

**Mozambique
Demographic
and Health
Survey
2003**

**Preliminary
Report**

**Instituto Nacional de Estatística, INE
Maputo, Mozambique**

**Ministry of Health
Maputo, Mozambique**

**MEASURE DHS+
ORC Macro
Calverton, Maryland**

This report summarizes the results of the 2003 Mozambique Demographic and Health Survey (MDHS), implemented in Mozambique by the Instituto Nacional de Estatística (INE) and the Ministry of Health with technical assistance from ORC Macro. Funds for the survey were provided in their entirety by the local mission of the United States Agency for International Development (USAID/Maputo) under the MEASURE *DHS+* program.

The **2003 MDHS** is part of the worldwide MEASURE *DHS+* program, which is designed to assist developing countries to collect data on fertility, family planning, and maternal and child health. Additional information about the Demographic and Health Surveys program may be obtained from ORC Macro:

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Under the DHS program, INE conducted a previous survey in 1997. Additional information about the **2003 MDHS** or the 1997 MDHS may be obtained from ORC Macro or from INE:

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Fertility Levels and Preferences

Total fertility rate for last three years (average number of children at end of reproductive life)	5.5
Married women age 15-19 with at least one child	64.1
Married women age 20-24 with at least one child	89.2
Median number of months since previous birth	34.4
Percentage of women who want no more children (includes sterilized women)	24.3
Percentage of women who want more children soon	33.5
Percentage of women who want more children later	31.2

Mortality in the Five-Year Period Preceding the Survey (deaths per 1,000 births)

Infant mortality rate	101
Under-five mortality rate	151

Contraceptive Knowledge and Use among All Women and Currently Married Women

Percentage of currently married women who know any modern method	91.3
Percentage of currently married women who know at least two modern methods	82.3
Percentage of all women currently using any method	18.2
Percentage of currently married women using any method	16.5
Percentage of all women currently using modern methods	14.2
Percentage of currently married women using modern methods	11.7

Antenatal and Delivery Care for Women with Births in the Five Years Preceding the Survey

Percentage of women who received an antenatal check-up from a health professional	84.6
Percentage of women who received one tetanus toxoid vaccinations	77.8
Percentage of women who received two tetanus toxoid vaccinations	57.2
Percentage of births delivered, by a health professional	47.7
Percentage of births delivered at a health facility	47.6

Vaccinations at Any Time (from health card and mother's reports)

Percentage of children age 12-23 months who received DPT3 at any time	71.6
Percentage of children age 12-23 months who received all vaccines at any time ¹	63.3
Percentage of children age 12-23 months who received DPT3 during the first year of life	57.2
Percentage of children age 12-23 months who received all vaccines during the first year of life	43.5

Treatment for Children under Five Years of Age with Symptoms of

Acute Respiratory Infection (ARI) and Diarrhea in Two Weeks Preceding the Survey

Percentage treated among children with symptoms of ARI	51.4
Percentage of children with diarrhea for whom treatment was sought from a health facility or provider	48.8
Percentage of mothers who know about oral rehydration salts (ORS)	87.0
Percentage of children with diarrhea who received (ORS)	48.5
Children with diarrhea who received oral rehydration therapy (ORT) ²	70.5
Children with diarrhea who were offered more liquids compared with normal practice	46.7
Children with diarrhea who were offered more solids compared with normal practice	17.5

Infant Feeding and Nutritional Status

Percentage of children under four months exclusively breastfeeding	38.3
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Percentage of children under five years stunted (short for their age)	41.0
Percentage of children under five years severely stunted	18.1
Percentage of children under five years underweight	23.7
Percentage of children under five years severely underweight	6.4

AIDS- Related Knowledge and Attitudes

	Women	Men
Median age at sexual intercourse for respondents 20-49 years of age	16.1	17.7 ³
Percentage of respondents who have heard of AIDS	95.7	97.7
Percentage of respondents who believe there is a way to avoid HIV/AIDS	63.8	77.1
Percentage of respondents with knowledge of at least two ways to avoid AIDS	44.0	59.7
Percentage of respondents with knowledge of two or three ways of programmatic importance to avoid AIDS ⁴ ..	53.7	69.4
Percentage of respondents with knowledge of using condoms as a specific way to avoid AIDS	57.0	72.5
Respondents with knowledge of limiting number of partners as a specific way to avoid AIDS	58.8	72.3
Percentage of married respondents with sexual partners excluding spouse or cohabiting partner ⁵	3.8	22.5
Percentage of unmarried respondents with sexual partners ⁴	54.2	68.2
Respondents who used condom during most recent sexual intercourse with noncohabiting partner	23.4	32.6

¹Includes BCG, three doses of polio and DPT, and measles.

²ORS plus recommended home fluids or increased liquids

³Men age 20-64 years of age.

⁴Programmatically important ways are abstaining from sex, using condoms, and limiting the number of sexual partners. Abstinence from sex is measured from a spontaneous response only, and using condoms and limiting the number of sexual partners are measured from spontaneous and probed responses.

⁵In the 12 months preceding the survey.

INTRODUCTION

Objectives

The 2003 Mozambique Demographic and Health Survey in Mozambique (**2003 MDHS**) is a nationally representative sample survey of women of reproductive age designed to provide information on fertility, family planning, child survival and health of children.

The primary objectives of the **2003 MDHS** are:

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

Organization

The **2003 MDHS** was conducted by the Instituto Nacional de Estatística (INE). ORC Macro of Calverton, Maryland, provides technical assistance to the project through its contract with the U.S. Agency for International Development (USAID). Funding for technical assistance by ORC Macro and for local costs is provided in its entirety by the USAID Mission in Maputo.

Sample Design

The sample for the **2003 MDHS** covered the population residing in private households in the country. Administratively, Mozambique is divided into 11 provinces, and each province is divided in districts, and each district is divided in administrative posts. In the year 2000 the National Statistical Office designed a master sample in collaboration with the US Census Bureau using the 1997 household and population census. A geographical updating of each primary sampling unit (PSU) included in the master sample was done in 2000, supported in part by USAID. The master sample and its last geographical updating served as the sampling frame for the **2003 MDHS** sample design.

Since the PSUs (clusters) in the master sample are stratified by urban and rural area within each province, this stratification is also reflected in the **2003 DHS** sample. In Mozambique, around 75 percent of the population reside in rural areas. The number of clusters in each of the 11 provinces is not allocated proportionally to their total population due to the need to present estimates by each of the 11 provinces. A representative probability sample of approximately 14,500 households was selected for the **2003 MDHS**. Around 1,200 households were allocated to all provinces except Nampula and Zambézia, where 1,600 were selected (Table 1.1).

All women age 15-49 who were either permanent residents of the households in the **2003 MDHS** 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 survey, all men age 15-64 were eligible to be interviewed if they were either permanent residents or visitors present in the household on the night before the survey.

Table 1.1 Sample allocation

Number of households allocated, number of clusters by residence, and expected number of households and women, Mozambique 2003

Province	Percent distribution of the population ¹	Households allocated	Number of clusters allocated			Households expected ²	Number of women expected ²
			Urban area	Rural area	Total		
Niassa	5.2	1,248	25	27	52	1,161	948
Cabo Delgado	9.3	1,248	8	44	52	886	711
Nampula	21.9	1,632	16	52	68	1,334	1,110
Zambézia	20.0	1,632	10	58	68	1,317	950
Tete	7.4	1,248	12	40	52	936	636
Manica	5.6	1,248	25	27	52	1,148	1,235
Sofala	7.6	1,248	20	32	52	1,123	1,148
Inhambane	7.1	1,248	12	40	52	1,023	1,011
Gaza	6.3	1,248	19	33	52	1,048	1,298
Maputo Province	4.8	1,248	30	22	52	961	1,098
Maputo City	4.9	1,248	52	na	52	986	1,348
Total	100.0	14,496	229	375	604	11,923	11,493

na = Not applicable

¹Based on the 2000 population census

²Based on response rates in the 1997 MDHS

Questionnaires

Three questionnaires were used for the **2003 MDHS**: 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+ program for use in countries with low levels of contraceptive use. In consultation with USAID/Maputo, technical institutions, and local and international organizations, the contents of the model questionnaires were modified to reflect relevant issues in population, family planning, and other health issues in Mozambique.

The Household Questionnaire is used to list all the usual members and visitors in the selected households. Some basic information is 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 is to identify women and men who were eligible for the individual interview. The Household Questionnaire collects 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 is also used to record height and weight measurements of women age 15-49 and children under the age of 6. Detailed sections on traumatism and tabaquism were included.

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

- Background characteristics (e.g., education, residential history, media exposure)
- 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

- Childhood mortality
- HIV/AIDS module, which includes awareness and behavior regarding AIDS and other sexually transmitted infections (STIs)
- Adult mortality, including maternal mortality.

The Men's Questionnaire was administered to all men age 15-64 living in every third household in the **2003 MDHS** sample. The Men's Questionnaire collected much of the same information found in the Women's Questionnaire, but it was shorter because it did not contain a reproductive history or questions on maternal and child health, nutrition, or maternal mortality.

Pretest Activities, Training, and Fieldwork

Approximately 120 candidates participated in the three-week main survey training of interviewers and supervisors in August 2003. All participants received training in interviewing techniques and became acquainted with the contents of the survey questionnaires. The training was conducted following standard Demographic and Health Surveys program procedure and included class presentations, mock interviews, and tests in which the actual MDHS questionnaires were used. Male participants received additional instruction on the use of scales and height boards for determining the anthropometric measurements of women and young children.

Data collection for the **2003 MDHS** took place over a four-month period, from September 2003 to early January 2004, and was carried out by 13 interviewing teams (one team per province, two in Nampula, and two in Zambézia). Each team consisted of one team supervisor, one field editor, four female and one male interviewers, and one driver. The local INE directors and central staff were responsible for coordinating and supervising fieldwork activities. ORC Macro staff participated in such preparatory activities as questionnaire design and training, field supervision of interviews, and weight and height measurements.

Data Processing

The processing of the MDHS questionnaires began in mid-September, shortly after the beginning of fieldwork. Completed questionnaires were periodically submitted to INE offices in Maputo, where they were edited by data processing personnel that had been trained specifically for this task. The concurrent processing of the data was an advantage since INE was able to produce field check tables and advise field teams of any problems that were detected during data entry.

Response Rates

The number of households selected, occupied, and interviewed; the number of eligible respondents (women and men) interviewed; and response rates for the whole country (11 provinces) are shown in Table 1.2. In the 12,315 households interviewed in the survey, a total of 13,657 eligible women were identified. Interviews were completed with 12,418 of these women, yielding a response rate of 91 percent. Out of 3,599 eligible men identified in the subsample of households selected for the male survey, 2,900 were successfully interviewed, yielding a response rate of 81 percent. The response rates are lower for the urban sample than they are for the rural, especially for men (75 percent). The primary reason for nonresponse 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 lifestyle.

The weighted and unweighted number of women and men interviewed is shown in Table 1.3. The weighted number is shown since weighting is necessary in calculating indicators—percent distributions, percentages, and rates—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 (see Table 1.1). Some subgroups shown may include comparatively small numbers of respondents. Figures are not usually shown in this report for a subgroup if the unweighted number of cases for the subgroup falls below 30.

Table 1.2 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence and province, Mozambique 2003

Residence and province	Households				Women			Men		
	Households selected	Households occupied	Households interviewed	Household response rate	Number of eligible women	Number of eligible women interviewed	Women response rate	Number of eligible men	Number of eligible men interviewed	Men response rate
Residence										
Rural	8,983	8,435	7,719	96.4	7,525	7,038	93.5	1,851	1,585	85.6
Urban	5,492	5,232	4,596	92.3	6,132	5,380	87.7	1,748	1,315	75.2
Province										
Niassa	1,248	1,154	994	92.5	888	819	92.2	252	192	76.2
Cabo Delgado	1,241	1,182	1,083	96.3	963	899	93.4	288	254	88.2
Nampula	1,632	1,524	1,355	93.8	1,292	1,217	94.2	444	378	85.1
Zambézia	1,632	1,565	1,370	92.9	1,210	1,135	93.8	353	281	79.6
Tete	1,248	1,191	1,137	99.0	1,154	1,115	96.6	291	251	86.3
Manica	1,248	1,173	1,016	92.4	1,238	1,094	88.4	362	270	74.6
Sofala	1,240	1,140	1,083	97.7	1,303	1,220	93.6	363	322	88.7
Inhambane	1,248	1,182	1,114	98.6	1,199	1,125	93.8	216	176	81.5
Gaza	1,242	1,181	1,112	98.5	1,324	1,273	96.1	238	215	90.3
Maputo Province	1,248	1,179	1,015	90.9	1,340	1,125	84.0	281	182	64.8
Maputo City	1,248	1,196	1,036	91.3	1,746	1,396	80.0	511	379	74.2
Total	14,475	13,667	12,315	94.8	13,657	12,418	90.9	3,599	2,900	80.6

Table 1.3 Number of women and men interviewed

Percent distribution of women age 15-49 and men age 15-64, by residence and province, Mozambique 2003

Residence and province	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Residence						
Rural	63.4	7,870	7,038	58.8	1,705	1,585
Urban	36.6	4,548	5,380	41.2	1,195	1,315
Province						
Niassa	3.8	476	819	4.0	116	192
Cabo Delgado	8.6	1,071	899	9.4	274	254
Nampula	19.4	2,403	1,217	23.9	693	378
Zambézia	15.3	1,906	1,135	16.0	463	281
Tete	8.3	1,025	1,115	7.6	222	251
Manica	6.5	809	1,094	6.6	192	270
Sofala	7.0	865	1,220	7.8	226	322
Inhambane	8.8	1,088	1,125	5.7	164	176
Gaza	5.4	666	1,273	3.1	90	215
Maputo Province	8.5	1,050	1,125	6.8	197	182
Maputo City	8.5	1,059	1,396	9.0	261	379
Total	100.0	12,418	12,418	100.0	2,900	2,900

BACKGROUND CHARACTERISTICS OF RESPONDENTS

The main background characteristics that will be used in subsequent tables are residence and province (already shown in Table 1.3), education, age at the time of the survey, and marital status. Table 2.1 presents distributions of various demographic characteristics for the **2003 MDHS** sample: education, age, and marital status. The results by province according to urban-rural residence are presented in Table 2.2. Information on both the weighted and unweighted numbers is included in both tables.

Demographic Characteristics of Respondents

A small proportion of the population (less than 1 percent) attended more than secondary school, and only 8 percent of women and 15 percent of men have some secondary education. Four in 10 women, compared with 2 in 10 men, have never attended school.

Men are twice as likely as women to have never married (31 versus 16 percent), although men reported almost equally to be married or to be in a consensual union, while 55 percent of women reported that they were in a consensual union.

Table 2.1 Background characteristics of respondents

Percent distribution of women age 15-49 and men age 15-64, by background characteristics, Mozambique 2003

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Education						
No education	41.1	5,100	4,491	17.3	501	413
Primary	51.1	6,347	6,713	66.9	1,940	1,964
Secondary	7.6	940	1,172	15.1	437	494
More than secondary	0.2	30	42	0.7	21	29
Age						
15-19	19.8	2,454	2,644	23.2	673	681
20-24	19.8	2,456	2,494	13.9	404	437
25-29	17.9	2,224	2,165	13.0	378	378
30-34	14.4	1,792	1,661	11.3	329	317
35-39	11.4	1,411	1,383	9.1	265	267
40-44	9.1	1,126	1,157	7.6	221	220
45-49	7.7	954	914	7.6	221	204
50-54	na	na	na	6.1	176	167
55-59	na	na	na	4.3	124	117
60-64	na	na	na	3.8	111	112
Marital status						
Never married	15.8	1,961	2,261	31.4	911	974
Married	15.5	1,926	1,768	32.8	950	723
Living together	54.8	6,810	6,609	30.8	894	1,057
Divorced/separated	13.0	1,609	1,678	4.8	139	138
Widowed	0.9	112	102	0.2	6	8
Total	100.0	12,418	12,418	100.0	2,900	2,900

Note: Education categories refer to the highest level of educational institution ever attended, whether or not that level was ever completed.

na = Not applicable

Respondents by Province and Urban-Rural Residence

Almost two-thirds of the women and men interviewed for the **IDS 2003** live in rural areas (63 and 59 percent, respectively). The population in Zambézia is mostly rural (close to 90 percent) while in Sofala the population is almost equally divided among rural and urban areas. As expected, in Maputo Province a large proportion of the respondents live in urban areas (68 percent of women and 78 percent of men).

Table 2.2 Weighted and unweighted number of respondents, by province and residence

Percent distribution of women age 15-49 and men age 15-64 by province and residence, Mozambique 2003

Province and residence	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Niassa						
Rural	75.0	357	354	74.0	86	92
Urban	25.0	119	465	26.0	30	100
Cabo Delgado						
Rural	77.1	826	723	69.4	190	188
Urban	22.9	245	176	30.6	84	66
Nampula						
Rural	63.7	1,531	907	57.8	400	280
Urban	36.3	872	310	42.2	293	98
Zambézia						
Rural	88.5	1,686	948	86.8	402	228
Urban	11.5	220	187	13.2	61	53
Tete						
Rural	84.4	865	831	86.4	191	197
Urban	15.6	160	284	13.6	30	54
Manica						
Rural	62.8	508	550	55.9	108	123
Urban	37.2	300	544	44.1	85	147
Sofala						
Rural	52.9	458	768	44.9	102	174
Urban	47.1	407	452	55.1	125	148
Inhambane						
Rural	76.4	832	831	74.4	122	130
Urban	23.6	257	294	25.6	42	46
Gaza						
Rural	70.6	470	724	66.9	60	112
Urban	29.4	196	549	33.1	30	103
Maputo Province						
Rural	32.1	337	402	22.0	43	61
Urban	67.9	713	723	78.0	154	121
Maputo City	100.0	1,059	1,396	100.0	261	379
Total						
Rural	63.4	7,870	7,038	58.8	1,705	1,585
Urban	36.6	4,548	5,380	41.2	1,195	1,315

FERTILITY LEVELS AND PREFERENCES

The fertility measures presented in this section are based on the reported reproductive histories of women age 15-49 interviewed in the **2003 MDHS**. Each woman was asked the number of sons and daughters living with her, the number living elsewhere, and the number who had died. She was then asked for a history of all her births, including the month and year each child was born, the name, and the sex; if the child was deceased, she was asked the age at death, and if the child was alive, she was asked the current age and whether he/she was living with the mother. On the basis of this information, measures of completed fertility—number of children ever born to women age 40-49—and current fertility (age-specific rates) are examined. These measures are also analyzed in connection with various background characteristics. Other tables included show the children ever born by the woman's current age, the distribution of birth intervals, and fertility preferences.

Current Fertility

The current level of fertility is the most important topic in this section because of its direct relevance to population policies and programs. Three-year age-specific fertility rates are presented in Table 3.1 for the country as a whole and for urban and rural areas. Three-year rates are calculated to provide the most current information, to reduce sampling errors, and to avoid problems noted in some surveys of the displacement of births from five to six years before the survey.

Numerators of the age-specific fertility rates in Table 3.1 are calculated by isolating live births that occurred in the 1 to 36 months preceding the survey (determined from the date of interview and date of birth of the child) and classifying them by the age—in five-year age groups—of the mother at the time of birth (determined from the date of birth of the mother). The denominators of the rates are the number of woman-years lived in each of the specified five-year age groups during the 1 to 36 months preceding the survey. The sum of the age-specific fertility rates (i.e., the total fertility rate [TFR]), is used to summarize the current level of fertility. The numerator for the general fertility rate (GFR) is the total number of births in the period, including births to women under 15 and 45-49. The crude birth rate is calculated by summing the product of the age-specific rates multiplied by the proportion of women in the specific age group out of the total de facto population, male and female, listed in the households included in the sample.

Table 3.1 Current fertility

Age-specific and cumulative fertility rates for the three years preceding the survey, by residence, Mozambique 2003

Age/rate	Residence		
	Rural	Urban	Total
Age group			
15-19	208	143	179
20-24	265	209	245
25-29	242	190	226
30-34	215	139	190
35-39	161	127	149
40-44	83	59	75
45-49	55	16	43
Rate			
TFR	6.1	4.4	5.5
GFR	214	156	193
CBR	42	36	40

Note: Rates are for the period 1-36 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation. TFR: total fertility rate for ages 15-49, expressed per woman
GFR: general fertility rate (number of births divided by the number of women 15-44), expressed per 1,000 women
CBR: crude birth rate, expressed as births per 1,000 population

If fertility were to remain constant in Mozambique, women would bear, on average, 5.5 children by the end of their reproductive span. This total fertility rate is the same as estimated in the 1997 MDHS. However, fertility in rural areas is higher than it was in 1997 (6.2 versus 5.8), and urban fertility is lower (4.4 versus 5.1).

The TFRs and other indicators of fertility are shown in Table 3.2 by province and education. The data provide a basis for inferring trends in fertility by comparing the current synthetic measures with the average number of children ever born to women who are currently 40-49 years of age, or completed fertility. Although this comparison can provide an indication of fertility change, such an approach is sometimes vulnerable to an understatement of parity by older women.

Niassa, Tete, and Manica have the highest levels of fertility, with TFRs being approximately seven children per woman (Figure 3.1). The TFR rate in Niassa (7.2) is extremely high and exceeds the parity of women age 40-49 by half a child. A level of current fertility higher than the parity of women at the end of the childbearing span was also observed in the 1997 MDHS for several provinces and requires additional study since it may be an indication of important changes in the fertility of particular cohorts. In several provinces, the level of fertility is twice the observed level in Maputo City. This implies a difference of about three children. Fertility in Zambézia and Manica has not declined for decades, as implied from comparison of the TFRs and the mean number of children ever born to women age 40-49.

Ten percent of women are currently pregnant. Women in Manica, Sofala, and Niassa are almost three times as likely to be pregnant as women in Maputo City (14 percent as compared with 5 percent).

The distribution of women by number of children ever born is presented in Table 3.3 for all women and for currently married women. In the 2003 MDHS questionnaire, the total number of children ever born to a respondent was ascertained by a sequence of questions designed to maximize recall. Lifetime fertility reflects the accumulation of births over the past 30 years or more, and therefore its relevance to the current situation is limited.

