

**Lesotho  
Demographic  
and Health  
Survey  
2009**

**Preliminary  
Report**

**Ministry of Health and  
Social Welfare  
Maseru, Lesotho**

**MEASURE DHS  
ICF Macro  
Calverton, Maryland  
USA**

This report summarises the findings of the 2009 Lesotho Demographic and Health Survey (LDHS) conducted by the Ministry of Health and Social Welfare. The LDHS is part of the world-wide MEASURE Demographic and Health Surveys (DHS) project funded by the United States Agency for International Development (USAID), for which ICF Macro is the prime contractor. Funding for the Lesotho DHS was provided by The Government of Lesotho, the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), Irish Aid, MCA, National AIDS Commission (NAC), PEPFAR, UNFPA, UNICEF, USAID, and WHO. MEASURE DHS project provided technical assistance during all phases of the survey and arranged for the Global Clinical and Viral Laboratory (GCVL) of South Africa to help with the training and laboratory processing for the HIV testing component of the survey.

The opinions expressed herein are those of the authors and do not necessarily reflect the views of USAID or other funding partners. The authors' views expressed in this publication do not necessarily reflect the views of the Government of Lesotho, USAID, or the donor agencies.

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**May 2010**

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## FOREWORD

The 2009 Lesotho Demographic and Health Survey (LDHS) was implemented by the Ministry of Health and Social Welfare (MOHSW). The 2009 LDHS was the second DHS survey to be conducted in Lesotho in collaboration with the worldwide Demographic and Health Surveys programme. This report, which presents key findings from the LDHS, is intended to provide policy makers and programme managers with a first glimpse of the survey results. A more comprehensive and detailed report is scheduled for later in 2010.

The MOHSW wishes to acknowledge the efforts of a number of organisations and individuals who contributed substantially to the success of the survey. First, we would like to acknowledge the financial assistance from the Government of Lesotho, the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), Irish Aid, Millennium Challenge Account (MCA), PEPFAR, NAC, UNFPA, UNICEF, USAID, and WHO. We thank the Bureau of Statistics for providing the listing of households, GIS coordinates for the LDHS sample points and sampling. We would like to thank ICF Macro for the technical backstopping throughout the survey. We are also grateful for the support received from the Global Clinical and Viral Laboratory. The survey also could not have been carried out successfully without the dedication of the staff of the Ministry of Health and Social Welfare who participated in the LDHS.

Finally, we are grateful to the survey respondents who generously gave their time to provide the information that forms the basis of this and future reports.

Mrs. M. Khabele  
Deputy Principal Secretary  
Ministry of Health and Social Welfare

# 1. BACKGROUND

## 1.1 INTRODUCTION

The 2009 Lesotho Demographic and Health Survey (LDHS) is a national-level sample survey designed to provide information on various demographic and maternal and child health issues in Lesotho. The LDHS was conducted by the Ministry of Health and Social Welfare. Funding for the survey was provided by the Government of Lesotho, the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), Irish Aid, Millennium Challenge Account (MCA), NAC, PEPFAR, UNFPA, UNICEF, USAID, and WHO. ICF Macro (Macro) provided technical assistance to the LDHS as part of the worldwide USAID-funded Demographic and Health Surveys (DHS) program and arranged for the Global Clinical and Viral Laboratory (GCVL) of South Africa to provide support for the training and laboratory processing for the HIV testing component of the survey.

This report presents preliminary results for the principal topics covered in the survey. Where appropriate, results are compared with findings from the 2004 Lesotho DHS. A more comprehensive and detailed report is scheduled for publication later in 2010. The figures in that report are not expected to differ substantially from the findings presented in this preliminary report; however, the results presented here should be regarded as provisional and subject to modification.

## 1.2 SURVEY OBJECTIVES

A primary objective of the 2009 LDHS was to provide up-to-date information on fertility, childhood mortality, marriage, fertility preferences, awareness and use of family planning methods, infant and child feeding practices, maternal and child health, maternal mortality, and HIV/AIDS-related knowledge and behaviour. The survey measured the iodisation level of the salt used by the household for cooking. The 2009 LDHS also obtained anthropometric measures in order to assess the nutritional status of adults and young children. In addition, the survey included anaemia testing for children 6 months to 5 years, women 15-49, and men 15-59, and blood pressure measurement and HIV testing for women age 15-49 and men age 15-59.

The information collected through the LDHS is intended to assist policy-makers and programme managers in evaluating and designing programmes and strategies for improving health and social services in Lesotho.

## 2. SURVEY IMPLEMENTATION

### 2.1 SAMPLE DESIGN

The 2009 LDHS was designed to provide estimates of health and demographic indicators at the national level, for urban-rural areas, and for the ten districts of Butha-Buthe, Leribe, Berea, Maseru, Mafeteng, Mohale's Hoek, Quthing, Qacha's Nek, Mokhotlong, and Thaba-Tseka. The 2009 LDHS sample points (clusters) were selected from a list of enumeration areas (EAs) defined in the 2006 Lesotho Population and Housing Census. A total of 400 clusters were drawn from the census sample frame, 94 in the urban and 306 in the rural areas.

Bureau of Statistics (BOS) staff conducted an exhaustive listing of households in each of the LDHS clusters in July through December 2009. From these lists, a systematic sample of households was drawn for a total of 10,000 households. All women age 15-49 identified in the entire sample of households were eligible for individual interview. In addition, a sub-sample of half of these households (5,000 households) was selected randomly and in these households, all men age 15-59 were eligible for individual interview. In the LDHS households where men were interviewed, all children age under six were eligible for height, weight, mid-upper arm circumference measurements, and anaemia testing. In the same households, women and men who are eligible for individual interview are also eligible for height, weight, and blood pressure measurements as well as anaemia and HIV testing.

### 2.2 QUESTIONNAIRES

Three types of questionnaires were used for the LDHS: the Household Questionnaire, the Woman's Questionnaire, and the Man's Questionnaire. The contents of the questionnaires were based on questionnaires developed for the MEASURE DHS programme. The LDHS questionnaires were developed in collaboration with a wide range of stakeholders. After the LDHS survey instruments were drafted, they were translated into and printed in the local language, Sesotho, for pre-testing.

The Household Questionnaire was used to list all the usual members and visitors in the selected households. Basic information was collected on the characteristics of each person listed, including age, sex, education, and relationship to the head of the household. The Household Questionnaire was also used to identify persons eligible for the individual interview. In addition, information was collected about the dwelling, such as the source of water, type of toilet facilities, materials used to construct the house, and ownership of various consumer goods. The results of anthropometric measurement and anaemia testing were recorded in the Household Questionnaire as was the information on the consent of eligible household members for the HIV testing.

The Woman's Questionnaire was used to collect information on the following topics:

- Background characteristics (age, education, religion, etc.)
- Birth history
- Knowledge and use of family planning methods
- Antenatal and delivery care
- Infant feeding practices including patterns of breastfeeding
- Vaccinations
- Episodes of childhood illness and responses to illness
- Marriage and sexual activity
- Fertility preferences
- Husband's background and the woman's work status
- Adult mortality, including maternal mortality
- HIV/AIDS-related knowledge, attitudes, and behaviour

- Knowledge, attitude, and behaviour related to other health issues.

The Man's Questionnaire was shorter than the Woman's Questionnaire, but covered many of the same topics, excluding the reproductive history and sections dealing with maternal and child health and maternal mortality.

In this survey, instead of paper questionnaires, personal data assistants (PDAs) were used for recording responses during interview. The PDAs are 'Bluetooth'-enabled to ease electronic transfer of files, such as assignment sheet from the team supervisor to the interviewers, household questionnaires among survey team members, and transfer of completed questionnaires to team and central office supervisors. The PDA programming was developed in the mobile version of CSPro developed by the MEASURE DHS project in collaboration with the U.S. Census Bureau.

## **2.3 ANAEMIA AND HIV TESTING**

In addition to the collection of information during the survey interview, the LDHS also included anaemia and HIV testing. The protocol for the anaemia and HIV testing was based on the standard protocols employed in the MEASURE DHS programme adapted to achieve the objectives of the LDHS. It was reviewed and approved by the Scientific and Ethics Committee at the Ministry of Health and Social Welfare and ICF Macro Institutional Review Board (IRB).

### **2.3.1 Anaemia Testing**

Haemoglobin testing is the primary method of anaemia diagnosis. In the LDHS, haemoglobin measurement was performed in the field by the survey field staff. Prior to collecting the blood specimen, participants age 18 and older and married youth age 15-17 were asked to give informed consent to the testing. For unmarried youth age 15-17, consent was asked from the parent or guardian and the respondent. For children age 6 months-5 years, consent was asked only from the parent or guardian. The statement explained the purpose of the test, informed prospective subjects tested and/or their caretakers how the test would be done, advised them that the results would be available as soon as the test was completed, and requested permission for the test to be carried out.

For the haemoglobin measurement, capillary blood was generally taken from a finger of individuals using sterile, single-use lancets.<sup>1</sup> The concentration of haemoglobin in the blood was measured in the field using the HemoCue system. The results of the anaemia test were immediately provided for all eligible individuals tested. Levels of anaemia were classified as severe, moderate, or mild according to criteria developed by the World Health Organisation (WHO). A brochure was provided on anaemia which included suggestions as to the steps (e.g., changes in diet) that could be taken in the event that an individual was found to have some degree of anaemia. Individuals who were found to be severely anaemic were referred to health facilities for further evaluation.

### **2.3.2 HIV Testing**

The LDHS HIV testing protocol involved the collection of at least three blood spots from a finger prick (generally the same prick used to obtain the blood drop for anaemia testing) on a special filter paper card. The HIV testing in the LDHS was anonymous, i.e., it was conducted in such fashion that the results could not be linked to individual respondents. A unique random identification number (bar code) was assigned to each eligible respondent consenting to the testing and labels containing that code were affixed to the filter paper card, the questionnaire, and a field tracking form at the time of the collection of the sample. No other identifiers were attached to the dried blood spots (DBS) sample.

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<sup>1</sup> In cases where a child was very thin, a heel prick was used to obtain the sample.

Because of the anonymous nature of the testing approach in the LDHS, it was not possible to provide information on the results from the HIV testing conducted during the LDHS. In lieu of providing the LDHS test results, written and verbal information was provided on counselling and testing (VCT) sites where free confidential counselling and HIV testing was available during the survey. In addition, any person (whether or not they participated in the LDHS) approaching an LDHS team with a request about VCT was provided with information on the sites, in an effort to increase VCT usage in Lesotho.

The procedures that LDHS field staff followed to obtain informed consent from eligible individuals to collect DBS samples for the HIV testing were similar to those used for obtaining consent for the anaemia testing. The HIV testing consent statement explained the objective of the testing and how the DBS sample would be collected, informed prospective subjects and/or their caretakers that the testing process was anonymous and, therefore, their result would not be available to them, advised them of the availability of free voluntary counselling and testing services, and requested permission for the test to be carried out.

After the survey team completed a cluster, all questionnaires, dried blood spot samples, and sample transmittal forms for the cluster were sent to the MOHSW for logging and checking prior to data entry. Blood samples were checked against the transmittal form and then forwarded to the Lesotho Blood Transfusion Service (LBTS) laboratory for testing. No identifying information other than the unique barcode label affixed at the time of the collection of the DBS sample accompanied the specimen to the laboratory.

## **2.4 PRETEST**

The pre-test training took place in July, 2009 at the MOHSW Headquarters. The training was conducted following the DHS training procedures including class presentations, and mock interviews using paper questionnaires as well as Personal Data Assistants (PDAs). The participants were also trained in taking biomarker measurements and tests.

Fourteen people were trained (the number include two IT officers), comprising 11 women and three men. They were drawn from staff of the MOHSW, Christian Health Association of Lesotho (CHAL), Lesotho Planned Parenthood Association (LPPA), Food and Nutrition Coordinating Office (FNCO), and the Lesotho Red Cross Society (LRCS). Four female trainees participated in the 2004 LDHS.

The pre-test fieldwork was conducted in Leribe and Butha-Bothe Districts in both urban and rural clusters to help gauge how respondents' reception of the LDHS teams might vary in different localities. On average, the Household Schedule took 30 minutes to complete, the Woman's Questionnaire took 90 minutes, the Man's Questionnaire 80 minutes.

## **2.5 TRAINING**

A total of 109 persons, 34 males and 75 females, were trained to be the 2009 LDHS field staff. The training followed the standard DHS training procedures, including instructions on how to conduct interviews and how to fill in all three questionnaires, classroom demonstration and practice in administering the questionnaires on paper questionnaires and PDA, and tests. The participants also practiced interviewing in actual households. Their field experiences were discussed in class.

