discovered that you were pregnant, would that be a big problem, a small problem, or no problem for you?	BIG PROBLEM . . . . . 1 SMALL PROBLEM . . . . . 2 NO PROBLEM . . . . . 3 SAYS SHE CAN'T GET PREGNANT/ NOT HAVING SEX 4	
609	CHECK 310: USING A CONTRACEPTIVE METHOD? NOT ASKED +)))/)))-▾ NO, NOT CURRENTLY USING +)))/)))-▾ YES, CURRENTLY USING +))),.)))2))))))))))))))))))))))		))▸614
610	Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	),)2▸612
611	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/FOAM/JELLY . . . . . 09 LACTATIONAL AMEN. METHOD . . . . . 10 NATURAL FAMILY PLANNING . . . . . 11 WITHDRAWAL . . . . . 12 OTHER _____ 96 (SPECIFY) UNSURE 98	), * * * * * * /▸614 * * * * * * *)-

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
612	What is the main reason that you think you will not use a contraceptive method at any time in the future?	NOT MARRIED . . . . . 11 FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX . . . . . 22 MENOPAUSAL/HYSTERECTOMY . . 23 INFERTILE . . . . . 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	), * * * * * * * * * * * * /▸614 * * * * * * * * * * * *)-
613	Would you ever use a contraceptive method if you were married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
614	CHECK 216: HAS LIVING CHILDREN +)), /))- ▾ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN +)), /))- ▾ If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	+)))0))), NUMBER . . . . . * * * .)))2)))- OTHER _____ 96 (SPECIFY)	))▸616
615	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER +)))0))), +)))0))), +)))0))), NUMBER . . * * * * * * * * * .)))2)))- .)))2)))- .)))2)))- OTHER _____ 96 (SPECIFY)	
616	Would you say that you approve or disapprove of couples using a contraceptive method to avoid getting pregnant?	APPROVE . . . . . 1 DISAPPROVE . . . . . 2 DON'T KNOW/UNSURE 8	
617	In the last few months, have you discussed the practice of family planning with your friends, neighbors, or relatives?	YES . . . . . 1 NO 2	))▸619

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
618	With whom? Anyone else? RECORD ALL PERSONS MENTIONED.	HUSBAND/PARTNER . . . . . A MOTHER . . . . . B FATHER . . . . . C SISTER(S) . . . . . D BROTHER(S) . . . . . E DAUGHTER . . . . . F SON . . . . . G MOTHER-IN-LAW . . . . . H FRIENDS/NEIGHBORS . . . . . I OTHER _____ X (SPECIFY)	
619	CHECK 501: YES, CURRENTLY MARRIED +)))/)))-▾ YES, LIVING WITH A MAN +)))/)))-▾ NO, NOT IN UNION +)))/.)))2))))))))))))))))))))))))))		))▸626
620	CHECK 311/311A: ANY CODE CIRCLED +)))/)))-▾ NO CODE CIRCLED +)))/.)))2))))))))))))))))))))		))▸622
621	You have told me that you are currently using contraception. Would you say that using contraception is mainly your decision, mainly your husband's/partner's decision or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY HUSBAND/PARTNER . . . . . 2 JOINT DECISION . . . . . 3 OTHER _____ 6 (SPECIFY)	
622	Now I want to ask you about your husband's/partner's views on family planning. Do you think that your husband/partner approves or disapproves of couples using a contraceptive method to avoid pregnancy?	APPROVES . . . . . 1 DISAPPROVES . . . . . 2 DON'T KNOW 8	
623	How often have you talked to your husband/partner about family planning in the past year?	NEVER . . . . . 1 ONCE OR TWICE . . . . . 2 MORE OFTEN 3	
625	Do you think your husband/partner wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	
626	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	
626A	Have you ever heard of an oral contraceptive pill called Safeplan?	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	
627	In the last six months, have you listened to the following programs on the radio? Your health matters? Lifeline? AIDS and the family? Our neighborhood?	YES NO YOUR HEALTH MATTERS . . . . . 1 2 LIFELINE . . . . . 1 2 AIDS AND THE FAMILY . . . . . 1 2 OUR NEIGHBORHOOD 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
628	In the last six months, have you seen any of the following programs on television? Your health matters? Lifeline? Soul city? X-plosion?	YES NO YOUR HEALTH MATTERS . . . . . 1 2 LIFELINE . . . . . 1 2 SOUL CITY . . . . . 1 2 X-PLOSION 1 2	
629	Have you ever seen a newspaper called “Trendsetters” aimed at young people?	YES . . . . . 1 NO . . . . . 2 DON’T KNOW 8	
630	Is there a Neighborhood Health Committee (NHC) in your neighborhood?	YES . . . . . 1 NO . . . . . 2 DON’T KNOW 8	),)2▸632
631	Have you ever attended a meeting organized by the NHC?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
632	Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband when:		YES	NO	DK	
	She knows her husband has a sexually transmitted disease?	HAS STD	1	2	8	
	She knows her husband has sex with other women?	OTHER WOMEN	1	2	8	
	She has recently given birth?	RECENT BIRTH	1	2	8	
	She is tired or not in the mood?	TIRED/MOOD	1	2	8	

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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 501 AND 502: CURRENTLY MARRIED/ LIVING WITH A MAN FORMERLY MARRIED/ LIVED WITH A MAN NEVER MARRIED AND NEVER LIVED WITH A MAN		▸703 ▸707
702	How old was your husband/partner on his last birthday?	AGE IN COMPLETED YEARS . .	
703	Did your (last) husband/partner ever attend school?	YES . . . . . 1 NO 2	▸706
704	What was the highest level of school he attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER . . . . . 3 DON'T KNOW 8	▸706
705	What was the highest grade he completed at that level?	GRADE . . . . . . DON'T KNOW 98	
706	CHECK 701: CURRENTLY MARRIED/ LIVING WITH A MAN What is your husband's/partner's occupation? That is, what kind of work does he mainly do? FORMERLY MARRIED/ LIVED WITH A MAN What was your (last) husband's/ partner's occupation? That is, what kind of work did he mainly do?	_____ _____ _____	
707	Aside from your own housework, are you currently working?	YES . . . . . 1 NO 2	▸710
708	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. Are you currently doing any of these things or any other work?	YES . . . . . 1 NO 2	▸710
709	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	▸719
710	What is your occupation, that is, what kind of work do you mainly do?	_____ _____ _____	
711	CHECK 710: WORKS IN AGRICULTURE DOES NOT WORK IN AGRICULTURE		▸713

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
712	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
713	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
714	Do you usually work at home or away from home?	HOME . . . . . 1 AWAY 2	
715	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	
716	Are you paid or do you earn in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	),)2▸719
717	Who mainly decides how the money you earn will be used?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY 5	
718	On average, how much of your household's expenditures do your earnings pay for: almost none, less than half, about half, more than half, or all?	ALMOST NONE . . . . . 1 LESS THAN HALF . . . . . 2 ABOUT HALF . . . . . 3 MORE THAN HALF . . . . . 4 ALL . . . . . 5 NONE, HER INCOME IS ALL SAVED. . . . 6	
719	Who in your family usually has the final say on the following decisions:	RESPONDENT = 1 HUSBAND/PARTNER = 2 RESPONDENT & HUSBAND/PARTNER JOINTLY = 3 SOMEONE ELSE = 4 RESPONDENT & SOMEONE ELSE JOINTLY = 5 DECISION NOT MADE/NOT APPLICABLE = 6	
	Your own health care?	1 2 3 4 5 6	
	Making large household purchases?	1 2 3 4 5 6	
	Deciding when to visit family, friends or relatives?	1 2 3 4 5 6	
	Deciding how many children to have and when?	1 2 3 4 5 6	
720	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT) YRS = YEARS	PRES/ LISTEN. / PRES/ NOT LISTEN. / NOT PRES CHILDREN <10 YRS . 1 2 8 HUSBAND . . . . . 1 2 8 OTHER MALES . . . . . 1 2 8 OTHER FEMALES . . . 1 2 8	
720A	CHECK 720 FOR PRESENCE OF OTHERS: DO NOT CONTINUE UNTIL RESPONDENT IS ALONE. RESPONDENT ALONE AND ELIGIBLE FOR Qs. 720A-720L +)))), /)))- RESPONDENT OR NOT ELIGIBLE FOR Qs. 720A-720L RESPONDENT NOT ALONE +)))), .)))2)))))))

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	READ TO ALL RESPONDENTS: Now I would like to ask you some personal questions. I know that these questions are very personal. However, your answers are crucial for helping to understand how women are treated in their household. Your answers are completely confidential and will not be told to anyone in this household.		
720B	CHECK 501 AND 502:: CURRENTLY MARRIED/ LIVING WITH A MAN/ FORMERLY MARRIED/ WITH A MAN ++++++