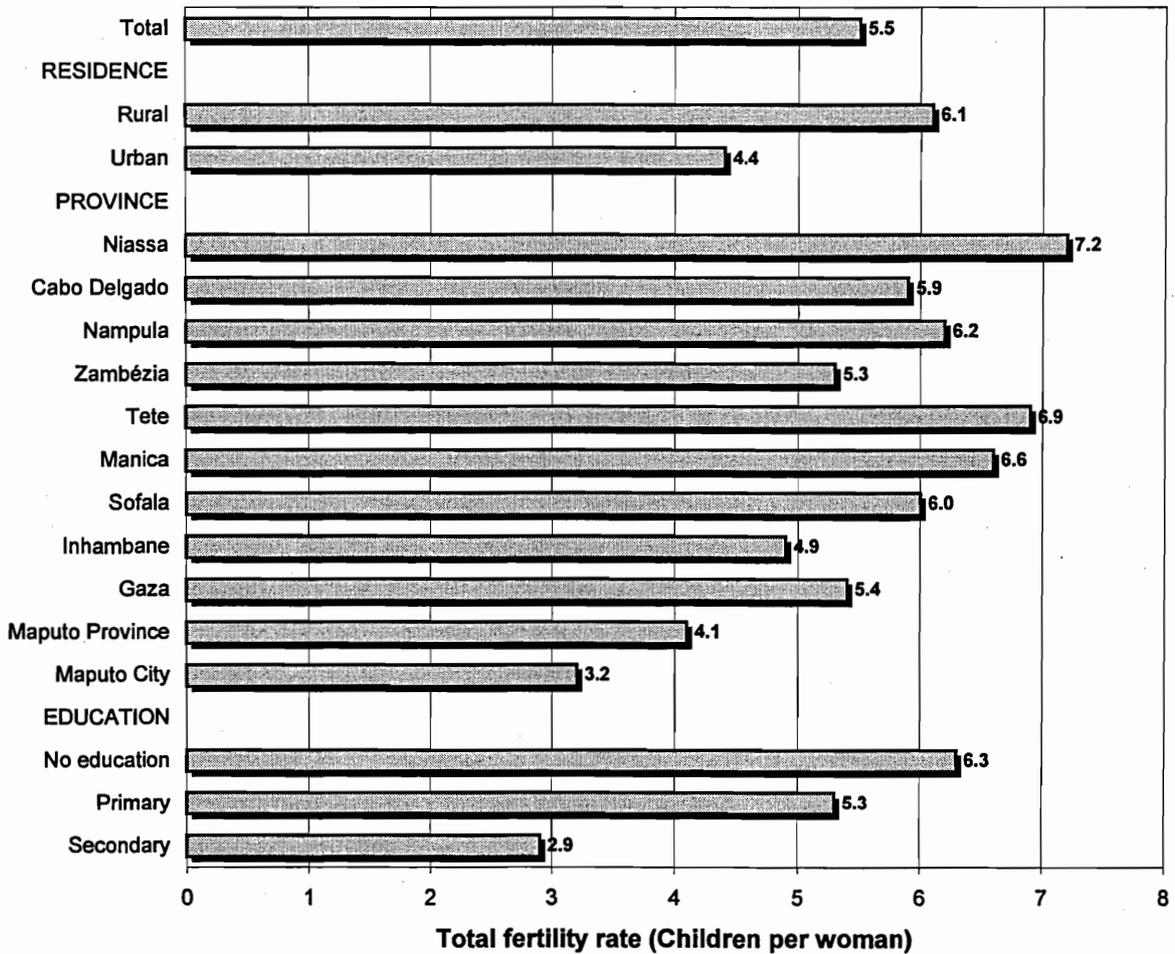
Table 3.2 Fertility indicators

Total fertility rate for the three years preceding the survey, mean number of children ever born to women age 40-49 years, and percentage of women age 15-49 currently pregnant, by background characteristics, Mozambique 2003

Background characteristic	Total fertility rate	Mean number of children ever born to women 40-49	Percentage currently pregnant
Residence			
Rural	6.1	6.3	11.2
Urban	4.4	5.7	7.7
Province			
Niassa	7.2	6.6	13.6
Cabo Delgado	5.9	6.3	8.5
Nampula	6.2	6.7	9.6
Zambézia	5.3	5.5	11.1
Tete	6.9	7.5	13.5
Manica	6.6	6.7	13.9
Sofala	6.0	6.4	13.9
Inhambane	4.9	5.6	7.6
Gaza	5.4	5.7	9.9
Maputo Province	4.1	5.5	6.1
Maputo City	3.2	4.8	4.9
Education			
No education	6.3	6.3	10.9
Primary	5.3	6.0	9.9
Secondary	2.9	4.1	5.6
Total	5.5	6.1	9.9

Note: Total fertility rates for women age 15-49 years

Figure 3.1
Total Fertility Rates for the Three Years Preceding the Survey,
by Residence, Province, and Education



The results in Table 3.3 for younger women who are currently married differ from those for the sample as a whole because of the large number of unmarried women with minimal fertility. Differences at older ages, though minimal, generally reflect the impact of marital dissolution. The parity distribution for older, currently married women also provides a measure of primary infertility. Voluntary childlessness is rare in developing countries, and married women with no live births are predominantly those unable to bear children. The typical level of childlessness for married women at the end of the childbearing years is 2 to 5 percent.

Only 20 percent of all women (9 percent of married women) are childless. The proportion of childless women diminishes drastically with age, from 66 percent of women age 15-19 to only 18 percent of women age 25-29. On average, women have given birth to three children by their late twenties, four children by their late thirties, and 6.5 on average by the end of their childbearing years.

Table 3.3 Children ever born and living to all women and currently married women

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, Mozambique 2003

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	66.0	26.4	6.4	0.8	0.3	0.0	0.0	0.1	0.0	0.0	0.0	100.0	2,454	0.43	0.36
20-24	17.7	29.7	30.3	15.1	5.6	1.0	0.3	0.2	0.0	0.0	0.0	100.0	2,456	1.67	1.39
25-29	7.2	12.6	18.9	24.7	18.6	11.0	4.4	2.2	0.1	0.2	0.0	100.0	2,224	2.99	2.42
30-34	5.6	9.1	9.8	13.8	16.7	20.0	12.1	7.8	2.6	1.5	0.9	100.0	1,792	4.08	3.26
35-39	4.2	5.8	8.6	8.9	11.2	18.3	14.3	11.4	7.6	6.2	3.5	100.0	1,411	5.05	3.98
40-44	3.3	4.6	6.9	8.7	10.8	13.4	10.5	11.9	12.7	7.5	9.9	100.0	1,126	5.75	4.40
45-49	3.1	4.8	4.9	6.1	7.1	12.3	10.0	11.1	12.0	9.7	19.0	100.0	954	6.52	4.78
Total	19.6	16.1	14.0	11.8	9.7	9.3	5.9	4.8	3.3	2.4	2.9	100.0	12,418	3.14	2.47
CURRENTLY MARRIED WOMEN															
15-19	35.9	47.4	13.9	1.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	100.0	936	0.84	0.69
20-24	10.8	26.7	34.8	18.3	7.3	1.4	0.4	0.3	0.0	0.0	0.0	100.0	1,747	1.92	1.59
25-29	5.5	10.3	18.0	25.0	20.3	12.8	5.2	2.4	0.2	0.3	0.0	100.0	1,812	3.19	2.58
30-34	5.2	7.3	8.5	13.2	17.1	20.5	13.6	8.8	3.0	1.7	1.1	100.0	1,495	4.28	3.41
35-39	3.4	5.5	8.8	7.2	11.4	18.5	14.3	11.6	8.5	6.7	4.1	100.0	1,158	5.21	4.11
40-44	3.3	4.2	6.3	7.5	10.7	12.4	10.1	13.1	13.4	7.6	11.4	100.0	872	5.95	4.54
45-49	2.3	3.8	4.4	5.3	5.3	12.2	10.0	9.9	13.6	11.7	21.4	100.0	715	6.91	5.03
Total	9.0	15.3	15.8	13.5	11.7	11.1	7.2	5.7	4.1	3.0	3.6	100.0	8,736	3.72	2.92

Age at First Birth

The age at which childbearing begins has important demographic implications as well as important consequences for the mother and child. In many countries, postponement of first births, reflecting an increase in the age at marriage, has contributed greatly to overall fertility decline. The proportion of women who become mothers before the age of 20 is also a measure of the magnitude of adolescent fertility, which is a major health and social concern in many countries. Table 3.4 presents the percentage of women in the **2003 MDHS** who had a birth by exact age 20, by urban-rural residence and province, according to their current age. The median age at first birth by urban-rural residence and age groups is also shown.

The findings indicate that childbearing begins relatively early in Mozambique. The median age at first birth is around 19 years, and it seems to have decreased in the last 15 years, from 19.2 for women 30 years or older to 18.6 for women age 20-24. This change in childbearing is reflected in the larger proportions of younger women giving birth by age 20: half of women age 40-44 had given birth by age 20, compared with 64 percent of women age 25-29 and 68 percent of women age 20-24. The change has been notable in Niassa, Zambézia, Cabo Delgado, and Nampula. In Niassa for example, eighty-nine percent of women age 20-24 had given birth by age 20, compared with 54 percent of women age 40-44.

On the other hand, in Maputo City, smaller proportions of younger women are giving birth by age 20: 46 percent of women age 20-24 had given birth by age 20, compared with 62 percent of women age 40-44.

Table 3.4 Age at first birth

Percentage of women who gave birth by exact age 20, by current age, according to residence and province; and median age at first birth by residence and age, Mozambique 2003

Residence and province	Current age					
	20-24	25-29	30-34	35-39	40-44	45-49
GAVE BIRTH BY EXACT AGE 20						
Residence						
Rural	73.7	66.8	57.3	54.3	54.9	49.1
Urban	58.4	59.3	58.1	66.0	63.8	55.8
Province						
Niassa	89.1	70.2	56.0	59.5	54.0	30.8
Cabo Delgado	72.8	68.7	72.5	65.9	56.8	63.9
Nampula	72.5	71.3	55.0	62.1	58.8	63.7
Zambézia	79.3	68.1	56.8	43.3	54.6	31.2
Tete	69.9	61.7	55.5	60.7	60.4	60.9
Manica	69.5	61.7	56.8	58.8	57.4	41.8
Sofala	56.6	68.9	62.6	60.1	56.5	36.6
Inhambane	68.4	64.2	53.1	54.0	58.9	51.6
Gaza	60.4	53.1	47.7	51.5	60.7	46.2
Maputo Province	56.8	56.1	56.9	63.2	57.5	59.4
Maputo City	46.4	45.9	57.8	72.1	62.1	54.9
Total	67.8	64.4	57.6	58.3	58.0	51.2
MEDIAN AGE AT FIRST BIRTH						
Rural	18.2	18.6	19.1	19.6	19.3	20.2
Urban	19.3	19.1	19.2	18.6	18.7	19.4
Total	18.6	18.8	19.2	19.2	19.0	19.2
Number of women	2,456	2,224	1,792	1,411	1,126	954

Birth Intervals

A birth interval is defined as the length of time between two successive births. Table 3.5 presents the percent distribution of nonfirst births in the five years preceding the survey, by number of months since the preceding birth, according to background characteristics. There has been a fair amount of research to indicate that short birth intervals are deleterious to the health of mothers and their babies. Studies have also shown that the death of a preceding birth usually lead to a shorter birth interval compared with when a child survives.

In most provinces, only a small proportion of births (18 to 28 percent) occur after an interval of four years or more, while in Maputo City and in Maputo Province, the figures are 43 and 33 percent, respectively (Figure 3.2). Overall, 55 percent of women have a birth interval shorter than 36 months.

The median length of time between two successive live births is 34.4 months and has changed little since 1997. The birth interval is similar in rural and urban areas and varies little by province, except that it is 40 months in Maputo Province and 44 months in Maputo City. Although the duration of the median birth interval generally increases with increased education, the results show little difference between women with no education and those with primary education; however, for women with secondary education, the median birth interval is 45 months.

Table 3.5 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, Mozambique 2003

Background characteristic	Number of months since preceding birth					Total	Median number of months since preceding birth	Number of non-first births
	7-17	18-23	24-35	36-47	48+			
Residence								
Rural	5.5	12.2	39.7	21.6	21.0	100.0	33.9	6,092
Urban	4.0	8.9	36.1	22.4	28.7	100.0	36.3	2,211
Province								
Niassa	6.6	13.4	40.8	21.5	17.6	100.0	32.8	427
Cabo Delgado	6.1	11.4	41.4	21.7	19.3	100.0	33.8	776
Nampula	5.7	13.1	41.8	18.9	20.5	100.0	32.7	1,845
Zambézia	5.4	15.5	34.0	20.5	24.6	100.0	34.2	1,293
Tete	8.2	11.1	43.0	20.1	17.7	100.0	33.1	886
Manica	2.9	8.6	41.8	24.3	22.4	100.0	34.9	654
Sofala	4.0	11.1	41.3	22.6	21.0	100.0	33.9	625
Inhambane	3.8	7.2	37.3	26.0	25.7	100.0	36.5	613
Gaza	2.6	8.2	37.5	24.1	27.5	100.0	36.5	392
Maputo Province	3.0	5.0	28.6	30.0	33.3	100.0	40.0	464
Maputo City	2.1	8.3	28.0	18.8	42.8	100.0	43.5	328
Education								
No education	5.2	13.1	39.1	20.4	22.2	100.0	33.7	4,042
Primary	5.2	9.9	39.3	23.0	22.7	100.0	34.6	4,037
Secondary	1.6	4.5	22.1	25.9	45.8	100.0	45.0	219
Total	5.1	11.3	38.8	21.8	23.1	100.0	34.4	8,304

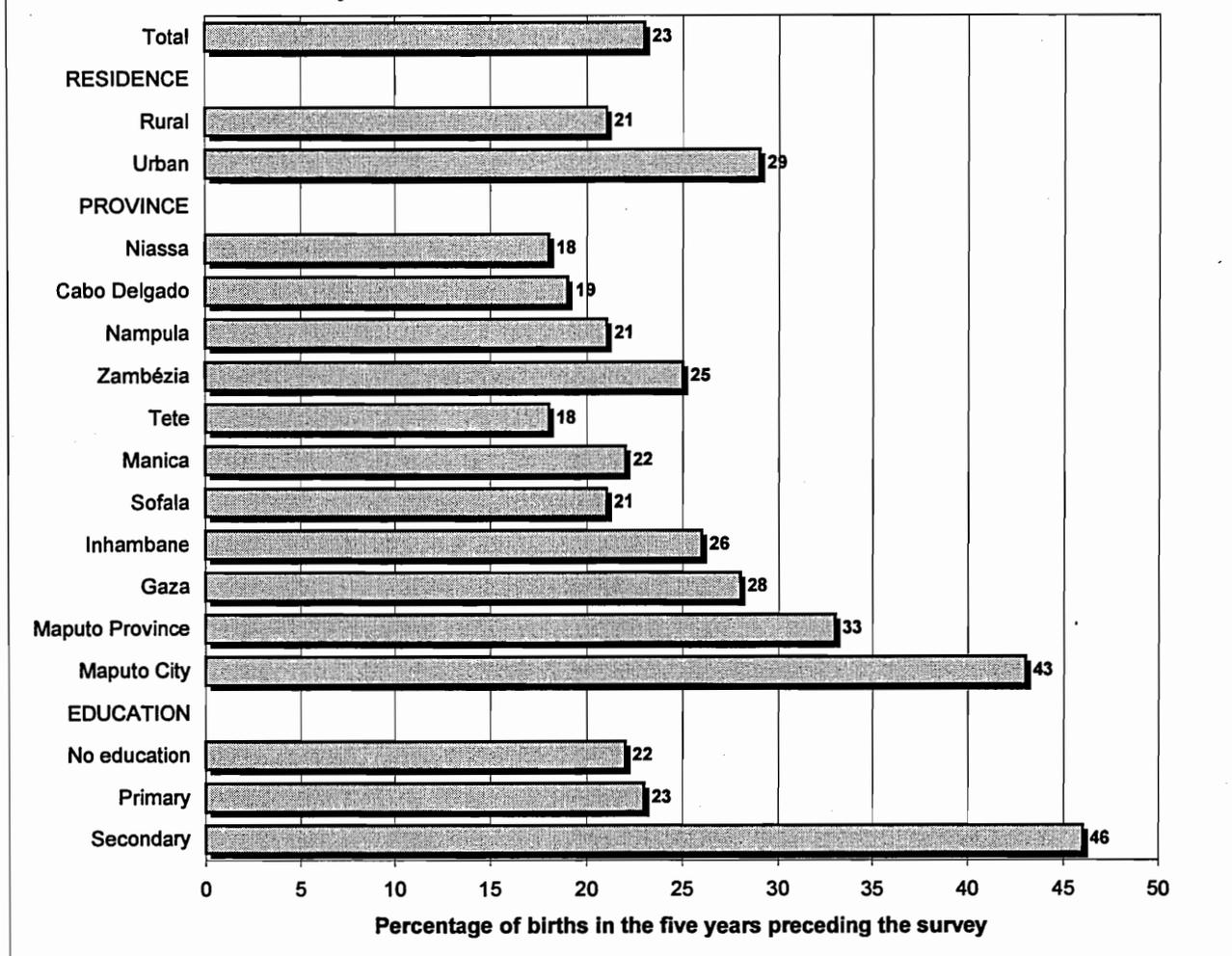
Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

Fertility Preferences

In the **2003 MDHS** several questions were asked to ascertain women's fertility preferences: their desire to have another child, the length of time they wanted to wait before having that child, and the number of children they considered to be ideal. These data make the quantification of fertility preferences possible; and in combination with information on contraceptive use, the data allow one to estimate the demand for family planning, either to space or to limit births. The question to ascertain ideal family size was asked of all women, and the other questions were asked of nonsterilized, currently married women.

Women were asked, "Would you like to have another child or would you prefer not to have any more children?" If they wanted another child, they were asked, "How long would you like to wait from now before the birth of another child?" These questions were appropriately phrased if the woman had not yet had any children, and if the woman was pregnant, she was asked about her desire for more children after the baby she was expecting. Women who have been sterilized for contraceptive purposes also require special analytic treatment. The general strategy in this chapter is to classify them as wanting no more children.

Figure 3.2
Birth Intervals with a Duration of 48 Months or More,
by Residence, Province, and Mother's Education



Women are classified in Table 3.6 in the following categories: want a child soon, want another child later, want no more, and sterilized. Only about one in five women report not wanting more children, and fewer than 5 percent are sterilized. The proportion of women who report not wanting more children increases rapidly with the number of living children, from 5 percent among women with one child to 61 percent of those with six or more children. Only 13 percent of women in Niassa report not wanting to have more children, compared with 46 percent in Maputo City.

The 70 percent of currently married women who want to have another child are about equally divided between those wanting to have another child soon (34 percent) and those wanting to wait for two or more years (31 percent) (Figure 3.3). Surprisingly, only 17 percent of women in Cabo Delgado want to wait two or more years, and another 17 percent are undecided as to when to have another child. While only one in five women in Maputo City and Zambézia want to wait two or more years to have another child, almost 50 percent of women in Niassa, Tete, and Manica report wanting to wait two or more years before having their next child.

Table 3.6 Fertility preferences

Percent distribution of currently married women, by desire for children, according to background characteristic, Mozambique 2003

Background characteristic	Want more children				Want no more/ sterilized			Total	Number of women
	Have another soon ¹	Have another later ²	Have another, undecided when	Un-decided	Want no more	Sterilized ³	Declared infecund		
Residence									
Rural	34.4	32.0	4.5	1.2	20.7	0.5	6.6	100.0	6,199
Urban	31.2	29.3	3.3	1.0	29.9	1.7	3.3	100.0	2,537
Province									
Niassa	30.4	47.0	2.7	0.3	13.1	0.4	5.8	100.0	387
Cabo Delgado	38.5	17.3	15.9	1.8	17.3	0.1	9.0	100.0	851
Nampula	37.9	29.7	1.8	0.6	23.3	0.2	6.2	100.0	1,898
Zambézia	30.5	21.6	5.6	2.1	27.3	0.9	12.0	100.0	1,430
Tete	25.1	48.4	0.4	2.7	18.5	1.0	3.9	100.0	771
Manica	30.2	48.8	2.7	0.4	16.6	0.1	1.1	100.0	617
Sofala	38.8	37.7	4.6	1.3	15.3	0.0	2.3	100.0	617
Inhambane	40.3	28.5	0.4	0.2	24.4	1.3	5.0	100.0	724
Gaza	33.7	34.9	1.6	0.2	26.6	1.1	1.8	100.0	426
Maputo Province	33.2	28.0	4.3	0.0	30.7	2.7	1.0	100.0	552
Maputo City	19.1	23.1	5.3	1.5	45.8	4.0	0.8	100.0	462
Education									
No education	34.3	29.8	4.7	1.2	21.0	0.5	8.4	100.0	4,212
Primary	33.6	31.9	3.8	1.1	25.0	1.1	3.3	100.0	4,147
Secondary	23.6	38.5	3.1	0.1	32.2	1.6	0.9	100.0	362
More than secondary	*	*	*	*	*	*	*	*	16
Number of living children									
0	85.4	4.1	2.2	0.4	0.7	0.1	7.2	100.0	837
1	45.2	40.3	5.4	0.8	4.9	0.1	3.3	100.0	1,632
2	35.1	44.3	4.7	0.8	10.9	0.4	3.5	100.0	1,571
3	29.1	40.3	4.3	0.9	19.3	1.1	4.9	100.0	1,412
4	22.2	34.0	4.7	1.5	30.6	0.9	5.9	100.0	1,157
5	16.4	23.2	4.5	1.6	45.7	1.2	7.3	100.0	893
6+	8.8	13.8	2.3	1.9	60.7	2.4	9.9	100.0	1,234
Total	33.5	31.2	4.2	1.1	23.4	0.9	5.7	100.0	8,736

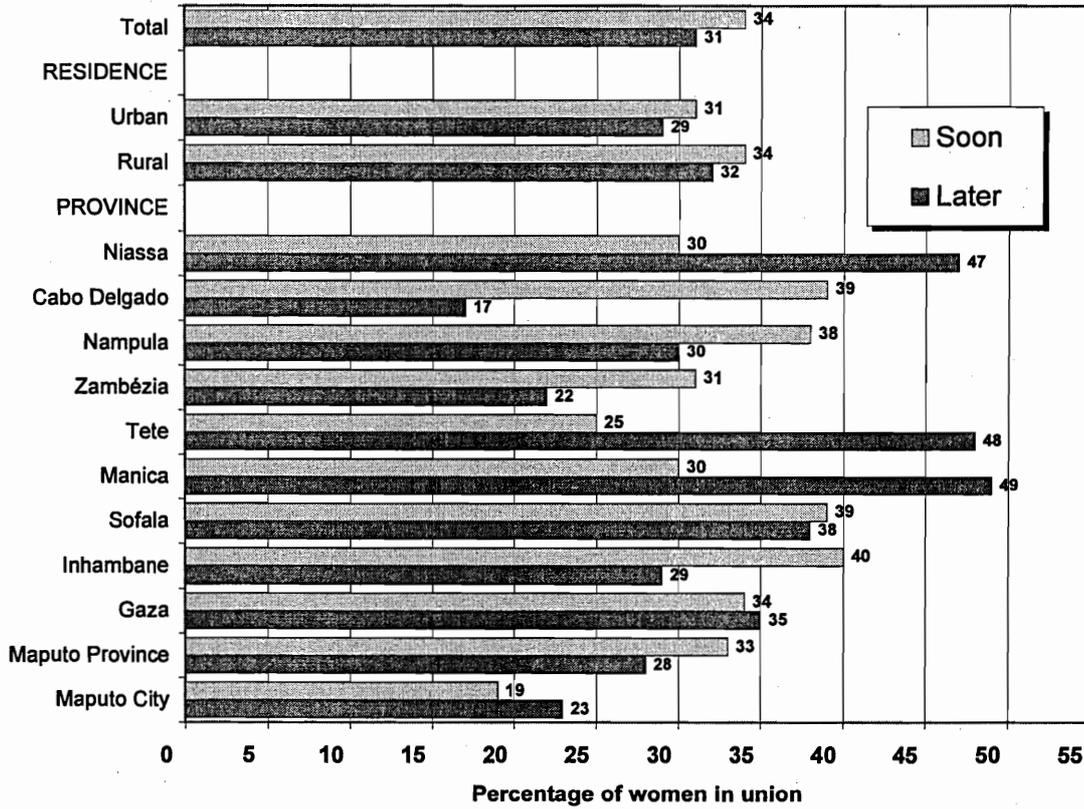
Note: An asterisk indicates that a figure is based on fewer than 30 unweighted cases and has been suppressed.

¹Wants next birth within two years

²Wants to delay next birth for two or more years

³Includes both female and male sterilization

Figure 3.3
Desire for Another Child among Women in Union,
by Residence and Province



The level of current use is the most widely used and valuable measure of the success of a family planning program. Furthermore, it can be used to estimate the reduction in fertility attributable to contraception.