In the 2009 LDHS training the first two weeks were spent in building the participants' familiarity with the survey instruments, knowledge and skills in conducting interviews, and recording responses in paper questionnaires. The PDAs were introduced in the third week of training. Participants were also trained on using the case-management system on the PDA to accomplish such tasks as selecting assigned interviews and receiving electronic case assignments from their supervisor. The fourth week was used to practice interviewing in Sesotho, practice biomarkers on children, and

practice interviewing and biomarkers in the field, and selection of supervisors and editors. The training continued in the fifth week and included a general overview of biomarkers and the PDA, and training the supervisors and editors to perform their tasks during the fieldwork.

All participants received extensive classroom training plus additional field practice on biomarker data collection. As part of the training, they were given thorough training in informed consent procedures, how to take height, weight, and blood pressure measurements, collect finger prick blood spot samples for anaemia and HIV testing, and how to handle and package the dried blood spots. All staff received training in universal precautions and the disposal of hazardous waste.

## **2.6 FIELDWORK**

Fieldwork for the 2009 LDHS was carried out by 15 mobile interviewing teams, each consisting of one supervisor, one field editor, three to four female interviewers, and one or two male interviewers. Three Field Coordinator (FC) Teams were formed, two consisted of one senior MOHSW staff and one Data Processing Supervisor and one consisted of two senior MOHSW staff. The FC teams supervised the data collection teams throughout the fieldwork period. Fieldwork commenced on October 16, 2009 and was completed on January 26, 2010.

After Christmas break, due to drop out and iteration, the field staff was regrouped into 13 teams. Data files were transferred from the team supervisors' PDA to the FC's PDA and blood samples were collected during these visits and transferred to the laboratory.

Collected data were transferred from the interviewer's PDA to the team supervisor's everyday. During visits by the FC teams, data were again transferred to the FC's PDA.

## **2.7 DATA PROCESSING**

All data files for the LDHS were stored in a computer at the MOHSW Headquarters. The data processing operation consisted of secondary editing, which involved checking for inconsistencies found by computer programmes developed for the LDHS. The LDHS data entry and editing programmes used CSPro, a computer software package specifically designed for processing survey data such as that produced by DHS surveys. Data processing commenced in November 2009 and was completed in February 2010.

The HIV testing is being carried out at the Lesotho Blood Transfusion Service. Results of the testing will be presented in a separate report.

## **2.8 SAMPLE RESULTS**

Table 1 shows household and individual response rates for the 2009 LDHS. Response rates are important because high non-response may affect the reliability of the results. A total of 9,994 households were selected for the sample, of which 9,619 were found during data collection. The shortfall was largely the result of structures that were found to be vacant or destroyed. Of the existing households, 9,391 were successfully interviewed, yielding a household response rate of 98 percent.

In these households, 7,786 women were identified as eligible for the individual interview. Interviews were completed with 98 percent of these women. Of the 3,493 eligible men identified in the sub-sample of households selected, 95 percent were successfully interviewed. Overall, for all eligible populations, response rates were higher in rural areas than in urban areas.

**Table 1 Results of the household and individual interviews**

Number of households, number of interviews, and response rates, according to residence (unweighted), Lesotho 2009

Result	Residence		Total
	Urban	Rural	
<b>Household interviews</b>			
Households selected	2,347	7,647	9,994
Households found	2,247	7,372	9,619
Households interviewed	2,141	7,250	9,391
Household response rate <sup>1</sup>	95.3	98.3	97.6
<b>Individual interviews: women</b>			
Number of eligible women	2,043	5,743	7,786
Number of eligible women interviewed	1,977	5,647	7,624
Eligible women response rate <sup>2</sup>	96.8	98.3	97.9
<b>Household interviews for men</b>			
Households selected	1,222	3,972	5,194
Households found	1,167	3,826	4,993
Households interviewed	1,105	3,768	4,873
Household response rate <sup>1</sup>	94.7	98.5	97.6
<b>Individual interviews: men</b>			
Number of eligible men	791	2,702	3,493
Number of eligible men interviewed	736	2,581	3,317
Eligible men response rate <sup>2</sup>	93.0	95.5	95.0

<sup>1</sup> Households interviewed/households occupied

<sup>2</sup> Respondents interviewed/eligible respondents

### 3. PRELIMINARY FINDINGS

#### 3.1 BACKGROUND CHARACTERISTICS

Table 2 shows the weighted percent distributions and weighted and unweighted numbers of women age 15-49 and men age 15-59 interviewed in the 2009 LDHS by age, marital status, residence, region and education. As expected, given the country's past history of high fertility, respondents were concentrated in the younger age groups; 44 percent of both women and men were in the 15-24 age group. Never-married females account for one-third of all women, compared with slightly more than half of males. Female respondents are more likely than male respondents to be married or living together (53 percent compared with 43 percent).

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
<b>Age</b>						
15-19	23.4	1,785	1,840	25.2	835	838
20-24	20.4	1,552	1,556	19.1	634	631
25-29	16.3	1,244	1,203	14.0	463	462
30-34	12.9	983	960	11.9	396	370
35-39	10.0	763	755	8.8	290	282
40-44	8.6	656	664	5.9	196	204
45-49	8.4	641	646	5.8	193	202
50-54	na	na	na	4.9	162	162
55-59	na	na	na	4.4	148	166
<b>Marital status</b>						
Never married	34.3	2,618	2,554	51.5	1,707	1,699
Married	52.3	3,990	4,071	41.9	1,389	1,380
Living together	0.8	58	58	0.8	27	23
Divorced/separated	5.0	385	349	3.0	98	115
Widowed	7.5	573	592	2.9	95	100
<b>Currently pregnant</b>						
No or unsure	95.8	7,303	7,288	0.0	na	na
Yes	4.2	321	336	0.0	na	na
<b>Residence</b>						
Urban	33.7	2,573	1,977	28.0	928	736
Rural	66.3	5,051	5,647	72.0	2,389	2,581
<b>Ecological zone</b>						
Lowlands	62.9	4,798	3,610	61.5	2,040	1,567
Foothills	9.5	725	718	10.5	348	349
Mountains	20.3	1,544	2,336	20.7	687	1,012
Senqu River Valley	7.3	556	960	7.3	242	389
<b>District</b>						
Butha-Bothe	4.7	357	648	5.5	184	325
Leribe	17.8	1,359	845	16.0	530	333
Berea	14.7	1,122	819	15.2	504	383
Maseru	26.7	2,036	1,211	25.5	845	488
Mafeteng	8.9	682	711	9.9	330	338
Mohale's Hoek	7.9	599	667	8.6	284	307
Quthing	5.0	379	669	5.0	165	281
Qacha's-Nek	2.9	219	605	2.7	91	247
Mokhotlong	4.7	356	695	4.8	158	290
Thaba-Tseka	6.8	515	754	6.8	227	325
<b>Education</b>						
No education	1.2	93	114	12.9	429	501
Primary, incomplete	23.7	1,810	2,053	36.9	1,223	1,280
Primary, complete	22.8	1,741	1,812	12.1	401	381
Secondary+	52.2	3,979	3,645	38.1	1,264	1,155
<b>Total</b>	<b>100.0</b>	<b>7,624</b>	<b>7,624</b>	<b>100.0</b>	<b>3,317</b>	<b>3,317</b>

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

Two in three female respondents and seven in ten male respondents live in the rural areas. The Lowlands zone has the largest proportion of respondents (about 62 percent) followed by the Mountains zone (about 20 percent). Foothills and Senqu River Valley zones have the smallest proportions. By district, the proportions of respondents range from less than 3 percent in Qacha's Nek to about 26 percent in Maseru.

Male respondents are much more likely than female respondents to have no education (13 and 1 percent, respectively). The higher proportion of males who have never gone to school may reflect the fact that many young men in Lesotho work as herd boys. Among those who attended school, female respondents are more likely than males to have attended secondary school (52 percent compared with 38 percent).

### 3.2 FERTILITY

All women age 15-49 interviewed in the 2009 LDHS were asked to provide a full account of all their children who were born alive. To encourage complete reporting, each woman was first asked about the number of sons and daughters living with her, the number living elsewhere, and the number who had died. A detailed history was then obtained about every child that the woman had had, including the month and year in which each child was born, the child's name, sex, survival status and, if dead, the age at death. Age-specific and total fertility rates for the survey calculated directly from the birth history data are shown in Table 3 by urban-rural residence. To obtain the most recent estimates of fertility, without compromising the statistical precision of estimates, the three-year period preceding the survey is used. It corresponds roughly to the calendar period 2007-2009. The table also presents the crude birth rate and the general fertility rate.

The total fertility rate (TFR) indicates that if childbearing were to remain constant at the age-specific fertility rates measured for the 36-month period before the LDHS survey, a woman in Lesotho would have, on average, 3.3 births in her lifetime. The TFR for urban areas is 2.1, which is about half of the rural rate of 4.0 births per woman. Peak childbearing for urban and rural women is at age 20-24; 120 births and 200 births per woman, respectively. At all age groups, age-specific fertility rates in urban areas are lower than those in rural areas (Figure 1).

**Table 3 Current Fertility**

Age-specific and cumulative fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by urban-rural residence, Lesotho 2009

Age group	Residence		Total
	Urban	Rural	
15-19	64	110	96
20-24	120	200	171
25-29	108	186	155
30-34	73	146	117
35-39	31	97	74
40-44	20	49	40
45-49	3	8	7
TFR	2.1	4.0	3.3
GFR	80.0	139.0	119.0
CBR	24.5	27.1	26.4

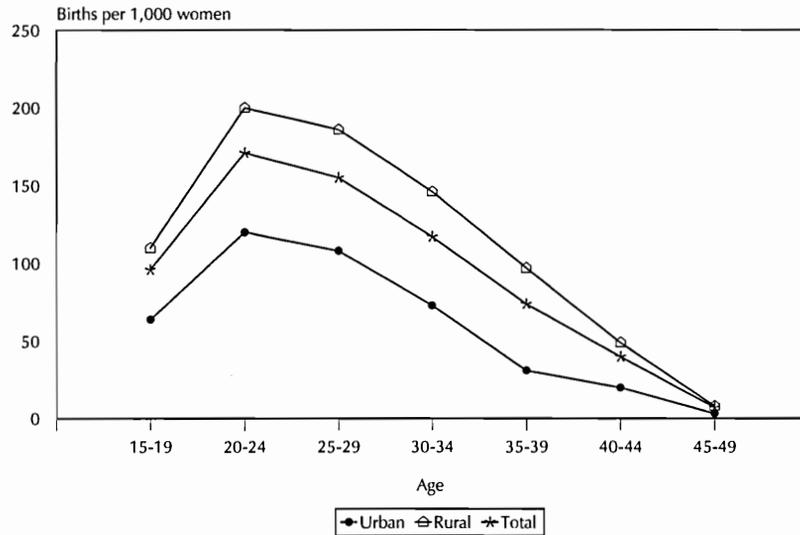
Note: Rates for age group 45-49 may be slightly biased due to truncation.

TFR: Total fertility rate for ages 15-49, expressed per woman

GFR: General fertility rate (births divided by the number of women age 15-44), expressed per 1,000 women

CBR: Crude birth rate, expressed per 1,000 population

**Figure 1 Age-Specific Fertility Rates by Urban-Rural Residence**



LDHS 2009

The general fertility rate (GFR) is the number of live births per 1,000 women age 15-49. The GFR for rural women is much higher than for urban women (139 compared with 80 live births per 1,000 women). The crude birth rate (CBR) is the number of live births per 1,000 population, which in 2009 is 26.4. All of these rates are slightly lower than those reported in the 2004 LDHS.

Compared with selected countries in Sub-Sahara Africa for which data are available, Lesotho has the lowest TFR (Figure 2).

**Figure 2 Total Fertility Rates, Selected Sub-Saharan Countries**

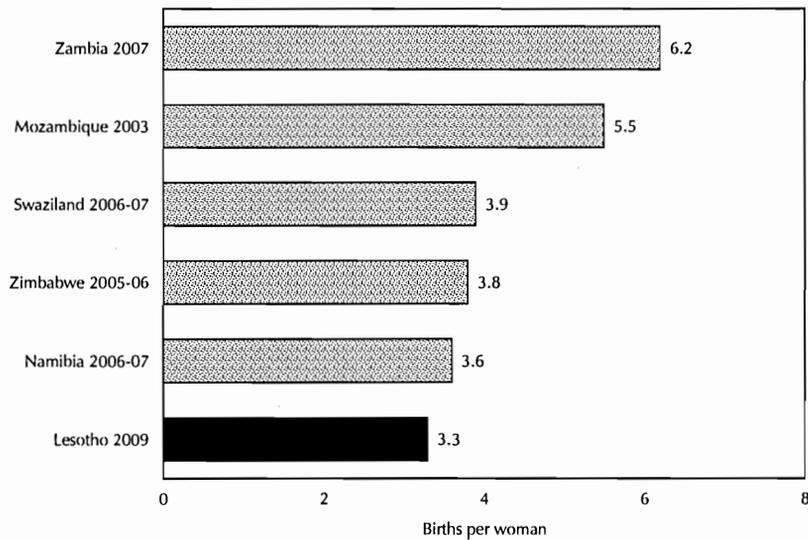


Table 4 shows that TFR has been gradually declining in the past three decades. Women in Lesotho had two fewer children in 2010 than in 1976 (5.4 births compared with 3.3 births per woman).

