Swaziland Demographic and Health Survey 2006-07

> Preliminary Report

This report summarises the findings of the 2006-07 Swaziland Demographic and Health Survey (SDHS) carried out by the Swaziland Central Statistical Office (CSO) at the request of the Ministry of Health and Social Welfare. The SDHS is part of the worldwide MEASURE Demographic and Health Surveys (DHS) programme, which is implemented by Macro International Inc under a contract with the United States Agency for International Development (USAID). The Human Sciences Research Council (HSRC) of South Africa assisted during the design phase of the survey. Through an arrangement with Macro, the Global Clinical and Viral Laboratory (GCVL) of South Africa provided assistance with the training and laboratory processing for the HIV testing component of the survey.

Most of the funds for the local costs of the survey were provided by the Government of the Kingdom of Swaziland. Funds to support the MEASURE DHS project technical assistance and some local costs were provided by USAID and the Centers for Disease Control and Prevention (CDC)-Global AIDS Programme operating under the President's Emergency Plan for AIDS Relief (PEPFAR). The survey also received support from a number of other partners, namely the National Emergency Response Council on HIV/AIDS (NERCHA), HIV/AIDS Prevention and Care (HAPAC), UNAIDS, UNFPA, UNICEF, WHO, Italian Cooperation, and Population Services International (PSI).

The opinions expressed herein are those of the authors and do not necessarily reflect the views of USAID or other funding partners.

Additional information about the survey may be obtained from Central Statistical Office (CSO), Ministry of Economic Planning and Development, P.O. Box 456 Mbabane Swaziland H100 (Telephone 268-404-2151; Fax 268-404-3300).

Additional information about the MEASURE DHS programme may be obtained by writing to: MEASURE DHS, Macro International, 11875 Beltsville Drive, Suite 300, Calverton, MD 20705, USA (Telephone 301-572-0200; Fax 301-572-0999; e-mail: reports@orcmacro.com).

SWAZILAND DEMOGRAPHIC AND HEALTH SURVEY 2006-07

PRELIMINARY REPORT

Central Statistical Office Mbabane, Swaziland

MEASURE DHS Macro International Calverton, Maryland USA

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CONTENTS

			Page
	FOF	REWORD	v
1.	BAC	CKGROUND	1
	1.1	Introduction	1
	1.2	Survey Objectives	
2.	SUF	RVEY IMPLEMENTATION	3
	2.1	Sample Design	3
	2.2	Questionnaires	3
	2.3	Anaemia and HIV Testing	4
	2.4	Pretest	6
	2.5	Training	6
	2.6	Fieldwork	6
	2.7	Data Processing	7
	2.8	Sample Results	7
3.	PRE	ELIMINARY FINDINGS	9
	3.1	Background Characteristics	9
	3.2	Fertility	
	3.3	Contraceptive Use	
	3.4	Fertility Preferences	
	3.5	Childhood Mortality	
	3.6	Maternal Health	14
	3.7	Vaccination of Children	16
	3.8	Childhood Illnesses	17
	3.9	Malaria	
	3.10	Child Nutritional Status.	19
	3.11	3	
		2. Anaemia	
		HIV/AIDS-related Knowledge and Behaviour	
		HIV Testing	
	3.15	Orphans and Vulnerable Children	39
	REF	FERENCES	45

FOREWORD

The 2006-07 Swaziland Demographic and Health Survey (SDHS) was implemented by the Central Statistical Office (CSO) in order to provide the Ministry of Health and Social Welfare (MOHSW), other Government of Swaziland institutions, and agencies working in the health and social services arena with the information needed to plan and monitor programmes. The SDHS was the first survey to be conducted in Swaziland under the auspices of the worldwide Demographic and Health Surveys programme. This report, which presents key findings from the SDHS, 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 late 2007.

The CSO 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 the Kingdom of Swaziland and from other organisations, namely, the National Emergency Response Council on HIV/AIDS (NERCHA), HIV/AIDS Prevention and Care (HAPAC), USAID and the Centres for Disease Control (CDC)-Global AIDS Programme operating under the President's Emergency Plan for AIDS Relief (PEPFAR), UNFPA, UNICEF, UNAIDS, Italian Corporation, the World Health Organisation, and Population Services International (PSI). We would like to thank Macro International Inc. for the technical backstopping from the worldwide USAID-sponsored MEASURE Demographic and Health Surveys programme throughout the survey and the Human Sciences Research Council for the support they provided during the design phase for the survey. We are grateful for the support received from the Global Clinical and Viral Laboratory for the HIV testing component. The survey also could not have been carried out successfully without the dedication of the staff of the CSO and the MOHSW, who participated in the SDHS.

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.

Isabella Hlophe
Director for Statistics
Central Statistical Office
Ministry of Economic Planning and Development

1 BACKGROUND

1.1 Introduction

The 2006-07 Swaziland Demographic and Health Survey (SDHS) is a national-level sample survey designed to provide information on various demographic and maternal and child health issues in Swaziland. The SDHS was implemented by the Central Statistical Office (CSO) at the request of the Ministry of Health and Social Welfare (MOHSW). The majority of the local costs of the survey were provided by the Government of Swaziland. Macro International Inc. (Macro) provided technical assistance to the SDHS as part of the worldwide USAID-funded MEASURE Demographic and Health Surveys (DHS) programme. The Human Sciences Research Council (HSRC) of South Africa assisted during the design phase of the survey. Through a subcontract with Macro, the Global Clinical and Viral Laboratory (GCVL) of South Africa provided support for the training and laboratory processing for the HIV testing component of the survey. Funds to support Macro's and GCVL's assistance and to defray some local costs were provided by USAID and the Centers for Disease Control and Prevention (CDC)-Global AIDS Programme operating under the President's Emergency Plan for AIDS Relief (PEPFAR). Other organisations supporting SDHS included the National Emergency Response Council on HIV/AIDS (NERCHA), HIV/AIDS Prevention and Care (HAPAC), UNFPA, UNICEF, Italian Cooperation, and the World Health Organisation, UNAIDS, and the Population Services International (PSI).

This report presents preliminary results for the principal topics covered in the survey. Where appropriate, results are compared to findings from the 1986 Population and Housing Census, the 1991 Demographic and Housing Survey, the 1997 Population and Housing Census, and the 2002 Community Health Survey, and the 2000 Multiple Indicator Cluster Survey. A more comprehensive and detailed report is scheduled for publication later in the year. 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 2006-07 SDHS 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 also measured the iodisation level of the salt used by the household for cooking and obtained anthropometric measures in order to assess the nutritional status of the Swazi population. In addition, the survey included anaemia and HIV testing.

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

2 SURVEY IMPLEMENTATION

2.1 Sample Design

The 2006-07 SDHS was designed to provide estimates of health and demographic indicators at the national level, for urban-rural areas, and for the four regions of Manzini, Hhohho, Lubombo, and Shiselweni. Standard DHS sampling policy recommends a minimum of 1,000-1,200 women per major domain. To meet this criterion, the number of households selected in each of the various domains, particularly urban areas, was not proportional to the actual size of the population in the domain. As a result, the SDHS sample is not self-weighting at the national level, and weights must be applied to the data to obtain the national-level estimates presented in this and subsequent reports

The 2006-07 SDHS sample points (clusters) were selected from a list of enumeration areas (EAs) defined in the 1997 Swaziland Population and Housing Census. A total of 275 clusters were drawn from the census sample frame, 111 in the urban areas and 164 in the rural areas.

CSO staff conducted an exhaustive listing of households in each of the SDHS clusters in August and September 2005. From these lists, a systematic sample of households was drawn for a total of 5,500 households. All women and men age 15-49 identified in these households were eligible for individual interview. In addition, a subsample of half of these households (2,750 households) was selected randomly in which all boys and girls age 12-14 and persons age 50 and older were eligible for individual interview. In the SDHS households where youth and older adults were interviewed, all individuals age 6 months and older were eligible for anaemia testing and all individuals age 2 and older were eligible for HIV testing. In the SDHS households where only women and men age 15-49 were interviewed, children age 6 months to 5 years were eligible for the anaemia testing and women and men age 15-49 were eligible for anaemia and HIV testing.

During the household listing, field staff used Global Positioning System (GPS) receivers to establish and record the geographic coordinates of each of the SDHS clusters.

2.2 Questionnaires

Five types of questionnaires were used for the SDHS: the Household Questionnaire, the Woman's Questionnaire, the Man's Questionnaire, the Youth Questionnaire and the Older Adult Questionnaire. The contents of the questionnaires were based on questionnaires developed for the MEASURE DHS programme. The Youth Questionnaire was adapted from the 2002 Nelson Mandela/HSRC Study of HIV/AIDS in South Africa. The SDHS questionnaires were developed in collaboration with a wide range of stakeholders. After the SDHS survey instruments were drafted, they were translated into and printed in the local language, Siswati, for pretesting.

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, ownership of various consumer goods, use of bed nets and care and free external support that chronically ill household members and orphans and vulnerable children were receiving. 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
- Childhood illnesses and treatment
- Marriage and sexual activity
- Fertility preferences
- Husband's background and woman's work status
- Adult (maternal) mortality
- HIV/AIDS-related knowledge, attitudes, and behaviour.

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. The Older Adult Questionnaire obtained limited information on the background characteristics of the population age 50 and older and on HIV/AIDS knowledge, attitudes and risk behaviour. The Youth Questionnaire included questions on knowledge and attitudes about sex, and factors exposing youth to risk of abuse.

2.3 Anaemia and HIV Testing

In addition to the collection of information during the survey interview, the SDHS 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 SDHS. It was reviewed and approved by the Swaziland Scientific and Ethics Committee at the Ministry of Health and Social Welfare and Institutional Review Boards (IRB) at the Human Sciences Research Council and Macro. The protocol was also reviewed at CDC Atlanta.

Anaemia Testing

Haemoglobin testing is the primary method of anaemia diagnosis. In the SDHS, haemoglobin measurement was performed in the field by nonmedical personnel. Prior to collecting the blood specimen, all participants age 12 and older and were asked to give informed consent to the testing. Prior to asking the consent of unmarried youth age 12-17, consent was obtained from the parent or other adult responsible for the child at the time of the survey. For children age 6 months-11 years, consent was asked only from the parent or guardian. The consent 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 for whom consent for the testing was obtained using sterile, single-use lancets. 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 immediately referred to health facilities for further evaluation.

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

HIV Testing

The SDHS 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 SDHS 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 (barcode) was assigned to each eligible respondent consenting to the testing and labels containing that number 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 linked the dried blood spot (DBS) samples from SDHS respondents during the HIV testing.

Because of the anonymous nature of the testing approach in the SDHS, it was not possible to provide information on the results from the HIV testing conducted during the SDHS. In lieu of providing the SDHS 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 SDHS) approaching an SDHS team with a request about VCT was provided with information on the sites, in an effort to increase VCT usage in Swaziland.

The procedures that SDHS 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. Field staff also asked for consent to store the DBS samples for unspecified future tests.

After the survey team completed work in an SDHS cluster, all questionnaires, dried blood spot samples, and sample transmittal forms for the cluster were sent to the CSO for logging and checking prior to data entry. Blood samples were checked against the transmittal form and then forwarded to the National Reference Laboratory (NRL) 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.

The algorithm used for the testing of the DBS samples called for each DBS specimen first to be eluted and tested with Vironostika HIV Uni-Form II Ag/Ab Biomerieux. All HIV positive samples were then retested with Access HIV1/2 New Bio-Rad. The two ELISAs were repeated for samples with discordant results. Those specimens for which the repeat test results were discordant were tested using Genetic Systems Western Blot at the GCVL in South Africa.

Testing of the DBS samples occurred at the NRL concurrently with the processing of the survey questionnaires. However, no results were reported to the CSO during the period of questionnaire entry and editing and the creation of the final data file. In order to obtain the HIV tables in this report, a special file containing only the barcode identification number and information on the age, sex and residence of each individual for whom a test result was expected was produced from the main SDHS file at the CSO offices. That anonymous file was then linked to the HIV test results at the laboratory.

After the tabulation phase of the SDHS is completed and it is determined that no additional reconciliation of the interview results is necessary, all the sections of the SDHS questionnaires relating to the surveyed individuals' personal identification (ID), such as the name, the household number, the cluster number, and the part of the questionnaire containing the identification codes of the blood samples will be destroyed. A new data file will be created in which all of the personal identification of the persons surveyed (household number, cluster number, etc.) will be replaced by randomly generated codes. After all materials including the original IDs are destroyed and the

anonymized data file prepared, the results of the HIV testing from the NRL will be merged to the entire SDHS survey data file. The unique barcode identification number assigned to the samples will serve as the means for merging the survey and testing files. More detailed tabulations of the HIV results will be prepared after this merged file is produced.

2.4 Pretest

Two pretests were conducted for the 2006-07 SDHS. The first was aimed at testing the flow of the questions and the translation from English to Siswati. Given the fact that this was the first SDHS to be conducted in the country, this pretest also was viewed as a pilot exercise for the survey organizing committee. The first pretest was conducted in August-September 2005. Pretest activities started with a training of trainers. The trainers were drawn from the CSO, the MOHSW, NERCHA and the Ministry of Agriculture. Macro staff assisted with the training of trainers and Macro and HSRC staff assisted with the pretest training.

Eight women and 16 men participated in the field staff training. All but five of the participants had worked in the SDHS as household listers. The SDHS trainers and several guest lecturers gave talks to introduce specific topics in the survey such as sexual and reproductive health, water and sanitation, malaria, nutrition and HIV/AIDS. The pretest was conducted in both urban and rural areas to help gauge how respondents' reception of the SDHS teams might vary in different localities. On average, the Household Schedule took one hour to complete, the Woman's Questionnaire took two hours, the Man's Questionnaire one hour, the questionnaire for youth took 20 minutes, and the questionnaire for older adults took 30 minutes.

The second pretest was carried out in April-May 2006 after the review of the HIV testing protocol was completed at CDC Atlanta. This pretest combined interviews and collection of blood samples for anaemia and HIV tests.

2.5 Training

A total of 83 persons, 38 males and 45 females, were trained to be the 2006-07 SDHS fieldworkers. They were grouped in two classes. Many of the trainees had participated in both the first and second pretests. The training followed the standard DHS training procedures, including instructions on how to conduct interviews and how to fill in all five questionnaires, classroom demonstration and practice in administering the questionnaires, and tests. The participants also had a chance to practice interviewing in actual households and discuss their experience before the fieldwork began.