Knowledge of Contraceptive Methods

Information on the level of knowledge of contraceptive methods was measured in two ways. Women and men were first asked to name the ways or methods couples can use to delay or avoid pregnancy. If a respondent failed to mention a particular method spontaneously, the interviewer described the method to the respondent. Thus, those who have ever heard of a contraceptive method include both those who report having heard it spontaneously or after probing.

Knowledge of contraceptive methods is shown in Table 4.1 for of all women, currently married women, sexually active unmarried women, sexually inactive unmarried women, and women with no sexual experience. The percentage of women who know at least two modern methods and the mean number of methods known are also shown.

Knowledge of methods is relatively high: 91 percent of all women report familiarity with a method as well as a modern method. Eighty-three percent of women report knowing at least two modern methods. The most commonly recognized methods among all women are the pill, the male condom, and injectables. Only 51 percent of all women reported familiarity with the IUD while only 40 percent know about female sterilization.

Current Use of Contraception

The prevalence of contraceptive use is one of the indicators most frequently used to measure the success of the family planning program, and it is also widely used as one of the main determinants of fertility. Table 4.2 allows the comparison of levels of current contraceptive use among major groups of the population: residence, province, age, education, and number of living children. The information in Table 4.2 also permits an examination of differences in the method mix among current users in the various subgroups.

Table 4.2 shows that 17 percent of married women are currently using a contraceptive method, with 12 percent using a modern method. The most commonly used methods are the pill and injectables—5 percent each. Another 5 percent of women reported using traditional methods. The prevalence rate of 17 percent represents a remarkable increase of 7 points since 1997, which is mainly due to increased use of the pill and injectables.

Table 4.1 Knowledge of contraceptive methods

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, Mozambique 2003

Contraceptive method	Total				Currently married		
	All women	Currently married women	Unmarried women who ever had sex		Unmarried women who never had sex	Rural area	Urban area
			Sexually active ¹	Not sexually active ²			
Any method	91.5	91.3	96.4	94.5	77.9	88.6	97.6
Knows at least two modern methods	82.6	82.3	90.7	88.0	59.2	77.5	94.3
Any modern method	90.8	90.4	96.4	94.2	77.9	87.5	97.4
Female sterilization	40.0	40.3	48.2	43.2	15.0	33.3	57.4
Male sterilization	8.0	7.9	11.4	9.0	2.5	5.6	13.5
Pill	79.9	79.7	89.5	84.6	56.0	74.1	93.3
IUD	51.2	49.0	70.6	57.9	31.0	38.1	75.7
Injectables	78.4	78.3	86.7	84.2	50.4	72.8	91.7
Male condom	78.4	76.1	90.5	83.4	74.6	70.7	89.4
Diaphragm	5.5	4.4	12.6	7.4	4.4	2.3	9.4
Foam/jelly	3.6	2.8	9.0	4.1	3.1	1.1	6.9
Lactational amenorrhea (LAM)	45.2	50.4	37.8	39.3	7.9	49.6	52.4
Any traditional method	48.8	50.0	56.3	50.2	17.1	45.9	60.1
Periodic abstinence	33.7	32.8	44.9	38.1	15.1	27.4	46.1
Withdrawal	20.7	19.0	35.2	25.1	7.4	13.5	32.7
Folkloric	17.9	21.0	13.1	12.7	1.4	21.9	18.6
Mean number of methods known	4.6	4.6	5.5	4.9	2.7	4.1	5.9
Number of women	12,418	8,736	1,065	1,916	706	6,199	2,537

¹Had sexual intercourse in the one month preceding the survey

²Did not have sexual intercourse in the one month preceding the survey

The level of use increases rapidly with the level of education, age, and the number of living children. Among women with a secondary education, the level of use reaches 55 percent. Urban women are more likely than their rural counterparts to use contraceptive methods—29 versus 12 percent. Important differences are observed among provinces. As expected, the highest level of use is in Maputo City, where 50 percent of currently married women reported using a method. The lowest level of use is found in Manica (9 percent), Cabo Delgado (10 percent), Nampula (11 percent), and Zambézia (11 percent).

Changes in the levels of contraceptive use between 1997 and 2003 are summarized in Figure 4.1 by residence and by province. The major changes in use are observed in Sofala, Gaza, Cabo Delgado, and Nampula, where contraceptive use increased from barely 2 percent to levels of 10 percent or higher—15 percent in Gaza and 18 percent in Sofala.

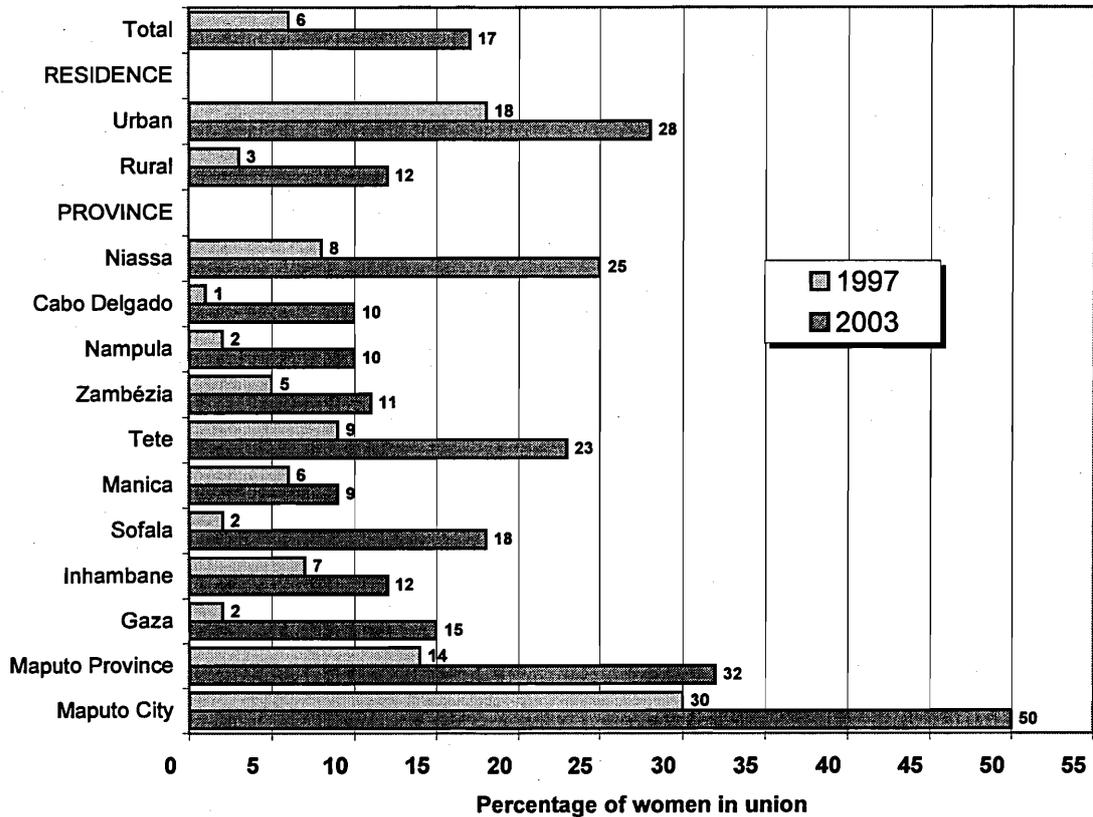
Table 4.2 Current use of contraception, by background characteristics

Percent distribution of all women and currently married women, by contraceptive method currently used, according to background characteristics, Mozambique 2003

Background characteristic	Modern method							Traditional method					Number of women
	Using any method	Any modern method	Female sterilization	Pill	IUD	In-jectables	Male condom	Any traditional method	Rhythm/natural family planning	Withdrawal	Other methods	Not using	
ALL WOMEN													
Total	18.2	14.2	0.7	5.4	0.1	4.2	3.7	4.0	2.7	0.2	1.1	81.8	12,418
Rural	11.1	7.1	0.4	2.8	0.0	3.0	0.8	4.0	2.5	0.1	1.3	88.9	7,870
Urban	30.5	26.5	1.2	10.0	0.3	6.1	8.8	4.1	3.1	0.2	0.7	69.5	4,548
CURRENTLY MARRIED WOMEN													
Residence													
Rural	11.7	7.0	0.5	2.7	0.0	3.4	0.4	4.7	2.9	0.2	1.6	88.3	6,199
Urban	28.1	23.2	1.7	10.3	0.4	8.1	2.6	4.9	3.7	0.2	1.0	71.9	2,537
Province													
Niassa	24.7	5.8	0.4	3.3	0.0	2.0	0.2	18.9	15.4	0.5	3.0	75.3	387
Cabo Delgado	9.9	4.5	0.1	2.7	0.1	0.9	0.7	5.4	4.8	0.0	0.6	90.1	851
Nampula	10.3	7.2	0.2	2.8	0.0	3.2	1.0	3.1	1.4	0.3	1.5	89.7	1,898
Zambézia	11.0	9.2	0.9	3.5	0.0	4.8	0.0	1.8	0.0	0.0	1.8	89.0	1,430
Tete	22.6	14.3	1.0	5.0	0.2	7.6	0.5	8.4	4.6	0.6	3.2	77.4	771
Manica	8.8	7.9	0.1	3.5	0.0	3.3	1.0	0.9	0.2	0.1	0.7	91.2	617
Sofala	18.4	7.5	0.0	3.0	0.0	3.9	0.6	10.9	9.9	0.0	1.1	81.6	617
Inhambane	12.4	11.3	1.3	4.2	0.0	4.6	1.2	1.2	0.0	0.2	1.0	87.6	724
Gaza	15.2	14.4	1.1	6.5	0.0	5.4	1.4	0.7	0.2	0.2	0.4	84.8	426
Maputo Province	32.3	30.2	2.7	14.0	0.2	11.3	2.0	2.1	1.0	0.5	0.6	67.7	552
Maputo City	49.7	39.2	4.0	16.8	1.7	10.7	6.0	10.6	9.0	0.2	1.4	50.3	462
Education													
No education	9.3	4.7	0.5	1.7	0.0	2.4	0.1	4.5	3.1	0.1	1.4	90.7	4,212
Primary	20.4	15.6	1.1	6.4	0.1	6.7	1.4	4.7	3.0	0.2	1.5	79.6	4,147
Secondary	53.8	47.4	1.6	25.0	2.2	9.7	8.8	6.4	4.1	1.5	0.8	46.2	362
More than secondary	*	*	*	*	*	*	*	*	*	*	*	*	16
Age													
15-19	11.0	6.8	0.0	4.3	0.0	0.5	1.9	4.3	3.0	0.0	1.3	89.0	936
20-24	15.4	11.7	0.0	6.6	0.0	2.9	2.2	3.7	3.0	0.0	0.6	84.6	1,747
25-29	16.2	11.1	0.5	5.5	0.0	4.5	0.6	5.2	3.7	0.1	1.4	83.8	1,812
30-34	17.5	11.5	0.4	4.4	0.1	6.1	0.4	6.0	3.8	0.4	1.8	82.5	1,495
35-39	20.1	15.6	1.5	5.8	0.2	7.1	1.1	4.4	3.0	0.5	1.0	79.9	1,158
40-44	22.2	16.3	3.3	3.8	0.2	8.1	0.8	5.9	2.7	0.3	2.9	77.8	872
45-49	11.7	8.4	1.9	1.0	0.6	4.9	0.0	3.2	1.4	0.0	1.8	88.3	715
Number of living children													
0	2.2	1.7	0.1	0.3	0.0	0.2	1.2	0.4	0.4	0.0	0.1	97.8	1,060
1-2	15.1	10.6	0.2	6.4	0.1	2.1	1.8	4.5	3.3	0.0	1.2	84.9	3,169
3-4	19.5	14.0	1.0	5.6	0.3	6.4	0.7	5.5	3.8	0.1	1.6	80.5	2,510
5+	22.3	15.8	2.0	4.1	0.0	9.3	0.4	6.5	3.4	0.7	2.4	77.7	1,997
Total	16.5	11.7	0.9	4.9	0.1	4.8	1.1	4.7	3.1	0.2	1.4	83.5	8,736

Note: If more than one method is used, only the most effective method is considered in this tabulation. An asterisk indicates that a figure is based on fewer than 30 unweighted cases and has been suppressed.

Figure 4.1
Contraceptive Use among Women in Union,
by Residence and Province, 1997 and 2003



This chapter presents findings in three areas of importance to maternal and child health: maternal care and characteristics of the neonate, vaccinations, and common childhood illnesses and their treatment. In the **2003 MDHS**, data were obtained for all live births which occurred since January 1998, roughly over the five-year period preceding the survey. The interviewer was instructed to record all responses if more than one source of antenatal care was mentioned for the same pregnancy. However, only the provider with the highest qualifications is considered if there was more than one response.

For countries where the immunization schedule for measles has not changed, the presentation of the vaccination coverage information still focuses on the age group 12-23 months (one-year-old children). Overall, coverage levels by the time of the survey and by 12 months of age are shown for this age group, as is the source of the vaccination information (i.e., whether it is based on a written vaccination card or the mother's recall). Differences in vaccination coverage between different subgroups of the population are an aid in program planning. Changes in the vaccination program over time are examined by looking at changes in the vaccination coverage levels during the first 12 months of life for several age cohorts.

Treatment practices and contact with health services among children with three common childhood illnesses—diarrhea, acute respiratory infection (ARI), and fever—help assess the impact of the national program aimed at reducing the impact of these three illnesses. The treatment rates of diarrhea with oral rehydration therapy or increased fluids can be used as a measure of the success of programs that encourage these behaviors. On the other hand, the information on prevalence and treatment of ARI and fever is useful to assess coverage of these programs and to plan improvements.

Antenatal and Delivery Care

Antenatal care is defined according to the type of provider, the number of visits made, the stage of pregnancy at the time of the first visit, and the contents of the antenatal care. This includes information on signs of pregnancy complications and where to go, if they were given tetanus toxoid vaccinations and number of doses received. A baby is considered protected if the mother received two doses of tetanus toxoid during pregnancy, with the second at least two weeks before delivery. However, if a woman was vaccinated during a previous pregnancy, she may only require one dose for the current pregnancy.

Similarly, the delivery services are described according to the person assisting, the place of delivery, and the Caesarean-section rate. Coupled with information on neonatal and infant mortality rates, this information can be used to identify subgroups of women whose live births are “at risk” because of nonuse of maternal health services, and to provide information to assist in the planning of appropriate improvements in services. The questions about prematurity, birth weight, and the neonate's size provide useful information to decrease infant mortality through a reduction in low birth weight infants.

Selected indicators on antenatal care for the most recent births and delivery care for births in the five years preceding the survey are shown in Table 5.1, by background characteristics, and summarized in Figure 5.1. The antenatal care indicators for the most recent birth include the percentage of women who received a checkup from a health professional, the percentage who were given at least one or at least two tetanus toxoid vaccinations, and the percentage who were given iron tablets or syrup. The delivery care indicators include the percentage of live births in the five years before the survey delivered by a health professional, and the percentage delivered in a health facility.

Eighty-four percent of pregnant women received antenatal care from a health professional for their most recent birth. The level of antenatal care is slightly higher for young mothers and those women giving birth for the first time. Urban women are more likely than rural women to have received antenatal care from a health professional—97 versus 79 percent. Antenatal care is almost universal in Maputo City, Maputo Province, and Gaza, but it is only available to 58 percent of women in Zambézia.

Table 5.1 Maternal care indicators for the five years preceding the survey

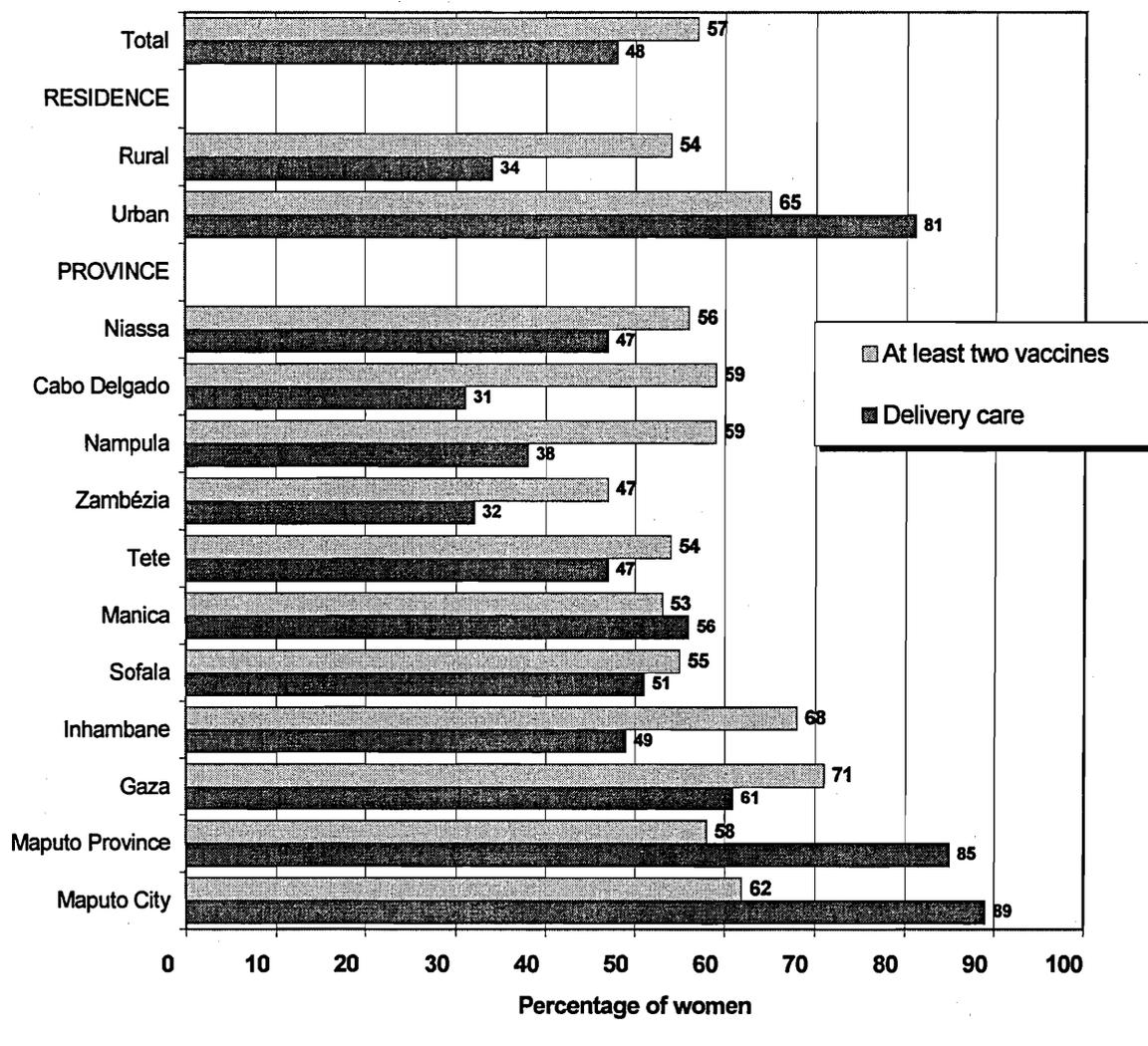
Percentage of women who had a live birth in the five years preceding the survey who received an antenatal checkup from a health professional, who were given at least one and at least two tetanus toxoid vaccinations, and who were given iron tablets or syrup for the most recent birth; and among all live births in the five years before the survey, percentage delivered by a health professional, percentage delivered by a traditional birth attendant, and percentage delivered in a health facility, by background characteristics, Mozambique 2003

Background characteristic	Antenatal care for most recent birth					Delivery care for all births			
	From a health professional	At least one tetanus toxoid vaccination	At least two tetanus toxoid vaccinations	Iron tablets or syrup	Number of women	From a health professional	From traditional birth attendant	Total in a health facility	Number of births
Residence									
Rural	78.9	72.8	53.8	50.9	4,940	34.2	14.2	34.0	7,533
Urban	97.1	89.0	64.6	80.9	2,239	80.7	3.1	81.0	3,087
Province									
Niassa	81.3	74.1	56.1	57.9	326	47.0	3.9	46.0	527
Cabo Delgado	88.6	85.5	59.3	67.1	638	31.4	16.0	29.6	968
Nampula	86.1	78.2	59.0	49.9	1,458	38.2	6.0	36.8	2,250
Zambézia	57.9	54.7	46.9	31.3	1,118	32.1	36.2	32.7	1,622
Tete	85.8	74.7	54.2	60.0	694	46.8	9.5	47.4	1,096
Manica	90.1	81.5	52.7	67.3	535	55.9	7.1	56.0	820
Sofala	82.4	76.4	54.5	68.9	524	51.0	1.4	51.6	794
Inhambane	92.6	90.7	67.8	60.0	576	49.0	7.2	49.8	822
Gaza	97.2	88.1	70.7	69.7	381	60.6	5.5	63.1	539
Maputo Province	99.9	90.6	57.8	93.7	519	85.2	0.3	85.4	667
Maputo City	99.5	89.7	62.3	96.1	409	89.2	0.5	90.1	516
Education									
No education	75.0	68.2	49.3	46.8	3,177	31.4	14.4	31.0	4,906
Primary	91.5	84.9	63.3	69.1	3,666	59.2	8.5	59.4	5,315
Secondary	98.7	92.4	66.2	90.2	325	94.7	0.6	95.4	387
More than secondary	*	*	*	*	*	*	0.0	*	13
Mother's age at birth									
<20	87.3	82.9	65.1	62.2	1,468	53.2	10.9	53.6	2,381
20-34	84.0	77.7	56.0	59.7	4,618	46.5	11.2	46.3	6,860
35+	83.5	71.9	51.6	59.6	1,093	44.1	10.0	43.9	1,379
Birth order									
1	89.9	84.8	66.1	66.1	1,456	57.9	9.1	58.1	2,303
2-3	84.6	79.7	58.4	59.9	2,400	48.3	12.4	48.2	3,650
4-5	81.9	74.8	53.3	57.8	1,716	43.9	11.5	43.5	2,483
6+	82.5	72.0	51.4	57.9	1,606	40.3	9.8	40.2	2,184
Total	84.6	77.8	57.2	60.2	7,179	47.7	11.0	47.6	10,620

Note: An asterisk indicates that a figure is based on fewer than 30 unweighted cases and has been suppressed.

*Doctor, nurse, and trained birth attendant

Figure 5.1
Tetanus Vaccination and Delivery Care from a Health Professional,
by Residence and Province



Among women who had a birth in the five years preceding the survey, 78 percent received at least one tetanus toxoid vaccination for their most recent birth, and 57 percent received at least two. The coverage diminishes rapidly with increasing birth order, mother's age at birth, and level of education. The highest levels of tetanus vaccination (around 90 percent) are observed in Inhambane, Maputo City, Maputo Province, and Gaza, and the lowest levels (55 percent) are observed in Zambézia.

Sixty percent of women received iron tablets or syrup. Differentials by province are larger when compared with the other indicators of antenatal care. Women in Maputo City and in Maputo Province are three times more likely to receive iron tablets or syrup than women in Zambézia—96 and 94 percent, respectively, versus 31 percent.