Age group	1976 Census	1986 Census	1996 Census	2004 LDHS	2009 LDHS
15-19	65	70	37	91	97
20-24	239	246	145	177	171
25-29	259	256	153	160	155
30-34	222	223	131	122	117
35-39	165	178	106	101	74
40-44	96	95	66	46	40
45-49	39	30	27	9	7
TFR	5.4	5.3	4.1	3.5	3.3

Sources: BOS 1976, BOS 1986, BOS 1996, MOH, BOS, and ORC Macro 2005

### 3.3 CONTRACEPTIVE USE

In the 2009 LDHS, respondents were asked a series of questions about contraceptive knowledge and use. They were first asked to name all of the family planning methods that they knew. For methods not mentioned spontaneously, the interviewer read a description of the method and asked if the woman had heard of the method. Finally, the respondents were asked if they were currently using a method, and, if so, which method and where the method was last obtained.

Table 5 shows the current use of contraception among currently married women age 15-49 by method according to selected background characteristics. The contraceptive methods are grouped into two categories in the table: modern and traditional. Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, and the lactational amenorrhoea method. Traditional methods include periodic abstinence, withdrawal and any folk methods reported by respondents.

As shown in Table 5, 47 percent of currently married women in Lesotho are using a method of contraception. Virtually all women use a modern method (46 percent). Injectables, the pill, and male condom are the most popular methods of contraception among currently married women (19 percent, 13 percent, and 9 percent, respectively).

Younger and older women are less likely to be using contraception than women in the mid-childbearing ages (25 to 39 years). The percentage who use a modern contraceptive method is 27 percent for women age 15-19, rises to 56 percent among women age 30-34, and then declines to 31 percent at age 45-49. Only 12 percent of married women with no children use contraception. Urban women, women in the Lowlands zone, and in Maseru district are more likely than other women to use a modern method of contraception. A woman's education is positively related to contraceptive use; use of modern methods increases from 28 percent for women with no education to 55 percent for women with secondary or higher education.

Table 5 Current use of contraception

Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Lesotho 2009

Background characteristic	Any method	Any modern method	Modern method						Traditional method				Not currently using	Total	Number of women	
			Female sterilization	Pill	IUCD	Injectables	Implants	Male condom	Female condom	Any traditional method	Periodic abstinence	Withdrawal				Folk method
<b>Age</b>																
15-19	28.2	26.8	0.0	6.8	0.0	13.8	0.0	5.8	0.4	1.4	0.2	0.5	0.7	71.8	100.0	292
20-24	43.9	43.1	0.1	11.0	0.2	23.5	0.1	7.8	0.2	0.8	0.0	0.7	0.2	56.1	100.0	860
25-29	52.2	51.2	0.6	14.7	1.1	24.4	0.1	10.2	0.1	1.0	0.1	0.6	0.4	47.8	100.0	857
30-34	57.4	55.5	0.9	17.6	2.5	24.6	0.2	9.8	0.0	1.8	0.2	1.2	0.4	42.6	100.0	704
35-39	52.7	51.1	3.2	14.5	3.5	18.8	0.0	10.7	0.3	1.7	0.0	1.1	0.6	47.3	100.0	522
40-44	45.3	42.6	9.4	9.2	2.6	9.9	0.2	11.3	0.1	2.7	0.0	0.6	2.1	54.7	100.0	429
45-49	32.0	31.0	6.5	6.7	5.2	3.6	0.0	8.9	0.0	1.0	0.4	0.4	0.2	68.0	100.0	386
<b>Living children</b>																
0	12.1	11.8	0.2	2.7	0.0	3.8	0.2	4.5	0.4	0.3	0.0	0.3	0.0	87.9	100.0	461
1-2	53.0	51.6	1.0	14.8	1.5	23.1	0.1	11.0	0.1	1.4	0.1	0.8	0.5	47.0	100.0	2,131
3-4	56.0	54.5	4.9	14.8	3.9	22.4	0.0	8.4	0.1	1.5	0.2	0.6	0.7	44.0	100.0	1,007
5+	34.6	32.0	5.1	6.6	1.5	9.8	0.0	8.8	0.2	2.5	0.0	1.5	1.1	65.4	100.0	450
<b>Residence</b>																
Urban	58.3	57.2	2.6	16.3	2.3	21.1	0.2	14.6	0.1	1.1	0.2	0.5	0.4	41.7	100.0	1,216
Rural	42.2	40.7	2.3	10.8	1.8	18.5	0.0	7.1	0.2	1.5	0.1	0.8	0.6	57.8	100.0	2,833
<b>Ecological zone</b>																
Lowlands	54.2	53.0	3.1	14.4	2.7	21.1	0.1	11.5	0.0	1.2	0.1	0.6	0.5	45.8	100.0	2,405
Foothills	45.2	42.1	1.4	12.0	2.0	21.4	0.0	4.7	0.5	3.1	0.0	1.5	1.7	54.8	100.0	451
Mountains	33.6	32.7	1.4	8.8	0.2	15.3	0.1	6.6	0.3	0.9	0.1	0.6	0.3	66.4	100.0	906
Senqu River Valley	32.5	30.7	0.7	8.9	1.0	12.6	0.0	7.3	0.3	1.8	0.2	1.2	0.3	67.5	100.0	287
<b>District</b>																
Butha-Bothe	54.2	53.7	2.5	13.6	3.0	29.2	0.0	5.5	0.0	0.6	0.3	0.3	0.0	45.8	100.0	225
Leribe	44.8	44.2	0.5	12.9	2.7	20.1	0.1	7.8	0.0	0.7	0.0	0.4	0.3	55.2	100.0	745
Berea	50.8	48.5	4.7	10.7	4.4	20.5	0.0	8.2	0.0	2.3	0.3	0.8	1.3	49.2	100.0	543
Maseru	56.0	54.5	4.0	14.4	1.7	19.6	0.2	14.4	0.1	1.5	0.0	0.8	0.7	44.0	100.0	1,030
Mafeteng	51.7	49.6	1.0	17.1	0.8	23.0	0.0	7.5	0.3	2.1	0.2	1.2	0.7	48.3	100.0	364
Mohale's Hoek	41.6	40.7	0.6	11.5	0.6	19.9	0.0	7.9	0.0	1.0	0.0	0.8	0.2	58.4	100.0	335
Quthing	33.2	32.3	1.9	10.2	0.9	11.9	0.0	7.0	0.3	0.9	0.0	0.9	0.0	66.8	100.0	179
Qacha's-Nek	35.7	34.3	3.5	9.3	0.3	12.2	0.8	7.0	1.3	1.4	0.0	0.0	1.4	64.3	100.0	108
Mokhotlong	30.3	29.5	1.3	7.9	0.2	10.7	0.0	9.4	0.0	0.8	0.3	0.2	0.3	69.7	100.0	209
Thaba-Tseka	34.1	32.0	1.2	8.6	0.6	14.1	0.0	7.0	0.4	2.1	0.2	1.5	0.4	65.9	100.0	311
<b>Education</b>																
No education	32.1	27.8	1.7	6.3	0.0	19.1	0.0	0.8	0.0	4.2	0.0	4.2	0.0	67.9	100.0	58
Primary, incomplete	38.4	36.6	2.0	8.8	1.2	17.5	0.0	6.9	0.1	1.8	0.1	0.6	1.1	61.6	100.0	1,086
Primary, complete	41.9	40.5	2.2	11.7	2.0	17.4	0.0	7.2	0.0	1.4	0.1	0.8	0.5	58.1	100.0	1,088
Secondary+	55.7	54.7	2.7	15.4	2.4	21.4	0.2	12.4	0.2	1.0	0.1	0.6	0.3	44.3	100.0	1,817
<b>Total</b>	47.0	45.6	2.4	12.5	1.9	19.3	0.1	9.4	0.1	1.4	0.1	0.7	0.6	53.0	100.0	4,049
2004 LDHS	37.3	35.2	2.7	10.9	2.1	14.7	na	4.8	0.0	2.1	na	0.9	1.2	62.7	100.0	3,709

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

na = Not applicable

There has been a substantial increase in contraceptive use among married women since 2004. Overall, contraceptive prevalence increases from 35 percent in 2004 to 47 percent in 2009. The most notable increase is in the use of injectables from 15 percent in 2004 to 19 percent in 2009 and male condom from 5 percent in 2004 to 9 percent in 2009. Pill use increased slightly in the same time period from 11 percent to 13 percent.

Table 6 presents the changes in modern contraceptive use among married women by district between the 2004 LDHS and the 2009 LDHS. The largest increase is shown by married women in Maseru, with 17 percentage points (38 percent in 2004 compared with 55 percent in 2009), followed closely by married women in Berea and Mokhotlong (16 percentage points and 15 percentage points, respectively). On the other hand, modern contraceptive use increased by 5 percent or less in Leribe, Mohale's Hoek and Mafeteng.

### 3.4 FERTILITY PREFERENCES

In order to obtain an insight into women's childbearing intentions, LDHS respondents were asked whether they wanted to have another child and, if so, how soon. Table 7 summarizes the information on women's reproductive preferences. The majority of married women express a desire to control future childbearing; 56 percent report that they do not want another child and 2 percent are using female sterilization. An additional 23 percent want another child, but indicate that they wish to wait at least two years before the birth of their next child.

Compared with findings in the 2004 LDHS, there has been an increase in the proportion of women who want no more children (51 percent in 2004 compared with 56 percent in 2009). However, the proportion of women who want to delay to have their next birth for at least two years decreases from 26 percent in 2004 to 23 percent in 2009.

**Table 6 Trends in current contraceptive use**

Percent distribution of currently married women by modern contraceptive method currently used, by district, Lesotho 2004 and 2009

District	2004 LDHS	2009 LDHS
Butha-Bothe	43.7	53.7
Leribe	39.4	44.2
Berea	32.1	48.5
Maseru	37.7	54.5
Mafeteng	48.5	49.6
Mohale's Hoek	37.0	40.7
Quthing	26.5	32.3
Qacha's-Nek	21.8	34.3
Mokhotlong	14.3	29.5
Thaba-Tseka	19.4	32.0
Total	35.2	45.6

Sources: BOS 1976, BOS 1986, BOS 1996, MOH, BOS, and ORC Macro 2005

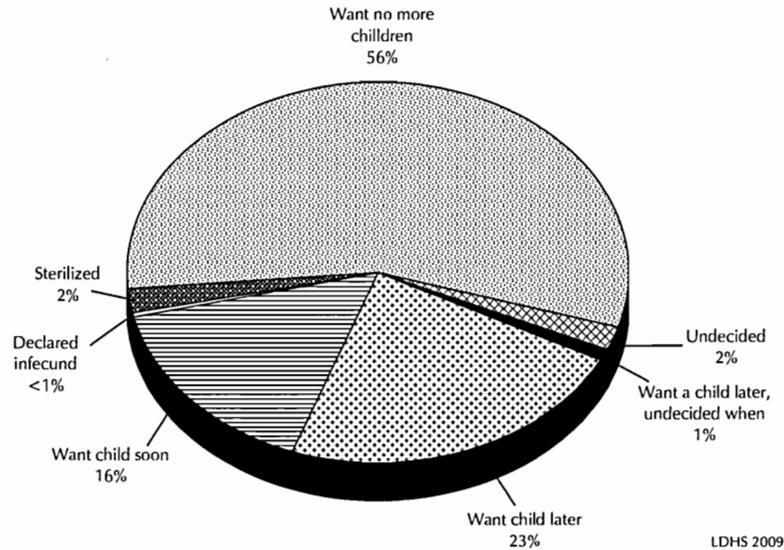
**Table 7 Fertility preferences by number of living children**

Percent distribution of currently married women by desire for children, according to number of living children, Lesotho 2009

Desire for children	Number of living children <sup>1</sup>							Total
	0	1	2	3	4	5	6+	
Have another soon <sup>2</sup>	79.5	18.4	11.4	4.7	2.2	3.2	0.7	16.3
Have another later <sup>3</sup>	9.2	49.0	21.0	10.1	3.5	1.6	0.5	22.8
Have another, undecided when Undecided	0.9	0.8	0.4	0.2	0.0	0.1	0.2	0.5
Want no more	0.8	2.2	1.9	0.8	1.2	0.0	0.0	1.5
Sterilized <sup>4</sup>	6.7	28.8	63.3	79.4	88.2	89.8	93.9	56.3
Declared infecund	0.3	0.6	1.4	4.9	4.8	5.3	4.7	2.4
	2.7	0.1	0.5	0.0	0.0	0.0	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	346	1,215	1,007	626	394	235	227	4,049

<sup>1</sup> Includes current pregnancy  
<sup>2</sup> Wants next birth within 2 years  
<sup>3</sup> Wants to delay next birth for 2 or more years  
<sup>4</sup> Includes both male and female sterilization

**Figure 3 Fertility Preferences among Currently Married Women Age 15-49**



### 3.5 MATERNAL HEALTH

Proper care during pregnancy and childbirth are important to the health of both a mother and her baby. The 2009 LDHS collected information from mothers giving birth in the five-year period prior to the survey on a number of key maternal health indicators including the utilisation of antenatal care services, the coverage of tetanus toxoid vaccinations, the receipt of iron supplementation during pregnancy; and the assistance mothers received at delivery. These results are presented in Table 8.