With respect to the biomarker data collection, the staff responsible for the anaemia and HIV testing received extensive classroom training plus additional field practice. As part of the training, they were given thorough training in informed consent procedures, how to take finger stick blood spot samples, and how to handle and package the dried blood spots. All staff received training in universal precautions and the disposal of hazardous waste. During the training, there were special lectures on the HIV/AIDS epidemic.

2.6 Fieldwork

Fieldwork for the 2006-2007 SDHS was carried out by 10 mobile interviewing teams, each consisting of one supervisor, one field editor, three to four female interviewers, and one or two male interviewers. Two or three of the interviewers on each team were assigned to take the blood samples for the anaemia and HIV testing. Fieldwork commenced in July 2006 and was completed in February 2007.

2.7 Data Processing

All questionnaires for the SDHS were returned to CSO central office for data processing. The processing operation consisted of office editing, coding of open-ended questions, data entry, double-entry verification, and resolving inconsistencies found by computer programmes developed for the SDHS. The SDHS 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 August 2006 and was completed in April 2007.

The HIV testing was carried out at the NRL between August 2006 and June 2007.

2.8 Sample Results

Table 1 shows that, of the 5,500 households selected for the sample, 5,086 were found and thus eligible for interview. Of the eligible households, 4,843 were successfully interviewed yielding a response rate of 95 percent.

In the interviewed households, 5,301 women age 15-49 were identified as eligible for the individual interview. Interviews were completed for 94 percent of these women. Of the 4,675 men age 15-49 identified as eligible for the male interview, 89 percent were interviewed.

Table 2 shows the response rates for the subsample of SDHS households selected for youth and older adult interviews. Half of the SDHS households (2,750 households) were selected in this subsample, and 95 percent of the households found to be occupied in this subsample were interviewed.

Interviews were completed with 96 percent of the total of 477 girls age 12-14 and 94 percent of the 439

Table 1 Results of the household and interviews with eligible women and men
age 15-49

Number of households, number of interviews with eligible women and men age 15-49 and response rates, according to residence, Swaziland Demographic and Health Survey 2006-07

Result	Urban	Rural	Total
Household interviews			
Households selected	2,220	3,280	5,500
Households occupied	2,028	3,058	5,086
Households interviewed	1,880	2,963	4,843
Household response rate	92.7	96.9	95.2
Individual interviews: Women age 15-49			
Number of eligible women	1,682	3,619	5,301
Number of eligible women interviewed	1,544	3,443	4,987
Eligible women response rate	91.8	95.1	94.1
Individual interviews: Men age 15-49			
Number of eligible men	1,638	3,037	4,675
Number of eligible men interviewed	1,441	2,715	4,156
Eligible men response rate	88.0	89.4	88.9

boys age 12-14 eligible for the youth interview. A total of 693 women and 492 men age 50 and over were also identified as eligible for interview in. Interviews were completed with 95 percent of the older women and 93 percent of the older men.

Overall, for all eligible populations except female youth age 12-14, response rates were higher in rural areas than in urban areas. Among female youth, the urban and rural response rates were identical.

 $\frac{\text{Table 2 Results of interviews in the subsample of households selected for youth and older adult interviews}{}$

Number of households, number of interviews with eligible youth age 12-14 and older adults age 50 and over, and response rates, according to residence, Swaziland Demographic and Health Survey 2006-07

Result	Urban	Rural	Total
Household interviews			_
Households selected	1,110	1,640	2,750
Households occupied	1,020	1,523	2,543
Households interviewed	937	1,473	2,410
Household response rate	91.9	96.7	94.8
Individual interviews: Girls age12-14			
Number of eligible girls	78	399	477
Number of eligible girls interviewed	75	384	459
Eligible girl response rate	96.2	96.2	96.2
Individual interviews: Boys age 12-14			
Number of eligible boys	62	377	439
Number of eligible boys interviewed	55	356	411
Eligible boy response rate	88.7	94.4	93.6
Individual interviews: Women age 50+			
Number of eligible women	114	579	693
Number of eligible women interviewed	104	55 <i>7</i>	661
Eligible woman response rate	91.2	96.2	95.4
Individual interviews: Men age 50+			
Number of eligible men	111	381	492
Number of eligible men interviewed	96	360	456
Eligible man response rate	86.5	94.5	92.7

3 PRELIMINARY FINDINGS

3.1 Background Characteristics

Table 3 shows the weighted percent distributions and the weighted and unweighted numbers of women and men age 15-49 interviewed in the 2006-07 SDHS by age, marital status, residence, region and education. Tables 4 and 5 present information on the percent distributions and numbers of the youth and older adults interviewed in the SDHS by age, residence and region.

A comparison of the information on residence for the three groups of respondents indicates that women and men in the 15-49 age groups were more likely than youth and older adults to be urban residents. Respondents in all three groups were most likely to live in the Manzini region and least likely to be found in Lubombo. The fact that the proportion urban and the proportion living in Manzini were both somewhat higher for respondents age 15-49 than for youth or older adults likely reflects the draw of these locations for the economically active population.

Table 3 Background characteristics of respondents age 15-49	
Percent distribution of women and men age 15-49 by background cha	racteristics, Swaziland 2006-07
Women age 15-49	Men age 15-49

		omen age 15			Men age 15-4	9
	Weighted	Weighted	Unweighted	Weighted	Weighted	Unweighted
Background characteristic	percent	number	number	percent	number	number
Age						
15-19	25.5	1,274	1,265	31.8	1,323	1,257
20-24	21.0	1,046	1,027	21.3	886	878
25-29	14.6	729	732	15.0	624	639
30-34	12.3	616	630	10.4	431	449
35-39	10.1	503	508	8.8	367	395
40-44	8.8	438	442	6.5	269	284
45-49	7.7	383	383	6.2	256	254
Marital status						
Never married	49.9	2,487	2,486	65.8	2,734	2,680
Married	31.9	1,589	1,581	23.3	970	1,032
Living together	9.5	473	488	6.0	249	249
Divorced/separated	3.2	161	159	3.5	145	141
Widowed	5.6	277	273	1.4	58	54
Residence						
Urban	26.7	1,330	1,544	28.4	1,181	1,441
Rural	73.3	3,657	3,443	71.6	2,975	2,715
Region						
Hhohho	26.9	1,340	1,263	26.5	1,099	1,019
Manzini	33.0	1,647	1,475	32.5	1,349	1,186
Shiselweni	20.7	1,033	1,083	20.3	843	838
Lubombo	19.4	966	1,166	20.8	865	1,113
Education						
No education	8.1	402	413	7.6	316	332
Lower primary	7.2	360	374	11.3	470	457
Higher primary	25.4	1,268	1,262	23.6	980	971
Secondary	33.9	1,693	1,647	28.6	1,191	1,180
High School	17.9	894	894	20.5	852	838
Tertiary	7.4	370	397	8.3	347	378
Total	100.0	4,987	4,987	100.0	4,156	4,156

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

Table 4 Background characteristics of respondents age 12-14

Percent distribution of girls and boys age 12-14 by background characteristics, Swaziland 2006-07

		Girls age 12-14	1		Boys age 12-14	1
Background	Weighted	Weighted	Unweighted	Weighted	Weighted	Unweighted
characteristic	percent	number	number	percent	number	number
Age						
12	31.3	146	152	33.8	138	139
13	33.1	154	146	31.9	130	130
14	35.5	165	161	34.3	140	142
Residence						
Urban	12.2	5 <i>7</i>	<i>7</i> 5	11.7	48	55
Rural	87.8	408	384	88.3	361	356
Region						
Hhohho	25.2	117	113	27.1	111	110
Manzini	29.5	137	130	28.7	117	112
Shiselweni	24.8	116	110	23.9	98	95
Lubombo	20.5	95	106	20.2	83	94
Total	100.0	465	459	100.0	409	411

Table 5 Background characteristics of respondents: age 50 and older

Percent distribution of women and men age 50 and older by background characteristics, Swaziland 2006-07

	\	Women age 50+			Men age 50+	
Background characteristic	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
50-54	24.6	164	164	26.0	116	126
55-59	16.8	112	111	18.0	80	87
60-64	19.0	127	123	24.1	107	101
65+	39.6	265	263	31.9	142	142
Residence						
Urban	12.9	86	104	17.7	79	96
Rural	87.1	583	557	82.3	365	360
Region						
Hhohho	25.0	167	158	28.6	127	125
Manzini	31.3	209	193	30.6	136	133
Shiselweni	27.8	186	186	22.0	98	100
Lubombo	15.9	107	124	18.9	84	98
Total	100.0	669	661	100.0	444	456

Looking at the other characteristics of respondents age 15-49, around 6 in 10 were under age 30, reflecting the young age structure of the Swazi population. Half of the women were never married compared to two-thirds of men. This pattern is the result of the tendency for men to marry later in life than women.

With respect to educational status, the majority of respondents age 15-49 had had at least some secondary education, and 7 percent of women and 8 percent of men had achieved the tertiary level of education. Eight percent of both women and men reported that they had never attended school.

3.2 Fertility

All women age 15-49 interviewed in the 2006-07 SDHS 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 6 by urban-rural residence. The table also presents the crude birth rate and the general fertility rate. The various fertility measures are calculated for the three-year period before the survey.

The total fertility rate indicates that if childbearing were to remain constant at the age-specific fertility rates measured for the 36-month period before the SDHS survey, a woman in Swaziland would have, on average, 3.8 births in her lifetime. The TFR for urban areas is 3.0, which is markedly lower than the rural rate of 4.2 births per woman.

Figure 1 shows the TFR estimates from the 2006-2007 SDHS, the 2002 Swaziland Community Health Survey (CHS), the 1997 Population and Housing Census (PHC), the 1991 Demographic and Housing Survey (DHS) and the 1986 Population and Housing Census (PHC). The trend in fertility over the roughly 20-year period covered by these five data sources must be interpreted with caution since the methodologies used to derive the TFR estimates vary across the five sources. However, overall it is clear that a very substantial fertility decline has occurred in Swaziland over the past two decades, with the TFR for the three-year period prior to the SDHS more than two births lower than the rate at the time of the 1986 census (6.4 births).

3.3 Contraceptive Use

In the 2006-07 SDHS, respondents age 15-49 were asked a series of questions about contraceptive knowledge and use. They were first asked to name

Table 6 Current fertility

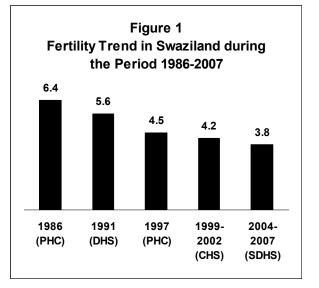
Age-specific and cumulative fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by urban-rural residence, Swaziland 2006-07

Age group	Urban	Rural	Total
15-19	89	118	111
20-24	163	219	202
25-29	124	184	165
30-34	113	182	159
35-39	83	105	99
40-44	31	30	30
45-49	0	5	4
TFR	3.0	4.2	3.8
GFR	110.0	146.0	136.0
CBR	31.9	31.0	31.1

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



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 respondent had heard of the method. For each method which they recognised, respondents were asked if they had ever used 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 7 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 sterilisation, male sterilisation, 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.

Table 7 Current use of contraception Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Swaziland 2006-07	e of contrace of currently	eption married wo	omen by c	ontracepti [,]	ve metho	d current	tly used, a	ccording	to backgro	ound chara	cteristics,	Swaziland 2	20-900;					
			-	-		Mc	Modern method	poq				1 2	Trad	Traditional method	poq			
Background characteristic	Any method	Any modern method	Female sterili- sation	Male sterili- sation	H.	IND	Inject- ables	lm- plants	Male condom	Female condom	LAM	Any tradi- tional method	Periodic absti- nence	With- drawal	Folk method	Not currently using	Total	Number of women
Age	o CV	47.0		0	11)		0 00		10.6	0	0			0		67.7	000	a
13-19	42.0	0.74	0.0	0.0	7	0.0	20.9	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	2.75	100.0	000
20-24	40.7 53.7	44.0 7.1.7	0.0	0.0	0.1	0.0	20.0 24.4	0.0	12.9	0.0	- ×	2.0	0.3	 4. г.	4.0	55.5 46.3	100.0	388
30-34	64.9	61.5	3.6	0.5	15.2	2.0	21.1	0.7	17.3	0.0	7.0	5. K	0.2		0.0	35.1	100.0	379
35-39	56.0	52.2	7.3	0.0	11.0	1.3	17.5	0.2	13.8	0.3	0.9	3.8	9.0	2.6	9.0	44.0	100.0	334
40-44	42.3	38.2	11.8	0.3	6.8	2.6	9.0	0.0	7.4	0.0	0.3	4.1	0.3	2.1	1.7	57.7	100.0	291
45-49	34.4	30.9	16.9	0.0	2.6	3.0	2.1	0.0	6.2	0.0	0.0	3.6	0.0	3.6	0.0	9:29	100.0	238
Living Children	,	,		1	,	,				1	1	!	,	1	,			,
0	27.6	26.1	1.9	0.0	2.0	0.0	4.0	0.0	18.1	0.0	0.0	1.5	0.0	0.7	0.8	72.4	100.0	166
1-2	49.8	48.3	1.0	0.3	11.1	1.3	20.4	0.3	13.2	0.1	0.7	1.5	0.1	4.	0.0	50.2	100.0	772
3-4	2.09	56.4	7.8	0.3	11.0	1.7	20.5	0.1	13.7	0.2		4.3	0.8	3.2	0.3	39.3	100.0	570
5+	48.3	44.3	4.11	0.0	9.4	1.7	13.2	0.0	7.2	0.2	1.3	4.0	0.0	2.9	7:	51.7	100.0	554
Residence	π α	r. G	α	C L	10.6	0	12 7	90	20		0	, c	0	7		0 17	100 0	7.4.2
- Ican d	- 82	ς Σ ς Σ α	1 0	0.0	9.0	 	, α	0.0	5.0	0.0	; -	. t. c.	0.,	`. c	0.0	C. C. R	100.0	1 520
Nulai	40.0	0.44	ų. ,	<u>-</u>	9.0	7:	10.4	0.0	y.	7.0	=	 		4.7	0.0	22.0	0.001	026,1
Region	7 2 7	905	r C	90	10.0	7	7 7 7	-	120	C L	-	с, 1	0	5	C	76.2	100 0	009
Manzini	7.5.7 7.5.7	40.0	7. L	0.0	10.5	. c	, <u>,</u> ,	- 0	15.7	0.0	- 9	- « «	0.5	t 0	0.0	4.7.5 7.7.5	100.0	650
Shiselweni	45.6	42.1	ייר ייר	0.0	7.2	6.0	18.0		4.6	0.0	1.0	3.5	0.6	c. c	0	5. 4.7 4. 4.7	100.0	363
Lubombo	48.0	46.1	7.5	0.0	9.8	: :	18.8	0.0	8.0	0.0	1.0	1.8	0.2	1.0	0.7	52.0	100.0	449
Education																		
No education	28.9	26.5	5.8	0.0	6.1	9.0	9.7	0.0	4.7	0.4	1.3	2.4	0.0	1.5	6.0	71.1	100.0	247
Lower primary	36.3	32.1	6.1	0.0	6.5	0.0	13.9	0.0	4.4	0.0	1.	4.2	0.0	4.2	0.0	63.7	100.0	176
Higher primary	45.6	43.6	4.0	0.0	7.9	1.0	18.9	0.0	11.3	0.0	0.5	1.9	0.2	4.	0.3	54.4	100.0	538
Secondary	56.1	52.8	4.3	0.0	11.5	1.2	21.1	0.0	12.9	0.2	1.6	3.3	0.3	2.5	0.5	43.9	100.0	009
High School	0.09	55.7	6.7	0.7	4.11	2.0	17.8	0.0	16.8	0.3	0.0	4.3	1.0	3.0	0.3	40.0	100.0	304
Tertiary	73.7	71.6	13.0	6.0	15.7	4.2	4.4	1.5	21.3	0.0	0.5	2.1	0.0	4.1	0.7	26.3	100.0	197
Total	50.6	47.7	5.8	0.2	6.6	4.1	17.2	0.1	12.2	0.1	0.9	2.9	0.3	2.2	0.4	49.4	100.0	2,062
Note: If more than one method is used, only the most effective method is considered in this tabulation. LAM = Lactational amenorrhoea method.	one method amenorrhoo	is used, on ea method.	ly the mos	t effective	method i	s conside	ered in thi	s tabulati	on.									