Overall, only 47 percent of births in the five years preceding the survey were delivered in a health facility, and the same proportion was assisted by trained medical personnel. The differentials by characteristics are greater for delivery care than for antenatal care. For example, delivery care from a health professional was received by 95 percent of births from mothers with

secondary education, as compared with 31 percent from mothers with no education. The differentials by province are as dramatic: only in Maputo City and Maputo Province do 85 percent or more of births receive proper delivery care. In the remaining provinces, with the exception of Gaza, the proportion of children with delivery care from a health professional is under 60 percent. In Zambézia it is 32 percent, and in Cabo Delgado, it is about 30 percent.

Vaccination Coverage

The **2003 MDHS** collected information on vaccination coverage for all children born since January 1997 (a period covering almost five years), although data presented here are restricted to children who were alive at the time of the survey. According to the World Health Organization's guidelines, to be considered fully vaccinated, a child should receive the following vaccinations: BCG, measles, and three doses each of DPT and polio. BCG is for protection against tuberculosis, and DPT is for protection against diphtheria, pertussis, and tetanus; both DPT and polio require three vaccinations at intervals of several weeks.

Information on vaccination coverage was collected in two ways: from health cards shown to the interviewers and from mothers' reports. When a mother was able to present such a card to the interviewer, this was used as the source of information. The interviewer recorded vaccination dates directly from the card. In addition to collecting vaccination information from cards, there were two ways of collecting the information from the mother herself. If a health card had been presented, but a vaccine had not been recorded on the card as being given, the mother was asked to recall whether that particular vaccine had been given. If there was no card at all for the child, the mother was asked to recall whether the child had received BCG, polio (including the number of doses), or measles vaccinations. DPT coverage is not asked about for children without a written record and is assumed to be the same as the mother's report for polio vaccine. (Polio and DPT are usually given at the same time.)

The percentage of children age 12-23 months who had received specific vaccines during the first year of life (according to the health card or the mother's report) is presented in Table 5.2.1 by place of residence and sex of the child.

Table 5.2.1 Vaccinations in the first year of life

Percentage of children 12-23 months at the time of the survey who received specific vaccines, by 12 months of age, and percentage with a health card, by sex of child and residence, Mozambique 2003

Sex of child and residence	Percentage of children who received:											Percent-age with a health card	Number of children
	BCG	DPT			Polio ¹				Measles	All ²	None		
		1	2	3	0	1	2	3					
Male	86.0	85.8	77.8	66.8	69.9	84.4	75.4	64.0	61.4	51.8	10.7	78.8	999
Rural	81.5	81.9	72.2	59.1	61.5	80.7	69.4	56.8	52.7	42.4	13.6	75.8	693
Urban	96.3	94.7	90.4	84.1	89.1	92.8	88.8	80.4	80.4	72.9	4.0	85.6	306
Female	86.0	84.4	77.4	66.4	68.0	84.9	75.8	65.2	64.8	54.8	10.9	77.1	934
Rural	82.4	80.2	71.2	59.0	58.8	81.2	69.5	57.2	56.0	45.7	13.8	73.1	665
Urban	94.9	94.8	92.5	84.7	90.8	93.9	91.1	84.7	86.1	77.0	3.9	86.9	269
Total	86.0	85.2	77.6	66.6	69.0	84.6	75.5	64.6	63.0	53.2	10.8	78.0	1,933
Rural	81.9	81.1	71.7	59.0	60.1	81.0	69.5	57.0	54.3	44.0	13.7	74.5	1,358
Urban	95.6	94.7	91.4	84.4	89.9	93.3	89.9	82.4	83.1	74.9	4.0	86.2	575

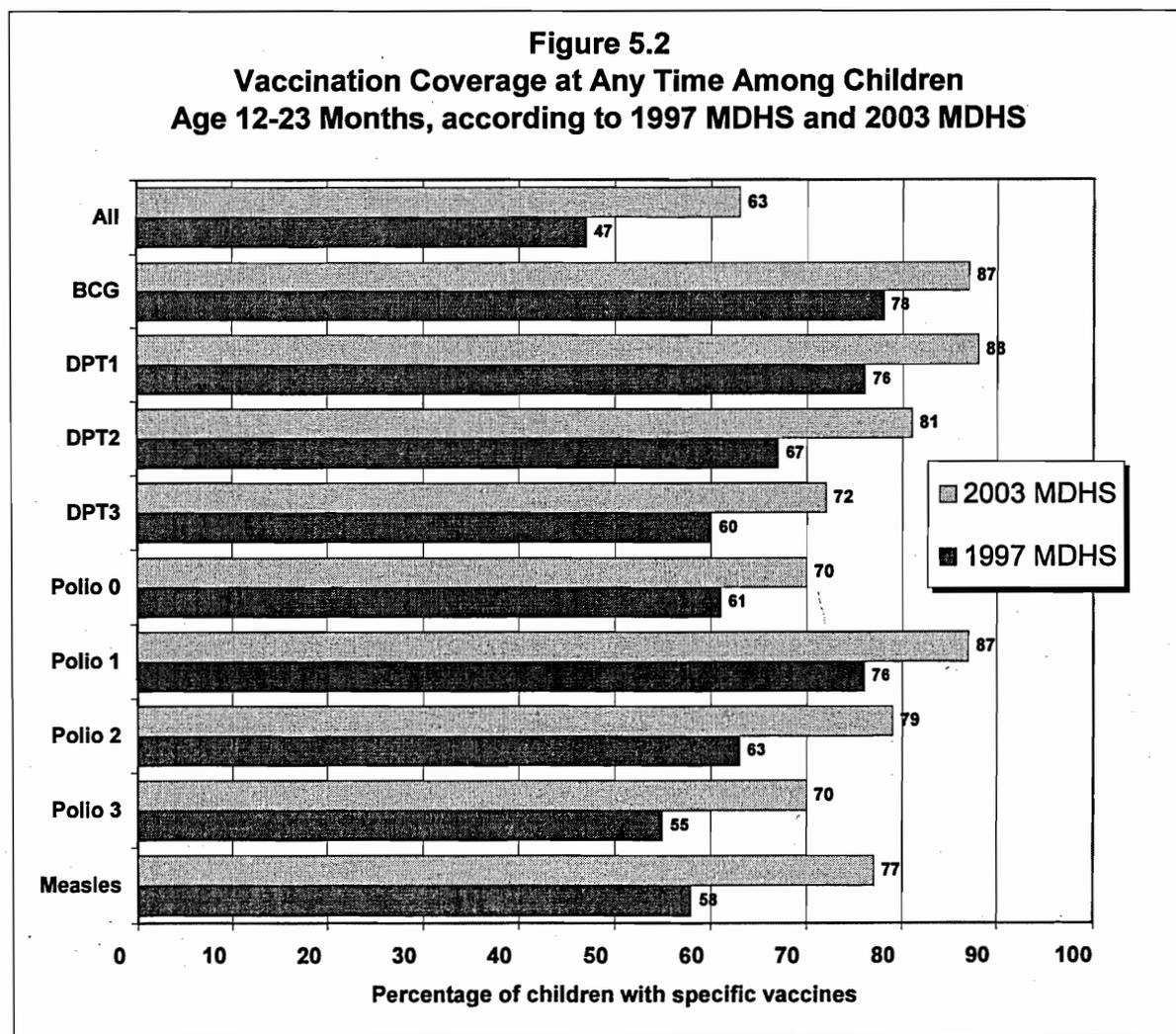
Note: Information was obtained from the health card or, if there was no written record, from the mother. For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record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

¹Polio 0 is the polio vaccination given at birth

²BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

According to the information from the health card or from the mother's recall, 53 percent of children age 12-23 months are fully immunized during the first year of life. The coverage reaches 75 percent of children in urban areas but only 44 percent in rural areas. At the national level, the level of coverage for BCG and the first doses of DPT and polio is around 85 percent, and the proportion of children who receive the third dose of the latter two vaccines drops to about 66 percent. Almost two thirds of the children (63 percent) have received the measles vaccine, and one in ten (11 percent) has not received any vaccinations at all during the first year of life.

The percentages of children age 12-23 months who had received specific vaccines by the time of the survey—according to the health card or the mother's report—are presented in Table 5.2.2, by background characteristics, to give an indication of the degree of success of the vaccination program in reaching all groups of the population. The immunization coverages for 1997 and 2003 are presented in Figure 5.2. The coverage rates at any time before the survey are, as expected, much higher than the coverage during the first year of life. Sixty-three percent of children have received all vaccines, and the level of coverage for BCG and the first doses of DPT and polio is close to 90 percent. Dropout rates between the first and third doses are lower now than in 1997 because almost 70 percent of one-year-olds receive the third dose of those vaccines.



Although vaccination levels are relatively high in Maputo City, Maputo Province, and Inhambane (around 91 percent for all vaccines) and in Gaza (82 percent), the coverage rates are very low in several provinces, particularly Zambézia and Niassa (around 45 and 47 percent, respectively). Immunization coverage for all vaccines is shown in Figure 5.3 by residence, province, and mother's education.

Table 5.2.2 Vaccinations at any time before the survey

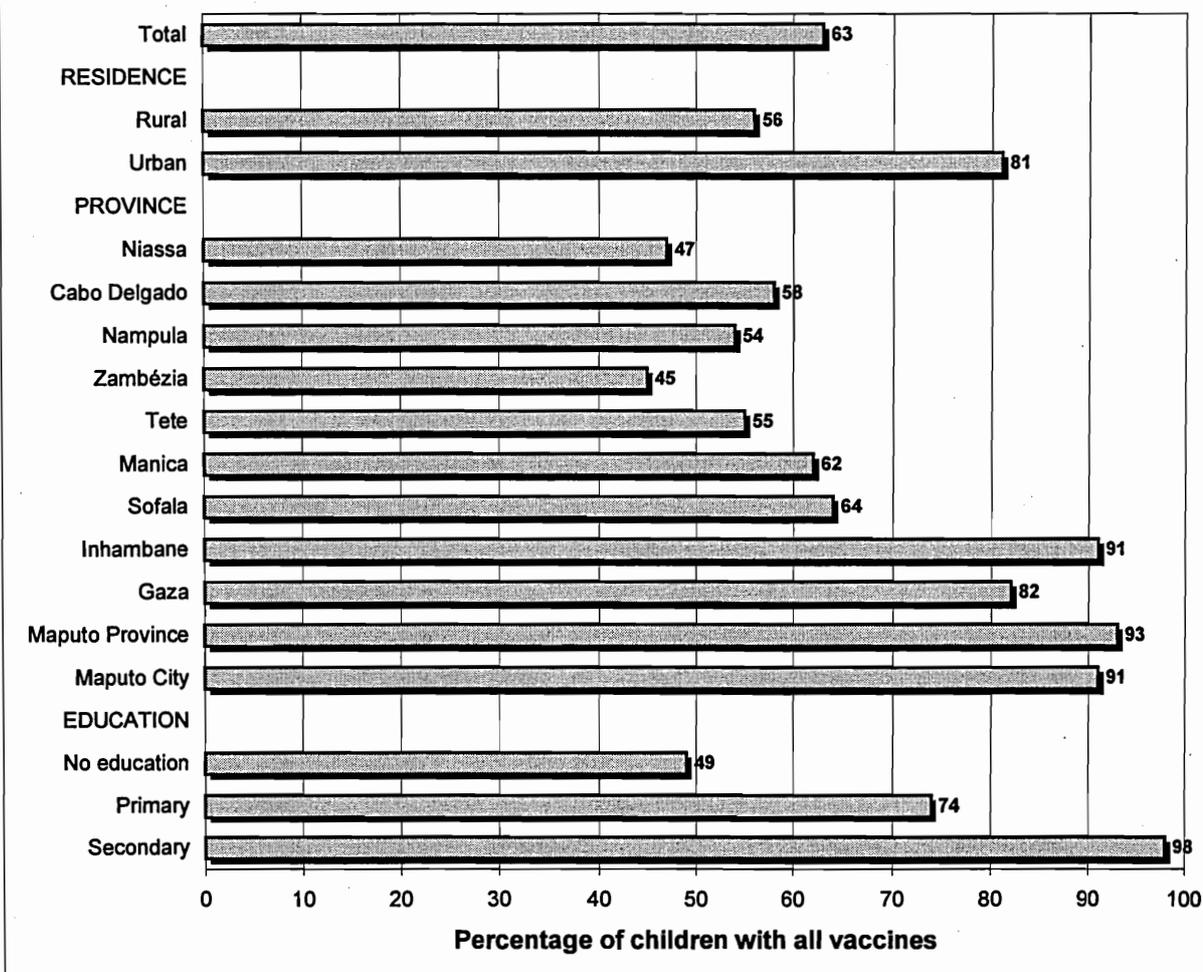
Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a health card or the mother's report), and percentage with a health card, by background characteristics, Mozambique 2003

Background characteristic	Percentage of children who received:											Percentage with health card	Number of children
	BCG	DPT			Polio ¹				Measles	All ²	None		
		1	2	3	0	1	2	3					
Residence													
Rural	83.6	83.8	76.2	65.3	60.6	83.8	73.8	63.1	70.8	56.0	11.5	74.5	1,358
Urban	96.5	96.6	92.9	86.6	90.7	95.1	91.4	84.8	90.8	80.5	2.2	86.2	575
Province													
Niassa	81.4	82.2	68.0	54.6	65.2	82.3	65.6	52.2	51.9	46.6	16.9	69.5	78
Cabo Delgado	85.3	89.2	78.7	68.9	55.4	88.8	74.9	66.4	80.2	57.9	6.8	85.5	169
Nampula	83.5	81.9	75.0	61.8	68.5	83.5	76.4	62.4	69.1	53.9	10.3	81.4	411
Zambézia	71.9	73.4	65.0	53.0	49.8	75.5	65.4	50.0	63.3	44.7	20.4	51.6	277
Tete	88.3	84.4	76.2	63.6	48.6	81.5	67.8	59.9	72.0	55.0	9.9	72.4	202
Manica	93.1	94.5	85.3	73.6	81.6	89.2	79.0	68.5	81.5	61.6	4.8	79.2	157
Sofala	86.2	88.1	85.5	77.1	74.4	84.4	78.9	73.8	74.7	63.9	10.6	78.1	138
Inhambane	99.1	99.1	96.8	93.6	83.0	99.1	97.1	93.3	92.9	90.6	0.9	93.3	147
Gaza	97.1	98.2	96.3	90.4	88.7	97.7	94.2	88.0	91.7	82.3	1.4	90.5	122
Maputo Province	100.0	100.0	99.6	98.0	98.4	100.0	98.9	97.0	95.2	92.5	0.0	90.7	127
Maputo City	99.7	99.7	97.3	97.0	91.7	99.7	97.1	94.2	96.9	91.3	0.3	85.7	106
Education													
No education	80.0	80.8	71.9	59.0	56.8	79.6	68.8	56.9	65.6	48.6	14.2	70.4	875
Primary	93.0	92.6	88.0	80.7	78.6	92.9	86.6	78.6	84.9	73.6	4.5	83.2	977
Secondary	100.0	100.0	100.0	98.6	98.4	99.1	98.5	97.6	99.1	97.6	0.0	96.2	77
Sex													
Male	87.9	87.9	81.5	72.6	70.6	86.7	79.0	69.8	77.4	63.8	8.3	78.8	999
Female	86.9	87.2	80.8	70.5	68.5	87.6	79.2	69.4	76.0	62.7	9.1	77.1	934
Birth order													
1	93.5	89.8	85.2	81.2	78.5	89.2	81.9	77.7	85.6	73.3	4.2	79.1	375
2-3	86.6	87.8	81.8	74.5	68.6	86.8	80.7	72.3	78.1	66.6	10.2	76.3	649
4-5	85.5	87.9	78.3	65.1	65.6	87.1	75.5	63.7	72.5	56.3	8.1	77.8	486
6+	85.4	84.8	79.9	66.2	67.7	85.9	78.1	64.9	71.6	57.1	11.1	79.8	422
Total	87.4	87.6	81.2	71.6	69.6	87.1	79.1	69.6	76.7	63.3	8.7	78.0	1,933

¹Polio 0 is the polio vaccination given at birth

²BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

Figure 5.3
Children Age 12-23 Months with All Vaccines at Any Time Before the Survey,
by Residence, Province, and Mother's Education



Treatment for Acute Respiratory Infection, Fever, and Diarrhea

Acute respiratory infection (ARI) is one of the leading causes of morbidity and mortality. Although improvements in nutrition are regarded as the most effective strategy for reducing ARI, early detection and treatment can reduce a large proportion of the deaths. Prevalence of ARI, fever, and diarrhea in the two weeks preceding the survey among children under five years is shown in Table 5.3. Tables 5.4.1 and 5.4.2 show, among children under five who were sick with a cough accompanied by short, rapid breathing (symptoms of ARI) or fever in the two weeks preceding the survey, the percentage for whom treatment was sought from a health facility or provider. These tables also show, among children under five who were sick with diarrhea during the two weeks preceding the survey, the percentage for whom treatment was sought from a health facility or provider, the percentage given a solution made from oral rehydration salt (ORS) packets, and the percentage given any oral rehydration therapy (ORT), by background characteristics.

Table 5.3 Prevalence of acute respiratory infection (ARI), fever, and diarrhea

Percentage of children under five years who were sick with a cough accompanied by short, rapid breathing (symptoms of acute respiratory infection), fever, or diarrhea in the two weeks preceding the survey, by residence and province, Mozambique 2003

Residence and province	ARI symptoms	Fever	Diarrhea	Number of children
Residence				
Rural	8.8	26.8	13.4	6,636
Urban	12.1	26.4	15.9	2,765
Province				
Niassa	7.5	16.3	11.6	455
Cabo Delgado	10.8	36.8	18.3	806
Nampula	9.3	38.4	21.8	1,966
Zambézia	6.3	18.1	9.5	1,473
Tete	4.7	14.2	7.0	948
Manica	7.9	20.0	14.0	740
Sofala	7.2	23.0	12.4	688
Inhambane	19.6	36.5	13.3	741
Gaza	11.1	28.6	9.6	483
Maputo Province	7.3	20.2	8.7	613
Maputo City	26.1	29.2	21.2	487
Total	9.8	26.7	14.1	9,400

The results in Table 5.4.1 are shown by age of the child, and in Table 5.4.2, they are shown by background characteristics. Table 5.4.2 also presents knowledge of ORS packets among mothers. Information on feeding practices during the episodes of diarrhea—amount of liquids and amount of food offered compared with normal practice—is presented in Table 5.5 by background characteristics.

Ten percent of children under five years were sick with symptoms of ARI in the two weeks preceding the survey, 27 percent were sick with fever, and 14 percent were sick with diarrhea. The lowest levels of prevalence for the three conditions are observed in Tete—5, 14, and 7 percent, respectively. Children in Maputo City are five times as likely as

children from Tete to have ARI. Children in Maputo City and in Nampula are three times as likely as children from Tete to have diarrhea. In Nampula, Cabo Delgado, and Inhambane, almost 40 percent of children under five years had diarrhea in the two weeks preceding the survey.

Treatment from a health facility or provider was sought for 51 percent of children who were sick with ARI and for 49 percent who were sick with diarrhea. Among those who had diarrhea, 49 percent received ORS, and 70 percent received ORT. Increased fluids are included as treatment of diarrhea in addition to ORS.

The highest levels of treatment for both ARI and diarrhea are found in Manica—66 and 60 percent, respectively;— the lowest are in Zambézia and Niassa. In Zambézia, only 23 percent of children under five years who are sick with diarrhea received ORS. Zambézia is also the province with the lowest percentage of mothers who know about ORS packets (71 percent). This knowledge is almost universal in the other provinces, with the exception of Niassa, Nampula, and Manica.

Regarding feeding practices during diarrhea, 47 percent of children with diarrhea were offered more liquids, compared with normal practice, and 36 percent were offered less (Table 5.5). Only 26 percent of children with diarrhea in Cabo Delgado and 36 percent in Zambézia and Inhambane were offered more liquids. The figures for Maputo City and Maputo Province are 65 and 71 percent, respectively.

Table 5.4.1 Treatment of acute respiratory infection, fever, and diarrhea, by age and sex of child

Among children under five years who were sick with a cough accompanied by short, rapid breathing (symptoms of acute respiratory infection) or fever in the two weeks preceding the survey, percentage for whom treatment was sought from a health facility or provider, and among children under five years who were sick with diarrhea during the two weeks preceding the survey, percentage for whom treatment was sought from a health facility or provider, percentage given a solution made from packets of oral rehydration salts (ORS), and percentage given any oral rehydration therapy (ORT), by age and sex of child, Mozambique 2003

Characteristic	Treatment of ARI		Treatment of diarrhea			
	Percentage for whom treatment was sought from a health facility or provider ¹	Number of children with ARI/fever	Percentage for whom treatment was sought from a health facility or provider ¹	Received ORS	Received ORT ²	Number of children with diarrhea
Age in months						
<6	54.7	252	37.7	40.9	66.3	121
6-11	57.4	442	58.6	54.6	69.9	269
12-23	53.2	778	49.8	53.2	70.3	445
24-35	46.5	558	44.7	44.8	71.5	227
36-47	48.9	501	44.7	40.4	73.2	179
48-59	48.8	345	47.6	42.1	70.4	86
Sex						
Male	49.3	1,415	48.7	47.3	67.4	675
Female	53.5	1,461	48.9	49.8	73.6	652
Total	51.4	2,877	48.8	48.5	70.5	1,328

¹Excludes pharmacy, shop, and traditional practitioner.