Regular checkups from a medically trained provider throughout a pregnancy reduce the risk to the mother and child during pregnancy and at delivery. Table 8 shows that 92 percent of women who had a live birth in the five years preceding the survey received antenatal care from a health professional. In general, younger women, women with smaller number of living children, and women who have higher education are more likely than other women to have received antenatal care from a health professional. Urban women, those who live in districts with urban centres, and in Lowlands are somewhat more likely than other women to have access to antenatal care provided by a health professional. Variations in antenatal care by district are small.

One key component of antenatal care for which information was obtained in the LDHS was the receipt of tetanus toxoid injections. These injections are given to protect a baby from contracting neonatal tetanus, a cause of early infant death that often results from failure to observe hygienic procedures during childbirth. According to the 2009 LDHS results, three in four last births during the five-year period before the survey are fully protected against neonatal tetanus. The variations in tetanus toxoid coverage across subgroups of woman is generally similar to that of antenatal care coverage, but the differentials are somewhat greater.

Less than half (47 percent) of women age 15-49 who had a live birth in the five-year period before the survey received iron tablets or syrup during the most recent pregnancy. Urban women and those who live in Lowlands zone are more likely than other women to have received iron supplements during the most recent pregnancy. The likelihood of receiving iron tablets increases with the woman's education, ranging from 41 percent among women with no education or less than primary education to 51 percent among women with secondary or higher education. Iron supplementation across districts ranges from 24 percent in Mokhotlong to 64 percent in Maseru.

**Table 8 Maternal care indicators**

Percentage of women age 15-49 who had a live birth in the five years preceding the survey who received antenatal care from a health professional for the most recent birth, and whose last live birth was protected against neonatal tetanus, and given iron tablets during pregnancy, and among all live births in the five years before the survey, percentage delivered by a doctor, nurse/midwife and health professional, and percentage delivered in a health facility, according to background characteristics Lesotho 2009

Background characteristic	Percentage with antenatal care from a health professional <sup>1</sup>	Percentage whose last live birth was protected against neonatal tetanus <sup>2</sup>	Percentage given iron tablets during pregnancy	Number of women	Percentage delivered by a doctor or nurse/midwife	Percentage delivered by a community health worker	Percentage delivered in a health facility	Number of births
<b>Mother's age at birth</b>								
<20	92.0	68.9	45.1	591	63.8	9.3	62.3	788
20-34	92.5	77.0	47.4	2,028	62.3	11.1	59.2	2,524
35+	87.4	73.1	44.1	366	52.9	16.4	48.3	421
<b>Mother's age at birth (5-year age groups)</b>								
<20	92.0	68.9	45.1	591	63.8	9.3	62.3	788
20-24	93.1	75.6	47.6	943	66.7	10.6	62.7	1,205
25-29	92.0	77.3	46.6	665	59.1	11.4	57.0	814
30-34	92.2	79.6	48.2	419	56.9	11.8	54.5	504
35-39	89.5	79.1	47.8	235	52.6	16.7	48.5	282
40-44	86.2	62.9	38.1	122	53.9	15.2	48.8	129
45-49	51.3	53.2	29.6	9	47.9	24.5	33.3	9
<b>Living children</b>								
0	90.1	54.8	45.6	83	74.1	6.9	68.1	98
1-2	93.4	75.9	48.5	1,920	69.6	9.2	66.9	2,288
3-4	92.2	78.4	45.5	673	51.5	13.1	48.7	900
5+	81.2	66.5	36.6	308	37.8	19.4	34.4	446
<b>Residence</b>								
Urban	95.7	81.6	53.3	759	88.2	2.9	85.6	864
Rural	90.5	72.6	44.2	2,225	53.5	13.8	50.5	2,868
<b>Ecological zone</b>								
Lowlands	92.6	79.7	51.1	1,671	72.3	7.2	69.2	1,997
Foothills	87.8	72.6	48.5	334	52.3	11.2	49.8	417
Mountains	92.1	68.1	38.6	748	46.4	18.5	43.9	1,018
Senqu River Valley	90.9	65.3	36.4	230	54.5	13.9	51.3	300
<b>District</b>								
Butha-bothe	92.7	74.5	40.0	156	63.8	13.5	61.0	198
Leribe	89.2	75.9	43.4	540	64.4	10.9	61.2	669
Berea	91.4	77.1	50.7	394	65.7	9.5	63.5	477
Maseru	93.5	81.0	64.3	691	72.3	5.5	69.0	831
Mafeteng	90.4	77.2	43.3	283	59.4	7.8	55.8	336
Mohale's Hoek	93.3	72.2	39.9	258	54.9	14.3	50.6	332
Quthing	90.3	59.5	31.2	141	57.3	9.6	53.0	185
Qacha's-Nek	94.5	72.2	47.7	87	63.6	10.5	61.2	112
Mokhotlong	94.8	74.9	24.1	178	48.3	19.7	47.7	243
Thaba Tseka	90.7	62.8	36.8	255	42.5	23.1	41.6	348
<b>Education</b>								
No education	86.9	66.0	41.1	46	39.6	20.5	37.5	65
Primary,incomplete	84.9	62.8	40.9	802	40.7	15.8	37.6	1,095
Primary,complete	92.6	78.2	44.3	791	57.1	12.4	54.3	1,023
Secondary+	95.6	80.5	51.4	1,345	80.1	7.0	77.3	1,549
<b>Total</b>	<b>91.8</b>	<b>74.9</b>	<b>46.5</b>	<b>2,984</b>	<b>61.5</b>	<b>11.3</b>	<b>58.7</b>	<b>3,732</b>

<sup>1</sup> Doctor, nurse, midwife, or auxiliary midwife

<sup>2</sup> Includes mothers with two injections during the pregnancy of the last live birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last live birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections prior to the last live birth

An important component in the effort to reduce the health risks of mothers and children is to increase the proportion of deliveries that are assisted by skilled attendants. The availability of medical assistance at delivery helps to reduce the risk of adverse pregnancy outcomes, leading to lower rates of maternal morbidity, maternal mortality, and perinatal mortality. The 2009 LDHS found that 62 percent of all live births during the five-year period prior to the survey were assisted by a doctor or a nurse, and 11 percent were assisted at delivery by a community health worker. Fifty-nine percent of these births were delivered in a health facility, indicating that many births outside health facilities are attended by a health care provider.

Younger women, women with smaller number of living children, and women who have higher education are more likely than other women to have received delivery care from a health professional. Also, urban women and women who live in Lowlands are more likely than other women to have access to delivery care provided by a health professional. There are small variations in delivery care by district. Maseru and Butha-Bothe have the highest proportions delivered by a health professional and Thaba-Tseka the lowest (77-78 percent compared with 66 percent, respectively).

The role of community health workers in assisting in delivery is notable (11 percent). Their role varies across subgroups of women; it is highest among older women and women with larger number of children. Community health workers play a more important role in rural areas and in the Mountains zone than in other areas. Across districts, the proportion of deliveries assisted by community health workers varies between 5 percent in Maseru and 20 percent in Mokhotlong.

The proportion of deliveries that took place in a health facility varies across districts between 69 percent in Maseru and 42 percent in Thaba-Tseka.

Comparable data from the 2004 LDHS are shown at the bottom of the table to gauge the changes since 2004. There is a small increase in access to antenatal care (90 percent to 92 percent). Other maternal care indicators show larger increases; coverage of iron supplementation increases from 38 percent to 47 percent, delivery by doctor and nurse from 55 percent to 62 percent, and delivery in a health facility from 52 percent to 59 percent.

### 3.6 CHILDHOOD MORTALITY

A key objective of the 2009 LDHS was to measure levels and trends in mortality among children. The childhood mortality rates presented in Table 9 are estimated directly from information obtained in the birth history section of the Woman's Questionnaire on each child's birth date, survivorship status, and the age at death for children who died. The rates are defined as followed:

- Neonatal mortality: the probability of death in the first month
- Post-neonatal mortality: the difference between infant mortality and neonatal mortality
- Infant mortality: the probability of death before the first birthday
- Child mortality: the probability of death between the first and fifth birthdays
- Under-five mortality: the probability of death before the fifth birthday.

The rates shown in Table 9 were calculated for three consecutive five-year periods before the survey. For the most recent five-year period, the under-five mortality rate was 117 deaths per 1,000 live births. Looking at the age pattern of mortality during the five-year period prior to the survey, close to 80 percent of all deaths took place during the first year of the child's life. In turn, half of infant deaths occurred during post-neonatal period.

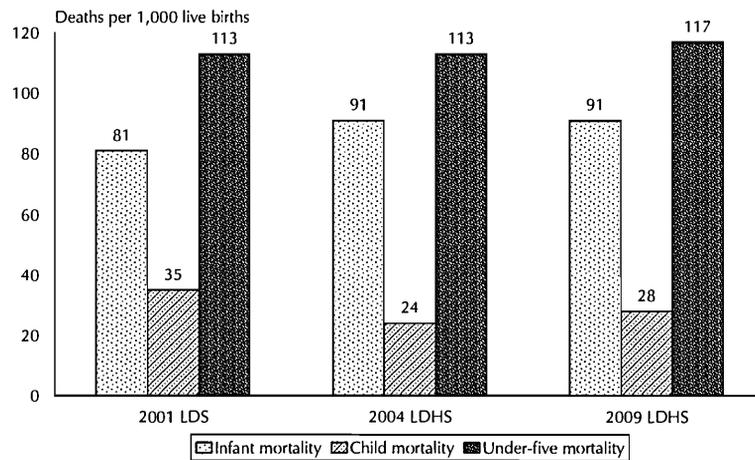
Looking at the rates for all three time periods shown in Table 9, the pattern is one of rising mortality. The increased mortality was particularly marked in the post-neonatal period, where mortality rates doubled during the 15-year period shown in the table. A child's chances of dying between his first and fifth birthday also rose sharply, nearly doubling during the 15-year period, while the likelihood that a baby would die during the first month of life increased only slightly over the period.

Years preceding the survey	Approximate calendar years	Neonatal mortality (NN)	Post-neonatal mortality (PNN) <sup>1</sup>	Infant mortality ( <sub>1</sub> q <sub>0</sub> )	Child mortality ( <sub>4</sub> q <sub>1</sub> )	Under-five mortality ( <sub>5</sub> q <sub>0</sub> )
0-4	2005-2009	47	45	91	28	117
5-9	2000-2004	35	38	72	20	90
10-14	1995-1999	35	22	57	15	71

<sup>1</sup> Computed as the difference between the infant and neonatal mortality rates

Figure 4 is presented to show the trends in childhood mortality from three surveys, the 2001 Lesotho Demographic Survey, the 2004 LDHS, and the 2009 LDHS. The figure indicates that infant mortality rate increased from 81 deaths per 1,000 live births in 2001 to 91 deaths per 1,000 live births in the 2004 LDHS, and stays at the same level in the 2009 LDHS.

**Figure 4 Trends in Infant, Child, and Under-five Mortality, 2001 LDS, 2004 LDHS, and 2009 LDHS**



Further examination of the rates from the two most recent LDHS surveys, however, raises questions about the comparability of the mortality results from the two surveys. For example, the 5-9 year rates from the 2009 LDHS (an infant mortality rate of 72 and under-five mortality rate of 90) and the 0-4 year rates from the 2004 survey (an infant mortality rate of 91 and an under-five mortality rate of 133) are not comparable although they refer to approximately the same time frame (i.e., circa 2004-2009). Additional analysis is, therefore, needed to investigate the recent pattern of early childhood mortality in Lesotho before a conclusion is reached that mortality has increased over the period between the 2004 and 2009 LDHS surveys. As discussed above, possible factors that may be affecting the mortality estimates include reporting errors during the surveys and excess mortality among mothers. Sampling variability also should be considered.