Overall, the SDHS found that 51 percent of currently married women were currently using contraception at the time of the survey. Most users (48 percent of all currently married women) were relying on a modern contraceptive method. Injectables were the most frequently used modern method (17 percent) followed by the male condom (12 percent) and the pill (10 percent). Six percent of women were using female sterilisation and one percent an IUD. Comparatively few married women said they were using a traditional method, with withdrawal being the most commonly used method (2 percent)

The results in Table 7 show that contraceptive use varies with age, increasing from 43 percent in the 15-19 age group to 65 percent among women age 30-34 before declining among older women. The number of living children also is related to level of contraceptive use, with use rising from 28 percent of childless women to 61 percent among women with 3-4 children.

Around six in ten married women in urban areas were using a method compared to around five in ten women in rural areas. The use rate was highest in Hhohho region (54 percent) followed closely by Manzini (53 percent) and lowest in Shiselweni region (46 percent). The use rate rose directly with the woman's education level.

3.4 Fertility Preferences

In order to obtain an insight into women's childbearing intentions, SDHS respondents were asked whether they wanted to have another child and, if so, how soon. Table 8 summarizes the information on women's reproductive preferences. The majority of all married women expressed a desire to control future childbearing. Sixty-eight percent either reported that they did not want another child or they were using female sterilisation. An additional 15 percent wanted another child, but indicated that they wished to wait at least two years before the birth of their next child.

			Numb	er of living	children1			
Desire for children	0	1	2	3	4	5	6+	Tota
Have another soon ²	57.4	23.4	13.2	6.3	3.0	3.8	0.5	12.2
Have another later ³	21.7	38.3	17.6	9.5	10.6	5.4	1.6	15.1
Have another, undecided when	2.8	2.0	0.6	0.6	0.0	0.0	0.5	0.8
Undecided	0.9	2.4	2.4	1.3	1.5	1.7	0.0	1.5
Want no more	10.8	30.0	63.2	71.8	76.6	77.4	83.3	62.3
Sterilized ⁴	2.4	0.5	1.9	9.1	5.9	9.0	12.5	5.9
Declare infecund	3.9	3.3	1.1	1.4	2.4	2.1	1.7	2.1
Missing	0.0	0.1	0.0	0.0	0.0	0.6	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	131	347	426	343	251	201	363	2,062

¹ Includes current pregnancy

Table 8 Fertility preferences by number of living children

3.5 Childhood Mortality

A key objective of the 2006-07 SDHS 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:

² Wants next birth within 2 years

³ Wants to delay next birth for 2 or more years

⁴ Includes both male and female sterilisation

- Neonatal mortality: the probability of death in the first month
- Postneonatal 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 five-year periods before the survey. For the most recent five-year period, the under-five mortality rate was 120 deaths per 1,000 live births. Looking at the age pattern of mortality during the five-year period prior to the survey, 70 percent of all deaths took place during the first year of the child's life. In turn, the majority of infant deaths occurred during postneonatal period.

Table 9 Ea	rly childhood moi	rtality rates				
	oostneonatal, infai aziland 2006-07	nt, child, and	under-five mortal	ity rates for fiv	ve-year periods pre	eceding the
Years preceding the survey	Approximate calendar years	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality (1q0)	Child mortality (4q1) ¹	Under-five mortality (5q0)
0-4	2002-2006	22	64	85	38	120
5-9	1997-2001	24	43	67	24	90
10-14	1992-1996	21	18	39	22	60
¹ Computed	as the difference be	tween the infar	nt and neonatal mor	tality rates		

More detailed analysis of the mortality results will be needed to understand the exact trend in childhood mortality. However, looking at the rates for all three time periods shown in Table 9, the pattern is one of rising mortality. Overall, the results suggest that child mortality has doubled in Swaziland since the early 1990s, most likely in response to the AIDS epidemic.

3.6 Maternal Health

Proper care during pregnancy and childbirth are important to the health of both a mother and her baby. The 2006-07 SDHS 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 10.

Regular checkups from a medically trained provider throughout a pregnancy reduce the risk to the mother and child during pregnancy and at delivery. Table 10 shows that 97 percent of women with a birth in the five years preceding the survey received some antenatal care from a health professional.

One key component of antenatal care for which information was obtained in the SDHS 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. An infant was considered to be fully protected against neonatal tetanus if the mother received: (1) two injections during her pregnancy; (2) two or more injections at any time with last injection given within three years of the birth; (3) three or more injections with the last injection received within five years of the birth; (4) four or more injections with the last received within ten years of the birth; or (5) five or more injections prior to the birth. According to the SDHS results, around 75 percent of women giving birth during the five-year period before the survey had had the number of tetanus toxoid injections required to fully protect their last live birth against neonatal tetanus.

Table 10 Maternal care indicators

Percentage of women who had a live birth in the five years preceding the survey who received antenatal care from a health professional for the last live birth and whose last live birth was protected against neonatal tetanus, and among all live births in the five years before the survey, percentage delivered by a health professional and percentage delivered in a health facility, by background characteristics, Swaziland 2006-07

Background characteristic	Percentage with antenatal care from a health profes- sional ¹	Percentage whose last live birth was protected against neonatal tetanus ²	Percentage given iron tablets or syrup during pregnancy	Number of women	Percentage delivered by a health profes- sional ¹	Percentage delivered in a health facility	Number of births
Mother's age at							
birth							
<20	97.6	71.4	88.6	481	76.2	76.4	661
20-34	97.1	76.4	88.3	1,382	75.4	75.1	1,852
35+	96.0	71.8	87.3	271	63.5	63.7	315
Residence							
Urban	98.2	80.3	88.1	496	88.1	88.8	630
Rural	96.7	73.0	88.3	1,638	70.3	70.0	2,199
Region							
Hhohho	97.3	73.2	90.8	572	78.3	78.6	766
Manzini	98.3	77.4	90.2	668	79.9	79.8	870
Shiselweni	95.6	76.9	87.3	460	65.9	65.1	615
Lubombo	96.6	69.9	82.9	434	69.5	69.3	577
Education							
No education	96.3	64.2	82.5	178	57.2	57.2	263
Lower primary	94.5	71.8	85.3	177	55.7	55.3	245
Higher primary	95.2	71.1	86.9	550	65.1	64.6	748
Secondary	97.9	78.3	89.1	716	79.4	79.5	951
High School	99.4	77.1	89.8	374	91.1	90.9	457
Tertiary	98.0	80.2	95.9	140	95.1	95.1	166
Total	97.1	74.7	88.2	2,134	74.3	74.1	2,829

¹ Doctor, nurse/midwife, or nursing assistant

The SDHS also obtained information as to whether the mother received iron tablets or syrup during the pregnancy. Nearly 9 in 10 women with a last birth during the 5 years before the survey took iron tablets or syrup.

The availability of medical assistance at delivery helps to lower the risk of adverse pregnancy outcomes, including lowered rates of maternal morbidity, maternal mortality, and perinatal mortality. 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 SDHS found that 74 percent of all live births during the five-year period prior to the survey were assisted by a health professional at delivery. An almost identical percentage was delivered in a health facility, indicating that few births outside health facilities are attended by a health care provider.

Table 10 also presents differentials in the key maternal health indicators. Although not completely uniform, an examination of these differentials suggests that women age 35 and older, rural women, and women from the Lubombo and Shiselweni regions are somewhat less likely than other women to have received the maternal health care measures presented in Table 10, with the differentials being most notable with respect to the delivery assistance indicators. The various maternal health care measures also tend to rise with a woman's education level. For example, the proportion assisted at delivery by a health professional ranges from less than 60 percent of the births among women with no

² Includes mothers with two injections during the time when they were pregnant with 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 ten years of the last live birth), or five or more injections prior to the last live birth

education or only a lower primary education to more than 90 percent of births among women with a high school or higher education.

3.7 Vaccination of Children

In the 2006-07 SDHS, data on childhood immunisations were collected for all surviving children born since January 2001. For each of those children, 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 11 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.²

Table 11	Vaccinations by	/ background	characteristics
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Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen, by background characteristics, Swaziland 2006-07