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
720-EX	Who did this to you? RECORD ALL MENTIONED.	FATHER . . . . . A MOTHER . . . . . B FATHER-IN-LAW . . . . . C MOTHER-IN-LAW . . . . . D BROTHER . . . . . E SISTER . . . . . F SON . . . . . G DAUGHTER . . . . . H LATE/EX-HUSBAND/EX-PARTNER . . . . . I CURRENT BOYFRIEND . . . . . J FORMER BOYFRIEND . . . . . K OTHER MALE RELATIVE . . . . . L OTHER FEMALE RELATIVE . . . . . M MALE FRIEND . . . . . N FEMALE FRIEND . . . . . O TEACHER . . . . . P EMPLOYER . . . . . Q STRANGER . . . . . R OTHER_____X (SPECIFY)	
720F	In the last 12 months, how many times did this happen?	+)))0)))), NUMBER OF TIMES . . . . . * * * .)))2)))-	
720G	Have you ever been forced by a man to have sexual intercourse with him when you did not want to?	YES . . . . . 1 NO 2	))▸720J
720H	Who did this to you? RECORD ALL MENTIONED. Anyone else?	HUSBAND/LIVE-IN PARTNER . . . . . A BOYFRIEND . . . . . B FATHER . . . . . C BROTHER . . . . . D OTHER MALE RELATIVE . . . . . E MALE FRIEND . . . . . F TEACHER . . . . . G EMPLOYER . . . . . H STRANGER . . . . . I FATHER-IN-LAW . . . . . J FORMER HUSBAND/LIVE-IN PARTNER . . . . . K FORMER BOYFRIEND . . . . . L OTHER_____X (SPECIFY)	
720I	In the last 12 months, how many times did this happen?	+)))0)))), NUMBER OF TIMES . . . . . * * * .)))2)))-	
720J	Has anyone ever made you have sexual intercourse with some other person when you did not want to?	YES . . . . . 1 NO 2	))▸721

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
720K	Who was the person that made you have sexual intercourse with some other person? RECORD ALL MENTIONED. Anyone else?	HUSBAND/LIVE-IN PARTNER . . . . . A BOYFRIEND . . . . . B FATHER . . . . . C MOTHER . . . . . D BROTHER . . . . . E SISTER . . . . . F OTHER MALE RELATIVE. . . . . G OTHER FEMALE RELATIVE. . . . . H MALE FRIEND . . . . . I FEMALE FRIEND . . . . . J TEACHER . . . . . K EMPLOYER . . . . . L STRANGER . . . . . M MOTHER-IN-LAW . . . . . N FATHER-IN-LAW . . . . . O FORMER HUSBAND/LIVE-IN PARTNER . . . . . P FORMER BOYFRIEND . . . . . Q OTHER_____X (SPECIFY)	
720L	In the last 12 months, how many times did this happen?	NUMBER OF TIMES . . . . . +)))0)))), * * * .)))2)))-	
721	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: If she goes out with another man? If she neglects the children? If she argues with him? If she refuses to have sex with him? If she cooks bad food or food is late?	YES NO DK GOES WITH MAN . . . . 1 2 8 NEGL. CHILDREN . . . . 1 2 8 ARGUES . . . . . 1 2 8 REFUSES SEX . . . . . 1 2 8 BAD/LATE FOOD 1 2 8	

SECTION 8: AIDS AND OTHER SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Now I would like to talk about something else. Have you ever heard of a disease called AIDS?	YES . . . . . 1 NO 2	))▸817
802	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	),)2▸809
803	What can a person do? Anything else? RECORD ALL WAYS MENTIONED.	ABSTAIN FROM SEX . . . . . A USE CONDOMS . . . . . B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER . . . . . C LIMIT NUMBER OF SEXUAL PARTNERS . . . . . D AVOID SEX WITH PROSTITUTES . . . . . E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS . . . . . F AVOID SEX WITH HOMOSEXUALS . . . G AVOID SEX WITH PERSONS WHO INJECT DRUGS INTRAVENOUSLY . . . . . H AVOID BLOOD TRANSFUSIONS . . . . . I AVOID INJECTIONS . . . . . J AVOID SHARING RAZORS/BLADES . . K AVOID KISSING . . . . . L AVOID MOSQUITO BITES . . . . . M SEEK PROTECTION FROM TRADITIONAL PRACTITIONER . . . . . N OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
804	Can people reduce their chances of getting the AIDS virus by having just one sex partner who has no other partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
805	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
806	Can people reduce their chances of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
807	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
809	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
810	Do you know someone personally who has the virus that causes AIDS or someone who died of AIDS?	YES . . . . . 1 NO 2	
811	Can the virus that causes AIDS be transmitted from a mother to a child?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	),)2▸813
812	Can the virus that causes AIDS be transmitted from a mother to a child: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING. 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
812A	Is there anything that can be done to reduce the chances that a mother would transmit the AIDS virus to her child?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
813	CHECK 501: YES, CURRENTLY MARRIED/ LIVING WITH A MAN +)))), /)))- ▼ NO, NOT IN UNION +)))), .)))2))))))))))))))))))		))▸814A
814	Have you ever talked with (your husband/the man you are living with) about ways to prevent getting the virus that causes AIDS?	YES . . . . . 1 NO 2	
814A	In your opinion, is it acceptable or unacceptable for condoms to be discussed: on the radio? on the TV? in newspapers?	ACCEPT-ABLE / NOT ACCEPT-ABLE ON THE RADIO . . . . . 1 2 ON THE TV . . . . . 1 2 IN NEWSPAPERS 1 2	
815	If a member of your family got infected with the virus that causes AIDS, would you want it to remain a secret or not?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE 8	
816	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
816A	If a worker is sick with AIDS, should he/she be allowed to work?	ALLOWED . . . . . 1 NOT ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
816B	If you knew that a shopkeeper or food seller has the AIDS virus, would you buy food items from them?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
816C	In the last six months, have you seen any adverts about sexual abstinence, condom use or HIV/AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE 8	),)2▸816E
816D	Can you describe which ones? DO NOT READ RESPONSES TO RESPONDENT. RECORD ALL MENTIONED.	YOU CLEVER GIRL . . . . . A BOYS SAYING WHY THEY ABSTAIN FROM SEX . . . . . B SAY NO TO SEX/VIRGIN POWER/ VIRGIN PRIDE . . . . . C ICE IS AT BRAII/ ICE GETS STD . . . . . D ICE FIXING CAR/FRIEND TELLS HIM TO USE CONDOM EVERY TIME . . . . E CHRISTINE BRAIDING HAIR/FRIENDS SAY USE CONDOM . . . . . F BOYS PLAYING BASKETBALL/ONE HIV+/ CAN'T TELL WHICH ONE . . . . . G GIRLS WALKING/ONE HIV+/ CAN'T TELL WHICH ONE . . . . . H OTHER_____X (SPECIFY)	
816E	Should youth age 12-14 be taught about using a condom to avoid AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
816F	Do you think your chances of getting AIDS are small, moderate, great, or do you think that you have no chance of getting it at all?	SMALL . . . . . 1 MODERATE . . . . . 2 GREAT . . . . . 3 NO RISK AT ALL . . . . . 4 HAS AIDS 5	))▸816H))▸816H))▸816H

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
816G	Why do you think your chances of getting AIDS are low? RECORD ALL MENTIONED.	ABSTAINS FROM SEX . . . . . A USES CONDOMS . . . . . B HAS ONLY 1 SEX PARTNER . . . . . C LIMITED NUMBER OF PARTNERS . . . . . D PARTNER HAS NO OTHER PARTNERS . . . . . E NO TRANSFUSIONS/INJECTIONS . . . . . F OTHER _____ X (SPECIFY)	
816H	Have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	))▸816K X
816I	Would you want to be tested for the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
816J	Do you know a place where you could go to get an AIDS test?	YES . . . . . 1 NO 2	))▸817
816K 816KX	Where can you go for the test? RECORD ONLY FIRST RESPONSE GIVEN. Where did you go for the test? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH CENTER . . 12 GOVERNMENT HEALTH POST . . . . 13 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/SURGERY . . . 21 MISSION HOSPITAL . . . . . 22 PHARMACY . . . . . 23 PRIVATE DOCTOR . . . . . 24 WORK PLACE . . . . . 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY)	
817	(Apart from AIDS), have you heard about other infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	))▸819C
818	If a man has a sexually transmitted disease, what symptoms might he have? Any others? RECORD ALL SYMPTOMS MENTIONED.	ABDOMINAL PAIN . . . . . A GENITAL DISCHARGE/DRIPPING . . . . . B FOUL SMELLING DISCHARGE . . . . . C BURNING PAIN ON URINATION . . . . . D REDNESS/INFLAMMATION IN GENITAL AREA . . . . . E SWELLING IN GENITAL AREA . . . . . F GENITAL SORES/ULCERS . . . . . G GENITAL WARTS . . . . . H GENITAL ITCHING . . . . . I BLOOD IN URINE . . . . . J LOSS OF WEIGHT . . . . . K IMPOTENCE . . . . . L OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) NO SYMPTOMS . . . . . Y DON'T KNOW . . . . . Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
819	If a woman has a sexually transmitted disease, what symptoms might she have? Any others? RECORD ALL SYMPTOMS MENTIONED.	ABDOMINAL PAIN . . . . . A GENITAL DISCHARGE . . . . . B FOUL SMELLING DISCHARGE . . . . . C BURNING PAIN ON URINATION . . . . . D REDNESS/INFLAMMATION IN GENITAL AREA . . . . . E SWELLING IN GENITAL AREA . . . . . F GENITAL SORES/ULCERS . . . . . G GENITAL WARTS . . . . . H GENITAL ITCHING . . . . . I BLOOD IN URINE . . . . . J LOSS OF WEIGHT . . . . . K HARD TO GET PREGNANT/HAVE A CHILD . . . . . L OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) NO SYMPTOMS . . . . . Y DON'T KNOW . . . . . Z	
819A	CHECK 514: HAS HAD SEXUAL INTERCOURSE +), /)- ▾ HAS NOT HAD SEXUAL INTERCOURSE +), .)2))))))))))))))))))))))))))))))))))))))		))▸901
819B	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a sexually-transmitted disease?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
819C	Sometimes, women experience a heavy or bad smelling genital discharge. During the last 12 months, have you had a heavy or bad smelling genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
819D	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	
819E	CHECK 819B, 819C, 819D: HAS HAD AN INFECTION +), /)- ▾ HAS NOT HAD AN INFECTION OR DOES NOT KNOW +), .)2))))))))))))))))))))))))))))))))))))))		))▸901
819F	The last time you had (PROBLEM FROM 819B/819C//819D), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	))▸819H
819G	The last time you had (PROBLEM FROM 819B/819C/819D), did you do any of the following? Did you.... Go to a clinic, hospital or private doctor? Consult a traditional healer? Seek advice or buy medicines in a shop or pharmacy? Ask for advice from friends or relatives?	YES NO CLINIC/HOSPITAL . . . . . 1 2 TRADITIONAL HEALER . . . . . 1 2 SHOP/PHARMACY . . . . . 1 2 FRIENDS/RELATIVES 1 2	
819H	When you had (PROBLEM FROM 819B/819C/819D), did you inform the person with whom you were having sex?	YES . . . . . 1 NO . . . . . 2 SOME/ NOT ALL . . . . . 3 DID NOT HAVE PARTNER 4	))▸901