²Includes ORS, recommended home fluid, or increased fluids

Table 5.4.2 Treatment of acute respiratory infection, fever, and diarrhea, by background characteristics

Among children under five years who were sick with a cough accompanied by short, rapid breathing (symptoms of acute respiratory infection) or fever in the two weeks preceding the survey, percentage for whom treatment was sought from a health facility or provider; percentage of mothers who know about ORS packets; and among children under five years who were sick with diarrhea during the two weeks preceding the survey, percentage for whom treatment was sought from a health facility or provider, percentage given a solution made from packets of oral rehydration salts (ORS), and percentage given any oral rehydration therapy (ORT), by background characteristics, Mozambique 2003

Background characteristic	Treatment of ARI		Knowledge of ORS		Treatment of diarrhea			
	Percentage for whom treatment was sought from a health facility or provider ¹	Number of children with ARI/fever	Percentage of mothers who know about ORS packets	Number of mothers	Percentage for whom treatment was sought from a health facility or provider ¹	Received ORS	Received ORT ²	Number of children with diarrhea
Residence								
Rural	46.6	2,001	83.4	4,940	46.6	41.7	62.0	887
Urban	62.3	876	95.0	2,239	53.1	62.2	87.4	440
Province								
Niassa	41.8	97	78.1	326	30.6	42.9	56.3	53
Cabo Delgado	54.8	327	92.3	638	57.1	50.4	60.2	147
Nampula	50.7	820	81.3	1,458	57.7	55.6	77.2	429
Zambézia	37.0	293	70.6	1,118	26.5	22.8	59.4	140
Tete	51.5	143	95.9	694	38.6	41.9	59.0	66
Manica	65.7	186	82.3	535	60.2	30.5	66.7	104
Sofala	54.6	178	95.1	524	44.4	37.3	66.0	86
Inhambane	48.8	325	91.1	576	41.0	45.9	60.0	99
Gaza	59.7	161	99.4	381	53.1	68.1	82.7	47
Maputo Province	51.4	140	99.7	519	52.3	72.9	95.3	53
Maputo City	55.7	206	98.5	409	41.7	66.4	86.0	103
Education								
No education	44.4	1,233	79.7	3,177	46.3	40.7	64.7	612
Primary	55.4	1,530	92.3	3,666	49.0	53.2	73.5	658
Secondary	73.8	111	98.0	325	72.2	76.5	97.0	58
Total	51.4	2,877	87.0	7,179	48.8	48.5	70.5	1,328

¹Excludes pharmacy, shop, and traditional practitioner

²Includes ORS, recommended home fluids, or increased fluids

Table 5.5 Feeding practices during diarrhea

Percent distribution of children under five years who had diarrhea in the two weeks preceding the survey, by amount of liquids and food offered, compared with normal practice, according to background characteristics, Mozambique 2003

Background characteristic	Amount of liquids/solid food offered						Total	Number of children
	Same	More	Slightly less	Much less	Nothing	Don't know/missing		
LIQUIDS								
Residence								
Rural	11.8	38.8	24.0	19.7	4.4	1.3	100.0	887
Urban	11.7	62.7	13.1	8.7	3.3	0.5	100.0	440
Province								
Niassa	21.8	42.5	24.8	7.2	3.4	0.4	100.0	53
Cabo Delgado	6.0	27.2	36.1	26.9	1.9	1.8	100.0	147
Nampula	11.1	50.2	17.8	18.5	2.4	0.0	100.0	429
Zambézia	16.0	37.1	17.0	19.6	4.0	6.3	100.0	140
Tete	8.9	47.1	28.7	6.7	8.6	0.0	100.0	66
Manica	17.1	52.5	17.3	8.9	4.1	0.0	100.0	104
Sofala	10.5	42.4	11.5	31.6	4.0	0.0	100.0	86
Inhambane	7.0	36.7	27.4	16.2	12.7	0.0	100.0	99
Gaza	14.8	57.4	20.3	5.2	2.3	0.0	100.0	46
Maputo Province	10.0	70.9	18.0	0.0	1.1	0.0	100.0	53
Maputo City	13.3	65.2	10.9	3.1	5.5	2.0	100.0	103
Education								
No education	12.2	38.4	22.6	20.7	4.9	1.2	100.0	612
Primary	11.1	52.5	19.8	12.0	3.5	1.0	100.0	658
Secondary	13.6	68.4	3.7	12.4	1.9	0.0	100.0	58
Total	11.8	46.7	20.4	16.0	4.1	1.0	100.0	1,328
SOLID FOOD								
Residence								
Rural	19.8	14.2	29.9	23.1	11.4	1.5	100.0	887
Urban	18.7	24.2	21.2	22.0	9.7	4.3	100.0	440
Province								
Niassa	31.1	12.9	25.5	15.3	13.7	1.5	100.0	53
Cabo Delgado	10.1	4.5	34.1	29.1	19.5	2.8	100.0	147
Nampula	16.6	21.2	24.2	26.3	7.9	3.8	100.0	429
Zambézia	25.0	22.6	26.9	15.0	4.7	5.7	100.0	140
Tete	15.8	14.4	26.6	23.9	19.3	0.0	100.0	66
Manica	24.0	30.5	28.4	12.3	4.8	0.0	100.0	104
Sofala	20.3	11.0	15.5	48.7	4.5	0.0	100.0	86
Inhambane	20.2	11.9	35.8	15.3	16.7	0.0	100.0	99
Gaza	24.5	13.9	35.0	14.6	12.0	0.0	100.0	46
Maputo Province	28.7	20.0	24.1	10.0	17.2	0.0	100.0	53
Maputo City	20.7	16.2	27.5	19.1	14.1	2.5	100.0	103
Education								
No education	19.6	15.8	28.2	24.9	10.1	1.4	100.0	612
Primary	19.5	16.7	27.6	21.4	12.2	2.6	100.0	658
Secondary	17.8	44.4	8.5	15.5	3.3	10.5	100.0	58
Total	19.5	17.5	27.0	22.8	10.9	2.4	100.0	1,328

INFANT FEEDING AND NUTRITIONAL STATUS

This section covers two related topics: infant feeding (including breastfeeding practices, introduction of supplementary weaning foods, and use of feeding bottles) and nutritional status (based on height and weight measurements of children under five years).

Infant feeding has an impact on both the child and the mother. Feeding practices are important determinants of the child's nutritional status, which in turn influences the risk of dying. The mother is affected by breastfeeding through its effects on postpartum infertility, which is related to the length of birth intervals and thus fertility levels. These effects are influenced by both the duration and intensity of breastfeeding and by the age at which the child receives supplemental foods and liquids. Breast milk is sterile and contains all nutrients needed by children in the first few months of life. In addition, it provides some immunity to disease through the mother's antibodies. This breastfeeding helps in reducing the prevalence of diarrhea and nutritional deficiencies.

Breastfeeding and Supplementation

UNICEF and WHO recommend that children be exclusively breastfed (no other complementary liquid, solid food, or plain water) during the first six months of life and that children be given solid (semisolid) complementary food beginning with the seventh month of life. The standard indicator of exclusive breastfeeding is the percentage of children less than six months of age who are exclusively breastfeeding. The standard indicator of timely complementary feeding is the percentage of children 6-9 months of age who are breastfeeding and receiving complementary foods. Giving other milk to children is acceptable after the first six months but breastfeeding is recommended to be continued through the second year of life. The use of bottles with nipples is not recommended at any age.

The percent distribution of living children under three years living with the mother by breastfeeding status at the time of the survey, is shown in Table 6.1, according to age in months. The table can be used to derive the percentages of predominant breastfeeding (sum of exclusive breastfeeding, breastfeeding plus plain water, and breastfeeding plus water-based liquids/juice). Also shown is the percentage of children using a bottle with a nipple in the day or night before the interview.

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 of not breastfeeding; exclusively breastfed; and breastfeeding with water, water-based liquids, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus, children who receive breast milk and water-based liquids and those who do not receive complementary foods are classified in the water-based liquid category, even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

Among children under three years of age, 98 percent are breastfed for at least one year, but among children who should be exclusively breastfed (children under six months), only 30 percent of children are. Although the introduction of complementary food is recommended between six and nine months, 22 percent of children under six months already received other foods in addition to breast milk.

Table 6.1 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, Mozambique 2003

Age in months	Not breast-feeding	Exclusively breast-fed	Breastfeeding and consuming:				Total	Number of children	Percentage using a bottle with a nipple ¹	Number of living children
			Plain water only	Water-based liquids/juice	Other milk	Complementary foods				
Total										
<2	0.2	49.8	35.9	4.1	1.9	8.0	100.0	323	6.7	327
2-3	0.7	28.6	47.7	3.5	7.0	12.5	100.0	385	7.3	392
4-5	1.2	13.7	32.1	4.7	3.1	45.2	100.0	358	10.9	364
6-7	0.7	5.2	16.8	2.0	1.0	74.2	100.0	372	8.0	377
8-9	2.4	1.6	9.0	1.0	0.4	85.7	100.0	335	12.8	341
10-11	2.1	1.4	1.9	0.0	0.7	93.9	100.0	297	7.6	300
12-15	6.0	1.0	1.3	0.2	0.0	91.6	100.0	682	7.9	700
16-19	14.9	0.4	1.9	0.0	0.0	82.8	100.0	645	6.4	665
20-23	35.5	0.2	0.1	0.0	0.1	64.1	100.0	549	6.0	568
24-27	68.4	1.0	0.3	0.0	0.0	30.3	100.0	502	6.9	589
28-31	79.8	0.2	0.4	0.0	0.0	19.5	100.0	479	4.4	633
32-35	87.2	0.2	0.5	0.0	0.0	12.1	100.0	297	4.3	455
<4	0.5	38.3	42.4	3.8	4.7	10.5	100.0	707	7.0	719
<6	0.7	30.0	38.9	4.1	4.2	22.1	100.0	1,065	8.3	1,082
6-9	1.5	3.5	13.1	1.5	0.7	79.7	100.0	707	10.3	718
Rural										
<4	0.0	41.4	42.0	2.5	1.1	13.1	100.0	501	2.3	505
<6	0.3	32.1	37.9	3.2	1.2	25.2	100.0	766	3.3	776
6-9	0.5	4.1	14.5	1.4	0.0	79.4	100.0	491	5.7	501
Urban										
<4	1.6	30.7	43.2	6.9	13.5	4.1	100.0	206	18.3	213
<6	1.8	24.6	41.5	6.2	11.7	14.3	100.0	299	21.2	307
6-9	3.8	2.0	9.9	1.8	2.3	80.2	100.0	216	20.8	217

¹ Based on all children, not just the youngest child

Micronutrient Intake among Children and Mothers

Micronutrient deficiency is a serious contributor to childhood morbidity and mortality. Children can receive micronutrients from foods, food fortification, and direct supplementation. The percentage of youngest children under age three living with the mother and who consumed fruits and vegetables rich in vitamin A in the seven days preceding the survey, and the percentage of children age 6-59 months who received vitamin A supplements in the six months preceding the survey are shown in Table 6.2 by background characteristics.

Breastfed children benefit from supplements that mothers receive, especially vitamin A. The mother's nutritional status during pregnancy is important both for the child's intrauterine development and for protection against maternal morbidity and mortality. Night blindness is taken as an indicator of severe vitamin A deficiency, to which pregnant women are especially prone. Table 6.3 presents indicators of micronutrient intake among mothers, particularly the percentage of women who gave birth in the five years preceding the survey and who received a vitamin A dose in the first two months after delivery, the percentage who suffered from night blindness during pregnancy, and the percentage who took iron tablets or syrup for specific numbers of days, by background characteristics. A summary is presented in Figure 6.1.

Fifty percent of children under three years consumed fruits and vegetables rich in vitamin A in the seven days preceding the survey, and half of all children age 6-59 months are reported to have received vitamin A supplements in the previous six months. Consumption of fruits and

vegetables increases with age. The highest levels of consumption are found in Sofala and Gaza—around 62 percent. Almost 80 percent of children in Maputo City consumed supplements, compared with only 35 percent in Niassa.

Only one in five women received vitamin A postpartum, with little difference by age of the mother or number of children ever born, as indicated by the birth order of the child. However, there are large differentials by education and place of residence. Forty-one percent of women with secondary education received vitamin A postpartum, compared with 16 percent of women with no education. On the other hand, mothers in urban areas are almost twice as likely as those in rural areas to receive vitamin A postpartum—30 versus 17 percent.

Differentials by province are striking. Excluding Maputo City, where 67 percent of mothers received a vitamin A dose in the first two months after delivery, the highest levels are found in Zambézia (37 percent) and Manica (34 percent). In Inhambane and Gaza, only 1 percent of mothers received vitamin A postpartum, and in Nampula, just 6 percent.

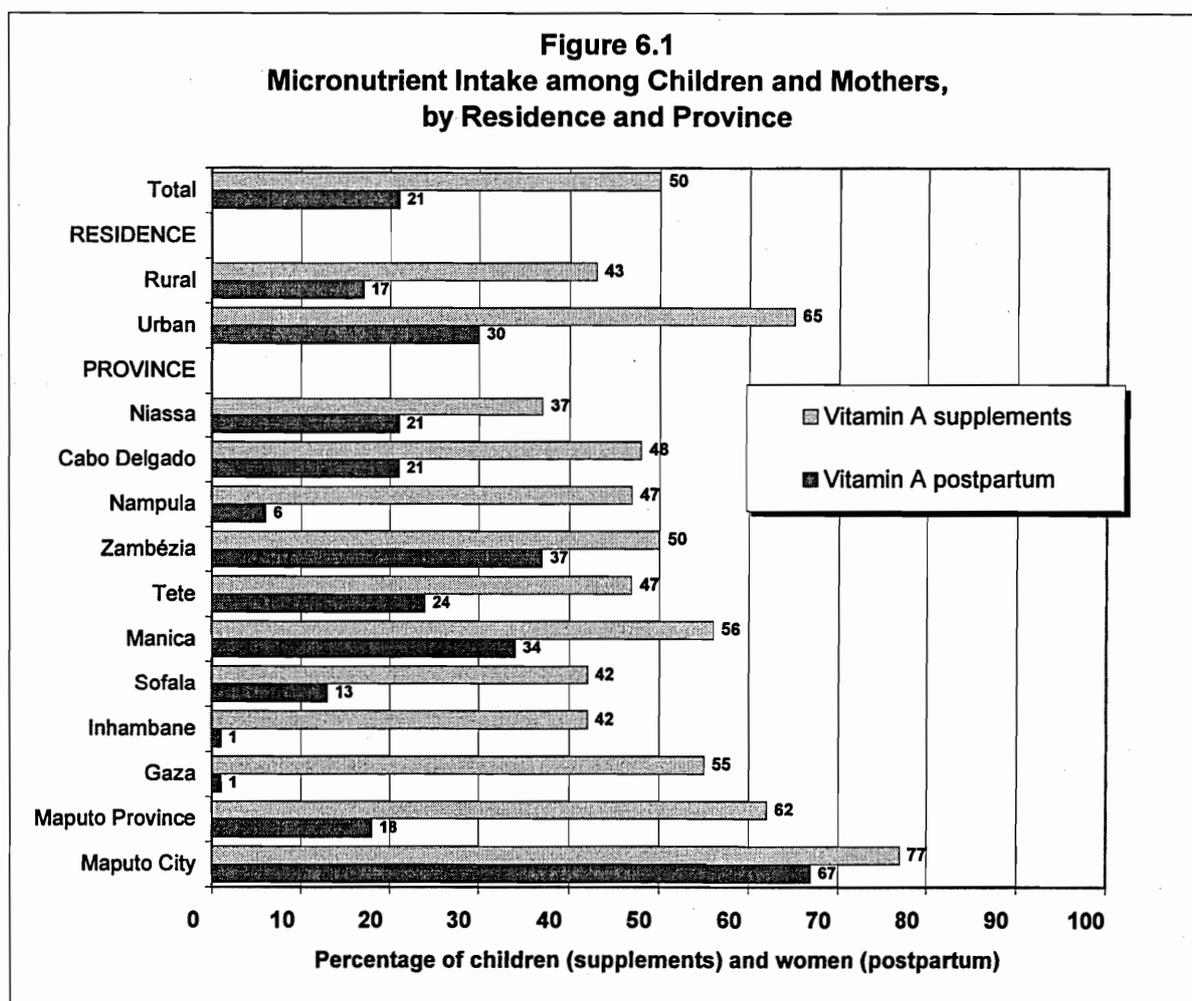


Table 6.2 Micronutrient intake among children

Percentage of youngest children **under age three** living with the mother and who consumed fruits and vegetables rich in vitamin A in the seven days preceding the survey, and percentage of children **age 6-59 months** who received vitamin A supplements in the six months preceding the survey, by background characteristics, Mozambique 2003

Background characteristic	Among youngest children under three		Among children age 6-59	
	Consumed fruits and vegetables rich in vitamin A ¹	Number of children under three	Consumed vitamin A supplements	Number of children age 6-59 months
Residence				
Rural	50.6	3,707	43.4	5,860
Urban	48.3	1,516	65.0	2,458
Province				
Niassa	57.8	247	36.5	398
Cabo Delgado	45.3	469	47.8	713
Nampula	41.4	1,084	46.7	1,741
Zambézia	46.7	814	49.8	1,283
Tete	51.4	515	46.8	865
Manica	55.0	425	56.0	637
Sofala	63.8	385	42.4	607
Inhambane	51.1	399	41.7	668
Gaza	60.5	282	54.7	431
Maputo Province	52.7	333	62.2	540
Maputo City	48.3	272	77.0	435
Mother's education				
No education	49.9	2,372	40.3	3,812
Primary	50.0	2,616	56.5	4,180
Secondary	50.7	226	76.0	316
More than secondary	*	*	*	10
Age in months				
<6	2.6	1,065	na	na
6-9	26.4	707	44.7	718
10-11	59.2	297	61.2	300
12-23	68.7	1,876	61.3	1,933
24-35	72.8	1,277	52.3	1,677
36-47	na	na	45.0	1,977
48-59	na	na	40.0	1,714
Birth order				
1	49.0	1,008	52.4	1,745
2-3	48.9	1,797	50.1	2,910
4-5	51.3	1,288	49.5	1,941
6+	50.9	1,132	47.0	1,723
Sex				
Male	49.4	2,588	48.9	4,098
Female	50.5	2,636	50.7	4,220
Breastfeeding status				
Breastfeeding	42.6	3,893	54.4	2,949
Not breastfeeding	71.6	1,286	47.7	5,116
Missing	68.1	44	37.8	253
Mother's age at birth				
<20	47.1	1,038	51.7	1,810
20-24	49.5	1,390	51.8	2,304
25-29	49.8	1,228	48.3	1,896
30-34	49.7	808	46.7	1,192
35-49	55.2	760	48.5	1,117
Total	49.9	5,224	49.8	8,318

Note: Information on vitamin A supplements is based on mother's recall. An asterisk indicates that a figure is based on fewer than 30 unweighted cases and has been suppressed.

na = Not applicable

¹Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables rich in vitamin A

Table 6.3 Micronutrient intake among mothers

Percentage of women with a birth in the five years preceding the survey and who received a vitamin A dose in the first two months after delivery, percentage who suffered from night blindness during pregnancy, and percentage who took iron tablets or syrup for specific numbers of days, by background characteristics, Mozambique 2003

Background characteristic	Received vitamin A dose post-partum ¹	Suffered night blindness during pregnancy		Percent distribution of number of days women took iron/folic acid tablets during pregnancy						Number of women
		Reported	Adjusted ²	None	<60	60-89	90+	DK/missing	Total	
Residence										
Rural	16.6	4.9	1.4	48.7	25.0	13.4	10.5	2.4	100.0	4,940
Urban	30.0	6.2	1.4	18.6	35.8	17.9	22.6	5.1	100.0	2,239
Province										
Niassa	20.7	4.2	0.8	41.5	36.7	15.2	5.3	1.3	100.0	326
Cabo Delgado	20.8	4.5	1.4	32.9	23.1	23.5	18.2	2.4	100.0	638
Nampula	5.9	8.2	1.7	49.2	21.9	11.8	15.9	1.3	100.0	1,458
Zambézia	36.7	8.0	3.1	67.9	20.7	7.1	2.9	1.5	100.0	1,118
Tete	23.9	1.6	0.2	39.7	31.3	14.4	12.7	1.9	100.0	694
Manica	33.8	2.7	0.5	32.7	42.5	14.1	9.1	1.6	100.0	535
Sofala	13.4	4.6	1.1	30.6	30.8	21.2	15.7	1.6	100.0	524
Inhambane	1.4	5.6	1.7	39.9	30.4	17.0	10.5	2.2	100.0	576
Gaza	1.1	1.8	0.6	30.2	38.4	18.6	11.2	1.5	100.0	381
Maputo Province	17.8	4.1	1.1	6.3	29.2	13.7	33.5	17.3	100.0	519
Maputo City	66.5	5.1	0.6	3.5	34.3	20.5	31.9	9.8	100.0	409
Education										
No education	15.5	6.4	1.7	52.7	22.1	13.4	9.8	2.0	100.0	3,177
Primary	23.5	4.6	1.2	30.5	33.5	15.8	16.1	4.1	100.0	3,666
Secondary	41.1	2.2	0.9	9.6	31.9	18.3	34.1	6.1	100.0	325
More than secondary	*	*	*	*	*	*	*	*	*	11
Age at birth										
<20	21.2	5.4	1.6	37.6	30.9	14.6	13.9	3.0	100.0	1,468
20-24	21.3	5.7	1.6	38.5	29.4	15.3	14.0	2.8	100.0	1,904
25-29	20.6	5.5	1.4	41.8	27.3	13.0	14.8	3.2	100.0	1,604
30-34	21.7	4.6	0.9	38.9	27.8	16.1	13.4	3.8	100.0	1,110
35-49	18.6	5.0	1.2	40.2	25.2	15.4	15.3	4.0	100.0	1,093
Number of children ever born										
1	22.8	5.9	1.7	33.4	31.2	14.9	16.6	3.8	100.0	1,456
2-3	20.7	5.0	1.6	39.7	27.5	14.8	14.9	3.1	100.0	2,400
4-5	19.7	5.0	0.8	41.6	28.5	12.9	13.6	3.3	100.0	1,716
6+	20.2	5.6	1.5	41.8	26.9	16.6	11.8	2.9	100.0	1,606
Total	20.8	5.3	1.4	39.3	28.4	14.8	14.3	3.3	100.0	7,179

Note: For women with two or more live births in the five-year period, data refer to the most recent birth. An asterisk indicates that a figure is based on fewer than 30 unweighted cases and has been suppressed.

¹In the first two months after delivery

²Women who reported night blindness but did not report difficulty with vision during the day

Nutritional Status of Children

Children's nutritional status influences their susceptibility to disease and untimely death; it also reflects infant and child feeding practices as well as recurrent and chronic infections. One of the major contributions of the **2003 MDHS** to the study of child health status is the anthropometric data collected for all children under five years of age. Both height (length) and weight measurements were obtained for each child.

The Shorr measuring boards that were used in the survey are equipped with an extension for measuring adults. The SECA digital bathroom scales used to weigh women and children have an accuracy of 100 grams. The data allow for calculation of the following indicators of nutritional status: height-for-age, weight-for-height, and weight-for-age. As recommended by the World Health Organization (WHO), the nutritional status of children in the survey is compared with an international reference population defined by the U.S. National Center for Health Statistics (NCHS) and accepted by the U.S. Centers for Disease Control and Prevention (CDC).

The height-for-age index is an indicator of linear growth retardation. Children whose height-for-age is more than two standard deviations below the median (-2 SD) of the reference population are considered short for their age, or “stunted,” and are chronically undernourished. Children who are more than three standard deviations below the median (-3 SD) of the reference population are considered “severely stunted.” Stunting reflects the outcome of a failure to receive adequate nutrition over a long period of time, and is also affected by recurrent and chronic illness. Stunted children are not immediately obvious in a population; a stunted three-year-old child could look like a well-fed two-year-old.

The weight-for-height index measures body mass in relation to body length and describes current nutritional status. Children who are more than two standard deviations below the median (-2 SD) of the reference population are considered thin, or “wasted,” and are acutely undernourished. Wasting represents the failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of recent episodes of illness, causing loss of weight and the onset of undernutrition. Wasting may also reflect an acute food shortage. Children whose weight-for-height is more than three standard deviations below the median (-3 SD) of the reference population are considered to be “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 undernutrition. It is a useful tool in clinical settings for continuous assessment of nutritional progress and growth. Children whose weight-for-age is more than two standard deviations below the median (-2 SD) of the reference population are classified as “underweight.” In the reference population, only 2.3 percent of children fall more than two standard deviations below the median of the reference population for each of the three indices.

The validity of the nutritional indices is determined by the coverage of the population of children under study and the standardization of the measurement procedures. For example, although the term “height” is used here, children younger than 24 months are measured lying down on the measuring board (recumbent length); standing height is the standard for measuring older children. In the **2003 MDHS**, all children under five years of age whose mothers were interviewed were eligible to be included in the anthropometric data collection.

Table 6.4 shows the percentage of children under five years of age classified as undernourished according to height-for-age, weight-for-height, and weight-for-age indices, by the child’s age group and selected demographic characteristics. The table presents the percentage of children more than two standard deviations below the median of the reference population. The percentage of children who are severely malnourished (i.e., who fall more than three standard deviations below the reference population median) is also shown. A summary of children who are stunted and underweight, by residence and province, is presented in Figure 6.2.