												-
										.		
												Number
DCC	DDT 4	DDT 0	DDT 3	D I: 01	D. It. a	D. It. o.	D. II. o		A 112			of
RCC	ו ואט	DPT 2	DPT 3	Polio U	Polio 1	Polio 2	Polio 3	Measles	All ⁻	nations	card	children
												!
97.1	96.7	95.7	93.4	92.9	96.8	95.6	87.7	91.5	81.8	2.4	84.2	272
97.3	95.2	93.2	89.9	93.2	97.1	94.7	86.9	91.5	81.7	2.6	84.0	259
												l
96.6	96.4	94.3	90.8	94.6	97.0	94.2	79.3	94.8	77.7	2.7	75.3	103
97.3	95.9	94.5	91.9	92.7	96.9	95.4	89.2	90.7	82.7	2.4	86.2	428
												ļ
97.2	95.9	94.5	93.1	94.5	97.2	96.6	89.3	93.7	84.3	2.8	86.8	149
96.6	95.4	95.1	93.3	93.2	97.3	94.4	88.4	90.5	81.9	2.7	84.5	162
97.2	96.7	96.7	92.6	93.3	97.6	96.6	87.5	91.6	83.7	2.4	83.5	111
97.9	96.2	91.2	86.4	90.7	95.4	93.0	82.8	90.0	76.1	1.8	80.5	110
(95.2)	(93.1)	(91.4)	(90.5)	(93.0)	(91.4)	(90.5)	(85.2)	(84.4)	(76.5)	(4.8)	(80.8)	(44)
93.7	95.8	94.3	87.7	90.4	95.8	95.8	89.0	84.5	77.7	4.2	91.4	51
99.1	96.9	94.5	90.5	90.7	98.4	96.8	87.0	92.3	80.8	0.9	81.4	145
												175
	97.7	95.7	93.3	97.1	97.7	97.6	85.0	95.8	83.1	2.3	85.3	88
(96.4)	(96.4)	(94.8)	(89.0)	(90.7)	(96.4)	(91.0)	(86.1)	(95.2)	(84.8)	(3.6)	(75.7)	(29)
97.2	96.0	94.5	91.7	93.1	97.0	95.2	87.3	91.5	81.7	2.5	84.1	531
	97.3 96.6 97.3 97.2 96.6 97.2 97.9 (95.2) 93.7 99.1 97.0 97.7 (96.4)	97.1 96.7 97.3 95.2 96.6 96.4 97.3 95.9 97.2 95.9 96.6 95.4 97.2 96.7 97.9 96.2 (95.2) (93.1) 93.7 95.8 99.1 96.9 97.0 95.1 97.7 97.7 (96.4) (96.4)	97.1 96.7 95.7 97.3 95.2 93.2 96.6 96.4 94.3 97.3 95.9 94.5 97.2 95.9 94.5 96.6 95.4 95.1 97.2 96.7 96.7 97.9 96.2 91.2 (95.2) (93.1) (91.4) 93.7 95.8 94.3 99.1 96.9 94.5 97.0 95.1 94.5 97.7 97.7 95.7 (96.4) (96.4) (94.8)	97.1 96.7 95.7 93.4 97.3 95.2 93.2 89.9 96.6 96.4 94.3 90.8 97.3 95.9 94.5 91.9 97.2 95.9 94.5 93.1 96.6 95.4 95.1 93.3 97.2 96.7 96.7 92.6 97.9 96.2 91.2 86.4 (95.2) (93.1) (91.4) (90.5) 93.7 95.8 94.3 87.7 99.1 96.9 94.5 90.5 97.0 95.1 94.5 93.8 97.7 97.7 95.7 93.3 (96.4) (96.4) (94.8) (89.0)	97.1 96.7 95.7 93.4 92.9 97.3 95.2 93.2 89.9 93.2 89.9 93.2 89.9 93.2 99.8 94.6 97.3 95.9 94.5 91.9 92.7 97.2 95.9 94.5 93.1 94.5 96.6 95.4 95.1 93.3 93.2 97.2 96.7 96.7 92.6 93.3 97.9 96.2 91.2 86.4 90.7 99.7 95.8 94.3 87.7 90.4 99.1 96.9 94.5 90.5 90.7 97.0 95.1 94.5 93.8 94.2 97.7 97.7 95.7 93.3 97.1 (96.4) (96.4) (94.8) (89.0) (90.7)	97.1 96.7 95.7 93.4 92.9 96.8 97.3 95.2 93.2 89.9 93.2 97.1 96.6 96.4 94.3 90.8 94.6 97.0 97.3 95.9 94.5 91.9 92.7 96.9 97.2 95.9 94.5 93.1 94.5 97.2 96.6 95.4 95.1 93.3 93.2 97.3 97.2 96.7 96.7 92.6 93.3 97.6 97.9 96.2 91.2 86.4 90.7 95.4 (95.2) (93.1) (91.4) (90.5) (93.0) (91.4) 93.7 95.8 94.3 87.7 90.4 95.8 99.1 96.9 94.5 90.5 90.7 98.4 97.0 95.1 94.5 93.8 94.2 97.2 97.7 97.7 95.7 93.3 97.1 97.7 (96.4) (96.4) (94.8) (89.0) (90.7) (96.4)	97.1 96.7 95.7 93.4 92.9 96.8 95.6 97.3 95.2 93.2 89.9 93.2 97.1 94.7 94.7 96.6 96.4 94.3 90.8 94.6 97.0 94.2 97.3 95.9 94.5 91.9 92.7 96.9 95.4 97.2 96.6 95.4 95.1 93.3 93.2 97.3 94.4 97.2 96.7 96.7 92.6 93.3 97.6 96.6 97.9 96.2 91.2 86.4 90.7 95.4 93.0 95.4 93.0 (95.2) (93.1) (91.4) (90.5) (93.0) (91.4) (90.5) 93.7 95.8 94.3 87.7 90.4 95.8 95.8 99.1 96.9 94.5 90.5 90.7 98.4 96.8 97.0 95.1 94.5 93.8 94.2 97.2 94.3 97.7 97.7 95.7 93.3 97.1 97.7 97.6 (96.4) (96.4) (94.8) (89.0) (90.7) (96.4) (91.0)	97.1 96.7 95.7 93.4 92.9 96.8 95.6 87.7 97.3 95.2 93.2 89.9 93.2 97.1 94.7 86.9 96.6 96.4 94.3 90.8 94.6 97.0 94.2 79.3 95.9 94.5 91.9 92.7 96.9 95.4 89.2 97.2 95.9 94.5 93.3 93.2 97.3 94.4 88.4 97.2 96.7 96.7 92.6 93.3 97.6 96.6 87.5 97.9 96.2 91.2 86.4 90.7 95.4 93.0 82.8 96.6 95.4 95.1 93.3 93.2 97.3 94.4 88.4 97.2 96.7 96.7 92.6 93.3 97.6 96.6 87.5 97.9 96.2 91.2 86.4 90.7 95.4 93.0 82.8 96.6 95.4 95.1 93.3 97.6 96.6 87.5 97.9 96.2 91.2 86.4 90.7 95.4 93.0 82.8 93.0 82.8 93.7 95.8 94.3 87.7 90.4 95.8 95.8 89.0 99.1 96.9 94.5 90.5 90.7 98.4 96.8 87.0 97.0 95.1 94.5 93.8 94.2 97.2 94.3 89.0 97.7 97.7 95.7 93.3 97.1 97.7 97.6 85.0 (96.4) (96.4) (94.8) (89.0) (90.7) (96.4) (91.0) (86.1)	97.1 96.7 95.7 93.4 92.9 96.8 95.6 87.7 91.5 97.3 95.2 93.2 89.9 93.2 97.1 94.7 86.9 91.5 96.6 96.4 94.3 90.8 94.6 97.0 94.2 79.3 94.8 97.3 95.9 94.5 91.9 92.7 96.9 95.4 89.2 90.7 96.6 95.4 95.1 93.3 93.2 97.3 94.4 88.4 90.5 97.2 96.7 96.7 92.6 93.3 97.6 96.6 87.5 91.6 97.9 96.2 91.2 86.4 90.7 95.4 93.0 82.8 90.0 95.4 95.1 93.3 93.7 95.9 96.2 91.2 86.4 90.7 95.4 93.0 82.8 90.0 95.4 95.1 93.3 97.6 96.6 87.5 91.6 97.9 96.2 91.2 86.4 90.7 95.4 93.0 82.8 90.0 95.4 95.1 93.3 97.6 96.6 87.5 91.6 97.9 96.2 91.2 86.4 90.7 95.4 93.0 82.8 90.0 95.4 93.0 82.8 90.0 95.1 94.5 93.8 94.2 97.2 94.3 89.0 91.9 97.7 97.7 95.7 93.3 97.1 97.7 97.6 85.0 95.8 (96.4) (96.4) (94.8) (89.0) (90.7) (96.4) (91.0) (86.1) (95.2)	97.1 96.7 95.7 93.4 92.9 96.8 95.6 87.7 91.5 81.8 97.3 95.2 93.2 89.9 93.2 97.1 94.7 86.9 91.5 81.7 96.6 96.4 94.3 90.8 94.6 97.0 94.2 79.3 94.8 77.7 97.3 95.9 94.5 91.9 92.7 96.9 95.4 89.2 90.7 82.7 97.2 95.9 94.5 93.1 94.5 97.2 96.6 89.3 93.7 84.3 96.6 95.4 95.1 93.3 93.2 97.3 94.4 88.4 90.5 81.9 97.2 96.7 96.7 92.6 93.3 97.6 96.6 87.5 91.6 83.7 97.9 96.2 91.2 86.4 90.7 95.4 93.0 82.8 90.0 76.1 (95.2) (93.1) (91.4) (90.5) (93.0) (91.4) (90.5) (85.2) (84.4) (76.5) 93.7 95.8 94.3 87.7 90.4 95.8 95.8 89.0 84.5 77.7 99.1 96.9 94.5 90.5 90.7 98.4 96.8 87.0 92.3 80.8 97.0 95.1 94.5 93.8 94.2 97.2 94.3 89.0 91.9 83.8 97.7 97.7 95.7 93.3 97.1 97.7 97.6 85.0 95.8 83.1 (96.4) (96.4) (94.8) (89.0) (90.7) (96.4) (91.0) (86.1) (95.2) (84.8)	97.1 96.7 95.7 93.4 92.9 96.8 95.6 87.7 91.5 81.8 2.4 97.3 95.2 93.2 89.9 93.2 97.1 94.7 86.9 91.5 81.7 2.6 96.6 96.4 94.3 90.8 94.6 97.0 94.2 79.3 94.8 77.7 2.7 97.3 95.9 94.5 91.9 92.7 96.9 95.4 89.2 90.7 82.7 2.4 97.2 95.9 94.5 93.1 94.5 97.2 96.6 89.3 93.7 84.3 2.8 96.6 95.4 95.1 93.3 93.2 97.3 94.4 88.4 90.5 81.9 2.7 97.2 96.7 96.7 92.6 93.3 97.6 96.6 87.5 91.6 83.7 2.4 97.9 96.2 91.2 86.4 90.7 95.4 93.0 82.8 90.0 76.1 1.8 (95.2) (93.1) (91.4) (90.5) (95.2) (BCG DPT 1 DPT 2 DPT 3 Polio 0 Polio 1 Polio 2 Polio 3 Measles All vacci-nations ocard 97.1 96.7 95.7 93.4 92.9 96.8 95.6 87.7 91.5 81.8 2.4 84.2 97.3 95.2 93.2 89.9 93.2 97.0 94.2 79.3 94.8 77.7 2.7 75.3 97.3 95.9 94.5 91.9 92.7 96.9 95.4 89.2 90.7 82.7 2.4 86.2 97.2 95.9 94.5 93.1 94.5 97.2 96.6 89.3 93.7 84.3 2.8 86.8 96.6 95.9 94.5 93.3 93.2 97.3 94.4 88.4 90.5 81.9 2.7 84.5 97.2 96.6 89.3 93.7 84.3 2.8 86.8 96.6 95.4 95.1 93.3 93.2 97.3 94.4

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

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

Vaccination cards were seen for 84 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,

¹ Polio 0 is the polio vaccination given at birth.

² 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.

the SDHS found that 98 of percent children age 12-23 months have received at least some of the recommended vaccinations. The highest coverage level was for the BCG vaccine (97 percent). Ninety-two percent of the children have received the recommended three doses of the DPT vaccine and 87 percent have had at least three doses of polio vaccine. Ninety-two percent of children have received a measles vaccination.

Overall, 82 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.

Looking at the differences in the proportions fully immunised in Table 11, the rates for girls and boys are virtually identical. Somewhat surprisingly, rural children were more likely to be fully immunised than urban children (83 percent and 78 percent, respectively). Among the four regions, Lubombo had the lowest proportion fully immunised. The percentage fully immunised rises with the mother's education level..

3.8 Childhood Illnesses

Prompt medical attention for children suffering from acute respiratory infection, severe diarrhoea and malaria is crucial to reducing childhood deaths. In the SDHS, 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).

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.

Results from the SDHS indicate that, in the two-week period before the survey, 8 percent of children under age five were reported by their mothers as having been ill with a cough with short, rapid breathing, 28 percent with a fever, and 13 percent with diarrhoea (data not shown in the table). A health care provider was consulted about the child's illness for around seven in ten children ill with ARI symptoms or diarrhoea and around six in ten of the children who had a fever. Nearly nine in ten children with diarrhoea were given a solution prepared from an ORS packet.

The differences in the treatment patterns by the background characteristics shown in Table 12 must be interpreted with some caution given the small numbers of ill children in some subgroups. Interestingly, however, mothers in Lubombo region, where malaria is prevalent, were most likely to report that treatment was sought for children ill with fever.

3.9 Malaria

The SDHS collected data for a number of indicators that are useful for assessing different aspects of the malaria control strategies in the country. In interpreting the malaria programme indicators, it is important to recognize that the disease is not endemic throughout the entire country but affects an estimated 30 percent of the population living in the areas where the malaria is most prevalent (the Lubombo Plateau, the lowveld and parts of the middleveld). Malaria is also seasonal, occurring mainly during or after the rainy season (from November to March). In interpreting the SDHS findings relating to malaria, it also is important to note that a significant part of the fieldwork for the survey took place outside this season.

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, and percentage given a solution made from oral rehydration salt (ORS) packets or given prepackaged ORS liquids by background characteristics, Swaziland 2006-07

1	Children with sy	mptoms of					
	ARI		Children wi	ith fever	Child	ren with diarrho	oea
	Percentage for		Percentage for		Percentage for		
	whom		whom		whom		
	treatment was		treatment was		treatment was	Percentage	
	sought from a		sought from a		sought from a	given solution	Number
Background	health facility/	Number	health facility/	Number	health facility/		with
characteristic	provider ¹	with ARI	provider1 /	with fever	provider ¹	packet ²	diarrhoea
Age in months							
<6	*	18	53.9	76	53.9	(82.8)	29
6-11	(79.9)	31	58.6	124	83.1	91.0	82
12-23	77.3	52	62.0	186	72.8	87.2	116
24-35	(75.2)	48	55.8	119	69.5	90.4	66
36-47	(64.9)	31	54.2	101	61.9	(86.7)	25
48-59	(70.6)	36	62.5	97	68.3	(94.2)	24
Sex							
Male	70.0	118	57.9	396	69.5	87.8	201
Female	76.9	97	59.1	308	75.4	90.3	143
Residence							
Urban	(80.7)	32	57.2	98	66.7	81.2	52
Rural	71.7	183	58.6	605	72.9	90.2	292
Region							
Hhohho	(63.5)	45	56.6	156	66.8	87.7	77
Manzini	75.9	59	54.5	173	71.4	88.3	96
Shiselweni	68.4	33	46.7	134	70.8	91.7	81
Lubombo	78.5	78	68.9	241	77.9	87.7	90
Education							
No education	(55.2)	27	45.1	78	74.8	(91.3)	37
Lower primary	*	16	54.1	75	65.3	(95.0)	38
Higher primary	81.1	76	67.2	212	71.3	86.6	107
Secondary	80.3	61	58.2	214	79.9	86.9	101
High School	(66.2)	29	52.5	107	61.4	89.7	55
Tertiary	*	7	*	17	69.8	*	4
Total	73.1	214	58.4	703	71.9	88.8	343

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

Table 13 presents information on the availability and use of mosquito nets by women and young children living in malarious and non-malarious areas within Swaziland and on the use of antimalarials to treat fever among young children. Overall 6 percent of households within Swaziland have at least one mosquito net (treated or untreated), and 4 percent have at least one insecticide-treated net. Less than one percent of children under age five and of pregnant women slept under mosquito net on the night before the interview. Only a small proportion of children ill with fever during the two-week period before the survey were given antimalarials to treat the fever.

Table 13 shows that all of the malaria indicators are higher for the population living in areas identified as malarious than in nonmalarious areas. In particular, households living in malarious areas are much more likely to possess bed nets than households in non-malarious areas.

¹ Excludes pharmacy, shop, and traditional practitioner

² Includes ORS from packets and prepackaged ORS liquids

Table 13 Malaria indicators

Possession and use of mosquito nets by pregnant women and children under age 5 and treatment of children with fever using antimalarial drugs, by residence in malarious or non-malarious area, Swaziland 2006-07

	Mala	rious	Non-ma	larious	Tot	tal
Malaria indicators	Percentage	Number	Percentage	Number	Percentage	Number
Mosquito nets Percentage of household with at least one mosquito net (treated						
or untreated)	14.2	1,550	2.3	3,293	6.1	4,843
Percentage of household with at least one Insecticide Treated Net (ITN) ¹	10.3	1,550	1.6	3,293	4.4	4,843
Percentage of children under 5 who slept under a mosquito net the night before the survey	1.5	1,115	0.3	2,153	0.7	3,268
Percentage of children under 5 who slept under an Insecticide Treated Net (ITN) the night before the interview ¹	1.2	1,115	0.2	2,153	0.6	3,268
Percentage of pregnant women age 15-49 who slept under a mosquito net the night before the interview	1.8	102	0.5	202	0.9	303
Percentage of pregnant women age 15-49 who slept under an Insecticide Treated Net (ITN) the night before the interview ¹	1.8	102	0.5	202	0.9	303
Treatment of fever Among children under age 5 with fever in the two weeks preceding the survey, percentage who took						
antimalarial drugs	0.8	340	0.5	363	0.6	703

¹ An Insecticide Treated Net (ITN) is a permanent net that does not require any treatment, a pretreated net obtained within the last 12 months or a net that has been soaked with insecticide within the past 12 months.