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
819I	When you had (PROBLEM FROM 819B/819C/819D), did you do something to avoid infecting your sexual partner(s)?	YES . . . . . 1 NO . . . . . 2 PARTNER ALREADY INFECTED 3	),)2▸901
819J	What did you do to avoid infecting your partner(s)? Did you.... Use medicine? Stop having sex? Use a condom when having sex?	YES NO USE MEDICINE . . . . . 1 2 STOP SEX . . . . . 1 2 USE CONDOM 1 2	

SECTION 9. MATERNAL MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. How many children did your mother give birth to, including you?	NUMBER OF BIRTHS TO NATURAL MOTHER . . . . . +)))0))) * * * .)))2)))	
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 . . . . . +)))0))) * * * .)))2)))	

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)?	+)))0))) * * * .)))2))) GO TO [2]	+)))0))) * * * .)))2))) GO TO [3]	+)))0))) * * * .)))2))) GO TO [4]	+)))0))) * * * .)))2))) GO TO [5]	+)))0))) * * * .)))2))) GO TO [6]	+)))0))) * * * .)))2))) GO TO [7]
908	How many years ago did (NAME) die?	+)))0))) * * * .)))2)))	+)))0))) * * * .)))2)))	+)))0))) * * * .)))2)))	+)))0))) * * * .)))2)))	+)))0))) * * * .)))2)))	+)))0))) * * * .)))2)))
909	How old was (NAME) when he/she died?	+)))0))) * * * .)))2))) IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [2]	+)))0))) * * * .)))2))) IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [3]	+)))0))) * * * .)))2))) IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [4]	+)))0))) * * * .)))2))) IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [5]	+)))0))) * * * .)))2))) IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [6]	+)))0))) * * * .)))2))) 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	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	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	+)))0))) * * * .)))2)))-	+)))0))) * * * .)))2)))-	+)))0))) * * * .)))2)))-	+)))0))) * * * .)))2)))-	+)))0))) * * * .)))2)))-	+)))0))) * * * .)))2)))-
IF NO MORE BROTHERS OR SISTERS, GO TO 914							

904	What was 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)?	+)))0))), * * * .)))2)))- GO TO [8]	+)))0))), * * * .)))2)))- GO TO [9]	+)))0))), * * * .)))2)))- GO TO [10]	+)))0))), * * * .)))2)))- GO TO [11]	+)))0))), * * * .)))2)))- GO TO [12]	+)))0))), * * * .)))2)))- GO TO [13]
908	How many years ago did (NAME) die?	+)))0))), * * * .)))2)))-	+)))0))), * * * .)))2)))-	+)))0))), * * * .)))2)))-	+)))0))), * * * .)))2)))-	+)))0))), * * * .)))2)))-	+)))0))), * * * .)))2)))-
909	How old was (NAME) when he/she died?	+)))0))), * * * .)))2)))- IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [8]	+)))0))), * * * .)))2)))- IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [9]	+)))0))), * * * .)))2)))- IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [10]	+)))0))), * * * .)))2)))- IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [11]	+)))0))), * * * .)))2)))- IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [12]	+)))0))), * * * .)))2)))- 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	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	+)))0))), * * * .)))2)))-	+)))0))), * * * .)))2)))-	+)))0))), * * * .)))2)))-	+)))0))), * * * .)))2)))-	+)))0))), * * * .)))2)))-	+)))0))), * * * .)))2)))-
IF NO MORE BROTHERS OR SISTERS, GO TO 914							
914	RECORD THE TIME.				+)))0))), HOURS . . . . . * * * .)))2)))- +)))0))), MINUTES . . . . . * * * .)))2)))-		

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 THE SUPERVISOR:_____
. . . . . DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR:_____
. . . . . DATE: _____

September 28, 2001

2001 ZAMBIA DEMOGRAPHIC AND HEALTH SURVEY
MEN'S QUESTIONNAIRE
CENTRAL BOARD 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 _____

```
+)))0)))0)))-
*   *   *   *
/)))3)))3)))1
*   *   *   *
.)))2)))3)))1
        *   *
    /)))1
    *   *
    /)))1
    *   *
+)))3)))1
*   *   *
.)))2)))-
```

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY / MONTH / YEAR
INTERVIEWER'S NAME	_____	_____	_____	NAME
RESULT*	_____	_____	_____	RESULT
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS
TIME	_____	_____		

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

LANGUAGE OF QUESTIONNAIRE** ENGLISH . . . . . .

LANGUAGE OF INTERVIEW** . . . . . .

RESPONDENT'S LOCAL LANGUAGE** . . . . . .

TRANSLATOR USED (1=NOT AT ALL; 2=SOMETIME; 3=ALL THE TIME) . . . .

```
+)))0)))-
*0 *1!*
/)))3)))1
*   *   *
/)))3)))1
*   *   *
.)))3)))1
    *   *
    .)))-
```

** 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 _____ +)))0))) , * * * DATE _____ .)))2))) -	NAME _____ +)))0))) , * * * DATE _____ .)))2))) -	+)))0)), * * * .)))2)))-	+)))0)), * * * .)))2)))-

SECTION 1. RESPONDENT'S BACKGROUND

INFORMED CONSENT

Hello. My name is _____ and I am working with the Central Board of Health and the Central Statistical Office. We are conducting a national survey about the health of men, women and children. We would very much appreciate your participation in this survey. I would like to ask you some questions about yourself and your family. This information will help the government to plan health services. The survey usually takes about 30 to 40 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

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.	+)))0)), HOUR . . . . . * * * /)))3)))1 MINUTES . . . . . * * * .)))2)))-	
103	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	+)))0)), YEARS . . . . . * * * .)))2)))- ALWAYS . . . . . 95 VISITOR 96	),)2)▸105
104	Just before you moved here, did you live in Lusaka, in another city, in a town, or in the village?	LUSAKA . . . . . 1 OTHER CITY . . . . . 2 TOWN . . . . . 3 VILLAGE 4	
105	In the last 12 months, have you ever traveled away from your home community and slept away?	YES . . . . . 1 NO 2	))▸108
106	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	+)))0)), NUMBER OF TRIPS AWAY . . * * * .)))2)))-	
107	In the last 12 months, have you been away from your home community for more than 1 month at a time?	YES . . . . . 1 NO 2	
108	In what month and year were you born?	+)))0)), MONTH . . . . . * * * .)))2)))- DON'T KNOW MONTH . . . . . 98 +)))0)))0)))0)), YEAR . . . . . * * * * * .)))2)))2)))2)))- DON'T KNOW YEAR 9998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
109	How old were you at your last birthday? COMPARE AND CORRECT 108 AND/OR 109 IF INCONSISTENT.	+)))0)), AGE IN COMPLETED YEARS . * * * .)))2)))-	
110	Have you ever attended school?	YES . . . . . 1 NO 2	))▸114
111	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER 3	
112	What is the highest grade you completed at that level?	+)))0)), GRADE . . . . . * * * .)))2)))-	
113	CHECK 111: PRIMARY +)))), SECONDARY +)))), /)))- OR HIGHER .)))2)) ▾		))▸117
114	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)	
115	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	
116	CHECK 114: CODE '2' +)))), CODE '1' +)))), '3' OR '4' /)))- CIRCLED .)))2)) CIRCLED ▾		))▸118
117	Do you read a newspaper 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 ALMOST NEVER / NOT AT ALL 4	
118	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 ALMOST NEVER / NOT AT ALL 4	
119	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 ALMOST NEVER / NOT AT ALL 4	
120	Are you currently working?	YES . . . . . 1 NO 2	))▸123
121	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	))▸123
122	What have you been doing for most of the time over the last 12 months?	GOING TO SCHOOL/STUDYING . . . . . 1 LOOKING FOR WORK . . . . . 2 INACTIVE . . . . . 3 COULD NOT WORK/HANDICAPPED . . . 4 OTHER _____ 6 (SPECIFY)	), * * /▸129 * *)-