### 3.7 VACCINATION OF CHILDREN

In the 2009 LDHS, data on childhood immunisations were collected for all surviving children born since January 2004. For each child, mothers were asked whether they had the health card for the child and, if so, to show the card to the interviewer. When the mother was able to show the health card, the dates of vaccinations were transcribed from the card to the questionnaire. If the card was not available (or a vaccination was not recorded), mothers were asked questions to determine whether the child had received each vaccine. Vaccination coverage rates are provided in Table 10 by background characteristics, and are based on information from both vaccination records and mothers' reports. The results are presented for children age 12-23 months, thereby including only those children who have reached the age by which the full series of recommended vaccinations should have been received.<sup>2</sup>

Background characteristic	DPT			Polio			Measles	All	No vaccination	Percentage with a health card seen	Number of children		
	BCG	1	2	3	0 <sup>1</sup>	1						2	3
<b>Sex</b>													
Male	95.5	96.5	92.9	83.5	75.2	93.2	88.7	74.3	77.9	58.6	2.7	72.6	356
Female	94.8	95.0	89.8	83.6	81.0	95.1	87.0	75.3	82.6	64.5	3.4	75.6	388
<b>Residence</b>													
Urban	97.6	97.9	95.7	91.4	88.3	95.1	87.4	75.4	90.0	70.7	1.2	67.7	170
Rural	94.4	95.0	90.0	81.2	75.2	94.0	87.9	74.7	77.5	59.0	3.6	76.1	574
<b>Ecological zone</b>													
Lowlands	96.9	97.5	92.7	87.3	82.3	94.8	87.5	75.2	85.1	64.0	1.0	73.5	395
Foothills	94.4	96.4	93.5	89.1	77.7	95.1	90.4	78.6	80.4	63.7	3.6	77.1	87
Mountains	92.4	92.2	87.4	75.7	69.9	92.4	87.0	73.5	73.8	58.7	6.4	72.9	196
Senqu River Valley	93.8	94.3	91.8	76.5	79.2	95.4	88.8	72.0	71.3	54.0	4.6	78.0	66
<b>District</b>													
Butha-Bothe	83.3	84.4	81.6	75.8	76.1	81.1	75.6	67.1	75.0	53.7	13.8	65.3	32
Leribe	97.7	96.4	89.3	81.4	73.3	97.7	91.4	72.5	76.9	54.9	2.3	60.5	120
Berea	96.2	98.6	98.6	95.7	79.2	98.6	91.5	83.8	85.3	71.2	0.0	80.6	95
Maseru	98.2	97.2	93.7	85.6	86.9	92.8	83.0	68.7	83.2	60.3	1.8	73.4	161
Mafeteng	96.0	97.9	93.0	86.3	83.2	96.4	91.6	81.3	82.1	66.4	1.2	89.5	81
Mohale's Hoek	91.1	93.7	85.7	78.7	77.4	87.7	85.2	74.3	77.5	59.5	4.4	72.7	72
Quthing	88.0	93.2	87.6	81.8	71.2	93.2	83.3	71.3	76.5	58.5	6.8	70.8	42
Qacha's-Nek	98.0	95.8	95.8	94.2	60.2	98.0	98.0	86.3	86.8	79.0	2.0	84.0	16
Mokhotlong	97.1	96.4	94.4	84.3	72.8	96.4	92.1	82.1	84.3	74.7	2.9	81.9	52
Thaba-Tseka	93.0	92.9	86.8	69.6	73.8	93.9	88.8	71.8	74.1	52.7	5.2	72.7	72
<b>Education</b>													
No education	*	*	*	*	*	*	*	*	*	*	*	*	12
Primary, incomplete	93.3	92.7	84.8	75.0	67.4	90.2	83.3	71.9	71.1	54.4	4.4	76.3	204
Primary, complete	94.2	94.9	93.5	85.4	78.1	93.7	86.7	71.1	79.2	60.5	4.9	76.4	175
Secondary+	96.6	97.8	93.8	87.1	84.3	96.8	90.7	77.9	86.3	66.1	1.4	71.7	354
Total	95.1	95.7	91.3	83.5	78.2	94.2	87.8	74.9	80.3	61.7	3.1	74.2	744
Total 2004 LDHS	96.4	94.6	91.6	82.8	71.4	95.4	90.2	79.7	84.9	67.8	2.3	77.7	660

<sup>2</sup> The World Health Organisation guidelines for childhood immunisations call for all children to receive: a BCG vaccination against tuberculosis; three doses of the DPT vaccine to prevent diphtheria, pertussis and tetanus; three doses of polio vaccine (not considering polio given at birth); and a measles vaccination.

Vaccination cards were seen for 74 percent of children age 12-23 months. Taking into account information from these cards as well as the mother's report for children whose card was not available, the LDHS found that 97 percent of children age 12-23 months have received at least some of the recommended vaccinations. The highest coverage level was for the DPT1 vaccine (96 percent). Eighty-four percent of the children have received the recommended three doses of the DPT vaccine and 75 percent have had at least three doses of polio vaccine. Eighty percent of children have received a measles vaccination.

Overall, 62 percent of children are considered as immunised against all major preventable childhood diseases, i.e., they have received a BCG vaccination, three DPT and three polio immunisations and a measles vaccination. There are small differences in the proportions immunised by specific vaccines across subgroups of children in Table 10. Boys are less likely than girls to have received all vaccinations (59 and 65 percent, respectively) and rural children are less likely to be fully immunised than urban children (59 percent and 71 percent, respectively). Among the four ecological zones, children in Lowlands and Foothills are more likely than children in other zones to be fully immunised (63-64 percent compared with 54-59 percent). Vaccination coverage is highest (70 percent or higher) in Berea and Mokhotlong and lowest in Thaba-Tseka (53 percent). Mother's education increases the likelihood of children to be immunised.

Data from the 2004 LDHS are shown at the bottom of the table to show the trend in vaccination coverage since 2004. For all vaccinations, except polio 0, coverage is lower in 2009 than in 2004. While 68 percent of children 12-23 months are fully vaccinated in 2004, the corresponding proportion in 2009 is 62 percent. The most notable decline is in measles immunisation coverage (5 percentage points). The only increase is in polio 0 coverage from 71 percent in 2004 to 78 percent in 2009.

### 3.8 CHILD NUTRITIONAL STATUS

Nutritional status is an important health indicator as it allows evaluation of the susceptibility of the population to disease, impaired mental development, and early death. In the 2009 LDHS, the height and weight of children under age five were measured in order to estimate their nutritional status. To allow standardised measurements over time and in different settings, height and weight data are routinely compared with a reference population. Thus, the nutritional status of Lesotho children for which anthropometric data was obtained in the LDHS is compared with the Child Growth standards adopted by the World Health Organisation.<sup>3</sup>

Three standard indicators of growth are used in this report: height-for-age; weight-for-height; and weight-for-age. The height-for-age measure provides information on stunting, which is the result of poor nutrition over an extended period. A child is considered stunted if the child is too short for his/her age. The weight-for-height data assesses whether or not the child is wasted. A child is considered wasted if the child is too thin, i.e., weighs too little for his/her height. Wasting is an indicator of acute or recent nutritional deficit and is closely tied to mortality risk. The weight-for-height indicator also can be used to assess the extent to which children are overweight or obese, which is an increasing problem among children worldwide. Finally, the weight-for-age indicator provides an assessment of whether a child weighs too little for his/her age. A child can be underweight for his/her age because the child is stunted, wasted, or both.

The status of a child with regard to stunting, wasting, and underweight is determined by how many statistical units (standard deviations), the child's measurements are below the median of the Child Growth reference population. If a child is between 2 and 3 standard deviations below the mean,

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<sup>3</sup> These standards are based on an international reference population (from Brazil, Ghana, India, Norway, Oman and the United States) of ethnically, culturally and genetically diverse healthy children living under optimum conditions in order to achieve a child's full growth potential. The Child Growth reference population replaces the NCHS/CDC/WHO reference population, which was previously used internationally for assessing children's nutritional status.

the child is considered moderately malnourished (stunted, wasted, or underweight); if the child is 3 or more standard deviations below the mean, the child is considered severely malnourished.

The data in Table 11 indicate that there is notable malnutrition among Basotho children. Overall, 39 percent of children under age five are stunted, and 15 percent are severely stunted. Four percent of children are wasted, while 1 percent are severely wasted. Reflecting the effects of both chronic and short-term malnutrition, 13 percent of children under age five are underweight for their age.

Table 11 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, Lesotho 2009							
Background characteristic	Height-for-age		Weight-for-height		Weight-for-age		Number of children
	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	
<b>Age in months</b>							
<6	6.9	19.1	2.1	7.6	2.6	9.8	188
6-8	5.6	19.2	7.1	10.6	2.7	9.5	99
9-11	6.2	21.4	3.0	8.3	4.9	15.8	94
12-17	15.7	31.7	2.0	4.5	3.5	10.7	222
18-23	16.5	43.9	0.5	2.1	0.9	14.8	202
24-35	20.4	47.8	0.9	1.6	2.1	15.1	434
36-47	16.1	45.5	0.8	2.8	2.6	13.5	383
48-59	14.2	43.4	0.7	2.9	1.6	13.2	464
<b>Sex</b>							
Male	18.4	43.4	1.7	4.1	3.3	15.7	1,034
Female	11.2	35.0	1.1	3.5	1.4	10.7	1,052
<b>Residence</b>							
Urban	12.6	30.2	1.6	4.0	1.7	12.2	353
Rural	15.2	41.0	1.4	3.7	2.4	13.4	1,733
<b>Ecological zone</b>							
Lowlands	12.6	34.3	0.7	2.8	1.2	11.5	1,083
Foothills	17.6	35.5	2.7	3.8	2.1	14.3	241
Mountains	18.3	48.3	2.1	5.2	3.9	16.3	572
Senqu River Valley	13.3	44.5	1.7	4.8	4.2	12.3	190
<b>District</b>							
Butha-Bothe	9.5	32.5	1.3	3.8	3.0	10.8	111
Leribe	19.4	39.6	0.4	1.4	1.0	10.7	349
Berea	9.8	35.3	0.5	2.8	1.1	10.0	280
Maseru	12.4	31.7	1.4	3.8	2.7	12.9	435
Mafeteng	15.8	37.6	1.4	5.2	0.5	14.5	199
Mohale's Hoek	11.1	44.8	2.6	4.9	5.0	19.1	189
Quthing	12.4	37.6	2.8	4.2	3.1	8.9	114
Qacha's-Nek	13.0	47.0	1.0	3.9	2.2	10.5	66
Mokhotlong	19.0	48.2	2.0	4.0	4.7	18.3	138
Thaba-Tseka	23.1	51.8	2.4	5.9	2.4	16.8	206
<b>Education<sup>2</sup></b>							
No education	17.6	41.4	1.3	2.7	0.0	13.3	42
Primary, incomplete	18.1	42.2	2.4	5.8	4.1	16.9	492
Primary, complete	15.9	44.3	1.0	3.0	2.6	13.4	446
Secondary+	10.4	30.9	1.1	3.7	1.2	9.1	709
<b>Mother's status<sup>3</sup></b>							
Mother interviewed	14.4	37.7	1.5	4.2	2.4	13.0	1,505
Mother not interviewed, but in household	14.1	41.1	1.1	3.0	2.5	9.1	189
Mother not interviewed, not in household	16.6	44.0	1.3	2.4	1.9	15.8	392
Total	14.8	39.2	1.4	3.8	2.3	13.2	2,086
Total 2004 LDHS	18.3	43.5	1.6	5.0	3.5	15.7	1,620

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards adopted in 2006. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

<sup>1</sup> Includes children who are below -3 standard deviations (SD) from the International Reference Population median. Total includes 4 children with missing information on mother's education.

<sup>2</sup> For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire

<sup>3</sup> Includes children whose mothers are deceased

Children's nutritional status varies markedly with a number of the background characteristics in Table 11. The levels of stunting increases with the child's age, peaking in the age groups (24-35 months) when large numbers of children have started taking complementary foods. Male children are more likely to be malnourished than female children, with the largest differences observed in the percentage stunted. The percentages stunted also differ markedly by where the children live. For example, rural children are more likely to be stunted than urban children (41 percent and 30 percent, respectively). The proportion stunted varies from 32 percent in Maseru to 52 percent in Thaba-Tseka. Children in Lowlands and Foothills zones have better nutritional status than children in the Mountains and Senqu River Valley. In general, the proportions of children who are stunted, wasted, or underweight decline with the mother's education.

### 3.9 CHILDHOOD ILLNESSES

Prompt medical attention for children suffering from acute respiratory infection, severe diarrhoea and malaria is crucial to reducing childhood deaths. In the LDHS, to obtain information on how childhood illnesses are treated, mothers were asked, for all children under age five, if the child had been ill with a cough accompanied by short, rapid breathing, fever, or diarrhoea during the two weeks prior to the survey. If the child had been sick with one (or more) of these illnesses, additional questions were asked about what actions, if any, were taken in treating the illness(es).