3.10 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 2006-07 SDHS, 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 to a reference population. Previously, the NCHS/CDC/WHO reference population was used as the international standard. However, recently WHO has developed the Growth standard 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 the optimum conditions required to achieve a child's full growth potential. In Table 14, the nutritional status of the Swazi children for which anthropometric data was obtained in the SDHS is compared to the new Child Growth standards adopted by the World Health Organisation. To allow for trend assessment with data obtained in earlier surveys, Table 14 also includes the results of a comparison with the NCHS/CDC/WHO reference population for the total population of children under age five.

Table 14 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, Swaziland 2006-07

	Height	-for-age	W	Veight-for-hei	ight	Weigh	it-for-age	
	Percentage			Percentage	Percentage	Percentage	Percentage	
	below -3	below -2	below -3	below -2	above 2+	below -3	below -2	Number of
Background characteristic	SD	SD ¹	SD	SD ¹	SD	SD	SD ¹	children
Age in months								
<6	5.1	19.7	1.0	2.9	22.3	0.0	5.3	222
6-8	4.7	12.3	1.2	4.0	11.0	1.8	5.2	172
9-11	5.9	17.7	2.4	7.1	12.3	1.2	8.4	145
12-17	10.6	28.4	1.1	3.8	12.4	0.8	6.7	305
18-23	19.1	42.9	1.2	3.5	11.5	1.3	7.5	272
24-35	12.8	37.6	0.5	0.9	11.3	0.9	4.6	583
36-47	10.7	29.7	0.9	2.2	8.7	0.5	4.5	587
48-59	8.0	24.8	0.5	1.5	7.0	0.7	5.0	655
Sex								
Male	12.0	32.2	1.1	3.1	11.0	0.8	5. <i>7</i>	1,453
Female	8.6	25.6	0.7	1.9	10.6	8.0	5.1	1,488
Residence								
Urban	6.7	23.1	0.8	3.2	14.9	0.0	4.5	483
Rural	11.0	30.0	0.9	2.3	10.0	1.0	5.6	2,457
Region								
Hhohho	11.2	31.6	1.3	3.1	14.1	0.8	6.7	755
Manzini	10.0	29.5	1.1	2.3	9.4	1.0	5.7	869
Shiselweni	11.1	28.9	0.8	2.1	8.5	0.6	5.2	745
Lubombo	8.4	24.4	0.2	2.5	11.6	0.7	3.7	571
Education								
No education	10.3	37.5	1.1	2.0	8.1	0.7	6.7	211
Lower primary	11.4	32.1	1.8	5.8	6.3	2.3	4.6	210
Higher primary	12.8	33.3	1.0	2.8	9.1	0.6	6.1	593
Secondary	6.8	25.8	1.0	2.8	10.4	0.4	4.7	732
High School	8.1	19.0	0.0	1.1	15.4	0.4	4.4	352
Tertiary	3.2	10.5	0.8	1.8	19.6	0.0	0.9	130
Mother's status								
Mother interviewed	9.3	27.6	0.8	2.5	10.7	0.7	5.0	2,152
Mother not interviewed,								
but in household ²	5.6	25.9	3.7	6.8	12.1	0.0	3.9	78
Mother not interviewed,								
not in household ² , ³	13.7	33.2	0.8	1.9	11.0	1.3	6.6	705
Total (Child Growth)	10.3	28.9	0.9	2.5	10.8	0.8	5.4	2,940
Total (NCHS/CDC/WHO)		24.2	0.6	2.2	7.1	1.0	7.4	2,934

Note: Table is based on children who stayed in the household the night before the interview and had valid dates of birth (month and year) and valid measurement of both height and weight. For the total population of children and for the subgroups shown in the table, the indices are expressed in standard deviation units (SD) from the median of the WHO Child Growth international reference population. For the total population of children, the indicators are also expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO population, which was used as the reference population in earlier surveys in Swaziland.

¹ Includes children who are below -3 standard deviations (SD) from the International Reference Population median

 $^{^2}$ For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire

³ Includes children whose mothers are deceased

Three standard indicators of growth are presented in Table 14: 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 deficits 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 mean of the reference population. If a child is between 2 and 3 standard deviations below the mean, 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 14 indicate that there is considerable malnutrition among Swazi children. Based on the comparison with the WHO Child Growth reference population, 28 percent of children under age five are stunted, and 10 percent are severely stunted. Three percent of children are wasted while 11 percent are overweight. Reflecting the effects of both chronic and short-term malnutrition, 5 percent of children under age five are underweight for their age.

Children's nutritional status varies markedly with a number of the background characteristics in Table 14. In general, the levels of stunting, wasting and underweight increase with the child's age, peaking in the age groups (18-23 months) when large numbers of children are being weaned. Male children are slightly more likely to be malnourished than female children, with the largest differences observed in the percentage stunted (32 percent among boys and 26 percent among girls).

The percentages malnourished also differ markedly by place of residence. For example, rural children are more likely to be stunted than urban children (30 percent and 23 percent, respectively) and the proportion stunted varies from 24 percent in Lubombo region to 32 percent in Hhohho region. In general, the proportions of children who are stunted, wasted, or underweight decline with the mother's education while the proportion overweight increases with the mother's education.

3.11 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 15 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 10 percent of babies age 0-5 months at the time of the survey were not receiving breast milk. The results in Table 15 also indicate that the proportion breastfed remains high throughout the first year of life; 85 percent of children age 9-11 months were being breastfed at the time of the survey.

Although the majority of young children are breastfed early in life, less than half of children age 0-3 months (44 percent) receive breast milk only. Supplements are introduced rapidly after early infancy; among children age 4-5 months, only 17 percent are exclusively breastfed. Around two-thirds of children in this age group are receiving solid/mushy foods.

The results in Table 15 show that substantial proportions of babies are bottle-fed. Around three in ten infants age 0-9 months were fed with a bottle with a nipple during the 24 hours preceding the survey.

Table 15 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, Swaziland 2006-07

		:	Brea	astfeeding a	ınd consu	ıming				Percent-	Number
		-		Non-				Percent- age	Number of youngest	age using a	of all children
	Not		Plain	milk		Comple-		currently	children	bottle	under
	breast-	Exclusively	water	liquids/	Other	mentary		breast-	under	with a	three
Age in months	feeding	breastfed	only	juice	milk	food	Total	feeding	three years	nipple ¹	years
0-1	10.8	55.5	10.9	4.2	4.3	14.4	100.0	89.2	64	26.9	65
2-3	9.4	36.1	4.4	1.7	13.7	34.8	100.0	90.6	90	31.5	93
4-5	10.3	16.7	4.4	0.0	4.0	64.6	100.0	89.7	107	29.1	108
6-8	18.4	3.8	0.9	1.4	0.0	75.5	100.0	81.6	15 <i>7</i>	34.4	160
9-11	15.4	1.0	0.0	1.0	0.8	81.8	100.0	84.6	135	17.7	141
12-17	27.8	0.6	0.9	0.0	0.0	70.7	100.0	72.2	260	20.7	283
18-23	61.9	0.0	0.0	0.0	0.0	38.1	100.0	38.1	216	10.3	248
24-35	96.2	0.0	0.0	0.0	0.0	3.8	100.0	3.8	324	4.3	483
0-3	9.9	44.1	7.1	2.7	9.8	26.3	100.0	90.1	153	29.6	158
0-5	10.1	32.9	6.0	1.6	7.4	42.0	100.0	89.9	260	29.4	265
6-9	18.5	3.1	0.8	1.1	0.0	76.5	100.0	81.5	192	31.4	199
12-15	21.6	0.8	1.2	0.0	0.0	76.4	100.0	78.4	194	21.3	206
12-23	43.2	0.3	0.5	0.0	0.0	56.0	100.0	56.8	476	15.8	531
20-23	69.3	0.0	0.0	0.0	0.0	30.7	100.0	30.7	144	8.3	167

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 breastfeed, 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 non-milk liquids/juice and who do not receive complementary foods are classified in the non-milk liquids/juice 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.

3.12 Anaemia

The level of haemoglobin concentration in the blood is used as an indicator to estimate the prevalence of anaemia in a population. Table 16 presents the anaemia rates for children age 6-59 months and women age 15-49. The levels of anaemia can be classified as severe, moderate, and mild based on the haemoglobin concentration in the blood and according to criteria developed by the World Health Organisation. Severe anaemia 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).

The results show that anaemia is a common problem among young children, with 42 percent of young children having some degree of anaemia. Around half of these children are mildly anaemic and half are moderately anaemic; less than 1 percent of children was found to be severely anaemic. The anaemia rate was higher among children living in urban areas compared to rural areas (50 percent and 40 percent, respectively). Considering regional patterns, Manzini had the highest rate of anaemia among children (45 percent) and Lubombo (38 percent), the lowest.

¹ Based on all children under three years

Table 16 Anaemia

Percentage of children age 6-59 months and women age 15-49 classified as having iron-deficiency anaemia, background characteristics, Swaziland 2006-07

	Per	rcentage with variou	s degrees of ana	nemia	
		- V	Moderate		
Background characteristic	Any anaemia	Mild anaemia	anaemia	Severe anaemia	Number
	CHII	DREN 6-59 MONT	HS		
Residence					
Urban	50.0	27.1	22.1	0.8	396
Rural	40.4	20.9	18.7	0.8	2,285
Region					
Hhohho	42.8	22.9	19.1	0.8	697
Manzini	45.1	24.1	20.1	0.9	774
Shiselweni	40.2	21.8	18.2	0.2	680
Lubombo	37.7	17.1	19.3	1.3	529
Total	41.8	21.8	19.2	0.8	2,681
		WOMEN 15-49			
Residence					
Urban	35.6	24.8	10.3	0.6	1,131
Rural	28.6	21.6	6.7	0.2	3,467
Region					
Hhohho	28.3	20.0	8.2	0.1	1,226
Manzini	33.3	24.1	8.7	0.5	1,505
Shiselweni	32.3	25.0	7.1	0.1	968
Lubombo	26.0	20.2	5.5	0.4	900
Total	30.3	22.4	7.6	0.3	4,598

Note: Table is based on children and women who stayed in the household the night before the interview. Prevalence is adjusted for altitude (for children and women) and smoking (for women) 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.

The SDHS also found a substantial proportion of women (30 percent) exhibited some degree of anaemia. Around three in four of these women were mildly anaemic. As was the case among young children, the proportion found to be severely anaemic was quite small (0.3 percent). Residential differentials in anaemia levels among women are similar to those observed among children, with urban residents and residents of Manzini having the highest rates.

3.13 HIV/AIDS-related Knowledge and Behaviour

The 2006-07 SDHS 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.

Awareness of AIDS

Table 17 shows levels of knowledge of AIDS among women and men age 15-49, youth age 12-14 and older adults age 50 and over and differentials in the level of AIDS knowledge among women and men age 15-49 by background characteristics. The proportion who have heard of AIDS exceeds 96 percent among SDHS respondents in all of the age groups. Moreover, AIDS knowledge is virtually universal among the various subgroups of respondents age 15-49 shown in the table.

Table 17 Knowledge of AIDS

Percentage of women and men age15-49, who have heard of AIDS, by background characteristics, and percentage of female and male youth and women and men age 50+ who have heard of AIDS, Swaziland 2006-07

	W	omen	Men		
	Has		Has		
	heard of		heard of		
Background characteristic	AIDS	Number	AIDS	Number	
Age					
15-24	99.8	2,320	99.0	2,209	
15-19	99.8	1,274	98.6	1,323	
20-24	99.9	1,046	99.6	886	
25-29	99.8	729	99.5	624	
30-39	99.6	1,118	99.8	798	
40-49	99.6	820	99.8	525	
Marital status					
Never married	99.9	2,487	99.1	2,734	
Ever had sex	100.0	1,607	99.6	1,458	
Never had sex	99.7	880	98.6	1,276	
Married or living together	99.6	2,062	99.7	1,219	
Divorced/separated/widowed	100.0	438	100.0	203	
Residence					
Urban	100.0	1,330	99.6	1,181	
Rural	99.7	3,657	99.2	2,975	
Region					
Hhohho	99.9	1,340	99.7	1,099	
Manzini	99.7	1,647	99.5	1,349	
Shiselweni	99.7	1,033	99.2	843	
Lubombo	99.8	966	98.8	865	
Education					
No education	98.6	402	97.8	316	
Lower primary	99.3	360	97.5	470	
Higher primary	99.8	1,268	99.3	980	
Secondary	99.9	1,693	99.8	1,191	
High School	100.0	894	100.0	852	
Tertiary	100.0	370	99.9	347	
Total 15-49	99.8	4,987	99.3	4,156	
Total Youth 12-14	97.8	465	96.5	409	
Total Older Adults 50+	96.2	669	97.4	444	

Awareness of Prevention Methods and Modes of Transmission

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 Swaziland have effectively communicated prevention messages, the 2006-07 SDHS 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 encounter, limiting sex to one partner, and abstaining.

Table 18 presents levels of knowledge of the various HIV/AIDS prevention methods for two age groups: women and men age 15-49 and women and men age 50 and older. Women and men age 15-49 are generally more knowledgeable than older adults. Abstaining from sexual intercourse is the most frequently recognized prevention method; 94 percent of women age 15-49, 93 percent of men age 15-49, 83 percent of women age 50 and older and 85 percent of men age 50 and older are aware

of this prevention method. Differentials in levels of awareness of the various prevention methods which are presented for women and men age 15-49 are generally minor.