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
123	What is your occupation, that is, what kind of work do you mainly do?	+)))0))) * * * _____ .)))2)))- _____ _____	
124	CHECK 123: WORKS IN AGRICULTURE +))) DOES NOT WORK IN AGRICULTURE +))) .)))2))) ▼		))▸126
125	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	
126	During the last 12 months, how many months did you work?	+)))0))) NUMBER OF MONTHS . . . . . * * * .)))2)))-	
127	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	),)2▸129
128	On average, how much of your household's expenditures do your earnings pay for: almost none, less than half, about half, more than half, or all?	ALMOST NONE . . . . . 1 LESS THAN HALF . . . . . 2 ABOUT HALF . . . . . 3 MORE THAN HALF . . . . . 4 ALL . . . . . 5 NONE, HIS INCOME IS ALL SAVED 6	
129	What is your religion?	CATHOLIC . . . . . 1 PROTESTANT . . . . . 2 MUSLIM . . . . . 3 OTHER _____ 6 (SPECIFY)	
130	What tribe do you belong to?	+)))0))) * * * _____ .)))2)))-	

* Examples:

1 - Children should go to school.
2 - Today is a sunny day.
3 - Birds fly in the sky.
4 - The child is reading a book.
5 - The rains came late this year.

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had. I am interested only in the children that are biologically yours. Do not include any adopted children or any children who are not your own natural children. Have you ever fathered any children with any woman?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	),)2▸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'.	+)))0))) SONS AT HOME . . . . . * * * /)))3)))1 DAUGHTERS AT HOME . . . . . * * * .)))2)))-	
204	Do you have any sons or daughters 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'.	+)))0))) SONS ELSEWHERE . . . . . * * * /)))3)))1 DAUGHTERS ELSEWHERE . . . * * * .)))2)))-	
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	),)2▸208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	+)))0))) BOYS DEAD . . . . . * * * /)))3)))1 GIRLS DEAD . . . . . * * * .)))2)))-	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL IF NONE, RECORD '00'.	+)))0))) TOTAL CHILDREN . . . . . * * * .)))2)))-	
209	CHECK 208: Just to make sure that I have this right: you have fathered TOTAL _____ children during your life. Is that correct? YES +))), /)))- * ▾ NO +))), .)))2))▸ PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: HAS HAD +))), HAS HAD +)))0))))))

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
214	At the time when this child was born, were you married to the child's mother?	YES . . . . . 1 NO 2	

SECTION 3. CONTRACEPTION

Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302 IF APPLICABLE.

301	Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?		302 Have you ever used (METHOD)?
01	FEMALE STERILISATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
02	MALE STERILISATION 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 which 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	FOAM TABLETS, DIAPHRAGM OR JELLY Women can place a suppository, jelly, diaphragm or cream in their vagina before intercourse.	YES . . . . . 1 NO 2	
10	LACTATIONAL AMENORRHOEA 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	
11	RHYTHM OR NATURAL FAMILY PLANNING 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 DON'T KNOW 8
12	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO . . . . . 2), ▾	YES . . . . . 1 NO 2
13	EMERGENCY CONTRACEPTION Women can take pills up to three days after sexual intercourse to avoid becoming pregnant.	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	

303	CHECK 301(01), 301(03), AND 301(05) : CODE '1' CIRCLED FOR ANY METHOD CODE '1' NOT CIRCLED FOR ANY METHOD				))▸308
304	Now I want to talk to you about contraceptive methods that women can use to delay or avoid becoming pregnant.	CHECK 301(03): KNOWS PILL YES NO GO TO 304 IN NEXT COLUMN	CHECK 301(05): KNOWS INJECTABLES YES NO GO TO 304 IN NEXT COLUMN	CHECK 301(01): KNOWS FEMALE STERILISATION YES NO GO TO 308	
		PILL	INJECTABLES	FEMALE STERILISATION	
305	In your opinion, is (METHOD) a good method for a couple to use if they want to plan their family?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 307) DEPENDS / UP TO THEM . . . . . 3 DON'T KNOW . . . . . 8 (GO TO 304 IN NEXT COLUMN)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 307) DEPENDS/UP TO THEM . . . . . 3 DON'T KNOW . . . . . 8 (GO TO 304 IN NEXT COLUMN)	In your opinion, is female sterilisation a good method for a couple to use if they do not want any more children? YES . . . . . 1 NO . . . . . 2 (SKIP TO 307) DEPENDS/UP TO THEM . . 3 DON'T KNOW . . . . . 8 (SKIP TO 308)	
306	Why do you think (METHOD) is a good method for a couple to use if they want to plan their family? RECORD ALL REASONS MENTIONED.	SIMPLE TO USE . . . . . A EFFECTIVE . . . . . B AFFORDABLE . . . . . C NO/FEW SIDE EFFECTS . . . . . D CAN STOP WHEN CHILDREN DESIRED . E NO NEED FOR MEDICAL PERSONNEL . . . . . F OTHER_____ (SPECIFY) X DON'T KNOW . . . . . Y (GO TO 304 IN NEXT COLUMN)	SIMPLE TO USE . . . . . A EFFECTIVE . . . . . B AFFORDABLE . . . . . C NO/FEW SIDE EFFECTS . . . . . D CAN BE STOPPED IF CHILDREN DESIRED . . . E GET EVERY 2- 3 MONTHS, NO DAILY WORRY . . . F OTHER_____ (SPECIFY) X DON'T KNOW . . . . . Y (GO TO 304 IN NEXT COLUMN)	Why do you think female sterilization is a good method for a couple to use if they do not want any more children? EFFECTIVE . . . . . B AFFORDABLE . . . . . C NO/FEW SIDE EFFECTS . . . . . D NO RISK OF GETTING PREGNANT AGAIN. . . . G OTHER_____ (SPECIFY) X DON'T KNOW . . . . . Y (SKIP TO 308)	

307	Why do you think (METHOD) is not a good method for a couple to use if they want to plan their family? RECORD ALL REASONS MENTIONED.	TOO EXPENSIVE . . . . . A), AGAINST RELIGION . . . B)1 MAY HARM WOMEN'S * HEALTH . . . . . C)1 HAS SIDE EFFECTS . . D)1 INCREASES * PROMISCUITY . . . . . E)1 CAN CAUSE * STERILITY . . . . . F)1 METHOD CAN FAIL . . . . G)1 BABY IN DANGER IF * PREGNANCY * OCCURS . . . . . H)1 INVOLVES DOCTOR/ * MED. PERSONNEL. . . . . I)* * OTHER _____ X)1 (SPECIFY) * DON'T KNOW . . . . . Y)1 (GO TO 304 IN ◂))))))) - NEXT COLUMN)	TOO EXPENSIVE . . . . . A), AGAINST RELIGION . . . . B)1 MAY HARM WOMEN'S * HEALTH . . . . . C)1 HAS SIDE EFFECTS . . . . D)1 INCREASES * PROMISCUITY . . . . . E)1 CAN CAUSE * STERILITY . . . . . F)1 METHOD CAN FAIL . . . . . G)1 BABY IN DANGER IF * PREGNANCY * OCCURS . . . . . H)1 INVOLVES DOCTOR/ * MED. PERSONNEL. . . . . I)1 * OTHER _____ X)1 (SPECIFY) * DON'T KNOW . . . . . Y)1 (GO TO 304 IN ◂))))))) - NEXT COLUMN)	Why do you think female sterilization is not a good method for a couple to use if they do not want any more children? TOO EXPENSIVE . . . . . A AGAINST RELIGION . . . . . B MAY HARM WOMEN'S HEALTH . . . . . C HAS SIDE EFFECTS . . . . . D INCREASES PROMISCUITY . . . . . E CANNOT HAVE CHILDREN AGAIN . . . . . F METHOD CAN FAIL . . . . . G INVOLVES DOCTOR/ MED. PERSONNEL. . . . . I CAN LEAD TO MED. COMPLICATIONS . . . . . J OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Y

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
308	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	),)2)▸310
309	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	
310	Do you think that a woman who is breastfeeding her baby can become pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DEPENDS 8	
311	CHECK 301(07) AND 302(07): KNOWLEDGE AND USE OF CONDOMS HAS HEARD OF +))) +)))0)))))))