Results from the LDHS indicate that, in the two-week period before the survey, 6 percent of children under age five were reported by their mothers as having been ill with a cough with short, rapid breathing, 17 percent with a fever, and 11 percent with diarrhoea (data not shown in the table).

Table 12 shows the percentage of children ill with symptoms of an acute respiratory infection (ARI) (i.e., a cough with short, rapid breathing), fever, or diarrhoea for whom treatment was sought from a health care provider. The table also shows the percentage of children ill with diarrhoea that was given a solution prepared from a oral rehydration salt packet. Oral rehydration therapy (ORT) using an ORS packet is a simple means of countering the effects of dehydration from diarrhoea. A health care provider was consulted about the child's illness for around seven in ten children ill with ARI symptoms, around six in ten of the children who had a fever, and 53 percent of children who had diarrhoea. Seven in ten children with diarrhoea were given a solution prepared from an ORS packet.

Overall, there are no distinct patterns in the treatment of children with illnesses, except children's likelihood of receiving treatment increases with the mother's education.

Table 12 Treatment for acute respiratory infection, fever, and diarrhoea

Among children under five years who were sick with a cough accompanied by short, rapid breathing or with difficulty breathing due to chest congestion (symptoms of acute respiratory infection-ARI) or with 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 diarrhoea 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 oral rehydration salt (ORS) packets or given pre-packaged ORS liquids, and percentage given any oral rehydration therapy (ORT) by background characteristics, Lesotho 2009

Background characteristic	Children with symptoms of ARI		Children with fever		Children with diarrhoea		
	Percentage for whom treatment was sought from a health facility/provider <sup>1</sup>	Number with ARI	Percentage for whom treatment was sought from a health facility/provider <sup>1</sup>	Number with fever	Percentage for whom treatment was sought from a health facility/provider <sup>1</sup>	Percentage given solution from ORS packet <sup>2,3</sup>	Number with diarrhoea
<b>Sex</b>							
Male	70.3	82	58.0	308	56.3	71.7	195
Female	61.7	102	61.6	269	50.2	70.6	180
<b>Residence</b>							
Urban	70.7	22	55.6	112	53.5	72.5	78
Rural	64.9	162	60.7	465	53.3	70.8	297
<b>Education</b>							
No education	*	3	*	10	*	*	8
Primary, incomplete	56.5	69	54.1	164	44.0	64.2	124
Primary, complete	71.2	51	63.3	158	55.0	71.2	105
Secondary+	71.0	61	60.8	245	60.8	76.0	137
<b>Total</b>	<b>65.5</b>	<b>184</b>	<b>59.7</b>	<b>577</b>	<b>53.4</b>	<b>71.2</b>	<b>375</b>

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

<sup>1</sup> Excludes pharmacy, shop, and traditional practitioner

<sup>2</sup> Includes ORS from packets and pre-packaged ORS liquids

<sup>3</sup> Includes ORS from packets, pre-packaged ORS liquids, and recommended home fluid

### 3.10 BREASTFEEDING

UNICEF and WHO recommend that children be exclusively breastfed for the first 6 months of life. During this time, the child should receive no other liquids or food. The timing of the introduction of complementary foods to the breastfeeding child has important health implications for both the child and mother. Table 13 shows data on the breastfeeding status of the youngest child under three years of age living with the mother.

Most babies are breastfed during the first six months of life; only 6 percent of babies age 0-5 months at the time of the survey were not receiving breast milk. Data in Table 13 also indicate that the proportion breastfed remains high throughout the first year of life; 78 percent of children age 9-11 months were being breastfed at the time of the survey.

The exclusive breastfeeding rate among children less than 6 months of age is about 18 percentage points higher compared with the 2004 survey. In 2009, 54 percent of children less than 6 months of age are breastfed according to the international recommendations versus 36 percent who did in 2004. It should be noted that the current survey uses an expanded list of questions about various liquids and solids to capture the diverse complementary foods fed to the children.

The results also indicate by age 4-5 months, one in five children are given non-milk liquids or juice and one in six are given other forms of milk. Complementary foods are introduced rapidly after children are 6 months, which is what is recommended according to the infant and young child feeding guidelines (WHO, 2006). Among children 6-8 months, 57 percent receive complementary food in addition to breast milk. The results in Table 13 also show that substantial proportions of babies are bottle-fed in Lesotho. Four in ten infants age 6-9 months were fed with a bottle with a nipple during the 24 hours preceding the survey.

Table 13 Breastfeeding status by age

Among youngest children under three years living with their mother, percent distribution by breastfeeding status and the percentage currently breastfeeding; and among all children under three years, percentage using a bottle with a nipple, according to age in months, Lesotho 2009

Age in months	Breastfeeding and consuming						Total	Percentage currently breast-feeding	Number of youngest children under three years	Percentage using a bottle with a nipple <sup>1</sup>	Number of all children under three years
	Not breast-feeding	Exclusively breastfed	Plain water only	Non-milk liquids/juice	Other milk	Comple-mentary food					
0-1	4.6	66.5	6.8	7.6	9.8	4.6	100.0	95.4	97	21.7	97
2-3	3.5	61.3	7.1	9.5	12.3	6.4	100.0	96.5	176	21.7	179
4-5	11.4	34.9	2.5	21.1	15.2	15.1	100.0	88.6	134	33.3	136
6-8	15.8	6.1	4.2	12.9	3.7	57.2	100.0	84.2	178	37.7	188
9-11	21.3	0.5	1.5	8.5	2.9	65.4	100.0	78.7	169	34.0	180
12-17	27.1	1.6	1.6	4.0	1.0	64.7	100.0	72.9	366	17.2	396
18-23	57.8	1.0	0.7	0.9	0.2	39.4	100.0	42.2	315	7.5	348
24-35	89.6	0.1	0.0	0.2	0.0	10.1	100.0	10.4	458	2.0	608
0-3	3.9	63.1	7.0	8.8	11.4	5.8	100.0	96.1	273	21.7	276
0-5	6.3	53.8	5.5	12.9	12.7	8.9	100.0	93.7	406	25.5	412
6-9	17.4	5.2	4.1	11.9	3.4	58.0	100.0	82.6	228	39.1	243
12-15	23.5	1.8	1.8	4.6	0.9	67.5	100.0	76.5	266	17.4	288
12-23	41.3	1.3	1.2	2.6	0.6	53.0	100.0	58.7	681	12.7	744
20-23	64.9	0.8	0.2	0.8	0.0	33.3	100.0	35.1	209	7.5	235

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children classified as breastfeeding and consuming plain water only consume no supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, water-based liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and water-based liquids and who do not receive complementary foods are classified in the water-based liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

<sup>1</sup> Based on all children under three years

### 3.11 ANAEMIA

The level of haemoglobin concentration in the blood is used as an indicator to estimate the prevalence of anaemia in a population. One of the causes of anaemia is inadequate dietary intake of iron. The Ministry of Health and Social Welfare promotes provision of iron supplements to pregnant women to reduce the incidents of anaemia. Table 14 presents the anaemia rates of children age 6-59 months, women age 15-49, and men age 15-49. Prevalence is adjusted for altitude (for children, women and men) and smoking (for women and men) using CDC formulas (CDC, 1998). Severe anaemia among women and children is diagnosed when the haemoglobin concentration is less than 7.0 grams per decilitre (g/dl); moderate anaemia when the haemoglobin concentration is 7.0-9.9 g/dl, and mild anaemia when the haemoglobin concentration is 10.0-11.9 g/dl (10.0-10.9 for pregnant women and young children). Men with <9.0 g/dl of haemoglobin are classified as having severe anaemia, men with 9.0-11.9 g/dl have moderate anaemia, and men with 12.0-12.9 g/dl have mild anaemia.

Table 14 shows that 47 percent of children age 6-59 months classified as having anaemia. This proportion is slightly lower than that recorded in the 2004 LDHS (49 percent). Among children who are anaemic, 25 percent of children are mildly anaemic, 21 percent are moderately anaemic, and 1 percent are severely anaemic. Prevalence of anaemia is higher among children in the urban areas, in the Mountains zone, and in Qacha's Nek.

**Table 14 Anaemia**

Percentage of children age 6-59 months, women age 15-49 years and men age 15-59 years classified as having iron-deficiency anaemia, by background characteristics, Lesotho 2009

Background characteristic	Any anaemia	Percentage with anaemia			Number of children
		Mild anaemia	Moderate anaemia	Severe anaemia	
<b>CHILDREN 6-59 MONTHS</b>					
<b>Residence</b>					
Urban	52.0	26.5	21.9	3.7	307
Rural	46.1	24.8	20.5	0.8	1,591
<b>Ecological zone</b>					
Lowlands	44.2	23.7	19.2	1.4	971
Foothills	46.6	28.5	17.9	0.2	227
Mountains	52.1	27.5	23.2	1.4	525
Senqu River Valley	48.4	20.6	25.9	1.8	175
<b>District</b>					
Butha-Bothe	50.4	29.0	19.6	1.8	103
Leribe	44.6	25.7	17.5	1.4	320
Berea	51.4	29.6	21.0	0.8	257
Maseru	41.9	22.7	18.3	1.0	381
Mafeteng	39.1	19.6	18.4	1.1	183
Mohale's Hoek	41.9	23.9	16.9	1.0	173
Quthing	58.3	22.9	32.6	2.7	108
Qacha's-Nek	64.9	25.2	34.6	5.0	62
Mokhotlong	48.8	26.1	22.3	0.4	128
Thaba-Tseka	53.2	27.2	25.1	0.8	183
Total	47.1	25.0	20.8	1.3	1,897
2004 LDHS	48.6	22.4	24.8	1.4	1,435
<b>WOMEN 15-49</b>					
<b>Residence</b>					
Urban	28.9	19.3	8.6	1.0	1,232
Rural	24.9	18.8	5.6	0.5	2,607
<b>Ecological zone</b>					
Lowlands	26.9	18.3	7.7	0.9	2,367
Foothills	24.4	19.8	4.6	0.0	363
Mountains	23.7	19.2	4.4	0.1	818
Senqu River Valley	29.5	22.5	5.9	1.1	291
<b>District</b>					
Butha-Bothe	30.1	24.5	4.9	0.7	178
Leribe	25.3	17.1	7.6	0.7	674
Berea	27.6	19.2	8.2	0.3	520
Maseru	26.8	18.9	6.7	1.2	1,007
Mafeteng	22.8	16.0	6.2	0.6	365
Mohale's Hoek	23.5	18.4	4.2	0.9	315
Quthing	33.5	24.1	8.3	1.0	203
Qacha's-Nek	26.4	19.8	6.6	0.0	117
Mokhotlong	22.0	18.5	3.5	0.0	190
Thaba-Tseka	25.8	20.4	5.4	0.0	269
Total	26.2	18.9	6.6	0.7	3,839
2004 LDHS	48.6	22.4	24.8	1.4	1,435

*Continued*

**Table 14—Continued**

Background characteristic	Any anaemia	Percentage with anaemia			Number of children
		Mild anaemia	Moderate anaemia	Severe anaemia	
MEN 15-49					
<b>Residence</b>					
Urban	10.4	6.5	3.6	0.3	742
Rural	12.7	7.0	4.9	0.8	2,063
<b>Ecological zone</b>					
Lowlands	11.3	6.6	4.1	0.6	1,692
Foothills	10.9	5.7	4.9	0.3	312
Mountains	13.8	8.4	4.7	0.7	595
Senqu River Valley	15.3	6.7	7.2	1.5	206
<b>District</b>					
Butha-Bothe	15.0	9.6	5.0	0.4	152
Leribe	10.7	6.8	2.8	1.0	479
Berea	11.1	6.5	4.6	0.0	402
Maseru	10.6	5.4	4.7	0.6	711
Mafeteng	9.7	6.8	2.2	0.7	276
Mohale's Hoek	15.2	7.4	6.3	1.5	239
Quthing	16.9	8.1	7.8	1.0	145
Qacha's-Nek	15.4	6.1	7.6	1.8	72
Mokhotlong	11.3	6.9	4.5	0.0	136
Thaba-Tseka	15.6	10.5	5.1	0.0	193
Total	12.1	6.9	4.5	0.6	2,805

Note: Table is based on children, women and men who stayed in the household the night before the interview. Prevalence is adjusted for altitude (for children, women and men) and smoking (for women and men) using CDC formulas (CDC, 1998). Women and children with <7.0 g/dl of haemoglobin have severe anaemia, women and children with 7.0-9.9 g/dl have moderate anaemia, and non-pregnant women with 10.0-11.9 g/dl and children and pregnant women with 10.0-10.9 g/dl have mild anaemia. Men with <9.0 g/dl of haemoglobin have severe anaemia, men with 9.0-11.9 g/dl have moderate anaemia, and men with 12.0-12.9 g/dl have mild anaemia.