Table 18 Knowledge of HIV prevention methods: women and men age 15-49

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, and percentage of women and men age 50 and older who are aware of these HIV/AIDS prevention methods, Swaziland 2006-07

			Women					Men		
			Using					Using		,
			condoms					condoms		
			and					and		
		Limiting	limiting				Limiting	limiting		
		sexual	sexual				sexual	sexual		
		intercourse	intercourse				intercourse	intercourse		
		to one	to one	Abstaining			to one	to one	Abstaining	
	Using	uninfected	uninfected	from sexual		Using	uninfected	uninfected	from sexual	
Background characteristic	condoms1	partner ²	partner ^{1,2}	intercourse	Number	condoms1	partner ²	partner ^{1,2}	intercourse	Number
Age		•	•				•	•		
15-24	88.7	92.3	85.1	93.8	2,320	87.1	90.6	83.0	93.2	2,209
15-19	86.9	90.7	82.7	93.4	1,274	86.4	89.2	81.7	92.8	1,323
20-24	91.0	94.2	88.0	94.2	1,046	88.3	92.6	84.8	93.9	886
25-29	94.2	94.3	90.4	94.0	729	87.2	91.3	83.1	93.8	624
30-39	92.5	93.1	88.4	95.5	1,118	88.2	92.8	85.0	93.7	798
40-49	90.0	93.0	86.2	94.4	820	85.6	90.0	81.6	91.4	525
Marital status										
Never married	89.5	92.7	85.7	94.3	2,487	87.3	90.6	83.0	93.5	2,734
Ever had sex	92.0	93.9	88.4	95.1	1,607	89.0	92.1	85.4	94.5	1,458
Never had sex	85.0	90.6	80.8	93.0	880	85.3	88.8	80.2	92.4	1,276
Married or living together	91.7	93.5	88.4	94.2	2,062	86.8	91.8	83.5	92.9	1,219
Divorced/separated/widowed	91.5	91.0	84.8	94.4	438	87.8	92.7	84.2	89.9	203
Residence										
Urban	93.6	95.3	90.7	95.7	1,330	88.6	91.4	84.4	93.9	1,181
Rural	89.4	92.0	85.3	93.8	3,657	86.6	90.9	82.7	92.9	2,975
Region										
Hhohho	91.6	93.8	88.9	94.4	1,340	88.3	93.7	85.3	94.9	1,099
Manzini	90.9	92.7	86.8	96.0	1,647	86.9	89.1	81.9	94.2	1,349
Shiselweni	91.2	93.1	87.2	92.1	1,033	90.1	91.1	86.4	92.5	843
Lubombo	88.0	91.6	83.4	93.8	966	83.3	90.5	79.5	90.1	865
Education										
No education	84.8	85.5	77.7	88.8	402	76.2	85.2	71.0	84.6	316
Lower primary	84.6	85.8	77.7	90.3	360	79.6	82.9	73.7	88.7	470
Higher primary	89.7	91.4	85.4	93.3	1,268	85.0	90.0	80.2	90.7	980
Secondary	91.6	94.4	88.4	95.0	1,693	89.4	92.6	86.1	96.1	1,191
High School	93.6	96.4	91.1	97.4	894	92.4	95.0	89.6	97.0	852
Tertiary	93.9	97.1	92.3	97.0	370	92.7	95.3	89.8	94.4	347
,										
Total 15-49	90.6	92.9	86.8	94.3	4,987	87.2	91.0	83.2	93.2	4,156
Total Older Adults 50+	69.9	76.7	61.5	83.0	669	71.0	83.1	65.6	85.1	444

 $^{^{\}rm 1}$ Using condoms every time they have sexual intercourse $^{\rm 2}$ Partner who has no other partners

As part of the effort to assess AIDS knowledge, SDHS respondents also were asked about whether it is possible for a healthy-looking person to have the AIDS virus and their perception of the chances of getting AIDS from mosquito bites, from supernatural means, or from sharing food with a person who has AIDS. Tables 19.1 and 19.2 which provide information on these additional aspects of HIV/AIDS knowledge include two composite indicators of AIDS knowledge. The first composite indicator assesses the proportion of the population that know that the two most common misconceptions about HIV/AIDS (i.e., AIDS can be transmitted by mosquitoes or by sharing food) are incorrect and also are aware that a healthy-looking person can have the AIDS virus. The second indicator provides a measure of the extent to which Swazi women and men have comprehensive knowledge about the modes of AIDS transmission and prevention, i.e., they 1) know that both condom use and limiting sex partners to one uninfected partner are HIV prevention methods; 2) are aware that a healthy-looking person can have HIV, and 3) reject the two most common local misconceptions—that HIV/AIDS can be transmitted through mosquitoes or sharing food with a person who has AIDS. The results are presented for all women and men age 15-49 and all women and men age 50 and older. In addition, differentials in the knowledge levels are shown for the population age 15-49.

Looking first at the results for those age 15-49, 96 percent of both women and of men agree that a healthy-looking person can have the AIDS virus. When asked about other transmission modes, women and men age 15-49 were most likely to reject the idea that the virus can be transmitted by supernatural means (92 percent among both women and men) and least likely to reject the idea that AIDS can be transmitted by mosquitoes (66 percent among both women and men). In part because comparatively large proportions failed to reject the latter misconception, the proportions of women and men age 15-49 having accurate knowledge with regard to the modes of transmission (58 percent and 59 percent, respectively) and the proportions having comprehensive knowledge of AIDS (52 percent and 51 percent, respectively) are relatively low.

Tables 19.1 and 19.2 also show substantially lower levels of AIDS knowledge among older adults than among those in the 15-49 age group. Overall, only one-fifth of women and one-quarter of men age 50 and older are considered to have comprehensive knowledge about AIDS.

Finally, looking at the differentials among the reproductive age population, women and men age 40-49, rural residents, and those who are divorced, separated or widowed are least likely to reject common misconceptions about the ways HIV may be transmitted or to have comprehensive AIDS knowledge. The effect of education is particularly marked; for example, among men, the percentage having comprehensive AIDS knowledge rises from 19 percent among those with no education to 75 percent among those who achieved the tertiary level.

Awareness and Utilization of HIV Testing Services

Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safer sex practices so they can remain disease free. For those who are HIV infected, knowledge of their status allows them to take action to protect their sexual partners, to access treatment, and to plan for the future.

To assess the coverage of HIV testing services, SDHS respondents were asked about knowledge of a place where HIV testing services were available. They were also asked if they had ever been tested for HIV. If they had been tested, respondents were asked whether they had received the results of their last test and when they had the last HIV test. Tables 20.1 and 20.2 present the results of these questions for women and men age 15-49 and for older women and men. Differences in the coverage of testing by background characteristics are also presented in the tables for those age 15-49.

Table 19.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS by background characteristics, and percentage of women age 50 and older who are reject the common misconceptions and have comprehensive knowledge of AIDS, Swaziland 2006-07

	Percentage of respondents who say that:				=		
Background characteristic	A healthy- looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites	AIDS cannot be transmitted by supernatural means	infected by sharing food with a	Percentage who say that a healthy looking person can have the AIDS virus and who reject the two most common local misconceptions ¹	Percentage with a compre- hensive knowledge about AIDS ²	Number of women
Age							
15-24	96.0	66.7	93.2	85.6	59.7	52.1	2,320
15-19	94.6	68.8	92.8	86.7	60.9	52.0	1,274
20-24	97.7	64.1	93.8	84.2	58.3	52.2	1,046
25-29	98.3	67.5	92.6	85.2	61.2	57.5	729
30-39	96.7	65.9	92.6	80.5	56.3	52.2	1,118
40-49	93.8	61.1	88.7	72.5	49.6	45.9	820
Marital status							
Never married	95.9	69.6	93.6	87.0	62.6	55.3	2,487
Ever had sex	96.5	66.8	93.6	85.9	60.2	54.6	1,607
Never had sex	95.0	74.7	93.6	89.1	67.0	56.6	880
Married/Living together	96.2	62.0	91.1	77.4	52.3	48.6	2,062
Divorced/Separated/Widowed	96.8	61.2	89.8	77.7	53.1	47.6	438
Residence							
Urban	98.5	74.2	94.1	87.0	68.2	62.6	1,330
Rural	95.3	62.6	91.6	80.5	53.6	48.0	3,657
Region							
Hhohho	97.2	69.8	93.6	82.9	61.2	55.7	1,340
Manzini	97.0	69.8	93.5	84.6	62.4	56.1	1,647
Shiselweni	95.0	57.0	90.3	82.8	49.9	45.8	1,033
Lubombo	94.4	62.3	90.3	76.6	52.2	45.8	966
Education							
No education	87.8	40.6	80.7	56.9	29.9	26.3	402
Lower primary	87.8	51.0	84.2	65.2	35.1	29.6	360
Higher primary	94.7	54.9	90.9	79.3	45.6	39.8	1,268
Secondary	98.6	70.3	94.7	87.3	62.9	56.5	1,693
High school	99.3	80.0	96.7	89.8	74.1	68.9	894
Tertiary	99.6	89.0	95.4	94.8	85.5	80.5	370
Total 15-49	96.1	65.7	92.3	82.2	57.5	51.9	4,987
Total Older Adults 50+	78.9	39.7	72.8	44.2	23.7	20.6	669

¹ Two most common local misconceptions: AIDS can be transmitted by mosquito bites and by sharing food with a person who has AIDS

² Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Table 19.2 Comprehensive knowledge about AIDS: Men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS by background characteristics, percentage of men age 50 and older who are reject the common misconceptions and have comprehensive knowledge of AIDS, Swaziland 2006-07

Percentage of respondents who say that:							
Background characteristic	A healthy- looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites	AIDS cannot be transmitted by supernatural means	infected by sharing food with a	Percentage who say that a healthy looking person can have the AIDS virus and who reject the two most common local misconceptions ¹	Percentage with a compre- hensive knowledge about AIDS ²	Number of men
Age 15-24	94.9	68.2	92.1	84.0	60.3	52.3	2,209
15-19	93.5	68.5	90.8	82.6	59.1	50.4	1,323
20-24	97.0	67.7	94.0	86.0	62.1	55.2	886
25-29	98.4	64.3	95.1	85.8	59.8	53.5	624
30-39	96.6	66.3	90.5	80.6	59.1	52.2	798
40-49	94.2	59.5	87.8	73.7	49.4	43.5	525
Marital status							
Never married	95.2	67.7	92.2	83.9	60.2	52.3	2,734
Ever had sex	97.2	66.4	93.0	83.9	60.2	53.8	1,458
Never had sex	92.9	69.2	91.2	83.8	60.2	50.7	1,276
Married/Living together	96.8	65.5	91.6	81.4	58.0	51.7	1,219
Divorced/Separated/Widowed	95.7	49.7	86.1	66.7	40.5	36.4	203
Residence							
Urban	97.2	73.7	93.0	87.5	67.1	58.7	1,181
Rural	95.1	63.1	91.2	80.2	55.3	48.5	2,975
Region							
Hhohho	97.0	69.3	94.2	84.0	61.0	54.3	1,099
Manzini	96.2	68.0	91.7	84.1	61.3	52.7	1,349
Shiselweni	94.5	59.5	89.6	81.2	53.5	48.6	843
Lubombo	94.2	65.6	90.6	78.5	56.4	48.3	865
Education							
No education	87.7	34.8	82.2	52.9	23.6	18.5	316
Lower primary	88.1	42.1	82.8	62.9	31.8	27.3	470
Higher primary	94.3	62.3	91.3	79.7	52.2	43.9	980
Secondary	98.2	69.9	95.4	89.7	64.6	55.6	1,191
High school	99.3	81.1	94.9	92.6	75.6	70.0	852
Tertiary	99.4	88.6	93.1	92.0	82.6	74.8	347
Total 15-49	95.7	66.1	91.7	82.3	58.6	51.4	4,156
Total Older Adults 50+	85.8	44.4	75.5	55.7	31.2	24.6	444

¹ Two most common local misconceptions: AIDS can be transmitted by mosquito bites and by sharing food with a person who has AIDS

² Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

The results in Tables 20.1 and 20.2 suggest that a larger proportion of women than men age 15-49 are aware of a place where HIV testing is available (92 percent and 78 percent, respectively). The coverage of HIV testing services is also greater for women than men in the 15-49 age group. For example, women are around twice as likely as men to have ever been tested (41 percent and 19 percent, respectively). Looking specifically at 12-months before the survey, 22 percent of women reported they were tested during that period and had received the result of the last test they took while, among men, only 9 percent knew the result of an HIV test they had taken in the 12-month period before the survey.

Table 20.1 Awareness and utilization of HIV testing services: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, and percentage of older women according to the knowledge and receipt of AIDS testing services, Swaziland 2006-07

		testing sta	stribution of v atus and whet ne results of th	her they [']			Percentage who received	
Background characteristic	Percentage who know where to get an HIV test	Ever tested and received results	Ever tested did not receive results	Never tested ¹	Total	Percentage ever tested	results from last HIV test taken in the past	Number o women
Age								
15-24	87.1	27.7	5.1	67.3	100.0	32.7	18.1	2,320
15-19	80.6	15.8	3.1	81.1	100.0	18.9	10.0	1,274
20-24	95.0	42.1	7.4	50.5	100.0	49.5	27.9	1,046
25-29	96.6	47.0	6.1	46.9	100.0	53.1	29.7	729
30-39	97.0	45.9	5.5	48.6	100.0	51.4	25.9	1,118
40-49	93.8	35.3	2.4	62.2	100.0	37.8	20.5	820
Marital status								
Never married	87.9	27.8	4.4	67.8	100.0	32.2	17.0	2,487
Ever had sex	94.0	39.9	6.2	53.9	100.0	46.1	24.7	1,607
Never had sex	76.6	5.8	1.0	93.2	100.0	6.8	2.9	880
Married/Living together	95.7	43.1	5.8	51.1	100.0	48.9	26.7	2,062
Divorced/Separated/Widowed	95.6	47.0	3.6	49.4	100.0	50.6	27.4	438
Residence								
Urban	95.5	42.5	5.2	52.3	100.0	47.7	24.1	1,330
Rural	90.5	33.4	4.8	61.8	100.0	38.2	21.1	3,657
Region								
Hhohho	93.2	34.6	5.1	60.4	100.0	39.6	19.7	1,340
Manzini	91.8	39.4	4.5	56.1	100.0	43.9	24.2	1,647
Shiselweni	88.6	31.6	5.1	63.3	100.0	36.7	21.0	1,033
Lubombo	93.3	36.1	5.1	58.8	100.0	41.2	22.2	966
Education								
No education	89.4	29.4	6.3	64.3	100.0	35.7	19.0	402
Lower primary	86.8	32.5	5.2	62.3	100.0	37.7	16.2	360
Higher primary	88.1	32.1	4.4	63.5	100.0	36.5	21.5	1,268
Secondary	92.0	34.5	4.2	61.3	100.0	38.7	21.0	1,693
High school	97.0	40.1	6.4	53.5	100.0	46.5	26.1	894
Tertiary	98.7	54.7	4.2	41.1	100.0	58.9	26.4	370
Total 15-49	91.8	35.8	4.9	59.3	100.0	40.7	21.9	4,987
Total Older Adults 50+	71.1	15.6	2.4	82.0	100.0	18.0	10.2	669