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
316	Have you ever experienced any problems with using condoms? IF YES: What problems have you experienced? PROBE: Any other problems? RECORD ALL PROBLEMS MENTIONED.	TOO EXPENSIVE . . . . . A EMBARRASSING TO BUY/OBTAIN . . . . B DIFFICULT TO DISPOSE OF . . . . . C DIFFICULT TO PUT ON/TAKE OFF . . . . . D SPOILS THE MOOD . . . . . E DIMINISHES PLEASURE . . . . . F WIFE PARTNER OBJECTS/DOES NOT LIKE . . . . . G WIFE/PARTNER GOT PREGNANT . . . . . H INCONVENIENT TO USE/MESSY . . . . . I CONDOM BROKE . . . . . J OTHER _____ X (SPECIFY) NO PROBLEM . . . . . Y	
317	CHECK 314: CURRENT USE OF CONDOMS EVERY TIME +)), OR SOMETIMES /))- .)))2)) ▼ NOT AT ALL/ +)), NOT HAVING SEX		))▸323
318	What brand of condom do you usually use? ASK TO SEE CONDOM PACKET IF BRAND NOT KNOWN.	DUREX . . . . . 01 MAXIMUM . . . . . 02 JEANS . . . . . 03 PARROT . . . . . 04 AROUSER . . . . . 05 SULTAN . . . . . 06 PROTECTOR . . . . . 07 LOVERS PLUS . . . . . 08 CHISANGO . . . . . 09 GENERIC / NO BRAND . . . . . 10 OTHER _____ 96 (SPECIFY) DON'T KNOW BRAND 98	
319	Where do you usually obtain the condoms? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH CENTRE . . 12 HEALTH POST . . . . . 13 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL / SURGERY . . . 21 MISSION HOSPITAL / SURGERY . . . 22 PHARMACY . . . . . 23 PRIVATE DOCTOR . . . . . 24 WORK PLACE . . . . . 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER SOURCE SHOP . . . . . 31 COMMUNITY-BASED AGENT / HEALTH WORKER . . . . . 32 FRIEND/RELATIVE . . . . . 33 SCHOOL . . . . . 34 BAR, HOTEL . . . . . 35 OTHER _____ 96 (SPECIFY)	
320	How much do you usually pay for a packet of condoms?	+)))0)))0)))0)))), COST PER PACKET . . . * * * * * .)))2)))2)))2)))- FREE . . . . . 9995 DON'T KNOW 9998	),)2▸323

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
321	How many condoms are in each packet?	+)))0))) NUMBER . . . . . * * * .)))2)))-	
321A	Would you prefer fewer condoms in each pack or more condoms in each pack or is it ok?	FEWER IN EACH PACK . . . . . 1 MORE IN EACH PACK . . . . . 2 OK AS IT IS 3	
322	Do you think that at this price condoms are inexpensive, just affordable, or too expensive?	INEXPENSIVE . . . . . 1 JUST AFFORDABLE . . . . . 2 TOO EXPENSIVE 3	
323	I will now read you some statements about condoms. Please tell me if you agree or disagree with each.	AGREE DISAGREE DK	
	a) Condoms decrease a man's sexual pleasure.	a) 1 2 8	
	b) Condoms are very inconvenient to use.	b) 1 2 8	
	c) A condom can be reused.	c) 1 2 8	
	d) Condoms are effective in preventing HIV and other diseases.	d) 1 2 8	
	e) A woman has no right to tell a man to use a condom.	e) 1 2 8	
	f) Condoms are effective in preventing pregnancy.	f) 1 2 8	
324	I will now read you some statements about contraception. Please tell me if you agree or disagree with each one.	AGREE DISAGREE DK	
	a) Contraception is women's business and a man should not have to worry about it.	a) 1 2 8	
	b) Being sterilized for a man is the same as being castrated.	b) 1 2 8	
	c) A woman is the one who gets pregnant so she should be the one to use family planning.	c) 1 2 8	

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	Are you currently married or living with a woman?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A WOMAN . . . . . 2 NO, NOT IN UNION 3	))▸402A))▸407
402 402A	How many wives do you have? How many women are you living with as if you are married?	+)))), NUMBER OF WIVES . . . . . * * .))))-	))▸409
407	Have you ever been married or lived with a woman?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A WOMAN . . . . . 2 NO 3	))▸416
408	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	), /▸411)-
409	WRITE THE LINE NUMBERS FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH WIFE. IF A WIFE DOES NOT LIVE IN THE HOUSEHOLD, ENTER '00' IN THE LINE NUMBER BOXES. THE NUMBER OF LINES FILLED IN MUST BE EQUAL TO THE NUMBER OF WIVES. (IF RESPONDENT HAS MORE THAN 5 WIVES, USE AN ADDITIONAL QUESTIONNAIRE.)		
	CHECK: 402: +), ONLY 1 WIFE /)- +), * MORE THAN 1 WIFE ▾ /)- Please tell me the name of your wife. * ▾ Please tell me the name of each woman that you are living with as if married, starting with the one you lived with first. NAME 1 _____ 2 _____ 3 _____ 4 _____ 5 _____	LINE NUMBER OF WIFE IN HOUSEHOLD QUESTIONNAIRE +)))0)))), * * * .)))2)))- +)))0)))), * * * .)))2)))- +)))0)))), * * * .)))2)))- +)))0)))), * * * .)))2)))- +)))0)))), * * * .)))2)))-	
410	CHECK 409: +), +), ONLY ONE WIFE /)- MORE THAN 1 WIFE .)2))))))

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
414	In what month and year did you start living with your wife?	+)))0))) MONTH . . . . . * * * .)))2)))-	
414A	Now we will talk about your first wife. In what month and year did you start living with her?	DON'T KNOW MONTH . . . . . 98 +)))0)))0)))0))) YEAR . . . . . * * * * * .)))2)))2)))2)))- DON'T KNOW YEAR 9998	))▸416
415	How old were you when you started living with her?	+)))0))) AGE . . . . . * * * .)))2)))-	
416	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you first had sexual intercourse with a woman (if ever)?	NEVER . . . . . 00 +)))0))) AGE IN YEARS . . . . . * * * .)))2)))- FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE 95	))▸448
417	When was the last time you had sexual intercourse with a woman? RECORD 'YEARS AGO' IF LAST INTERCOURSE WAS 12 MONTHS OR MORE AGO.	+)))0))) DAYS AGO . . . . . 1 * * * /)))3)))1 WEEKS AGO . . . . . 2 * * * /)))3)))1 MONTHS AGO . . . . . 3 * * * /)))3)))1 YEARS AGO . . . . . 4 * * *) .)))2)))-	))▸448
418	The last time you had sexual intercourse with a woman, was a condom used?	YES . . . . . 1 NO 2	))▸420
419	What was the main reason you used a condom on that occasion?	RESPONDENT WANTED TO PREVENT STD/HIV . . . . . 01 RESPONDENT WANTED TO PREVENT PREGNANCY . . . . . 02 RESPONDENT WANTED TO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 03 DID NOT TRUST PARTNER/FELT PARTNER HAD OTHER PARTNERS . . . 04 PARTNER REQUESTED/INSISTED . . . . . 05 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	), * * * * * /▸424 * * * * *)-
420	What was the main reason you did not use a condom that time?	NOT AVAILABLE AT PLACE WHERE USUALLY GETS THEM . . . . . 01 COST TOO MUCH / NO MONEY . . . . . 02 TRUSTED HIS PARTNER . . . . . 03 PARTNER TESTED NEGATIVE / NO RISK OF DISEASE . . . . . 04 RESPONDENT DOESN'T LIKE . . . . . 05 PARTNER OBJECTED / REFUSED . . . . . 06 PARTNER DRUNK / ON DRUGS . . . . . 07 WANTED TO GET PREGNANT . . . . . 08 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
421	The last time you had sexual intercourse with a woman, did you or she use any method to avoid a pregnancy?	YES . . . . . 1 NO . . . . . 2 UNSURE/DON'T KNOW 8	))▸423))▸424