Table 14 also presents information on the prevalence of anaemia among women age 15-49. Twenty-six percent of women have some form of anaemia. Prevalence is higher among urban women (29 percent) than rural women (25 percent). Among districts, prevalence of anaemia ranges from a low of 23 percent in Mafeteng to a high of 34 percent in Quthing. Anaemia is less prevalent among men (12 percent). Anaemia among men is most prevalent in Senqu River Valley One. As is the case with women, prevalence of anaemia is lowest in Mafeteng (10 percent) and highest in Quthing (17 percent).

### 3.12 HIV/AIDS-RELATED KNOWLEDGE AND BEHAVIOUR

The 2009 LDHS collected information from men and women on their knowledge, attitudes and behaviour regarding HIV/AIDS-related issues. In this report, the findings focus on the overall level of AIDS knowledge, knowledge of the means of reducing the risk of getting the AIDS virus, coverage of HIV testing services, and several aspects of high-risk behaviour.

Table 15 Knowledge of AIDS				
Percentage of women age 15-49 and men age 15-59 who have heard of AIDS, by background characteristics, Lesotho 2009				
Background characteristic	Women		Men	
	Has heard of AIDS	Number	Has heard of AIDS	Number
<b>Age</b>				
15-24	96.1	3,337	92.9	1,470
15-19	95.2	1,785	90.6	835
20-24	97.1	1,552	95.9	634
25-29	96.9	1,244	96.6	463
30-39	97.6	1,746	96.8	686
40-49	96.9	1,297	95.9	389
<b>Marital status</b>				
Never married	96.8	2,618	93.6	1,691
Ever had sex	97.5	1,494	94.9	1,282
Never had sex	95.7	1,123	89.4	409
Married or living together	96.5	4,049	96.5	1,169
Divorced/separated/widowed	97.3	957	94.1	148
<b>Residence</b>				
Urban	98.5	2,573	98.3	845
Rural	95.8	5,051	93.4	2,162
<b>Ecological zone</b>				
Lowlands	98.5	4,798	97.2	1,850
Foothills	95.2	725	92.3	319
Mountains	93.4	1,544	90.5	621
Senqu River Valley	92.3	556	89.5	217
<b>District</b>				
Butha-Bothe	89.1	357	84.2	168
Leribe	98.2	1,359	96.4	498
Berea	98.5	1,122	97.8	451
Maseru	98.7	2,036	97.4	773
Mafeteng	97.4	682	96.0	295
Mohale's Hoek	98.8	599	96.0	250
Quthing	88.8	379	84.9	150
Qacha's-Nek	95.0	219	93.0	79
Mokhotlong	92.9	356	93.6	137
Thaba-Tseka	92.1	515	87.9	206
<b>Education</b>				
No education	87.0	93	90.8	336
Primary, incomplete	93.2	1,810	90.9	1,095
Primary, complete	96.4	1,741	96.3	372
Secondary+	98.7	3,979	98.8	1,205
Total 15-49	96.7	7,624	94.7	3,008
Men 50-59	na	0	96.4	309
Total 15-59	na	0	94.9	3,317

na = Not applicable

## Awareness of AIDS

Table 15 shows levels of knowledge of AIDS among women age 15-49 and men age 15-49, and differentials in the level of AIDS knowledge among women and men age 15-49 by background characteristics. The results indicate that knowledge of HIV/AIDS exceeds 95 percent among LDHS respondents in all age groups. Knowledge, with few exceptions, is also over 90 percent among the various sub-groups of respondents age 15-49 shown in the table. Knowledge of AIDS is lower than 90 percent among women in Butha-Bothe and Quthing and men in Butha-Bothe, Quthing, and Thaba-Tseka.

## Awareness of Prevention Methods

HIV/AIDS prevention programmes focus their messages and efforts on three important aspects of behaviour: use of condoms; limiting the number of sexual partners/staying faithful to one partner; and delaying sexual debut in young persons (abstinence). The programmes also try to dispel misconceptions about how AIDS is transmitted which can put individuals at risk.

To ascertain whether programmes in Lesotho have effectively communicated prevention messages, the 2009 LDHS respondents were asked questions about whether it is possible or not to reduce the chance of getting the AIDS virus by using a condom at every sexual encounter, limiting sex to one partner who is not infected, and abstaining from sex.

Table 16 present levels of knowledge of the various HIV/AIDS prevention methods for two age groups: women and men age 15-49. Women are generally somewhat more aware of the various prevention methods than men. Using a condom and limiting sexual intercourse with one uninfected sexual partner are the most often recognized methods reported by women (87 percent each). Among men, however, the most frequently recognized prevention method is limiting sex with one uninfected partner (82 percent). Differentials across sub groups of women and men are not generally substantial.

Results from the 2009 LDHS presented at the bottom of the table show that in 2009 women and men age 15-49 are more likely to say that using condoms, limiting sexual partner to one uninfected partner, and using condoms and limiting sexual intercourse with one uninfected partner can reduce HIV transmission compared with that in 2004. With respect to the statement that abstaining from having sex can reduce the risk of getting the AIDS virus, in 2009 women are slightly less likely to agree than in 2004 (78 and 77 percent, respectively). Among men, the decrease is larger; from 75 percent in 2004 to 71 percent in 2009.

Table 16 Knowledge of HIV prevention methods: Women age 15-49 and men age 15-59

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, by having one uninfected sex partner who has no other partners, and by abstaining from sexual intercourse, by background characteristics, Lesotho 2009

Background characteristic	Women					Men				
	Using condoms <sup>1</sup>	Limiting sexual intercourse to one uninfected partner <sup>2</sup>	Using condoms and limiting sexual intercourse to one uninfected partner <sup>1,2</sup>	Abstaining from sexual intercourse	Number of women	Using condoms <sup>1</sup>	Limiting sexual intercourse to one uninfected partner <sup>2</sup>	Using condoms and limiting sexual intercourse to one uninfected partner <sup>1,2</sup>	Abstaining from sexual intercourse	Number of men
<b>Age</b>										
15-24	84.6	85.0	77.6	75.9	3,337	78.9	78.6	70.0	70.8	1,470
15-19	81.1	82.4	73.7	74.6	1,785	76.0	76.0	66.9	67.8	835
20-24	88.6	88.1	82.2	77.5	1,552	82.8	82.0	74.1	74.6	634
25-29	88.0	87.0	81.6	77.3	1,244	82.4	84.2	74.1	74.0	463
30-39	90.1	90.2	84.7	77.4	1,746	80.4	85.7	75.2	70.6	686
40-49	87.4	88.5	82.0	76.4	1,297	79.1	85.0	73.9	71.7	389
<b>Marital status</b>										
Never married	85.2	86.2	78.6	78.7	2,618	79.4	79.0	70.4	71.2	1,691
Ever had sex	88.5	89.6	83.2	78.9	1,494	82.0	80.9	73.0	71.1	1,282
Never had sex	80.8	81.5	72.5	78.5	1,123	71.2	73.0	62.3	71.4	409
Married or living together	87.7	87.8	81.9	75.1	4,049	81.0	86.3	75.3	71.4	1,169
Divorced/separated/widowed	88.2	86.9	81.0	77.2	957	75.6	80.9	70.2	72.8	148
<b>Residence</b>										
Urban	90.0	90.0	84.2	81.7	2,573	88.7	91.6	84.9	79.8	845
Rural	85.3	85.7	78.8	74.0	5,051	76.3	78.2	67.4	68.1	2,162
<b>Ecological zone</b>										
Lowlands	90.1	90.7	84.6	80.1	4,798	85.6	86.8	78.7	75.6	1,850
Foothills	84.5	83.8	76.9	70.8	725	75.2	78.3	68.0	63.9	319
Mountains	80.2	80.2	72.6	69.7	1,544	68.1	72.4	59.5	64.5	621
Senqu River Valley	80.5	80.1	73.5	72.9	556	70.3	72.6	60.5	65.6	217
<b>District</b>										
Butha-Bothe	81.3	82.7	77.4	65.2	357	73.9	72.8	65.8	58.1	168
Leribe	86.6	81.7	75.2	70.4	1,359	80.5	82.0	71.9	63.4	498
Berea	89.5	91.9	84.6	83.6	1,122	87.5	90.3	82.1	80.4	451
Maseru	92.5	95.0	89.7	83.6	2,036	85.7	87.1	79.3	79.1	773
Mafeteng	87.9	90.6	83.6	76.5	682	78.3	80.4	70.2	70.3	295
Mohale's Hoek	86.4	83.9	76.1	77.7	599	77.7	79.1	68.9	73.6	250
Quthing	78.0	77.1	71.5	71.0	379	68.8	72.1	62.0	65.7	150
Qacha's-Nek	80.9	81.3	73.6	64.7	219	79.1	77.9	68.8	61.2	79
Mokhotlong	79.8	81.0	73.2	74.5	356	70.0	77.5	60.9	71.2	137
Thaba-Tseka	76.9	76.2	68.7	67.2	515	63.7	68.9	54.8	59.7	206
<b>Education</b>										
No education	69.4	74.6	65.1	62.0	93	61.6	70.1	53.0	62.8	336
Primary, incomplete	77.3	78.7	69.4	67.2	1,810	70.3	72.8	60.4	62.7	1,095
Primary, complete	86.5	86.9	80.3	73.1	1,741	85.1	85.2	76.8	72.7	372
Secondary+	91.9	91.4	86.2	82.7	3,979	91.9	92.5	87.1	81.2	1,205
Total 15-49	86.9	87.1	80.6	76.6	7,624	79.8	81.9	72.3	71.4	3,008
Men 50-59	na	na	na	na	0	76.3	85.7	70.7	75.3	309
Total 15-59	na	na	na	na	0	79.5	82.3	72.2	71.7	3,317
Total 15-49 2004 LDHS	77.5	82.4	70.9	78.0	7,095	69.6	75.6	60.2	75.3	2,496

na = Not applicable

<sup>1</sup> Using condoms every time they have sexual intercourse

<sup>2</sup> Partner who has no other partners

## Condom Use

Women and men age 15-49 were asked a number of questions about sexual activity in the 12-month period before the survey. The responses to these questions are used in Table 18.1 and 18.2 to assess the use of condoms among sexually active women and men (who had sex in the past year), by type of partner.

Tables 17.1 and 17.2 also show that almost four in ten (38 percent) women used a condom with any sexual partner. Women are more likely to use a condom when they have sexual intercourse with a non-cohabiting partner than with their spouse or cohabiting partner (65 percent compared with 24 percent). Men age 15-49 exhibit the same pattern (65 percent compared with 32 percent, respectively).

**Table 17.1 Use of condoms by type of partner: women**

Among women who have had sexual intercourse in the past year, percentage who used a condom<sup>1</sup> during last sexual intercourse with spouse or cohabiting partner, with non-cohabiting partner, and with any partner, by background characteristics, Lesotho 2009

Background characteristic	Spouse or cohabiting partner		Non-cohabiting partner		Any partner	
	Percentage	Number	Percentage	Number	Percentage	Number
<b>Age</b>						
15-19	14.2	270	62.9	396	43.8	656
20-24	24.5	820	68.2	441	40.4	1,226
25-29	27.2	831	73.0	321	41.1	1,087
30-39	25.5	1,204	68.0	430	37.9	1,530
40-49	21.4	792	51.5	296	30.2	1,027
<b>Marital status</b>						
Never married	26.6	5	69.6	1,040	69.4	1,042
Married/living together	23.4	3,786	54.3	322	26.4	3,853
Divorced/separated/widowed	42.6	125	63.4	522	60.3	632
<b>Residence</b>						
Urban	32.4	1,219	74.4	742	49.2	1,876
Rural	20.3	2,697	59.3	1,142	32.8	3,652
<b>Ecological zone</b>						
Lowlands	28.8	2,357	72.4	1,238	44.5	3,458
Foothills	17.5	432	59.1	158	29.4	558
Mountains	16.1	856	46.7	346	26.0	1,115
Senqu River Valley	18.0	272	55.0	141	31.6	397
<b>District</b>						
Butha-Bothe	21.1	220	67.5	73	33.3	279
Leribe	22.2	745	64.2	301	35.0	1,003
Berea	28.0	509	74.2	286	45.8	763
Maseru	29.8	1,013	73.5	561	46.3	1,508
Mafeteng	22.5	334	62.9	170	36.6	479
Mohale's Hoek	21.4	337	61.6	135	33.9	451
Quthing	18.1	164	46.6	110	30.9	259
Qacha's-Nek	16.4	105	61.1	57	33.2	155
Mokhotlong	21.1	197	48.8	78	29.8	254
Thaba-Tseka	17.1	292	41.9	112	24.8	377
<b>Education</b>						
No education	8.6	57	48.5	22	21.6	72
Primary, incomplete	19.2	1,031	44.8	382	26.6	1,335
Primary, complete	21.5	1,052	55.9	416	32.3	1,381
Secondary+	28.9	1,777	76.6	1,064	47.6	2,740
<b>Total</b>	<b>24.1</b>	<b>3,917</b>	<b>65.2</b>	<b>1,884</b>	<b>38.3</b>	<b>5,527</b>

<sup>1</sup> Condoms could mean either male or female condoms.