Table 20.2 Awareness and utilization of HIV testing services: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, and percentage of older men according to the knowledge and receipt of AIDS testing services, Swaziland 2006-07

		testing sta	stribution of v atus and whet ne results of th	her they			Percentage who received	
Background characteristic	Percentage who know where to get an HIV test	Ever tested and received results	Ever tested did not receive results	Never tested ¹	Total	Percentage ever tested	results from last HIV test taken in the past 12 months	Number of men
Age								
15-24	69.7	7.1	0.9	92.0	100.0	8.0	3.9	2,209
15-19	61.6	3.0	0.5	96.5	100.0	3.5	1.8	1,323
20-24	81.7	13.2	1.5	85.3	100.0	14.7	6.9	886
25-29	88.0	25.8	2.5	71.6	100.0	28.4	13.1	624
30-39	88.2	29.7	2.3	68.0	100.0	32.0	15.7	798
40-49	86.3	29.5	1.6	68.9	100.0	31.1	15.1	525
Marital status								
Never married	72.7	10.7	1.1	88.1	100.0	11.9	5.4	2,734
Ever had sex	81.9	16.8	1.6	81.6	100.0	18.4	8.4	1,458
Never had sex	62.2	3.8	0.7	95.6	100.0	4.4	2.0	1,276
Married/Living together	89.0	29.8	1.9	68.3	100.0	31.7	15.9	1,219
Divorced/Separated/Widowed	85.5	25.9	4.2	69.9	100.0	30.1	14.5	203
Residence								
Urban	89.9	23.9	1.7	74.3	100.0	25.7	12.8	1,181
Rural	73.4	14.3	1.4	84.2	100.0	15.8	7.4	2,975
Region								
Hhohho	82.0	17.8	1.4	80.9	100.0	19.1	8.6	1,099
Manzini	77.7	18.6	1.5	79.9	100.0	20.1	9.2	1,349
Shiselweni	69.0	11.5	1.4	87.1	100.0	12.9	6.7	843
Lubombo	82.5	19.3	1.9	78.9	100.0	21.1	11.1	865
Education								
No education	68.4	19.1	1.3	79.6	100.0	20.4	11.4	316
Lower primary	63.6	10.4	1.6	87.9	100.0	12.1	5.7	470
Higher primary	67.0	10.3	1.4	88.2	100.0	11.8	6.5	980
Secondary	80.1	12.6	0.9	86.5	100.0	13.5	6.3	1,191
High school	91.5	23.0	2.0	74.9	100.0	25.1	11.1	852
Tertiary	98.0	44.0	2.5	53.5	100.0	46.5	21.7	347
Total 15-49	78.1	17.1	1.5	81.4	100.0	18.6	8.9	4,156
Total Older Adults 50+	67.7	17.2	3.2	79.6	100.0	20.4	9.8	444

Looking at the results for older adults, the majority of both women and men age 50 and older know a place where HIV testing is available although the proportions knowing provider for HIV testing are lower in this age group than among those age 15-49. Tables 20.1 and 20.2 also show that older women are only about half as likely as women age 15-49 to have had a recent HIV test and know the result or to have ever had a test. On the other hand, testing coverage rates among men age 50 and older are very similar to the rates found among men age 15-49.

Among women, the likelihood of having had an HIV test and received the results was highest in the 25-29 age group while, among men, testing rates peaked in the 30-39 age group. Urban residents were more likely than rural residents to have been tested and received the result. Among both women and men, testing coverage rises with education.

Age at First Sex among Youth

Age at first sex for both men and women is an important indicator of exposure to risk of pregnancy and of sexually transmitted infections. Young people who initiate sex at an early age are typically at higher risk of becoming pregnant or contracting a sexually-transmitted infection than youth who initiate sex later and, thus, have a shorter duration of exposure to these risks.

Table 21 shows that, in Swaziland, comparatively few youth initiate sexual activity before age 15; 7 percent of women and 5 percent of men report having had sexual intercourse before the age of 15; around half of young women age 18-24 and more than one-third of young men age 18-24 indicate that they first had intercourse before their 18th birthday.

		Woi	men			Μ	len	
Background characteristic		Number of respondents (15-24)	Percentage who had sexual intercourse			Number of respondents (15-24)		
Age								
15-19	7.4	1,274	na	na	4.9	1,323	na	na
15-17	7.8	788	na	na	4.9	867	na	na
18-19	6.7	485	51.1	485	4.9	456	29.3	456
20-24	6.4	1,046	46.3	1,046	4.7	886	36.7	886
20-22	7.6	668	46.3	668	5.3	582	37.0	582
23-24	4.2	379	46.4	379	3.5	304	36.2	304
Marital status								
Never married	5.8	1,867	41.7	1,100	4.8	2,128	33.6	1,261
Ever married	11.6	452	63.6	431	5.7	81	42.9	81
Residence								
Urban	4.9	543	44.1	409	5.7	447	37.5	314
Rural	7.5	1,776	49.2	1,123	4.6	1,762	33.2	1,028
Region								
Hhohho	8.1	574	48.2	382	4.7	509	34.7	317
Manzini	5.4	780	44.7	521	4.8	737	35.0	472
Shiselweni	5.8	520	44.9	340	3.6	521	33.1	300
Lubombo	9.5	446	56.6	288	6.3	443	33.4	253
Education								
No education	37.8	86	81.3	72	13.3	81	38.2	61
Lower primary	17.5	138	69.7	86	6.1	280	39.0	133
Higher primary	8.8	636	64.5	334	4.4	629	32.3	276
Secondary	4.1	972	47.2	603	3.6	760	32.5	449
High school	2.0	431	27.5	380	4.4	405	33.5	370
Tertiary	0.0	57	16.5	56	9.5	53	45.9	53
Total	6.9	2,320	47.8	1,531	4.8	2,209	34.2	1,342

As expected, the proportion of youth initiating sex early is higher among ever-married youth than among those who were not yet married at the time of the survey. Among young women, rural youth are somewhat more likely to have initiated sex before age 15 or age 18 than urban youth. Among young men, the opposite pattern is observed. The likelihood of an early sexual debut declines markedly with education among young women, but there is no clear relationship between education and age at sexual debut among young men.

High-risk Sexual Intercourse

The SDHS questionnaires for women and men age 15-49 and for older adults included a number of questions about the partners with whom they had sexual intercourse in the 12-month period before the survey as well as the total number of lifetime partners that they had had. For women and men age 15-49, the questions regarding recent partners were asked for up to three partners. For older women and men, the questions were focused on the last partner during the 12-month period, with older men asked several additional questions if they had paid someone in exhange for sex. Table 22.1 and 22.2 use the information on recent sexual activity to assess the proportions of sexually active women and men who had multiple sexual partners and who engaged in higher risk sexual intercourse.³ The tables also include information on the use of condoms among respondents reporting these types of sexual encounters and on the mean number of lifetime sexual partners among women and men who ever had intercourse.

As Tables 22.1 and 22.2 indicate, regardless of their age, women are far less likely than men to report having multiple sexual partners during the 12-month period prior to the survey and are also less likely to report having engaged in higher risk intercourse than men.⁴ Considering the condom use results in Tables 22.1 and 22.2, the majority of women and men age 15-49 reporting intercourse with two or more partners in the 12-month period before the survey had used a condom at last intercourse (57 percent and 56 percent, respectively). Among respondents age 15-49 reporting they had engaged in higher-risk intercourse, 55 percent of women and 68 percent of men had used a condom during their last higher-risk sexual encounter.

Looking at the information on lifetime sexual partners among ever sexually active respondents, women age 15-49 had an average of 2.4 sexual partners during their lifetime, while men age 15-49 reported having 6.6 partners. Older men report having had an average of 9.9 partners while women age 50 and older have had an average of 2.2 partners.

Considering the differentials in the indicators in Tables 22.1 and 22.2 for women and men age 15-49, respondents under age 25 were more likely to have reported having multiple sexual partners and higher-risk intercourse during the year prior to the survey than older respondents. Considering lifetime experience, the mean number of sexual partners rose with age for both women and men.

Sexual encounters between individuals who are not currently married are by definition higher risk; thus, it is not surprising that Tables 22.1 and 22.2 show that nearly all respondents who were never married, divorced, separated or widowed at the time of the SDHS interview had engaged in higher-risk intercourse during the year prior to the survey. Among men who had multiple sexual partners, condom use rates were highest among those who were never-married. A similar relationship between marital status and condom use rates is observed among women engaging in higher-risk intercourse while, among men who had engaged in higher-risk intercourse, condom use rates were as high for those currently in union as those who were never-married. Considering the relationship between marital status and the number of lifetime partners, the average was higher among divorced, separated or widowed women and men than among those who were never-married or currently in union.

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³ Higher-risk intercourse is defined as sexual intercourse with a partner who is neither a spouse nor lived together with the individual during the period.

⁴ The large female-male differential in the reporting of multiple partners is likely related in part to the practice of polygyny in Swaziland. However, the lower proportions of women than men reporting they had multiple partners or engaged in higher risk intercourse may also reflect some greater reluctance among women than men to discuss these types of sexual encounters with SDHS interviewers.

Table 22.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women

Among women who had sexual intercourse in the past 12 months, the percentage who had intercourse with more than one partner and the percentage who had higher-risk sexual intercourse in the past 12 months; and among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse; and the mean number of sexual partners during her lifetime for women who ever had sexual intercourse, by background characteristics, Swaziland 2006-07

		espondents w rcourse in the months:		Among res who ha partners in 12 mo	ad 2+ n the past onths	Among respond had highe intercourse ¹ in 12 mont	er risk n the past	respond ever ha	nong dents who ad sexual course
	Percentage who had	Percentage who had		Percentage who reported using a		Percentage who reported		Mean number of	
	2+	higher-risk intercourse ¹		condom		using a condom at last		sexual	
	the past	in the past		during last sexual		higher-risk		partners in	
Background characteristic		12 months	Number	intercourse	Number	intercourse ¹	Number		Number
Age									
15-24	3.8	68.5	1,285	(50.7)	49	54.2	880	1.9	1,431
15-19	3.8	82.2	451	*	17	51.9	371	1.5	521
20-24	3.8	61.1	834	(48.9)	32	55.8	510	2.1	911
25-29	2.6	40.9	630	*	16	62.7	257	2.5	689
30-39	1.4	27.8	945	*	13	53.6	262	2.7	1,069
40-49	0.3	19.4	584	*	2	42.4	113	2.7	774
Marital status									
Never married	4.3	98.8	1,265	62.8	54	55.4	1,249	2.3	1,545
Married or living together	0.9	3.9	1,980	*	18	44.5	78	2.2	1,997
Divorced/separated/widowed	3.7	93.7	198	*	7	53.6	186	3.4	421
Residence									
Urban	4.0	48.6	957	(70.2)	39	64.2	465	2.7	1,099
Rural	1.7	42.2	2,486	(43.8)	41	50.4	1,048	2.3	2,864
Region									
Hhohho	1.7	39.4	929	*	16	56.4	366	2.6	1,052
Manzini	3.2	45.9	1,121	62.7	35	60.6	515	2.3	1,321
Shiselweni	1.9	50.1	682	*	13	52.6	342	2.3	799
Lubombo	2.2	40.9	711		16	44.2	291	2.2	791
Education									
No education	2.7	30.2	314	*	8	37.2	95	2.5	374
Lower primary	1.3	39.8	270	*	4	36.0	107	2.5	317
Higher primary	2.6	42.0	865	(47.5)	22	46.7	363	2.5	992
Secondary	2.1	48.4	1,086	(67.5)	23	56.7	526	2.2	1,239
High school	2.8	53.3	624	*	17	67.0	333	2.2	715
Tertiary	2.0	31.5	284	*	6	69.3	89	2.7	325
Total 15-49	2.3	43.9	3,443	56.6	80	54.6	1,513	2.4	3,963
Total Older Adults 50+	1.2	11.8	175	*	2	(20.6)	21	2.2	654

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

The proportions of women who had had two or more sexual partners or engaged in higher-risk intercourse in the year before the survey were higher in urban than rural areas, while, among men, rural residents were more likely to report these behaviours than urban residents. Condom use rates were higher among urban than rural respondents reporting these behaviours, with the differential being especially marked for women. Considering average lifetime partners, the mean was slightly higher in urban than in rural areas among both women and men.