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
422	What method was used? IF MORE THAN ONE METHOD USED, RECORD THE HIGHEST METHOD ON THE LIST.	FEMALE STERILISATION . . . . . 01 MALE STERILISATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 FEMALE CONDOM . . . . . 08 DIAPHRAGM/FOAM/ JELLY . . . . . 09 LACTATIONAL AMENORRHOEA . . . . . 10 RHYTHM/NATURAL FAMILY PLANNING 11 WITHDRAWAL . . . . . 12 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	), * * * * * * /▸424 * * * * *)-
423	What is the main reason a method was not used?	CASUAL SEX PARTNER SO DOES NOT CARE . . . . . 11 CONTRACEPTION IS WOMEN'S BUSINESS12 FERTILITY-RELATED REASONS PARTNER MENOPAUSAL / HAD HYSTERECTOMY. . . . . 23 COUPLE IS INFERTILE . . . . . 24 PARTNER WAS PREGNANT . . . . . 25 PARTNER WAS POSTPARTUM AMENORRHOEIC . . . . . 26 PARTNER WAS BREASTFEEDING. . . . 27 WANTED (MORE) CHILDREN . . . . . 28 OPPOSITION TO USE RESPONDENT OPPOSED . . . . . 31 PARTNER OPPOSED . . . . . 32 OTHERS OPPOSED . . . . . 33 AGAINST RELIGION . . . . . 34 LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . 41 KNOWS NO SOURCE . . . . . 42 METHOD-RELATED REASONS HEALTH CONCERNS . . . . . 51 FEAR OF SIDE EFFECTS . . . . . 52 LACK OF ACCESS/TOO FAR . . . . . 53 COST TOO MUCH . . . . . 54 INCONVENIENT TO USE. . . . . 55 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
424	What is your relationship to the woman with whom you last had sex? IF WOMAN IS "GIRLFRIEND" OR "FIANCÉE", ASK: Was your girlfriend/fiancée living with you when you last had sex with her? IF YES, CIRCLE '01'. IF NO, CIRCLE '02'.	WIFE/COHABITING PARTNER . . . . . 01 WOMAN IS GIRLFRIEND/FIANCÉE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX CUSTOMER . . . . . 06 OTHER _____ 96 (SPECIFY)	))▸426

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
425	For how long have you had sexual relations with this woman?	+)))0))) DAYS . . . . . 1 * * * /)))3)))1 WEEKS . . . . . 2 * * * /)))3)))1 MONTHS . . . . . 3 * * * /)))3)))1 YEARS . . . . . 4 * * * .)))2)))-	
425A	How old is this woman?	+)))0))) AGE OF PARTNER . . . . . * * * .)))2)))-	
426	Have you had sex with any other woman in the last 12 months?	YES . . . . . 1 NO 2	))▸445
427	The last time you had sexual intercourse with another woman, was a condom used?	YES . . . . . 1 NO 2	))▸429
428	What was the main reason you used a condom on that occasion?	RESPONDENT WANTED TO PREVENT STD/HIV . . . . . 01 RESPONDENT WANTED TO PREVENT PREGNANCY . . . . . 02 RESPONDENT WANTED TO PREVENT BOTH STD/HIV AND PREGNANCY . . . 03 DID NOT TRUST PARTNER/FELT PARTNER HAD OTHER PARTNERS . . . . . 04 PARTNER REQUESTED/INSISTED . . . . . 05 OTHER_____ 96 (SPECIFY) DON'T KNOW 98	), * * * * /▸433 * * * * * *)-
429	What was the main reason you did not use a condom that time?	NOT AVAILABLE AT PLACE WHERE USUALLY GETS THEM . . . . . 01 COST TOO MUCH / NO MONEY . . . . . 02 TRUSTED HIS PARTNER . . . . . 03 PARTNER TESTED NEGATIVE / NO RISK OF DISEASE . . . . . 04 RESPONDENT DOESN'T LIKE . . . . . 05 PARTNER OBJECTED / REFUSED . . . . . 06 PARTNER DRUNK / ON DRUGS . . . . . 07 WANTED TO GET PREGNANT . . . . . 08 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
430	The last time you had sexual intercourse with this woman, did you or she use any method to avoid a pregnancy?	YES . . . . . 1 NO . . . . . 2 UNSURE/DON'T KNOW 8	))▸432))▸433
431	What method was used? IF MORE THAN ONE METHOD USED, RECORD THE HIGHEST METHOD ON THE LIST.	FEMALE STERILISATION . . . . . 01 MALE STERILISATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 FEMALE CONDOM . . . . . 08 DIAPHRAGM/FOAM/JELLY . . . . . 09 LACTATIONAL AMENORRHOEA . . . . . 10 RHYTHM/NATURAL FAMILY PLANNING 11 WITHDRAWAL . . . . . 12 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	), * * * * * * /▸433 * * * * * *)-

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
432	What is the main reason a method was not used?	CASUAL SEX PARTNER SO DOES NOT CARE . . . . . 11 CONTRACEPTION IS WOMEN'S BUSINESS 12 FERTILITY-RELATED REASONS PARTNER MENOPAUSAL / HAD HYSTERECTOMY. . . . . 23 COUPLE IS INFERTILE . . . . . 24 PARTNER WAS PREGNANT . . . . . 25 PARTNER WAS POSTPARTUM AMENORRHOEIC . . . . . 26 PARTNER WAS BREASTFEEDING. . . . 27 WANTED (MORE) CHILDREN . . . . . 28 OPPOSITION TO USE RESPONDENT OPPOSED . . . . . 31 PARTNER OPPOSED . . . . . 32 OTHERS OPPOSED . . . . . 33 AGAINST RELIGION . . . . . 34 LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . 41 KNOWS NO SOURCE . . . . . 42 METHOD-RELATED REASONS HEALTH CONCERNS . . . . . 51 FEAR OF SIDE EFFECTS . . . . . 52 LACK OF ACCESS/TOO FAR . . . . . 53 COST TOO MUCH . . . . . 54 INCONVENIENT TO USE. . . . . 55 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
433	What is your relationship to this woman? IF WOMAN IS "GIRLFRIEND" OR "FIANCÉE", ASK: Was your girlfriend/fiancée living with you when you last had sex with her? IF YES, CIRCLE '01' IF NO, CIRCLE '02'	WIFE/COHABITING PARTNER . . . . . 01 WOMAN IS GIRLFRIEND/FIANCÉE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX CUSTOMER . . . . . 06 OTHER _____ 96 (SPECIFY)	))▸435
434	For how long have you had sexual relations with this woman?	+)))0))) DAYS . . . . . 1 * * * /)))3)))1 WEEKS . . . . . 2 * * * /)))3)))1 MONTHS . . . . . 3 * * * /)))3)))1 YEARS . . . . . 4 * * * .)))2)))-	
434A	How old is this woman?	+)))0))) AGE OF PARTNER . . . . . * * * .)))2)))-	
435	Other than these two women, have you had sex with any other woman in the last 12 months?	YES . . . . . 1 NO 2	))▸445
436	The last time you had sexual intercourse with this third woman, was a condom used?	YES . . . . . 1 NO 2	))▸438

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
437	What was the main reason you used a condom on that occasion?	RESPONDENT WANTED TO PREVENT STD/HIV . . . . . 01 RESPONDENT WANTED TO PREVENT A PREGNANCY . . . . . 02 RESPONDENT WANTED TO PREVENT BOTH STD/HIV AND PREGNANCY . . . 03 DID NOT TRUST PARTNER/FELT PARTNER HAD OTHER PARTNERS . . . . . 04 PARTNER REQUESTED/INSISTED . . . . . 05 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	), * * * * * /▸442 * * * * *)-
438	What was the main reason you did not use a condom that time?	NOT AVAILABLE AT PLACE WHERE USUALLY GETS THEM . . . . . 01 COST TOO MUCH / NO MONEY . . . . . 02 TRUSTED HIS PARTNER . . . . . 03 PARTNER TESTED NEGATIVE / NO RISK OF DISEASE . . . . . 04 RESPONDENT DOESN'T LIKE . . . . . 05 PARTNER OBJECTED / REFUSED . . . . . 06 PARTNER DRUNK / ON DRUGS . . . . . 07 WANTED TO GET PREGNANT . . . . . 08 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
439	The last time you had sexual intercourse with this woman, did you or she do something or use any method to avoid a pregnancy?	YES . . . . . 1 NO . . . . . 2 UNSURE/DON'T KNOW 8	))▸441))▸442
440	What method was used? IF MORE THAN ONE METHOD USED, RECORD THE HIGHEST METHOD ON THE LIST.	FEMALE STERILISATION . . . . . 01 MALE STERILISATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 FEMALE CONDOM . . . . . 08 DIAPHRAGM/FOAM/JELLY . . . . . 09 LACTATIONAL AMENORRHOEA . . . . . 10 RHYTHM/NATURAL FAMILY PLANNING 11 WITHDRAWAL . . . . . 12 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	), * * * * * * /▸442 * * * * * *)-