Table 6.4 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, Mozambique 2003

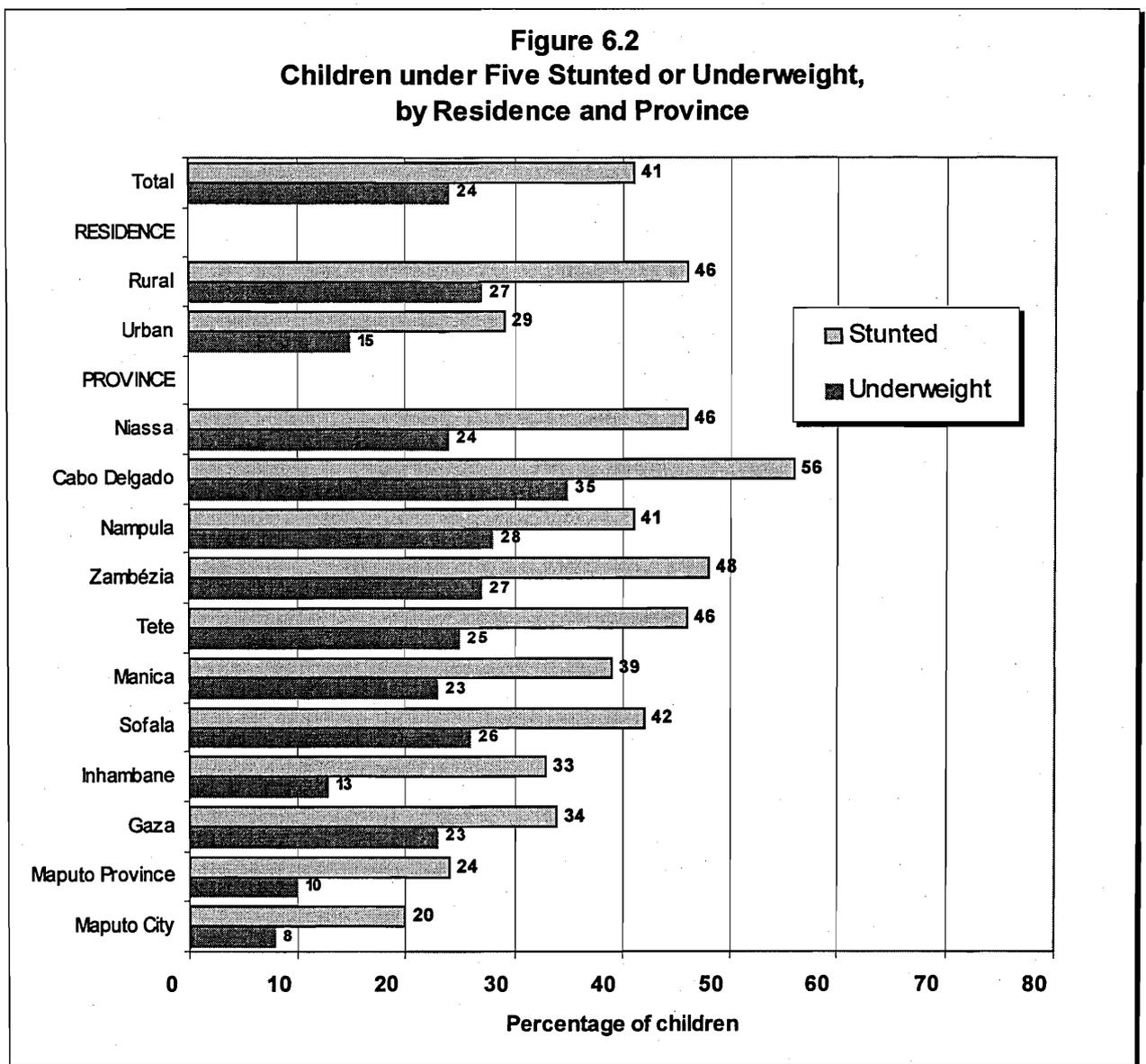
Background characteristic	Height-for-age (stunted)		Weight-for-height (wasted)		Weight-for-age (underweight)		Number of children
	Percent-age below -3 SD	Percent-age below -2 SD ¹	Percent-age below -3 SD	Percent-age below -2 SD ¹	Percent-age below -3 SD	Percent-age below -2 SD ¹	
Residence							
Rural	21.2	45.7	1.0	4.3	7.6	27.1	6,190
Urban	10.4	29.2	0.7	3.1	3.6	15.2	2,507
Province							
Niassa	24.0	47.0	0.6	1.3	4.6	25.1	384
Cabo Delgado	30.4	55.6	0.9	4.1	9.2	34.2	693
Nampula	18.7	42.1	1.7	6.0	8.0	28.2	1,823
Zambézia	24.6	47.3	0.8	5.2	8.9	26.9	1,353
Tete	18.1	45.6	0.3	1.6	5.8	25.1	948
Manica	16.8	39.0	0.6	2.8	5.8	22.9	678
Sofala	17.4	42.3	2.9	7.6	8.7	26.2	624
Inhambane	12.3	33.1	0.1	1.3	2.0	12.8	740
Gaza	11.7	33.6	1.0	6.7	6.0	22.6	504
Maputo Province	5.3	23.9	0.0	0.5	2.3	9.2	543
Maputo City	5.9	20.6	0.1	0.8	1.4	7.9	407
Mother's education							
No education	20.2	46.9	0.3	3.9	10.6	31.1	141
Primary	18.5	41.8	0.9	4.0	6.5	24.4	7,739
Secondary	5.2	15.0	2.0	4.4	3.7	12.1	311
Mother's age							
15-19	17.9	40.3	1.5	4.7	8.2	27.2	787
20-24	19.2	42.2	1.0	4.1	7.0	23.8	2,219
25-29	17.3	40.4	1.7	4.9	6.5	23.1	2,214
30-34	17.6	39.2	0.4	3.1	4.5	22.5	1,645
35-49	18.3	42.0	0.2	3.2	6.6	23.7	1,833
Mother's status							
Mother interviewed	18.1	41.0	0.9	4.0	6.4	24.0	7,850
Mother not interviewed							
But in household	16.2	36.7	1.0	3.9	7.0	23.6	350
Not in household	18.6	43.5	1.2	3.5	6.1	18.1	486
Age of child in months							
<6	02.3	12.0	0.1	1.3	1.0	5.4	912
6-9	10.9	26.2	0.7	3.3	6.2	19.7	651
10-11	13.2	33.6	0.7	7.4	10.1	36.9	259
12-23	21.6	47.9	1.7	7.3	10.6	34.5	1,780
24-35	18.7	43.6	1.3	4.7	9.5	28.5	1,599
36-47	22.5	49.4	0.8	3.4	5.0	22.3	1,871
48-59	20.9	44.5	0.5	1.6	3.0	18.3	1,625
Sex							
Male	19.3	42.6	0.9	4.0	6.7	24.7	4,314
Female	16.9	39.4	1.0	4.0	6.2	22.6	4,384
Total	18.1	41.0	0.9	4.0	6.4	23.7	8,697

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. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. An asterisk indicates that a figure is based on fewer than 30 unweighted cases and has been suppressed.

¹Includes children who are below -3 SD from the International Reference Population median

Four in 10 children (41 percent) under five years are short for their age or stunted, and almost 2 in 10 (18 percent) are severely stunted. As expected, chronic malnutrition rises with age and is relatively low among children whose mothers have secondary education (15 percent). Children in rural areas are more likely to be stunted than children in urban areas (46 versus 29 percent). The lowest levels of stunting are found in Maputo City and Maputo Province—21 and 24 percent, respectively. In Cabo Delgado, 56 percent of children under five years are considered short for their age.

Based on the weight-for-age index, 24 percent of children under six years are considered to be underweight, and 7 percent are severely underweight. The highest level of children underweight is observed among children age 10-11 months, and in Cabo Delgado, where more than one in three children weighs below the international standard for his or her age.



This section presents information on the levels in neonatal, postneonatal, infant, and child mortality. Mortality estimates are calculated from information that was collected in the birth history section of the individual questionnaire. The section began with questions about the aggregate childbearing experience of respondents (i.e., the number of sons and daughters who live in the household, who live elsewhere, and who died). These questions were followed by a retrospective birth history in which data were obtained on sex, date of birth, survivorship status, and current age or age at death of each of the respondents' live births. The rates presented here are defined as follows:

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

The reliability of the mortality estimates is affected by the completeness of reporting deaths, the degree of displacement of birth dates of surviving and dead children, and the extent to which age at death is accurately reported.

Table 7.1 examines the variation in neonatal, postneonatal, infant, child and under-five mortality rates for successive five-year periods before the survey. Trends in infant mortality based on the 1997 DHS and the 2003 DHS are shown in Figure 7.1. Estimates by place of residence and province for the 10-year period preceding the survey—approximately 1993-2003—are presented in Table 7.2 and summarized in Figure 7.2 by residence, province, and mother's education.

One in six children dies before reaching age 5, and one in ten dies before reaching the first year. The data show an important reduction in mortality in the last few years, especially in the first month of life.

Regarding childhood mortality differentials, the results show that children of women with higher education have lower mortality rates, as expected. Children of women with no education are 2.3 times more likely to die during the first year of life than children of women with secondary school—142 versus 65 per thousand. The variations by province are notable. In Maputo City, 51 out of 1,000 births die during the first year, while in Cabo Delgado, the infant mortality rate is estimated to be 178 children per 1,000 births. Other provinces with high infant mortality rates are Nampula (164 per 1,000 births), Sofala (150 per 1,000 births), and Niassa (140 per 1,000 births).

Table 7.1 Early childhood mortality

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Mozambique 2003

Years preceding the survey	Approximate period	Neonatal mortality (NN)	Postneonatal mortality ¹ (PNN)	Infant mortality (${}_1q_0$)	Child mortality (${}_4q_1$)	Under-five mortality (${}_5q_0$)
0-4	1998-2003	37	64	101	58	153
5-9	1993-1998	60	89	149	68	207
10-14	1988-1993	59	92	151	88	226

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

**Figure 7.1
Trends in Infant Mortality, according to
1997 MDHS and 2003 MDHS**

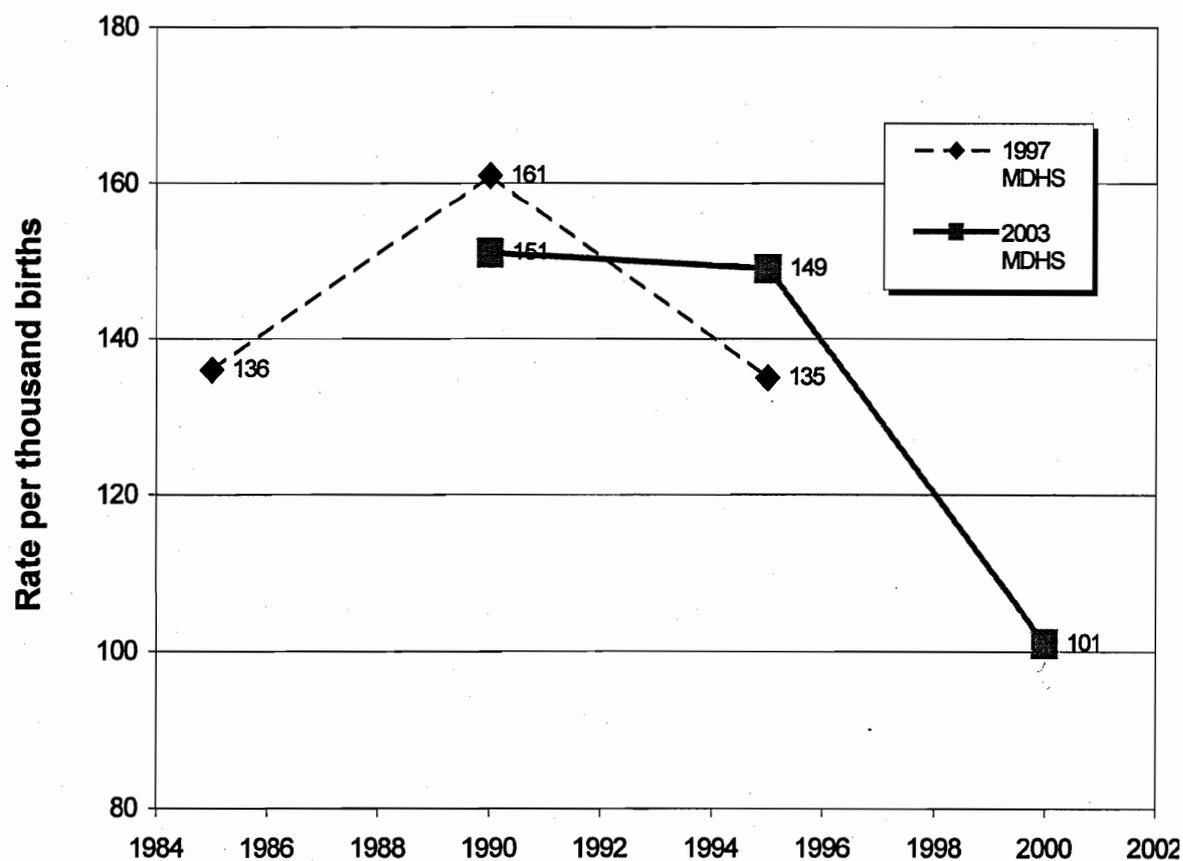


Table 7.2 Early childhood mortality by background characteristics

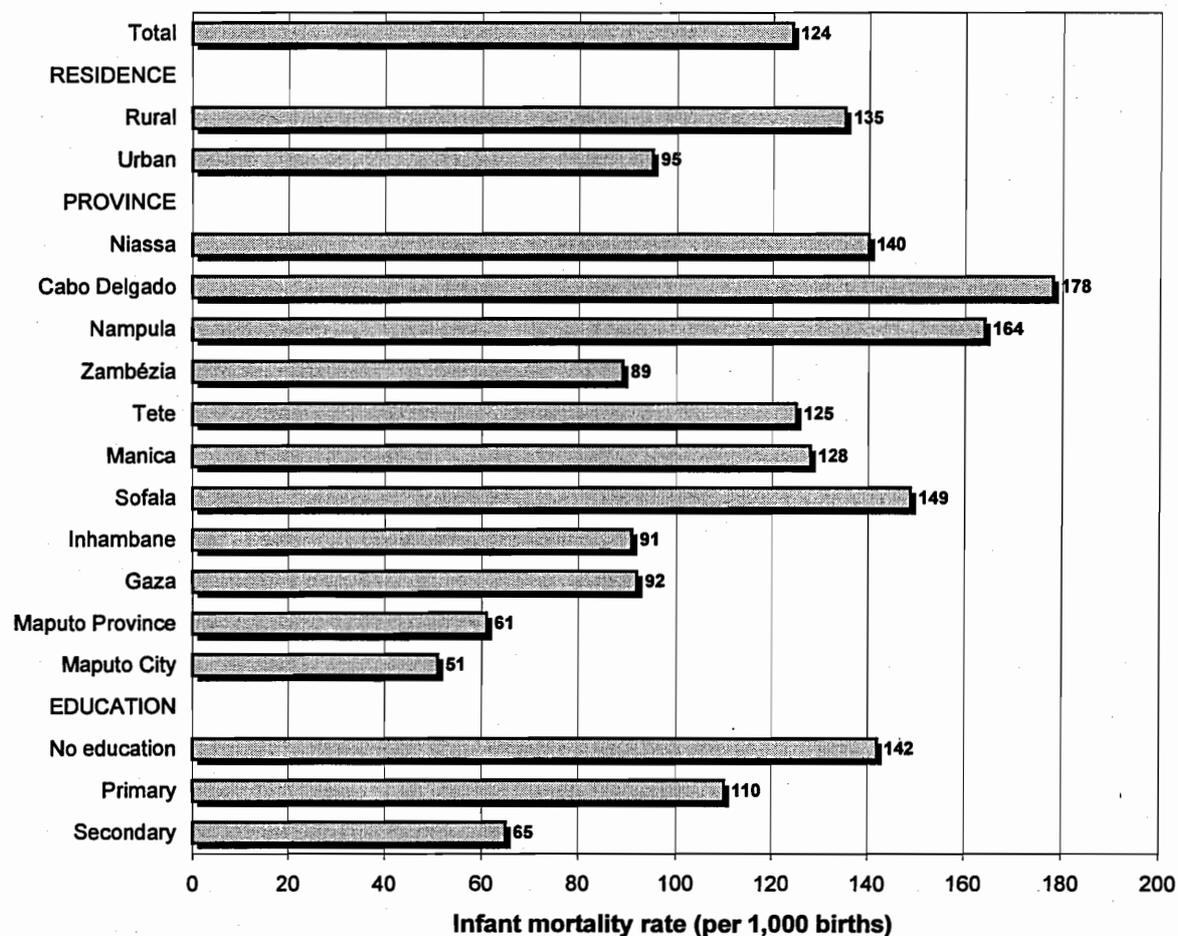
Neonatal, postneonatal, infant, child, and under-five mortality rates for the ten-year period preceding the survey, by background characteristics, Mozambique 2003

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality ¹ (PNN)	Infant mortality (1q0)	Child mortality (4q1)	Under-five mortality (5q0)
Residence					
Rural	53	82	135	66	192
Urban	35	60	95	53	143
Province					
Niassa	57	82	140	77	206
Cabo Delgado	62	115	178	77	241
Nampula	74	90	164	66	220
Zambézia	31	59	89	37	123
Tete	42	83	125	92	206
Manica	47	81	128	64	184
Sofala	40	109	149	66	205
Inhambane	35	56	91	64	149
Gaza	38	54	92	71	156
Maputo Province	31	30	61	50	108
Maputo City	22	29	51	40	89
Mother's education					
No education	53	89	142	68	200
Primary	44	66	110	60	163
Secondary	30	34	65	24	87
More than secondary	*	*	*	*	*
Total	48	76	124	62	178

Note: An asterisk indicates that a rate is based on fewer than 250 unweighted cases and has been suppressed.

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

Figure 7.2
Infant Mortality Rates for the Ten-year Period Preceding the Survey,
by Residence, Province, and Mother's Education



Two sections of the questionnaire used in the **2003 MDHS** address issues related to HIV/AIDS and other sexually transmitted infections (STIs). In the survey, questions are asked about sexual behavior, and condom use and access. A module on “AIDS and other Sexually Transmitted Diseases,” encompasses the remaining AIDS issues and those related to STIs. However, the module also includes a series of questions on mobility, alcohol use, and use of injections, which will be used (in some settings) in cross-tabulations against other risk-related behaviors.

Age at First Sexual Intercourse

Age at sexual debut is an important indicator for many reproductive health initiatives including those involving HIV/AIDS. While age at first marriage is commonly used as a proxy for exposure to intercourse, the two events do not coincide exactly. Women may engage in sexual relations prior to marriage, especially if they are postponing the age at which they marry. The DHS in Mozambique asked women and men to state the age at which they first had sexual intercourse.

The median age at first sexual intercourse for women is presented in Table 8.1 by selected characteristics and for men in Tables 8.2.1 and 8.2.2. The median is 16.1 years for women and almost 18 years for men, with very little difference among age cohorts.

Background characteristic	Current age						Women age 20-49
	20-24	25-29	30-34	35-39	40-44	45-49	
Residence							
Rural	15.7	15.8	15.8	15.8	15.9	16.4	15.8
Urban	16.6	16.6	16.7	16.6	16.6	16.8	16.6
Province							
Niassa	15.4	15.3	15.2	16.0	17.3	19.4	15.9
Cabo Delgado	15.2	15.2	14.9	15.1	15.0	15.5	15.1
Nampula	15.9	15.6	15.9	16.0	15.4	15.2	15.7
Zambézia	15.4	15.6	15.7	15.9	16.3	17.6	15.7
Tete	16.4	16.4	16.5	15.9	16.5	16.8	16.4
Manica	16.1	16.1	17.0	16.1	16.4	18.1	16.3
Sofala	16.6	16.3	16.7	16.2	16.5	18.3	16.6
Inhambane	16.2	16.0	16.0	15.9	15.9	16.2	16.0
Gaza	16.4	16.8	16.7	17.0	16.6	18.0	16.8
Maputo Province	16.8	16.8	16.5	16.3	16.5	16.4	16.6
Maputo City	16.8	17.3	17.2	17.0	17.1	17.8	17.1
Education							
No education	15.7	15.8	16.0	15.8	15.9	16.5	15.9
Primary	16.0	16.0	15.9	16.2	16.3	16.5	16.1
Secondary	17.5	18.3	17.8	17.7	18.4	19.2	17.9
Total	16.0	16.0	16.0	16.1	16.1	16.6	16.1

Table 8.2.1 Median age at first sexual intercourse for men, by residence

Median age at first sexual intercourse among men age 20-64, by current age, according to residence, Mozambique 2003

Residence	Current age									Men age 20-64
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	
Rural	16.7	16.4	17.1	17.7	17.7	18.2	19.0	19.2	19.8	17.6
Urban	16.9	17.2	17.7	18.0	18.6	18.4	18.3	20.2	19.0	17.9
Total	16.8	16.7	17.2	17.8	18.1	18.3	18.8	19.5	19.6	17.7

Table 8.2.2 Median age at first sexual intercourse for men, by background characteristics

Median age at first sexual intercourse among men age 20-64, by current age, according to background characteristics, Mozambique 2003

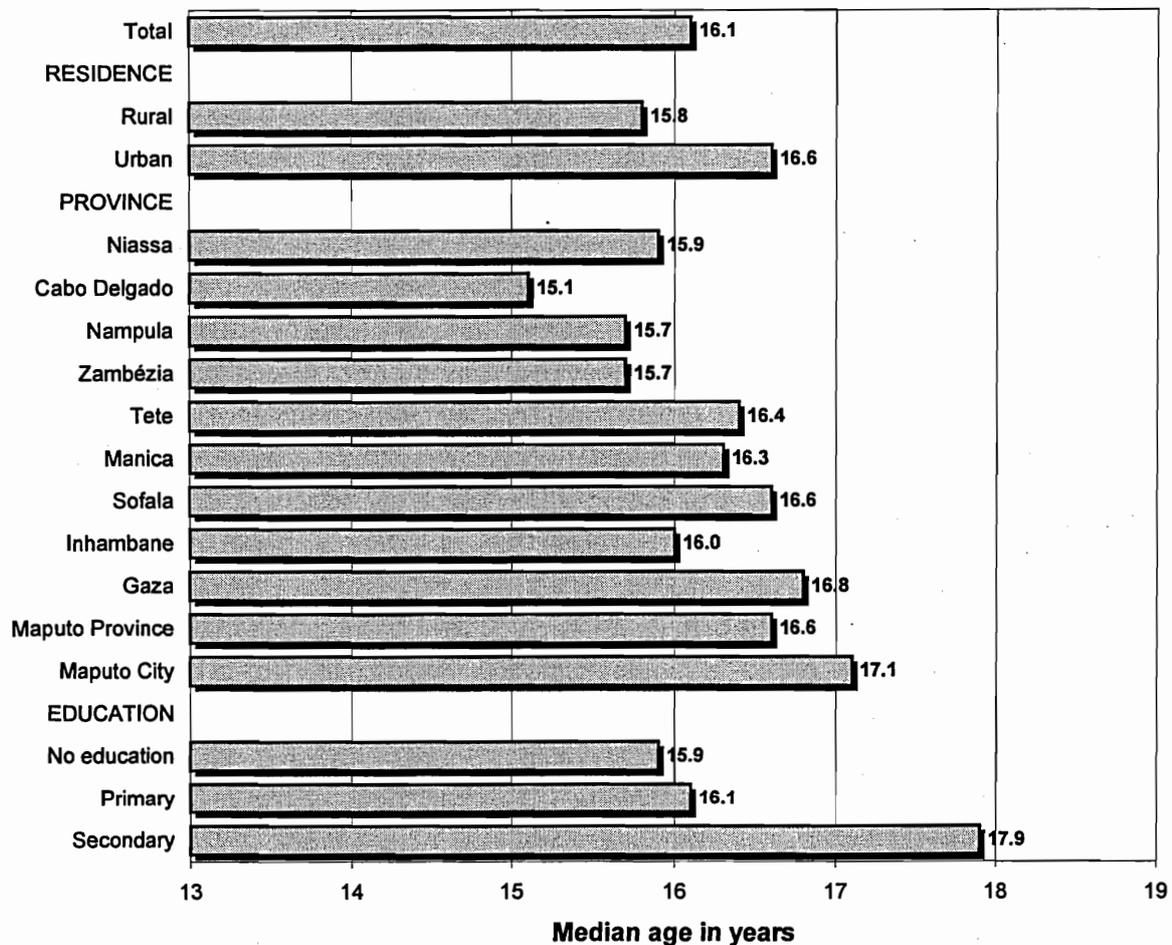
Background characteristic	Current age				Men age 20-64
	20-24	25-29	30-34	35-39	
Province					
Niassa	15.0	*	16.8	*	17.0
Cabo Delgado	*	15.5	15.8	*	16.3
Nampula	16.4	16.3	16.3	18.0	17.9
Zambézia	16.4	17.0	17.5	17.5	17.4
Tete	17.6	16.4	18.3	*	18.3
Manica	18.4	18.3	*	*	19.0
Sofala	17.6	18.3	19.8	18.3	18.8
Inhambane	*	*	*	*	18.0
Gaza	16.4	*	*	*	18.1
Maputo Province	18.0	*	*	*	17.5
Maputo City	16.8	16.9	17.0	*	17.3
Education					
No education	16.4	16.1	17.1	18.1	17.7
Primary	16.6	16.9	17.3	17.7	17.8
Secondary	17.3	16.9	17.3	17.6	17.8
Marital status					
Never married	17.2	17.5	17.7	18.2	17.4
Married	16.2	16.6	17.1	17.7	17.7
Living together	16.8	16.6	17.8	18.0	17.9
Divorced/separated	*	*	*	*	17.4
Total	16.8	16.7	17.2	17.8	17.7

Note: An asterisk indicates that a rate is based on fewer than 30 unweighted cases and has been suppressed.