The percentage of women who used a condom is lowest among the currently married than never married or formerly married women. Men show a different pattern; married men are as likely as never married or formerly married men to use a condom during their last sexual intercourse. For women and men, the use of a condom generally increases with their education. Using a condom during sex is more common among urban residents, those who live in the Lowlands zone, and in Maseru.

Table 17.2 Use of condoms by type of partner: men

Among men who have had sexual intercourse in the past year, percentage who used a condom<sup>1</sup> during last sexual intercourse with spouse or cohabiting partner, with non-cohabiting partner, and with any partner, by background characteristics, Lesotho 2009

Background characteristic	Spouse or cohabiting partner		Non-cohabiting partner		Any partner	
	Percentage	Number	Percentage	Number	Percentage	Number
<b>Age</b>						
15-19	60.9	12	64.7	387	65.0	397
20-24	25.5	114	70.3	422	63.3	502
25-29	31.8	198	63.7	257	52.6	411
30-39	34.5	476	67.1	265	48.1	621
40-49	29.8	242	52.8	137	39.8	326
<b>Marital status</b>						
Never married	-	0	68.1	1,029	68.1	1,029
Married/living together	31.9	1,025	59.5	337	40.7	1,115
Divorced/separated/widowed	49.7	17	57.9	103	57.6	113
<b>Residence</b>						
Urban	41.5	345	88.3	383	69.0	646
Rural	27.6	697	57.4	1,085	48.1	1,611
<b>Ecological zone</b>						
Lowlands	39.6	624	75.4	890	63.1	1,371
Foothills	26.4	99	50.8	172	43.0	253
Mountains	19.7	261	46.7	294	36.3	478
Senqu River Valley	19.2	58	57.7	113	46.8	155
<b>District</b>						
Butha-Bothe	23.6	66	68.6	83	52.2	133
Leribe	36.9	189	66.7	237	55.6	389
Berea	44.0	143	66.1	227	60.2	334
Maseru	34.8	272	81.6	361	63.5	578
Mafeteng	28.8	76	55.4	161	48.1	219
Mohale's Hoek	33.5	86	46.5	129	43.8	188
Quthing	21.1	37	63.3	75	51.4	102
Qacha's-Nek	21.1	30	60.6	36	44.8	59
Mokhotlong	20.1	50	62.7	69	48.4	102
Thaba-Tseka	19.2	93	43.2	88	32.6	153
<b>Education</b>						
No education	19.4	170	31.8	149	25.3	282
Primary, incomplete	29.7	364	52.3	537	45.2	810
Primary, complete	33.4	154	64.7	175	52.2	291
Secondary+	40.4	355	85.6	606	72.2	873
Total 15-49	32.2	1,042	65.4	1,468	54.1	2,257
Men 50-59	20.2	195	38.7	78	27.5	244
Total 15-59	30.3	1,238	64.1	1,546	51.5	2,501

<sup>1</sup> Condoms could mean either male or female condoms.

## Multiple Partners and Condom Use

The 2009 LDHS also collected information on condom use among women and men with multiple partners or higher-risk sex in the 12 months preceding the survey. While effective protection requires condom use at every sexual encounter, the sexual encounters addressed in Tables 18.1 and 18.2 are those considered to pose the greatest risk of HIV transmission. Respondents who had more than one sex partner were also asked whether they used a condom at the last such encounter. Respondents were asked to provide the total number of sexual partners they had in their lifetime. From this, the mean number of lifetime sexual partners was calculated for women and men.

Tables 18.1 and 18.2 show that 6 percent of all women age 15-49 and 22 percent of all men age 15-49 had sex with two or more partners. In Lesotho, sexual intercourse with a non-marital, non-cohabiting partner is not uncommon. Unmarried men are more likely than unmarried women to have more than one sexual partners (21 percent compared with 5 percent). There are small variations in the extent of multiple sexual partnerships across subgroups of women. The proportions having multiple sexual partners in the past 12 months among men vary by residence; men in the Mountains zone are more likely than men in other zones to have two or more sexual partners (25 percent compared with 22 percent or lower).

Table 18.1 Multiple sexual partners and condom use in the past 12 months: Women						
Among women age 15-49 who had sexual intercourse in the past 12 months, the percentage who had intercourse with more than one partner and among those having more than one partner in the past 12 months, percentage reporting that a condom was used at last sexual intercourse, and mean number of sexual partners during his lifetime for women who ever had sexual intercourse, by background characteristics, Lesotho 2009						
Background characteristic	All respondents		Among respondents who had 2+ partners in the past 12 months:		Among respondents who ever had sexual intercourse	
	Percentage who had 2+ partners in the past 12 months	Number	Percentage who reported using a condom during last sexual intercourse	Number	Mean number of sexual partners in lifetime	Number
<b>Age</b>						
15-24	4.0	3,337	45.5	133	2.0	2,249
15-19	2.2	1,785	39.0	39	1.6	826
20-24	6.1	1,552	48.2	94	2.1	1,422
25-29	8.8	1,244	40.4	110	2.4	1,206
30-39	9.0	1,746	34.2	157	2.9	1,695
40-49	6.9	1,297	27.7	89	3.0	1,248
<b>Marital status</b>						
Never married	4.6	2,618	64.7	121	2.6	1,471
Married/living together	7.5	4,049	22.9	302	2.2	3,998
Divorced/separated/widowed	6.8	957	54.5	65	3.8	929
<b>Residence</b>						
Urban	6.7	2,573	51.2	171	2.8	2,162
Rural	6.3	5,051	30.1	317	2.4	4,236
<b>Ecological zone</b>						
Lowlands	6.1	4,798	48.7	293	2.5	4,003
Foothills	6.2	725	19.4	45	2.3	631
Mountains	7.7	1,544	19.5	118	2.5	1,291
Senqu River Valley	5.8	556	27.5	32	2.7	473
<b>District</b>						
Butha-Bothe	6.4	357	16.5	23	2.1	316
Leribe	5.9	1,359	42.8	80	2.2	1,130
Berea	7.2	1,122	51.5	81	2.9	894
Maseru	6.1	2,036	42.6	124	2.5	1,725
Mafeteng	5.6	682	43.0	38	2.6	579
Mohale's Hoek	6.3	599	26.5	38	2.3	521
Quthing	7.5	379	27.8	28	3.1	321
Qacha's-Nek	6.9	219	39.5	15	2.5	187
Mokhotlong	8.2	356	19.4	29	2.6	294
Thaba-Tseka	6.2	515	14.4	32	2.4	429
<b>Education</b>						
No education	8.8	93	0.0	8	2.9	90
Primary, incomplete	6.9	1,810	23.7	125	2.6	1,563
Primary, complete	7.3	1,741	28.4	128	2.4	1,561
Secondary+	5.7	3,979	51.5	227	2.5	3,183
<b>Total</b>	<b>6.4</b>	<b>7,624</b>	<b>37.5</b>	<b>488</b>	<b>2.5</b>	<b>6,397</b>

**Table 18.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men**

Among men age 15-49 who had sexual intercourse in the past 12 months, the percentage who had intercourse with more than one partner and among those having more than one partner in the past 12 months, percentage reporting that a condom was used at last sexual intercourse, and mean number of sexual partners during his lifetime for men who ever had sexual intercourse, by background characteristics, Lesotho 2009

Background characteristic	All respondents		Among respondents who had 2+ partners in the past 12 months:		Among respondents who ever had sexual intercourse	
	Percentage who had 2+ partners in the past 12 months	Number	Percentage who reported using a condom during last sexual intercourse	Number	Mean number of sexual partners in lifetime	Number
<b>Age</b>						
15-24	20.5	1,470	60.3	301	5.1	1,054
15-19	13.4	835	60.2	112	3.3	491
20-24	29.8	634	60.3	189	6.7	563
25-29	26.5	463	52.5	123	7.6	406
30-39	24.4	686	46.0	168	9.2	630
40-49	17.5	389	32.3	68	10.9	353
<b>Marital status</b>						
Never married	20.7	1,691	65.5	350	5.6	1,230
Married/living together	23.4	1,169	35.5	274	8.9	1,078
Divorced/separated/widowed	23.7	148	51.6	35	11.6	136
<b>Residence</b>						
Urban	22.9	845	67.2	194	9.6	653
Rural	21.5	2,162	46.1	466	6.6	1,791
<b>Ecological zone</b>						
Lowlands	22.1	1,850	59.5	408	8.0	1,467
Foothills	17.6	319	48.1	56	6.5	269
Mountains	25.0	621	35.6	155	6.0	530
Senqu River Valley	18.2	217	49.8	40	8.4	178
<b>District</b>						
Butha-Bothe	22.3	168	53.1	37	8.8	136
Leribe	22.6	498	56.2	113	6.8	416
Berea	22.7	451	52.9	102	8.0	355
Maseru	20.5	773	65.2	158	7.4	604
Mafeteng	22.6	295	45.1	67	7.7	246
Mohale's Hoek	23.0	250	37.4	58	8.3	214
Quthing	20.0	150	55.9	30	9.2	119
Qacha's-Nek	19.0	79	48.9	15	6.8	64
Mokhotlong	23.4	137	37.7	32	6.1	115
Thaba-Tseka	22.8	206	34.7	47	5.0	175
<b>Education</b>						
No education	18.7	336	25.3	63	8.3	313
Primary, incomplete	22.0	1,095	41.4	241	6.7	883
Primary, complete	19.5	372	50.4	73	7.9	313
Secondary+	23.5	1,205	68.1	283	7.6	935
Total	21.9	3,008	52.3	659	7.4	2,444
Men 50-59	12.6	309	20.8	39	13.4	276
Total 15-59	21.1	3,317	50.5	699	8.0	2,719

Thirty-eight percent of women and 52 percent of men age 15-49 report using a condom during their last sexual intercourse. Unmarried women and men are much more likely than those who are married or divorced, separated and widowed to report using a condom at their last sexual intercourse. The likelihood of using a condom at last sexual intercourse varies according to residence. Women and men in urban areas and in Lowlands report the highest condom use. Women in Foothills and Mountains and men in the Mountains zone show the lowest use of condoms.

The final two columns in the table consider the mean number of lifetime sexual partners. The mean number is 2.5 for women and 7.4 for men. For women, there are small variations across subgroups. For men, the mean number of lifetime sexual partners increases steadily with age and is negatively associated with education. Urban men have almost twice as many lifetime sexual partners as rural men (10.1 and 5.6 partners, respectively).

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Chad 2004	February	2006	French
Kenya (SPA) 2004	March	2006	English
Peru Continuous 2004-05	April	2006	Spanish
Tanzania 2004-05	May	2006	English
Uganda (AIS) 2004-05	June	2006	English
Malawi 2004	August	2006	English
Senegal 2006	August	2006	French
Guinea 2006	August	2006	French
Lesotho 2004	September	2006	English
Egypt 2006	September	2006	English
Rwanda 2006	November	2006	French
Ethiopia 2006	November	2006	English
Moldova 2006	November	2006	English/Romanian
Vietnam (AIS) 2006	February	2006	English/Vietnamese
Armenia 2005	March	2006	English
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Zimbabwe 2005-06	August	2006	English
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Nepal 2006	October	2006	English
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Mali 2006	April	2007	French
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Swaziland 2006-07	June	2007	English
Liberia 2007	July	2007	English
Democratic Rep. Congo 2007	December	2007	French
Bangladesh 2007	December	2007	English
Rwanda (SPA) 2007	December	2007	English/French
Jordan 2007	January	2008	English/Arabic
Uganda (SPA) 2007	March	2008	English
Ukraine 2007	June	2008	English/Ukrainian
Indonesia 2007	July	2008	English
Indonesia (young adult) 2007	July	2008	English
Rwanda (interim) 2007-08	July	2008	English/French
Zambia 2007	July	2008	English
Tanzania (HIV/AIDS and Malaria) 2007-08	July	2008	English
Bolivia 2008	August	2008	Spanish
Egypt 2008	September	2008	English
Sierra Leone 2008	December	2008	English
Philippines 2008	March	2009	English
Ghana 2008	April	2009	English
Senegal (MIS) 2008-09	April	2009	French
Nigeria 2008	May	2009	English
Kenya 2008-09	September	2009	English
Congo (Brazzaville) (AIS) 2009	September	2009	French
São Tomé e Príncipe 2009	September	2009	French
Guyana 2009	September	2009	English
Albania 2008-09	October	2009	English
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