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
441	What is the main reason a method was not used?	CASUAL SEX PARTNER SO DOES NOT CARE . . . . . 11 CONTRACEPTION IS WOMEN'S BUSINESS 12 FERTILITY-RELATED REASONS PARTNER MENOPAUSAL / HAD HYSTERECTOMY. . . . . 23 COUPLE IS INFERTILE . . . . . 24 PARTNER WAS PREGNANT . . . . . 25 PARTNER WAS POSTPARTUM AMENORRHOEIC . . . . . 26 PARTNER WAS BREASTFEEDING. . . . 27 WANTED (MORE) CHILDREN . . . . . 28 OPPOSITION TO USE RESPONDENT OPPOSED . . . . . 31 PARTNER OPPOSED . . . . . 32 OTHERS OPPOSED . . . . . 33 AGAINST RELIGION . . . . . 34 LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . 41 KNOWS NO SOURCE . . . . . 42 METHOD-RELATED REASONS HEALTH CONCERNS . . . . . 51 FEAR OF SIDE EFFECTS . . . . . 52 LACK OF ACCESS/TOO FAR . . . . . 53 COST TOO MUCH . . . . . 54 INCONVENIENT TO USE. . . . . 55 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
442	What is your relationship to this woman? IF WOMAN IS "GIRLFRIEND" OR "FIANCÉE", ASK: Was your girlfriend/fiancée living with you when you last had sex with her? IF YES, CIRCLE '01' IF NO, CIRCLE '02'	WIFE/COHABITING PARTNER . . . . . 01 WOMAN IS GIRLFRIEND/FIANCÉE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX CUSTOMER . . . . . 06 OTHER _____ 96 (SPECIFY)	))▸444
443	For how long have you had sexual relations with this woman?	+)))0))) DAYS . . . . . 1 * * * /)))3)))1 WEEKS . . . . . 2 * * * /)))3)))1 MONTHS . . . . . 3 * * * /)))3)))1 YEARS . . . . . 4 * * * .)))2)))-	
443A	How old is this woman?	+)))0))) AGE OF PARTNER . . . . . * * * .)))2)))-	
444	In the last 12 months, how many women have you had sex with?	+)))0))) NUMBER OF PARTNERS . . . . . * * * .)))2)))-	
445	Have you ever paid for sex?	YES . . . . . 1 NO 2	))▸448

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
446	How long ago was the last time you paid for sex?	DAYS AGO . . . . . 1 WEEKS AGO . . . . . 2 MONTHS AGO . . . . . 3 YEARS AGO 4	
447	The last time that you paid for sex, was a condom used?	YES . . . . . 1 NO 2	
448	CHECK 319: SOURCE OF CONDOMS SOURCE NOT CIRCLED SOURCE CIRCLED		▸450
449	Do you know of a place where a person can get male condoms?	YES . . . . . 1 NO 2	▸453
450	What places do you know of where a person can get male condoms? IF SOURCE IS HOSPITAL, HEALTH CENTER OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) PROBE: Any other place? RECORD ALL PLACES MENTIONED.	PUBLIC SECTOR GOVERNMENT HOSPITAL. . . . . A GOVERNMENT HEALTH CENTER . . . . . B GOV'T HEALTH POST. . . . . C OTHER PUBLIC _____ D (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/SURGERY . . . . . E MISSION HOSPITAL/SURGERY . . . . . F PHARMACY . . . . . G PRIVATE DOCTOR . . . . . H WORK PLACE . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER SOURCE SHOP . . . . . K COMMUNITY-BASED AGENT . . . . . L FRIENDS/RELATIVES . . . . . M SCHOOL . . . . . N BAR / HOTEL . . . . . O OTHER _____ X (SPECIFY)	
451	If you wanted to, could you yourself get a male condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	▸453
452	Why not?	NO MONEY / TOO EXPENSIVE . . . . . 1 EMBARASSED . . . . . 2 NO TRANSPORT . . . . . 3 OTHER _____ 6 (SPECIFY)	
453	Do you think you could talk with your partner about using condoms?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
454	Have you ever seen or heard any messages about the MAXIMUM male condom?	YES . . . . . 1 NO 2	▸456

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
455	Where have you seen or heard messages about Maximum condoms? RECORD ALL MENTIONED.	RADIO . . . . . A TV . . . . . B SHOP . . . . . C LEAFLETS/BOOKLETS . . . . . D POSTER . . . . . E COMMUNITY-BASED AGENT/ HEALTH WORKER . . . . . F OTHER_____X (SPECIFY)	
456	CHECK 301 (08): EVER HEARD OF FEMALE CONDOM: CODE '1' CIRCLED +), /)- CODE '2' CIRCLED +), .)2))))))

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 203 AND 205: You told me that you have TOTAL _____ children. Would you like to have a (another) child or would you prefer not to have any more children at all?	HAVE A/ANOTHER CHILD . . . . . 1 NO MORE/NONE . . . . . 2 WIFE INFERTILE OR STERILISED . . . . . 3 UNDECIDED/DON'T KNOW 8	), *)2)▸503
502	How long would you like to wait from now before the birth of (a/another) child ?	+)))0)), MONTHS . . . . . 1 * * * /)))3)))1 YEARS . . . . . 2 * * * .)))2)))- SOON/NOW . . . . . 993 AFTER MARRIAGE . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	
503	Do you think you will use a contraceptive method to avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	),)2▸505
504	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/FOAM/JELLY . . . . . 09 LACTATIONAL AMENORRHEA . . . . . 10 RHYTHM/NATURAL FAM. PLANNING . . 11 WITHDRAWAL . . . . . 12 OTHER _____ 96 (SPECIFY) UNSURE 98	), * * * * * * * /▸507 * * * * * * *)-

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
505	What is the main reason that you think you will not use a contraceptive method at any time in the future?	NOT MARRIED/IN UNION . . . . . 11 FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX . . . . . 22 WIFE(VES)/PARTNER(S) MENOPAUSAL/HAD HYSTERECTOMY . . . . . 23 COUPLE SUBFECUND/INFECUND . . . 24 WANTS AS MANY CHILDREN AS POSSIBLE . . . . . 26 OPPOSITION TO USE RESPONDENT OPPOSED . . . . . 31 WIFE(WIVES)/PARTNER(S) OPPOSED 32 OTHERS OPPOSED . . . . . 33 RELIGIOUS PROHIBITION . . . . . 34 LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . 41 KNOWS NO SOURCE . . . . . 42 METHOD-RELATED REASONS HEALTH CONCERNS . . . . . 51 FEAR OF SIDE EFFECTS . . . . . 52 LACK OF ACCESS/TOO FAR . . . . . 53 COST TOO MUCH . . . . . 54 INCONVENIENT TO USE. . . . . 55 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	), * * * * * * * * * * * * * * * /▸507 * * * * * * * * * * * *)-
506	Would you ever use a contraceptive method if you were married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
507	CHECK 203 AND 205: HAS LIVING CHILDREN +)), /))- ▾ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN +)), /))- ▾ If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	+)))0))), NUMBER . . . . . * * * .)))2)))- OTHER _____ 96 (SPECIFY)	))▸509
508	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 +)))0))), +)))0))), +)))0))), NUMBER * * * * * * * * * .)))2)))- .)))2)))- .)))2)))- OTHER _____ 96 (SPECIFY)	
509	Would you say that you approve or disapprove of couples using a contraceptive method to avoid getting pregnant?	APPROVE . . . . . 1 DISAPPROVE . . . . . 2 DON'T KNOW/UNSURE 8	
510	CHECK 401: YES, +))), CURRENTLY /)))- MARRIED ▾ YES, +))), LIVING /)))- WITH A WOMAN ▾ NO, +))), NOT IN UNION .)))2)))))))))))))))))))))))))))))))))		))▸514

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
511	Now I want to ask you about your wife's/partner's views on family planning. Do you think that your wife/partner approves or disapproves of couples using a contraceptive method to avoid pregnancy? IF MORE THAN ONE WIFE, ASK ABOUT THE YOUNGEST.	APPROVES . . . . . 1 DISAPPROVES . . . . . 2 DON'T KNOW 8	
512	How often have you talked to your wife/partner about family planning in the past year?	NEVER . . . . . 1 ONCE OR TWICE . . . . . 2 MORE OFTEN 3	
513	Do you think your wife/partner wants the same number of children that you want, or does she want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	
514	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	
515	Have you ever heard of an oral contraceptive pill called Safeplan?	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	
516	In the last six months, have you listened to the following programs on the radio: Your Health Matters? Lifeline? AIDS and the Family? Our Neighbourhood?	YES NO YOUR HEALTH MATTERS . . . . . 1 2 LIFELINE . . . . . 1 2 AIDS AND THE FAMILY . . . . . 1 2 OUR NEIGHBORHOOD 1 2	
517	In the last six months, have you seen any of the following programs on television: Your Health Matters? Lifeline? Soul City? X-Plosion?	YES NO YOUR HEALTH MATTERS . . . . . 1 2 LIFELINE . . . . . 1 2 SOUL CITY . . . . . 1 2 X-PLOSION 1 2	
518	Have you ever seen a newspaper called "Trendsetters" aimed at young people?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
519	Is there a Neighborhood Health Committee (NHC) in your neighborhood?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	),)2▸601
520	Have you ever attended a meeting organized by the NHC?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 209: HAS HAD ONE OR MORE CHILDREN +)))/))) .)))2)))))))