Rural women have intercourse for the first time almost one year earlier than urban women, (15.8 versus 16.6 years) and women with secondary education have first intercourse two years later than women with no education (15.8 versus 17.8 years). The age at sexual debut for women in Cabo Delgado is 15 years, while in Maputo City it is 17 years. The differences in age at first sexual intercourse for men by residence, education, and marital status are small. However, men in Cabo Delgado experience first sexual intercourse more than two years earlier than men in Sofala (16.4 versus 18.8 years).

Differentials in the median age at first sexual intercourse among women age 25-49 are summarized in Figure 8.1 by residence, province, and education.

Figure 8.1
Median Age at First Sexual Intercourse among Women,
by Residence, Province and Education



Knowledge of HIV/AIDS and Methods of Prevention

A basic awareness of HIV/AIDS and acceptance that its transmission can be controlled or avoided is a necessary, if not sufficient, step towards the attitudinal and behavioral changes being promoted to stem the tide of the AIDS epidemic. In most countries, general awareness will be very high, while belief in the possibility of avoiding HIV/AIDS will be less widespread.

The **2003 MDHS** collected information on HIV/AIDS-related knowledge in two ways: 1) through an open-ended or “spontaneous” question on how HIV/AIDS can be avoided (if the respondent says that “she/he knows of AIDS” and “HIV/AIDS can be avoided”) and 2) by asking detailed “prompted” questions (probes) on specific ways to avoid HIV transmission. Table 8.3 shows the percentage of women and men who have heard of AIDS and the percentage who believe there is a way to avoid HIV/AIDS, by background characteristics.

Knowledge of AIDS is almost universal: 96 percent of women and 98 percent of men have heard of AIDS. As a result, differentials by background characteristics are minor. There are

notable differences, however, in the percentage of respondents who believe there is a way to avoid HIV/AIDS—64 percent of women and 76 percent of men—and the percentage who know at least two ways to avoid AIDS—44 percent of women and 60 percent of men (Figure 8.2). Almost all respondents with secondary education believe there is a way to avoid AIDS, compared with only half of those with no education. Respondents in Maputo Province are three times more likely to believe there is a way to avoid AIDS than those in Cabo Delgado, where only 31 percent of women and 34 percent of men believe there is a way to avoid HIV/AIDS.

Regarding knowledge by women of at least two ways to avoid HIV/AIDS, in most provinces the levels are relatively low—around 30 to 40 percent. High levels are only found in Tete and Maputo Province (68 and 63 percent, respectively). With the exception of Cabo Delgado and Inhambane, where knowledge is low among men (26 and 39 percent, respectively), knowledge of at least two ways to avoid HIV/AIDS is relatively high in the remaining provinces, reaching 94 percent in Tete.

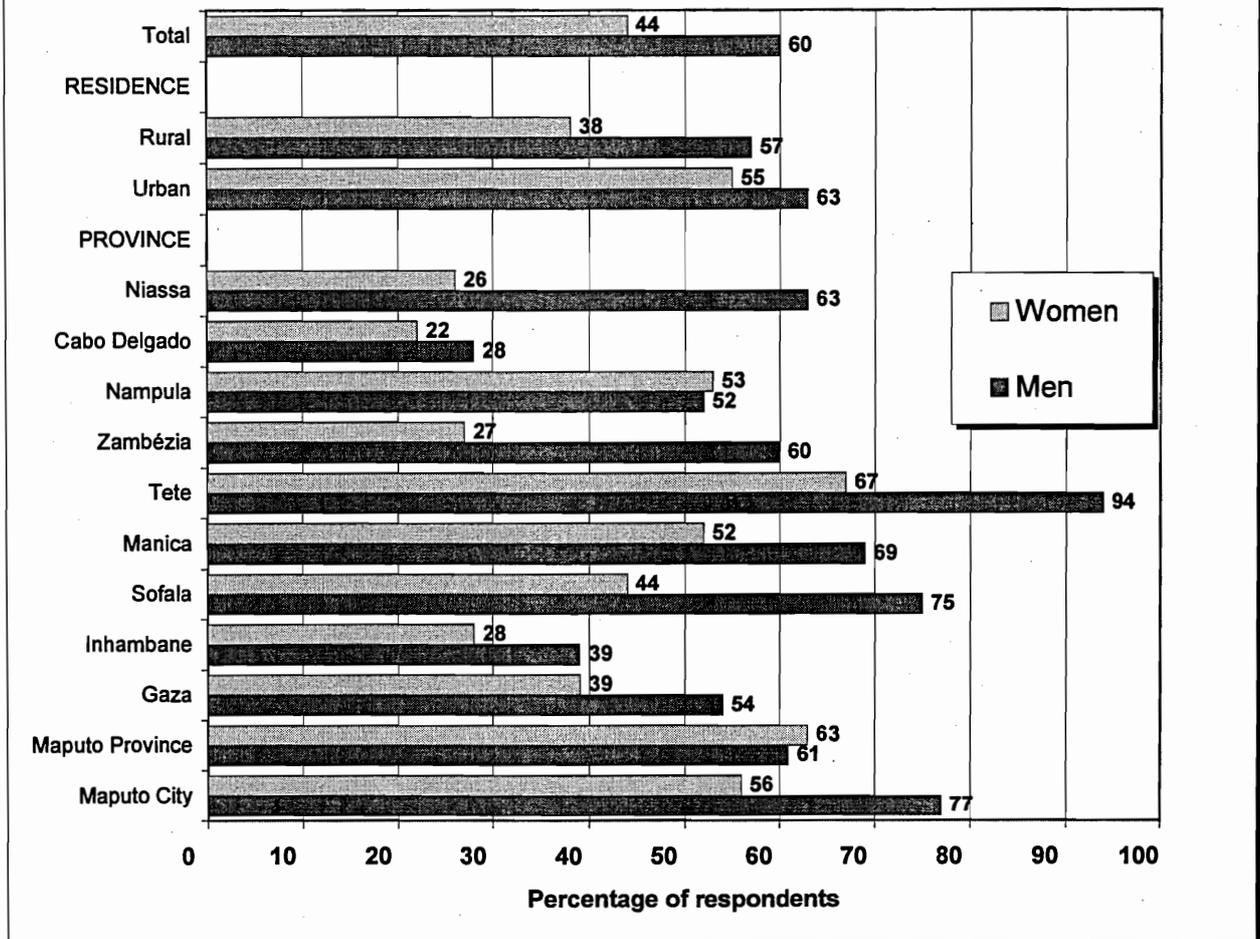
Table 8.3 Knowledge of HIV/AIDS

Percentage of women and men who have heard of HIV/AIDS, percentage who believe there is a way to avoid HIV/AIDS, and percentage who know at least two ways to avoid HIV/AIDS, by background characteristics, Mozambique 2003

Background characteristic	Women				Men			
	Has heard of HIV/AIDS	Believes there is a way to avoid HIV/AIDS	Knows at least two ways	Number of women	Has heard of HIV/AIDS	Believes there is a way to avoid HIV/AIDS	Knows at least two ways	Number of men
Residence								
Rural	93.7	55.4	37.8	7,870	96.1	71.4	57.1	1,705
Urban	99.1	78.4	54.7	4,548	99.9	85.1	63.3	1,195
Province								
Niassa	93.8	50.5	26.0	476	99.5	96.1	63.3	116
Cabo Delgado	96.9	30.8	21.8	1,071	99.7	36.2	28.0	274
Nampula	95.3	65.3	53.3	2,403	99.8	66.7	51.8	693
Zambézia	83.7	35.2	26.9	1,906	87.1	61.0	59.5	463
Tete	99.6	81.5	67.4	1,025	100.0	98.7	93.8	222
Manica	99.0	70.3	51.6	809	100.0	89.2	69.1	192
Sofala	98.7	70.5	43.8	865	98.8	94.7	74.7	226
Inhambane	97.8	56.3	28.4	1,088	98.8	89.5	39.0	164
Gaza	100.0	86.5	38.9	666	99.6	94.5	53.7	90
Maputo Province	99.8	91.6	63.0	1,050	100.0	95.1	61.1	197
Maputo City	99.7	89.7	55.8	1,059	99.7	97.4	77.3	261
Education								
No education	91.7	50.1	33.2	5,100	90.6	56.4	43.9	501
Primary	98.2	69.5	46.7	6,347	99.1	77.7	57.0	1,940
Secondary	100.0	98.2	81.8	940	99.3	96.9	87.9	437
More than secondary	*	*	*	*	*	*	*	21
Age								
15-19	96.0	66.8	43.2	2,454	97.9	77.1	53.4	673
20-24	94.7	63.7	43.4	2,456	99.3	82.9	67.7	404
25-29	95.9	64.0	44.8	2,224	97.1	75.3	62.1	378
30-34	95.7	61.3	44.2	1,792	95.1	74.4	62.0	329
35-39	95.6	63.8	46.5	1,411	99.1	81.8	69.2	265
40-44	96.7	64.0	44.7	1,126	99.0	78.1	64.2	221
45-49	95.5	60.3	40.3	954	97.4	81.2	56.5	221
50-54	na	na	na	na	97.5	66.5	48.0	176
55-59	na	na	na	na	97.6	64.6	47.9	124
60-64	na	na	na	na	94.5	78.8	59.7	111
Marital status								
Never married	96.2	73.8	48.5	1,961	97.8	79.9	59.1	911
Married or living together	95.3	61.2	43.2	8,736	97.6	75.0	60.2	1,844
Formerly married	97.0	65.6	42.7	1,721	96.9	85.5	56.1	145
Total	95.7	63.8	44.0	12,418	97.7	77.1	59.7	2,900

Note: An asterisk indicates that a figure is based on fewer than 30 unweighted cases and has been suppressed. na = Not applicable.

Figure 8.2
Knowledge of at Least Two Ways to Avoid HIV/AIDS,
by Residence and Province



AIDS prevention programs focus their messages and efforts on three “programmatically important ways” to avoid HIV/AIDS: abstinence (delaying sexual debut in young persons), use of condoms, and reducing the number of partners/staying faithful to one spouse or partner. The pattern of these answers indicates the relative importance of different means of HIV prevention in the population. The results are presented in Table 8.4.1 for women and in Table 8.4.2 for men. In the first three columns of each table, the percentage of respondents who reported zero, one, or two or three of these ways to avoid AIDS are shown. On the right side of each table are the results when prompting is used to ascertain whether the respondent knows about condom use and about limiting the number of sexual partners as a means to prevent HIV infection. Thus, by definition, the percentages with prompting will be higher than those coming directly from spontaneous questions on condom use and limiting the number of partners.

Overall, 36 percent of women and 23 percent of men do not know any of the three programmatically important ways to avoid HIV/AIDS; in Cabo Delgado, the figures are 69 and 65 percent, respectively. Although the percentage of women with no knowledge of the programmatically important ways to avoid HIV/AIDS is also high in Zambézia, the percentage among men is much lower (39 percent). However, with the exception of these two provinces and

Nampula, less than 11 percent of men in the other provinces have no knowledge of any of the three ways. At the same time, if these three provinces are excluded, knowledge of two or three ways to prevent HIV/AIDS among men is relatively high—ranging from 78 percent in Niassa to 96 percent in Tete (Figure 8.3). Among women, the differentials are greater, from a 24 percent in Cabo Delgado to 82 percent in Maputo Province.

When prompted, about 58 percent of women and 72 percent of men mentioned specific ways to avoid HIV/AIDS—condom use or limiting sexual partners. Among women, knowledge of condoms as a specific way to avoid HIV/AIDS is especially low in two provinces, Cabo Delgado (26 percent) and Zambézia (30 percent); among men, this knowledge is more uniform, although only 27 percent of men in Cabo Delgado mentioned condom use as a specific way to avoid HIV/AIDS.

Table 8.4.1 Knowledge of programmatically important ways to avoid HIV/AIDS: women

Percent distribution of women by knowledge of three programmatically important ways to avoid HIV/AIDS, and percentage of women who know of two specific ways to avoid HIV/AIDS, by background characteristics, Mozambique 2003

Background characteristic	Knowledge of programmatically important ways to avoid HIV/AIDS				Specific ways to avoid HIV/AIDS		Number of women
	None ¹	One way	Two or three ways	Total	Use condoms	Limit number of sexual partners ²	
Residence							
Rural	44.7	9.9	45.3	100.0	46.8	52.3	7,870
Urban	21.6	10.0	68.3	100.0	74.8	70.1	4,548
Province							
Niassa	49.6	8.3	42.0	100.0	42.2	49.6	476
Cabo Delgado	69.1	7.1	23.6	100.0	25.6	28.5	1,071
Nampula	34.8	16.1	49.1	100.0	48.0	63.3	2,403
Zambézia	65.1	5.4	29.4	100.0	30.2	32.4	1,906
Tete	18.5	3.2	78.2	100.0	79.4	78.7	1,025
Manica	29.7	4.4	65.9	100.0	65.3	68.4	809
Sofala	29.5	18.1	52.3	100.0	55.0	67.2	865
Inhambane	43.7	9.8	46.6	100.0	54.7	47.6	1,088
Gaza	13.5	7.5	78.9	100.0	85.0	79.2	666
Maputo Province	8.4	9.7	81.8	100.0	91.4	81.2	1,050
Maputo City	10.3	13.9	75.5	100.0	88.5	73.7	1,059
Education							
No education	50.0	11.5	38.5	100.0	39.0	47.4	5,100
Primary	30.5	9.2	60.3	100.0	65.3	63.1	6,347
Secondary	1.8	7.1	91.0	100.0	97.6	90.1	940
More than secondary	0.0	8.8	91.2	100.0	100.0	90.5	30
Age							
15-19	33.2	10.8	56.0	100.0	62.6	58.3	2,454
20-24	36.3	10.6	53.1	100.0	58.2	57.8	2,456
25-29	36.2	9.0	54.8	100.0	57.3	59.7	2,224
30-34	38.6	7.1	54.1	100.0	55.2	58.7	1,792
35-39	36.2	9.5	54.2	100.0	55.8	60.6	1,411
40-44	36.2	10.3	53.4	100.0	54.3	60.7	1,126
45-49	39.9	14.1	46.0	100.0	47.2	55.9	954
Marital status							
Never married	26.1	11.2	62.6	100.0	71.2	63.1	1,961
Married or living together	38.9	9.8	51.3	100.0	53.2	57.7	8,736
Formerly married	34.6	9.5	55.9	100.0	60.2	59.3	1,721
Total	36.3	10.0	53.7	100.0	57.0	58.8	12,418

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 are measured from spontaneous and probed responses.

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

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

Level of education is strongly related to knowledge of ways to prevent HIV transmission. Women and men with secondary education are are least twice as likely to know of ways of preventing HIV/AIDS as respondents with no education.

Table 8.4.2 Knowledge of programmatically important ways to avoid HIV/AIDS: men

Percent distribution of men by knowledge of three programmatically important ways to avoid HIV/AIDS, and percentage of men who know of two specific ways to avoid HIV/AIDS, by background characteristics, Mozambique 2003

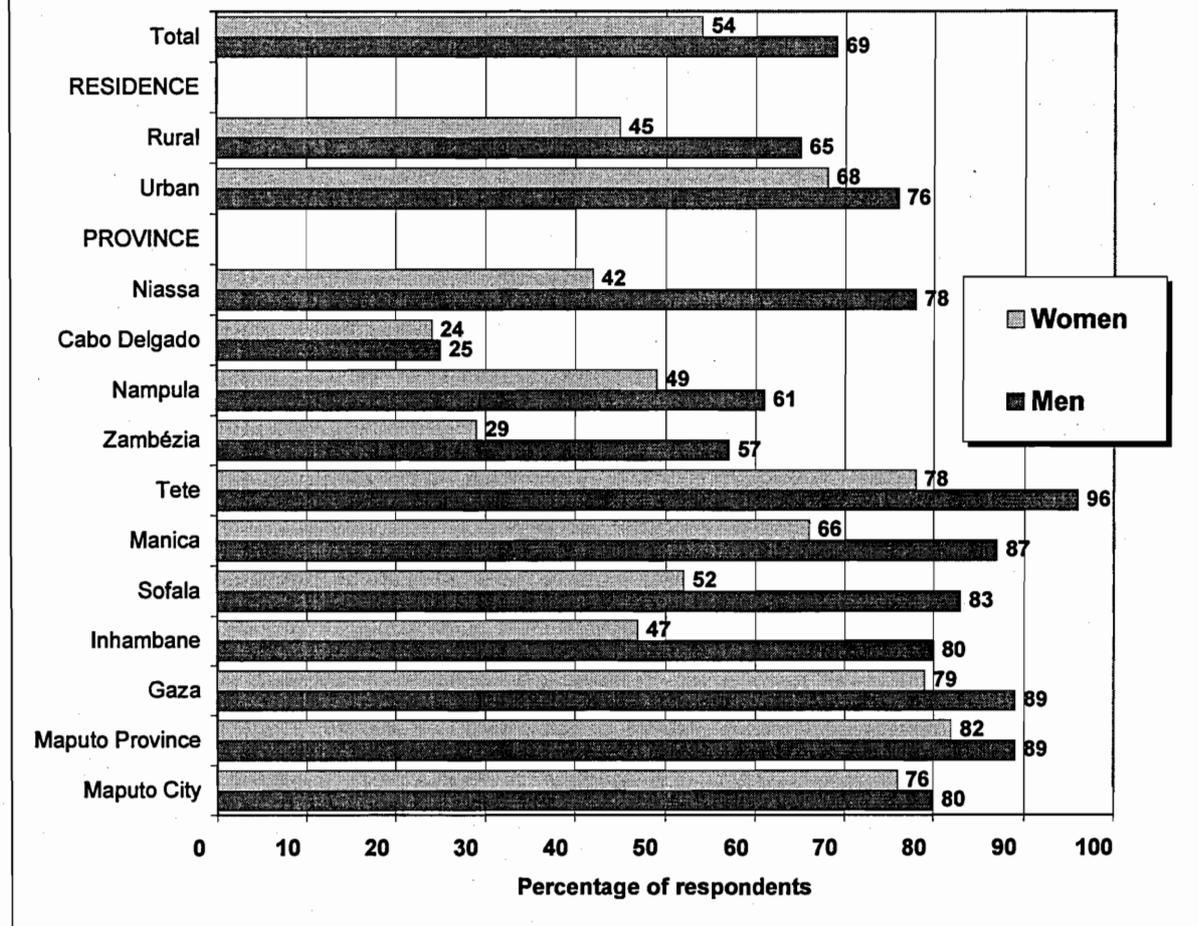
Background characteristic	Knowledge of programmatically important ways to avoid HIV/AIDS				Specific ways to avoid HIV/AIDS		Number of men
	None ¹	One way	Two or three ways	Total	Use condoms	Limit number of sexual partners ²	
Residence							
Rural	28.6	6.5	64.9	100.0	65.8	69.0	1,705
Urban	15.1	8.9	75.9	100.0	82.2	76.9	1,195
Province							
Niassa	3.9	18.1	78.0	100.0	76.1	90.5	116
Cabo Delgado	65.1	9.5	25.4	100.0	26.9	28.0	274
Nampula	33.3	5.7	61.0	100.0	63.2	64.4	693
Zambézia	39.0	4.1	56.9	100.0	57.6	59.0	463
Tete	1.6	2.3	96.1	100.0	94.9	96.7	222
Manica	10.8	1.8	87.4	100.0	88.7	87.5	192
Sofala	5.3	11.9	82.8	100.0	84.8	92.2	226
Inhambane	10.5	9.2	80.3	100.0	85.9	83.9	164
Gaza	5.5	5.5	89.0	100.0	94.4	89.0	90
Maputo Province	4.9	5.7	89.4	100.0	93.6	90.4	197
Maputo City	2.3	17.3	80.1	100.0	96.4	79.1	261
Education							
No education	43.6	7.4	49.0	100.0	50.0	53.4	501
Primary	22.5	8.0	69.4	100.0	73.1	72.5	1,940
Secondary	3.1	5.1	91.8	100.0	94.3	91.8	437
More than secondary	*		*	*	*	*	21
Age							
15-19	23.1	9.8	67.1	100.0	74.4	67.8	673
20-24	17.1	6.4	76.6	100.0	81.2	76.7	404
25-29	24.7	6.8	68.5	100.0	70.7	71.9	378
30-34	25.6	4.3	70.0	100.0	72.2	71.2	329
35-39	18.7	7.5	73.8	100.0	73.1	80.0	265
40-44	22.2	4.3	73.2	100.0	74.1	75.2	221
45-49	18.8	7.9	73.3	100.0	74.8	78.7	221
50-54	33.5	8.1	58.4	100.0	58.9	64.2	176
55-59	35.4	12.9	51.7	100.0	53.7	61.0	124
60-64	21.2	7.9	70.9	100.0	70.6	76.7	111
Marital status							
Never married	20.3	8.7	71.1	100.0	77.6	71.5	911
Married or living together	25.1	6.7	68.1	100.0	69.3	72.2	1,844
Formerly married	14.5	9.8	75.8	100.0	81.7	77.8	145
Total	23.1	7.5	69.4	100.0	72.5	72.3	2,900

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 are measured from spontaneous and probed responses. An asterisk indicates that a figure is based on fewer than 30 unweighted cases and has been suppressed.

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

²Refers to limiting the number of sexual partners and limiting sex to one partner/staying faithful to one partner

Figure 8.3
Knowledge of Two or Three Programmatically Important Ways to Avoid HIV/AIDS, by Residence and Province



Number of Sexual Partners

In the context of HIV/AIDS prevention, sexual activity is broadly classified as high risk or low risk. High-risk or “nonregular” sex is a particular focus of programmatic interventions. Delay of sexual debut, reduction in the number of partners, and faithful monogamy are key goals of most AIDS prevention programs.

Tables 8.5 and 8.6 show the number of nonregular partners reported by married and unmarried respondents in the last 12 months. Table 8.6 includes extramarital sexual activity of married men, that is, sex with someone other than their spouse(s). In most countries, the level of extramarital sex reported by married women is very low (less than 5 percent), although it is generally assumed that extramarital sex is underreported by the women surveyed.

Tables 8.5 and 8.6 also present information on the other broad category of nonregular sex: sex among women and men not in a stable (marital) relationship. This includes primarily premarital sex, but also sex reported by formerly married respondents. Sexual activity among women and men who have never been married is an especially important indicator for programs aimed at delaying sexual debut and thereby reducing HIV incidence in the population. Most new HIV infections in women are contracted before age 25.

Four percent of married women and 22 percent of married men had sexual intercourse with at least one person other than their regular partner in the 12 months preceding the survey. Men 30 years of age or older, those living in rural areas, and those in Zambézia, Tete, Manica, and Niassa are less likely than other respondents to have outside partners. Men in Gaza, Cabo Delgado, Maputo City, and Maputo Province are more likely to have two or more outside partners.

Table 8.5 Number of sexual partners of married and unmarried women

Percentage of married women with just one partner and percent distribution of unmarried women, by number of persons with whom they had sexual intercourse in the past 12 months; and mean number of sexual partners, by background characteristics, Mozambique 2003

Background characteristic	Married women		Unmarried women					Mean number of sexual partners
	Just spouse/partner	Number of married women	Number of sexual partners			Total	Number of unmarried women	
			0	1	2+			
Residence								
Rural	96.7	6,199	57.0	35.9	7.1	100.0	1,671	0.5
Urban	94.8	2,537	36.4	54.0	9.5	100.0	2,011	0.7
Province								
Niassa	98.1	387	53.3	38.9	7.5	100.0	89	0.5
Cabo Delgado	90.3	851	39.9	45.4	14.7	100.0	220	0.8
Nampula	94.1	1,898	52.6	40.5	6.9	100.0	505	0.6
Zambézia	98.4	1,430	61.0	32.2	6.9	100.0	476	0.5
Tete	99.7	771	72.1	24.3	3.4	100.0	254	0.3
Manica	99.3	617	69.2	28.2	2.6	100.0	192	0.4
Sofala	98.5	617	54.4	40.3	5.0	100.0	248	0.5
Inhambane	93.1	724	34.2	53.5	12.2	100.0	364	0.8
Gaza	97.8	426	42.1	54.0	3.9	100.0	240	0.6
Maputo Province	97.3	552	27.2	59.0	13.6	100.0	498	0.9
Maputo City	96.3	462	30.5	60.2	9.2	100.0	597	0.8
Education								
No education	97.1	4,212	61.4	32.0	6.4	100.0	889	0.4
Primary	95.6	4,147	44.3	46.7	8.9	100.0	2,201	0.7
Secondary	92.6	362	27.7	62.6	9.7	100.0	578	0.8
More than secondary	91.5	16	25.1	74.9	0.0	100.0	14	0.7
Age								
15-19	93.4	936	51.4	42.3	6.2	100.0	1,517	0.5
20-24	95.9	1,747	31.3	58.3	10.4	100.0	709	0.8
25-29	95.8	1,812	35.4	50.0	14.6	100.0	412	0.8
30-34	96.5	1,495	38.6	53.8	7.3	100.0	297	0.7
35-39	96.6	1,158	47.5	38.9	13.3	100.0	254	0.7
40-44	97.8	872	53.3	39.6	6.7	100.0	254	0.5
45-49	98.2	715	69.8	26.7	3.5	100.0	239	0.3
Marital status								
Never married	na	na	44.3	48.6	7.1	100.0	1,961	0.6
Married/living together	96.2	8,736	na	na	na	na	na	na
Formerly married	na	na	47.4	42.6	9.9	100.0	1,721	0.6
Total	96.2	8,736	45.8	45.8	8.4	100.0	3,682	0.6

na = Not applicable

Table 8.6 Number of sexual partners of married and unmarried men

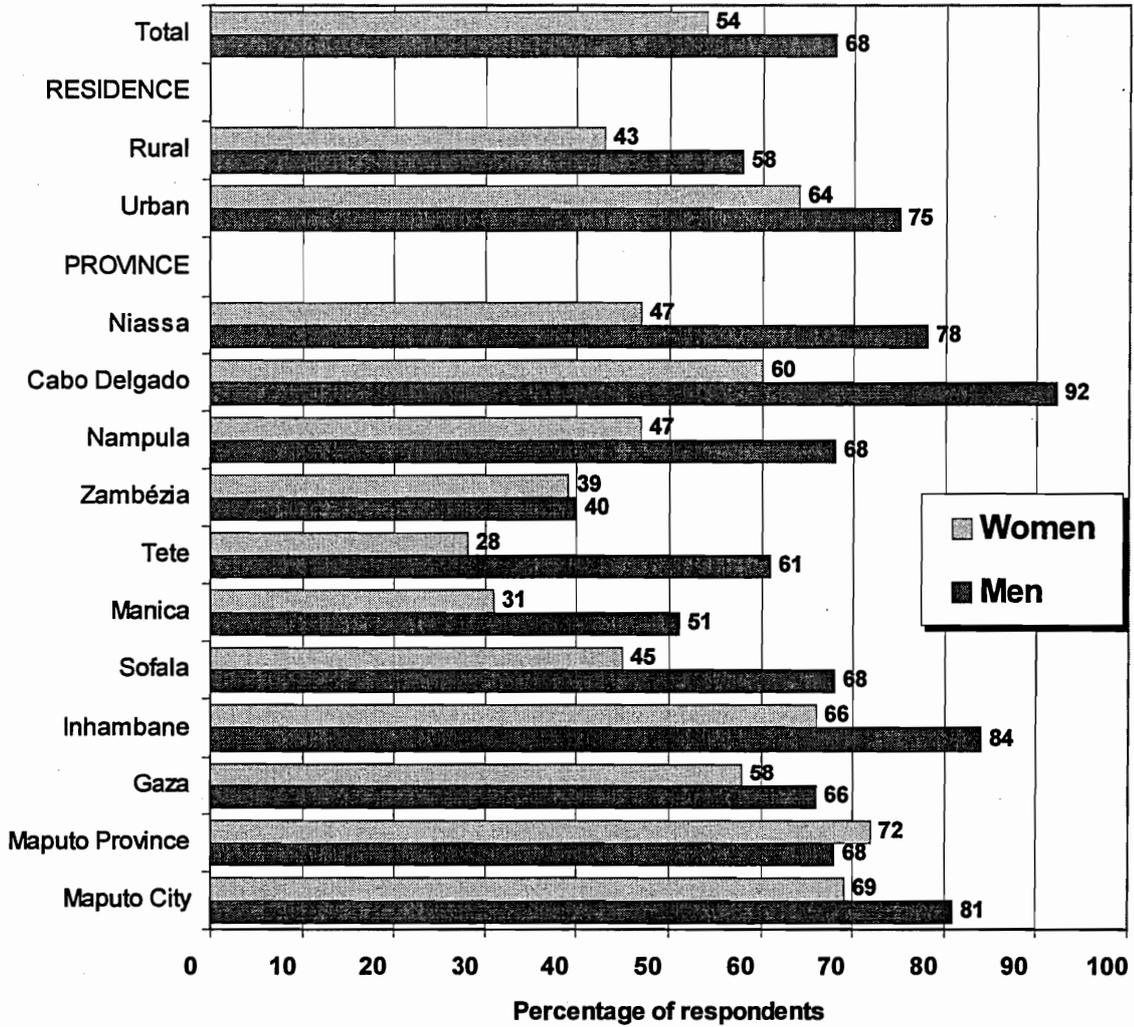
Percent distribution of currently married men by number of persons with whom they had sexual intercourse in the past 12 months, excluding spouses or cohabiting partners, and mean number of sexual partners, by background characteristics; and percent distribution of currently unmarried men by number of persons with whom they had sexual intercourse in the past 12 months, and mean number of sexual partners, by background characteristics, Mozambique 2003

Background characteristic	Married men						Unmarried men					
	Number of sexual partners				Number of married men	Mean number of sexual partners	Number of sexual partners				Number of unmarried men	Mean number of sexual partners
	Just spouse/partner	1	2+	Total			0	1	2+	Total		
Residence												
Rural	82.1	13.1	4.8	100.0	1,287	0.3	41.7	34.1	23.7	100.0	418	1.0
Urban	67.0	22.0	10.8	100.0	557	0.5	24.5	42.5	32.8	100.0	638	1.4
Province												
Niassa	91.5	7.5	1.0	100.0	82	0.1	19.6	44.5	34.2	100.0	34	1.3
Cabo Delgado	60.4	23.5	16.2	100.0	202	0.9	8.4	44.3	47.4	100.0	72	1.9
Nampula	76.3	17.1	6.6	100.0	460	0.4	31.8	41.0	26.7	100.0	233	1.4
Zambézia	95.3	4.7	0.0	100.0	381	0.0	60.3	27.1	12.7	100.0	83	0.6
Tete	94.2	5.4	0.4	100.0	151	0.1	39.5	44.5	15.9	100.0	71	0.8
Manica	91.7	6.8	1.4	100.0	99	0.1	49.1	45.4	5.5	100.0	93	0.6
Sofala	78.6	11.6	9.2	100.0	129	0.3	31.3	36.2	31.4	100.0	98	1.1
Inhambane	60.8	32.2	7.0	100.0	106	0.6	16.2	38.2	45.6	100.0	59	1.8
Gaza	56.9	21.2	21.9	100.0	50	1.3	34.3	18.1	47.7	100.0	40	2.0
Maputo Province	46.4	40.6	13.0	100.0	81	0.8	31.9	38.7	29.3	100.0	116	1.2
Maputo City	52.6	32.5	14.2	100.0	103	0.7	18.8	41.2	39.6	100.0	158	1.5
Education												
No education	88.4	9.7	1.9	100.0	412	0.1	52.4	29.9	17.7	100.0	89	0.8
Primary	77.3	15.5	7.1	100.0	1,238	0.4	33.7	40.0	25.9	100.0	702	1.2
Secondary	56.4	30.0	13.3	100.0	186	0.7	18.8	40.0	40.9	100.0	252	1.5
More than secondary	*	*	*	*	9	*	0.0	45.0	55.0	100.0	13	2.8
Age												
15-19	66.1	17.3	16.6	100.0	33	0.7	39.2	38.6	22.1	100.0	640	1.0
20-24	61.0	25.4	13.7	100.0	196	0.8	11.8	45.4	41.9	100.0	208	1.8
25-29	69.2	22.5	8.3	100.0	293	0.6	6.9	42.1	50.1	100.0	85	1.9
30-34	76.4	15.5	7.9	100.0	281	0.4	32.0	23.3	44.2	100.0	48	1.8
35-39	76.9	16.5	6.6	100.0	247	*	*	*	*	*	18	*
40-44	76.4	16.1	7.2	100.0	209	*	*	*	*	*	12	*
45-49	84.1	12.5	3.4	100.0	207	*	*	*	*	*	14	*
50-54	89.0	10.3	0.8	100.0	168	*	*	*	*	*	8	*
55-59	91.7	7.1	1.2	100.0	108	*	*	*	*	*	16	*
60-64	96.8	1.7	1.5	100.0	103	*	*	*	*	*	8	*
Marital status												
Never married	na	na	na	na	na	na	30.8	39.8	29.0	100.0	911	1.3
Formerly married	na	na	na	na	na	na	34.3	35.5	30.0	100.0	145	1.2
Married	87.1	9.9	3.0	100.0	950	0.2	na	na	na	na	na	na
Living together	67.4	22.1	10.4	100.0	894	0.6	na	na	na	na	na	na
Total	77.5	15.8	6.6	100.0	1,844	0.4	31.3	39.2	29.2	100.0	1,056	1.3

Note: An asterisk indicates that a figure is based on fewer than 30 unweighted cases and has been suppressed
na = Not applicable

Among unmarried respondents, 54 percent of women and 69 percent of men had sexual intercourse in the 12 months preceding the survey. The majority of women had just one partner, but 29 percent of unmarried men had two or more partners. Unmarried women in Manica and Tete are less likely than women in other provinces to have had sex in the 12 months preceding the survey. Women in Cabo Delgado, Maputo Province, and Inhambane are more likely to have had two or more partners in the 12 months prior to the survey, 12 to 15 percent. Among unmarried men, those in Gaza, Cabo Delgado, and Inhambane are more likely to have had two or more sexual partners in the 12 months preceding the survey, 46 to 48 percent. Figure 8.4 shows the percentage of unmarried respondents who had sex in the past 12 months, by residence and province.

Figure 8.4
Unmarried Respondents Who Had Sex in the Past 12 Months,
by Residence and Province



Use of Condoms

Monitoring condom use at the population level is key to monitoring and evaluating HIV/AIDS programs. In Tables 8.7 and 8.8, condom use during last sex (in the last 12 months) is presented based on two broad partner types: use in relatively low-risk sexual encounters and use in relatively high-risk sex. The current internationally recognized definition of low-risk sex involves sex with a marital or cohabiting partner. All other sex (e.g., extramarital and premarital sex) is defined as sex with a noncohabiting partner and is assumed to carry higher risk for contracting HIV and other sexually transmitted infections.

Among women, high-risk sex—as defined here—is not socially sanctioned in most settings and may be underreported. As such, the sample size for calculation of condom use among women may be small in some analysis categories.

Table 8.7 Use of condoms by type of partner: women

Among women who had sexual intercourse in the past year, percentage who used a condom during last sexual intercourse with spouse or cohabiting partner, with noncohabiting partner, and with any partner, according to background characteristics, Mozambique 2003

Background characteristic	Spouse or cohabiting partner		Noncohabiting partner		Any partner	
	Percentage	Number of women	Percentage	Number of women	Percentage	Number of women
Residence						
Rural	10.6	5,415	8.0	919	1.5	6,158
Urban	3.7	2,382	33.4	1,406	14.4	3,666
Province						
Niassa	0.5	349	21.9	48	2.7	391
Cabo Delgado	1.1	651	9.2	214	2.2	791
Nampula	0.7	1,676	12.2	351	2.3	1,925
Zambézia	0.4	1,394	14.8	209	1.9	1,587
Tete	0.5	727	28.8	73	3.1	796
Manica	1.4	496	33.0	63	5.0	557
Sofala	1.3	555	22.0	122	4.8	666
Inhambane	2.3	603	15.6	290	6.7	852
Gaza	1.8	374	10.0	148	4.0	514
Maputo Province	2.5	529	34.4	377	15.4	889
Maputo City	10.2	443	42.1	430	25.6	857
Education						
No education	0.1	3,699	4.0	465	0.5	4,053
Primary	2.0	3,728	19.3	1,403	6.5	4,968
Secondary	10.8	355	55.6	445	34.4	779
More than secondary	*	15	*	12	*	25
Age						
15-19	2.7	848	30.2	799	16.3	1,588
20-24	2.9	1,557	27.1	558	8.8	2,049
25-29	1.2	1,574	18.5	341	3.9	1,852
30-39	1.3	2,363	16.9	405	3.0	2,680
40-49	0.5	1,455	8.6	222	1.5	1,655
Marital status						
Never married	na	na	33.8	1,091	33.8	1,091
Married or living together	1.6	7,603	15.3	330	1.6	7,664
Formerly married	0.7	194	13.7	905	11.6	1,070
Total	1.6	7,797	23.4	2,325	6.3	9,824

Note: An asterisk indicates that a figure is based on fewer than 30 unweighted cases and has been suppressed.
na = Not applicable

Only 6 percent of women and 12 percent of men used a condom during last sexual intercourse. Most condom use occurred in noncohabiting sexual relationships: 23 percent among women and 33 percent among men. For both women and men, condom use is higher in urban areas, among those never married, and among more educated respondents. Condom use is also higher among younger women. There are important differences in condom use across provinces. The highest level of condom use in noncohabiting relationships is found in Maputo City (42 percent for women and 58 percent for men), but it is also relatively high in Manica (33 percent for women and 55 percent for men). In Cabo Delgado and Gaza, only 1 in 10 women used a condom with a noncohabiting partner. The use of a condom at last sexual intercourse with a noncohabiting partner among men in Cabo Delgado is much lower than in other provinces—only 6 percent.

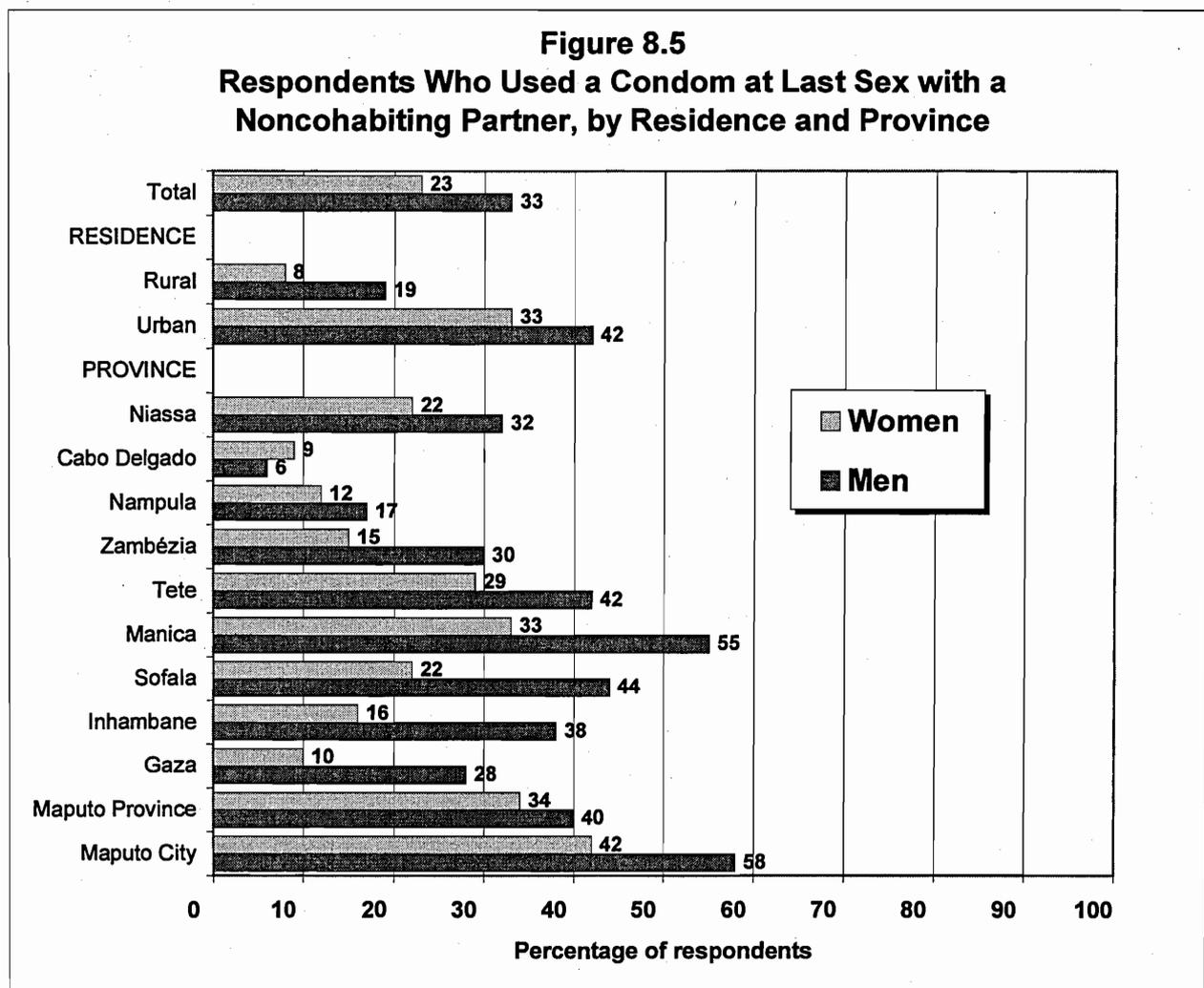
Table 8.8 Use of condoms by type of partner: men

Among men who had sexual intercourse in the past year, percentage who used a condom during last sexual intercourse with spouse or cohabiting partner, with noncohabiting partner, and with any partner, according to background characteristics, Mozambique 2003

Background characteristic	Spouse or cohabiting partner		Noncohabiting partner		Any partner	
	Percentage	Number of men	Percentage	Number of men	Percentage	Number of men
Residence						
Rural	1.2	1,201	18.7	466	4.9	1,471
Urban	5.2	522	42.4	664	23.0	1,029
Province						
Niassa	1.1	77	33.5	34	9.2	106
Cabo Delgado	0.5	183	5.8	145	1.7	266
Nampula	0.1	420	16.7	268	5.0	589
Zambézia	2.0	371	29.9	51	3.8	409
Tete	1.1	141	41.6	51	10.4	186
Manica	2.1	88	55.0	51	20.9	136
Sofala	2.8	116	43.5	94	17.7	189
Inhambane	3.2	90	38.2	89	15.7	147
Gaza	2.5	51	27.2	48	11.1	77
Maputo Province	14.2	86	39.8	123	28.7	165
Maputo City	8.9	101	58.4	176	38.7	230
Education						
No education	0.3	385	8.7	90	1.0	433
Primary	2.1	1,158	23.8	738	8.6	1,655
Secondary	9.0	175	59.8	285	38.0	390
More than secondary	*	7	*	17	*	21
Age						
15-19	3.4	29	30.2	400	28.9	419
20-24	3.1	179	38.5	260	24.2	375
25-29	2.8	268	35.2	169	12.6	358
30-39	3.0	487	27.8	165	5.3	545
40-49	2.7	395	39.1	92	4.3	419
50-59	0.6	270	16.9	37	1.4	283
Marital status						
Never married	na	na	35.5	630	35.5	630
Married or living together	2.3	1,704	30.7	405	3.6	1,763
Divorced/separated/widowed	10.8	19	22.0	95	19.7	107
Total	2.4	1,724	32.6	1,130	12.3	2,500

Note: An asterisk indicates that a figure is based on fewer than 30 unweighted cases and has been suppressed.
na = Not applicable

Use of condoms at last sexual intercourse with a noncohabiting partner is summarized in Figure 8.5, both for women and men, by residence and province.



MEASURE *DHS*+ PRELIMINARY REPORTS

Turkey	December	1998	English
Ghana	May	1999	English
Guatemala	June	1999	Spanish
Guinea	October	1999	French
Kazakhstan	December	1999	English/Russian
Tanzania	February	2000	English
Zimbabwe	March	2000	English
Bangladesh	June	2000	English
Egypt	June	2000	English
Ethiopia	July	2000	English
Haiti	September	2000	French
Cambodia	November	2000	English
Turkmenistan	January	2001	English
Malawi	February	2001	English
Rwanda	February	2001	French
Armenia	March	2001	English
Gabon	March	2001	French
Uganda	May	2001	English
Nepal	August	2001	English
Mali	December	2001	French
Benin	February	2002	French
Eritrea	September	2002	English
Zambia	October	2002	English
Jordan	November	2002	English
Dominican Republic	January	2003	Spanish
Uzbekistan	May	2003	English
Indonesia	August	2003	English
Nigeria	October	2003	English
Kenya	December	2003	English
Indonesia (Young Adult)	December	2003	English
Jayapura City, Indonesia (Young Adult)	December	2003	English
Philippines	January	2004	English
Bolivia	March	2004	Spanish
Mozambique	April	2004	English

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