SECTION 7. AIDS AND OTHER SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Now I would like to talk about something else. Have you ever heard of a disease called AIDS?	YES . . . . . 1 NO 2	))▸724
702	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	),)2▸709
703	What can a person do? Anything else? RECORD ALL WAYS MENTIONED.	ABSTAIN FROM SEX . . . . . A USE CONDOMS . . . . . B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER . . . . . C LIMIT NUMBER OF SEXUAL PARTNERS . . D AVOID SEX WITH PROSTITUTES . . . . . E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS . . . . . F AVOID SEX WITH HOMOSEXUALS . . . . . G AVOID SEX WITH PERSONS WHO INJECT DRUGS INTRAVENOUSLY . . . . H AVOID BLOOD TRANSFUSIONS . . . . . I AVOID INJECTIONS . . . . . J AVOID SHARING RAZORS/BLADES . . . . K AVOID KISSING . . . . . L AVOID MOSQUITO BITES . . . . . M SEEK PROTECTION FROM TRADITIONAL PRACTITIONER . . . . . N OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
704	Can people reduce their chances of getting the AIDS virus by having just one sex partner who has no other partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
705	Can a person get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
706	Can people reduce their chances of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707	Can a person get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
709	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
710	Do you know someone personally who has the virus that causes AIDS or someone who died of AIDS?	YES . . . . . 1 NO 2	
711	Can the virus that causes AIDS be transmitted from a mother to a child?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	),)2▸713
712	Can the virus that causes AIDS be transmitted from a mother to her child... During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREGNANCY . . . . . 1 2 8 DURING DELIVERY . . . . . 1 2 8 BY BREASTFEEDING 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
712A	Is there anything that can be done to reduce the chances that a mother would transmit the AIDS virus to her child?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
713	CHECK 401: YES, CURRENTLY +)))), NO, NOT IN UNION +)))), MARRIED/LIVING /)))- .)))2)))))))))))))))))))))))))))))))))))) WITH A WOMAN ▼		))▸715
714	Have you ever talked with your wife/the woman you are living with about ways to prevent getting the virus that causes AIDS? IF MORE THAN ONE WIFE, ASK ABOUT ANY OF HIS WIVES.	YES . . . . . 1 NO 2	
715	In your opinion, is it acceptable or unacceptable for condoms to be discussed: on the radio? on the TV? in newspapers?	ACCEPT-ABLE / NOT ACCEPT-ABLE ON THE RADIO . . . . . 1 2 ON THE TV . . . . . 1 2 IN NEWSPAPERS 1 2	
716	If a member of your family got infected with the virus that causes AIDS, would you want it to remain a secret or not?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
717	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE/DEPENDS 8	
718	If a worker is sick with AIDS, should he/she be allowed to work?	ALLOWED TO WORK . . . . . 1 NOT ALLOWED TO WORK . . . . . 2 DON'T KNOW/UNSURE/DEPENDS 8	
718A	If you knew that a shopkeeper or food seller had the AIDS virus, would you buy food items from them?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE/DEPENDS 8	
718B	In the last six months, have you seen any adverts about sexual abstinence, condom use or HIV/AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE 8	),)2▸719
718C	Can you describe which ones? DO NOT READ RESPONSES TO RESPONDENT. RECORD ALL MENTIONED.	YOU CLEVER GIRL . . . . . A BOYS SAYING WHY THEY ABSTAIN FROM SEX . . . . . B SAY NO TO SEX/VIRGIN POWER/ VIRGIN PRIDE . . . . . C ICE IS AT BRAII/ ICE GETS STD . . . . . D ICE FIXING CAR/FRIEND TELLS HIM TO USE CONDOM EVERY TIME . . . . . E CHRISTINE BRAIDING HAIR/FRIENDS SAY USE CONDOM . . . . . F BOYS PLAYING BASKETBALL/ONE HIV+/ CAN'T TELL WHICH ONE . . . . . G GIRLS WALKING/ONE HIV+/ CAN'T TELL WHICH ONE . . . . . H OTHER_____X (SPECIFY)	
719	Should youth age 12-14 years be taught about using a condom to avoid AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE/DEPENDS 8	
719A	Do you think your chances of getting AIDS are small, moderate, great, or do you think that you have no chance of getting it at all?	SMALL . . . . . 1 MODERATE . . . . . 2 GREAT . . . . . 3 NO RISK AT ALL . . . . . 4 HAS AIDS 5	))▸720))▸720))▸720

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
719B	Why do you think your chances of getting AIDS are low? RECORD ALL MENTIONED.	ABSTAINS FROM SEX . . . . . A USES CONDOMS . . . . . B HAS ONLY 1 SEX PARTNER . . . . . C LIMITED NUMBER OF PARTNERS . . . . . D PARTNER HAS NO OTHER PARTNERS . . E NO TRANSFUSIONS/INJECTIONS . . . . . F OTHER _____ X (SPECIFY)	
720	Have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	))▸723A
721	Would you want to be tested for the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE/DEPENDS 8	
722	Do you know a place where you could go to get an AIDS test?	YES . . . . . 1 NO 2	))▸724
723 723A	Where can you go for the test? RECORD ONLY FIRST RESPONSE GIVEN. Where did you go for the test? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH CENTER . . . . 12 HEALTH POST . . . . . 13 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE/ MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . 21 MISSION HOSPITAL/CLINIC . . . . . 22 PHARMACY . . . . . 23 PRIVATE DOCTOR . . . . . 24 WORK PLACE . . . . . 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY)	
724	(Apart from AIDS), have you heard about other infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	))▸727
725	If a man has a sexually transmitted disease, what symptoms might he have? Any others? RECORD ALL SYMPTOMS MENTIONED.	ABDOMINAL PAIN . . . . . A GENITAL DISCHARGE/DRIPPING . . . . . B FOUL SMELLING DISCHARGE . . . . . C BURNING PAIN ON URINATION . . . . . D REDNESS/INFLAMMATION IN GENITAL AREA . . . . . E SWELLING IN GENITAL AREA . . . . . F GENITAL SORES/ULCERS . . . . . G GENITAL WARTS . . . . . H GENITAL ITCHING . . . . . I BLOOD IN URINE . . . . . J LOSS OF WEIGHT . . . . . K IMPOTENCE . . . . . L OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) NO SYMPTOMS . . . . . Y DON'T KNOW . . . . . Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
726	If a woman has a sexually transmitted disease, what symptoms might she have? Any others? RECORD ALL SYMPTOMS MENTIONED.	ABDOMINAL PAIN . . . . . A GENITAL DISCHARGE . . . . . B FOUL SMELLING DISCHARGE . . . . . C BURNING PAIN ON URINATION . . . . . D REDNESS/INFLAMMATION IN GENITAL AREA . . . . . E SWELLING IN GENITAL AREA . . . . . F GENITAL SORES/ULCERS . . . . . G GENITAL WARTS . . . . . H GENITAL ITCHING . . . . . I BLOOD IN URINE . . . . . J LOSS OF WEIGHT . . . . . K HARD TO GET PREGNANT/HAVE A CHILD . . . . . L OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) NO SYMPTOMS . . . . . Y DON'T KNOW . . . . . Z	
727	CHECK 416: HAS HAD SEXUAL INTERCOURSE +))), /))- HAS NOT HAD SEXUAL INTERCOURSE +))), .)))2)) ▼		))▸801
728	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a sexually-transmitted disease?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
729	Sometimes, men experience a discharge from their penis. During the last 12 months, have you had a discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
730	Sometimes men have a sore or ulcer on or near their penis. During the last 12 months, have you had a sore or ulcer on or near your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
731	CHECK 728/729/730: HAS HAD AN INFECTION +))), /))- HAS NOT HAD AN INFECTION OR DOES NOT KNOW +))), .)))2))))))))))))))))))))))))))))))))))))))

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			SKIP
736	What did you do to avoid infecting your partner(s)? Did you....		YES	NO	
	Use medicine?	USE MEDICINE	1	2	
	Stop having sex?	STOP SEX	1	2	
	Use a condom when having sex?	USE CONDOM	1	2	

SECTION 8. ATTITUDES TOWARD WOMEN

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	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: a) making large household purchases? b) deciding when to visit family, friends or relatives? c) deciding what to do with the money she earns for her work? d) deciding how many children to have and when to have them?	HUSB-AND / WIFE / BOTH / DON'T KNOW/ DEPENDS a) 1 2 3 8 b) 1 2 3 8 c) 1 2 3 8 d) 1 2 3 8	
802	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: If she goes out with another man? If she neglects the children? If she argues with him? If she refuses to have sex with him? If she cooks bad food or the food is late?	YES / NO / DK GOES WITH MAN . . . . 1 2 8 NEGL. CHILDREN . . . . 1 2 8 ARGUES . . . . . 1 2 8 REFUSES SEX . . . . . 1 2 8 BAD/LATE FOOD 1 2 8	
803	Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband when: She knows her husband has a sexually transmitted disease? She knows her husband has sex with other women? She has recently given birth? She is tired or not in the mood?	YES / NO / DK HAS STD . . . . . 1 2 8 OTHER WOMEN . . . . . 1 2 8 RECENT BIRTH . . . . . 1 2 8 TIRED/MOOD 1 2 8	
804	Do you think that if a woman refuses to have sex with her husband when he wants her to, he has the right to... Get angry and reprimand her? Refuse to give her money or other means of financial support? Use force and have sex with her even if she doesn't want to? Go and have sex with another woman?	YES / NO / DK GET ANGRY . . . . . 1 2 8 REFUSE MONEY . . . . . 1 2 8 RAPE HER . . . . . 1 2 8 ANOTHER WOMAN. 1 2 8	
805	RECORD THE TIME.	HOUR . . . . . +)))0))) MINUTES . . . . . /)))3)))1	