¹ Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent

Table 22.2 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 the percentage who had higher-risk sexual intercourse in the past 12 months; and among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse; and the mean number of sexual partners during his lifetime for men who ever had sexual intercourse, by background characteristics, Swaziland 2006-07

_		espondents w rcourse in the months:		Among res who ha partners in 12 mo	ad 2+ the past	Among respond had highe intercourse ¹ in 12 mont	er risk n the past	respond ever ha	nong dents who ad sexual course
	who had 2+	Percentage who had higher-risk intercourse ¹		Percentage who reported using a condom during last		Percentage who reported using a condom at last	ī	Mean number of sexual partners	
	the past	in the past		sexual		higher-risk		in	
Background characteristic	12 months	12 months	Number	intercourse	Number	intercourse ¹	Number	lifetime	Number
Age									
15-24	28.5	91.9	755	66.7	215	70.4	694	4.0	948
15-19	25.7	97.5	196	74.8	50	68.8	191	2.7	281
20-24	29.5	90.0	559 522	64.3	165 140	71.1 71.0	503	4.5	667 554
25-29 30-39	26.8 19.3	63.9 40.7	523 723	61.2 50.3	140 139	71.0 65.0	334 294	6.3	554 720
40-49	19.3	40.7 25.0	723 477	26.2	72	53.1	120	8.0 10.0	720 460
40-49	13.1	43.0	4//	20.2	1 4	J3.1	120	10.0	400
Marital status									ļ
Never married	29.4	97.8	1,120	70.2	330	69.5	1,096	5.3	1,388
Married or living together	17.9	17.7	1,203	33.7	215	70.2	212	7.8	1,110
Divorced/separated/widowed	14.8	86.6	155	(64.9)	23	52.3	134	9.1	184
Residence									
Urban	21.4	53.1	873	63.9	186	74.2	463	6.8	887
Rural	23.7	61.0	1,605	52.4	381	65.1	979	6.5	1,796
Dogion									
Region Hhohho	18.9	51.3	699	54.6	132	73.2	359	6.5	722
Manzini	25.4	63.1	807	63.0	205	69.0	509	6.3	904
Shiselweni	23.4	64.8	436	58.1	104	64.3	283	6.0	500
Lubombo	23.4	54.4	536	45.1	126	63.6	292	7.8	55 <i>7</i>
Edboniso	23.1	51.1	330	13.1	120	03.0		7.0	557
Education									
No education	17.1	40.2	233	(32.3)	40	54.9	93	8.0	256
Lower primary	17.6	56.7	264	(32.7)	46	52.5	150	6.9	280
Higher primary	22.3	60.4	483	49.8	108	57.4	292	6.2	536
Secondary	25.7	66.3	631	62.8	162	70.7	418	6.8	694
High school	27.1	65.2	572	66.1	155	77.7	373	5.4	627
Tertiary	18.9	39.3	295	57.9	56	85.0	116	7.9	290
Total 15-49	22.9	58.2	2,478	56.2	567	68.0	1,442	6.6	2,683
Total Older Adults 50+	10.1	9.9	324	(19.7)	33	(35.3)	32	9.9	375

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

Finally, variation in the indicators in Tables 22.1 and 22.3 by region is not uniform. Looking at the relationship with education, there is a general tendency for the proportions who engaged in higher-risk intercourse to rise with the educational status through the high school level before falling off among those with a tertiary education. Although not uniform, there is also a tendency for condom use to rise with education among individuals engaging in higher-risk intercourse.

¹ Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent

3.14 HIV Testing

Most of the current information on national HIV prevalence in Swaziland derives from surveillance of the level of HIV in special populations, such as women attending antenatal clinics. However, these surveillance data results do not provide an estimate of the HIV prevalence among the general population. It was therefore decided to test a representative sample of the population age 2 years and older in the SDHS.

Coverage of the HIV Testing Component of the SDHS

Table 23.1 shows the percent distributions of women and men age 15-49 eligible in the SDHS according to the outcome of HIV testing and the interview. Among these women and men, 83 percent were tested, with or without having been interviewed. Coverage was higher in rural areas (87 percent) than in urban areas (75 percent). Coverage of HIV testing was higher among women (87 percent) than men (78 percent). Most of those who were not tested refused to participate either in the survey interview or in the testing component.

Percent distribution of defacto women and men age 15-49 eligi interview status, according to residence (unweighted), Swaziland 20	ible for HIV		
		testing by	testing and
Test result	Urban	Rural	Total
Women age 15-49			
DBS tested and interviewed	78.5	90.2	86.5
DBS tested and not interviewed	1.0	0.6	0.8
Refused to provide blood and interviewed	12.5	4.2	6.8
Refused to provide blood and not interviewed	4.2	1.9	2.7
Absent at the time of blood collection and interviewed	0.0	0.1	0.1
Absent at the time of blood collection and not interviewed	1.7	1.2	1.3
Other interviewed Other not interviewed	0.7	0.7 1.1	0.7 1.2
Other not interviewed	1.2	1.1	1.2
Total	100.0	100.0	100.0
Number	1,682	3,619	5,301
Men age 15-49			
DBS tested and interviewed	70.5	80.6	77.0
DBS tested and not interviewed	0.4	0.7	0.6
Refused to provide blood and interviewed	16.0	8.1	10.9
Refused to provide blood and not interviewed	7.4	4.8	5.7
Absent at the time of blood collection and interviewed	0.1	0.1	0.1
Absent at the time of blood collection and not interviewed	2.9	2.9	2.9
Other interviewed	1.3	0.6	0.9
Other not interviewed	1.3	2.3	1.9
Total	100.0	100.0	100.0
Number	1,638	3,037	4,675
Total age 15-49			
DBS tested and interviewed	74.6	85.8	82.1
DBS tested and not interviewed	0.7	0.7	0.7
Refused to provide blood and interviewed	14.2	6.0	8.7
Refused to provide blood and not interviewed	5.8	3.2	4.1
Absent at the time of blood collection and interviewed	0.1	0.1	0.1
Absent at the time of blood collection and not interviewed	2.3	1.9	2.1
Other interviewed	1.0	0.6	8.0
Other not interviewed	1.3	1.7	1.5
Total	100.0	100.0	100.0
Number	3,320	6,656	9,976

Tables 23.2 and 23.3 present coverage differentials for youth 12-14 and older adults. Coverage levels for both these groups were higher than the levels among the population age 15-49.

Table 23.2 HIV testing status among youth age 12-14

Percent distribution of defacto girls and boys age 12-14 eligible for HIV testing by testing status, according to residence (unweighted), Swaziland 2006-07

Test result	Urban	Rural	Total
Girls age 12-14			
DBS tested	85.9	93.2	92.0
Refused to provide blood	10.3	2.8	4.0
Absent at the time of blood collection	0.0	1.3	1.0
Other	3.8	2.8	2.9
Total	100.0	100.0	100.0
Number	78	399	477
Boys age 12-14			
DBS tested	74.2	91.5	89.1
Refused to provide blood	24.2	5.0	7.7
Absent at the time of blood collection	0.0	0.8	0.7
Other	1.6	2.7	2.5
Total	100.0	100.0	100.0
Number	62	377	439
Total age 12-14			
DBS tested	80.7	92.4	90.6
Refused to provide blood	16.4	3.9	5.8
Absent at the time of blood collection	0.0	1.0	0.9
Other	2.9	2.7	2.7
Total	100.0	100.0	100.0
Number	140	776	916

Table 23.3 HIV testing status among women and men age 50+

Percent distribution of defacto women and men age 50+ eligible for HIV testing by testing status, according to residence (unweighted), Swaziland 2006-07

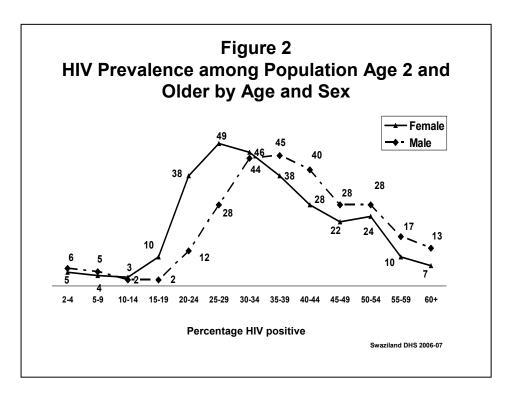
Test result	Urban	Rural	Total
Women age 50+			
DBS tested	81.6	88.1	87.0
Refused to provide blood	14.9	7.6	8.8
Absent at the time of blood collection	0.0	0.9	0.7
Other	3.5	3.5	3.5
Total	100.0	100.0	100.0
Number	114	579	693
Men age 50+			
DBS tested	73.0	83.5	81.1
Refused to provide blood	18.9	11.5	13.2
Absent at the time of blood collection	2.7	0.8	1.2
Other	5.4	4.2	4.5
Total	100.0	100.0	100.0
Number	111	381	492
Total age 50+			
DBS tested	77.3	86.3	84.6
Refused to provide blood	16.9	9.2	10.6
Absent at the time of blood collection	1.3	0.8	0.9
Other	4.4	3.8	3.9
Total	100.0	100.0	100.0
Number	225	960	1,185

HIV Prevalence

Table 24 shows the HIV prevalence observed in the 2006-07 SDHS for the population age 2 and older. Overall, 19 percent of the population is infected with the HIV virus. The prevalence level which is 5 percent among children age 2-4 years declines to 3 percent in the 10-14 age group before rising rapidly among the population age 15 and older, with the highest level (45 percent) observed in the 30-34 age group. The HIV rate declines from that peak to a level of 26 percent among the population age 50-54 and drops further to a rate of 9 percent among the population age 60 and older.

	Wom	nen	Me	n	То	tal
Age	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number	Percentage HIV positive ¹	Number
	· ·		- '		- '	
2-4	4.8	427	5.5	393	5.1	820
5-9	3.6	670	4.8	697	4.2	1,367
10-14	3.3	744	1.9	657	2.6	1,402
15-19	10.2	1,161	1.9	1,277	5.8	2,438
20-24	38.2	926	12.3	787	26.3	1,714
25-29	48.9	654	27.8	557	39.2	1,211
30-34	45.7	542	43.9	383	44.9	925
35-39	37.6	449	44.9	321	40.7	770
40-44	27.6	386	40.0	234	32.3	620
45-49	21.7	345	27.7	230	24.1	575
50-54	24.1	145	28.3	106	25.9	251
55-59	9.5	103	17.4	70	12.7	172
60+	6.9	346	13.2	229	9.4	575
Total	22.1	6,900	14.9	5,941	18.8	12,841

Overall, women are more likely to be HIV positive than men (22 percent and 15 percent, respectively). The results in Table 24 also indicate that the age patterns of HIV infection differ for women and men. Among the population under age 35, HIV rates for women exceed the rates for men. This pattern is reversed among the population age 35 and older, with infection rates higher among men than women in all of the cohorts (Figure 2). Among women, HIV levels peak in the 25-29 age cohort at 49 percent while, among men, the infection rate is at its highest level among those in the 35-39 age group (45 percent). In the population age 50 and older, HIV rates continue to be moderately high among both women and men; for example, around one-quarter of women and men age 50-54 are infected while 7 percent of women and 13 percent of men age 60 and older are infected.



HIV Prevalence by Socioeconomic Characteristics

Table 25 presents differentials in HIV prevalence among the population age 15-49 by selected socioeconomic characteristics. The results indicate that HIV prevalence is lower among rural than urban residents (24 and 32 percent, respectively). By region, the HIV rate varies from 23 percent in Shiselweni to 29 percent in Hhohho. The rate is higher among those who never attended school than among those who attended school. Among educated women, the rate generally declines with the level of schooling while among men the pattern is more variable.

Percentage HIV presocioeconomic and	oositive amor	ng the popι	ılation age 1.	5-49 who v	were tested	
	Womer	า 15-49	Men 1	15-49	Total	15-49
	Percentage		Percentage		Percentage	
Background	HIV		HIV		HIV	
characteristic	positive	Number	positive	Number	positive	Number
Residence						
Urban	37.0	1 <i>,</i> 188	25.5	1,075	31.5	2,263
Rural	29.0	3,276	17.3	2,715	23.7	5,991
Region						
Hhohho	33.6	1,204	23.1	1,003	28.8	2,206
Manzini	30.4	1,475	18.4	1,228	25.0	2,703
Shiselweni	29.1	926	15.9	772	23.1	1,698
Lubombo	31.1	860	20.9	786	26.2	1,646
Education						
No education	38.3	373	31.2	290	35.2	663
Lower primary	34.8	333	22.4	427	27.9	760
Higher primary	33.5	1,154	15.9	917	25.7	2,071
Secondary	28.5	1,530	17.0	1,101	23.7	2,632
High School	29.8	777	20.7	768	25.3	1,545
Tertiary	26.1	298	23.4	286	24.8	584
Total	31.1	4,465	19.7	3,789	25.9	8,254

3.15 Orphans and Vulnerable Children

One of the outcomes of the AIDS epidemic has been an increased number of children who have been orphaned or whose social and economic vulnerability has been increased because of the serious illness of a parent or other adult in the family. This section looks first at the prevalence of orphans and vulnerable children (OVCs) in Swaziland. Then information on the care and support that households in which there are OVCs are receiving in Swaziland is examined. Finally the extent to which children who are orphaned and vulnerable are disadvantaged with respect to school attendance in comparison to other children is considered.

In reviewing the SDHS results, it is important to remember that the survey includes only OVCs living in households. Children who are living in institutions or other nonhousehold settings are not included in the SDHS OVC results. Thus, the results should be considered as a minimum estimate of the problem of OVCs in Swaziland.

Children's Living Arrangements and Orphanhood

Information was collected in the SDHS household questionnaire on the living arrangements and survival status of all children under age 18. These data are presented in Table 26.

Table 26 Childr				•									
Percent distribution of children not												ents, the p	ercentage
T.		Living mothe not fa	er but	father	g with but not other		Not living with either parent				Percent-		-
Background characteristic	Living with both parents	Father alive	Father dead	Mother alive	Mother dead	Both alive		Mother alive,	•	Missing information on father/ mother ¹	Total	age not living with a biologica parent	Number al of
Age													
0-4	25.3	46.8	2.8	2.6	0.3	17.1	1.5	2.0	0.4	1.3	100.0	22.3	3,219
<2	25.7	60.2	2.1	0.7	0.0	8.9	0.8	0.4	0.1	1.2	100.0	11.3	1,265
2-4	25.1	38.1	3.2	3.7	0.4	22.4	1.9	3.1	0.6	1.3	100.0	29.4	1,953
5-9	22.1	28.6	7.9	4.7	1.2	21.0	3.4	6.0	2.9	2.2	100.0	35.6	3,149
10-14	20.1	22.3	10.5	5.1	2.4	18.3	4.5	7.2	7.5	2.1	100.0	39.7	3,369
15-17	19.1	18.0	12.4	4.0	2.6	19.0	4.5	8.2	8.3	3.8	100.0	43.8	1,752
Sex													
Male	21.9	30.0	8.0	4.5	1.6	18.3	3.4	5.7	4.3	2.4	100.0	34.1	5,746
Female	22.1	30.5	7.8	3.8	1.3	19.3	3.3	5.5	4.5	1.9	100.0	34.5	5,742
Residence													
Urban	31.4	29.3	7.6	5.9	1.6	13.1	2.3	3.7	3.7	1.6	100.0	24.3	1,787
Rural	20.2	30.4	8.0	3.8	1.5	19.9	3.6	5.9	4.5	2.2	100.0	36.1	9,701
Region													
Hhohho	26.5	28.7	7.2	4.8	1.6	17.9	3.0	4.7	3.9	1.7	100.0	31.2	2,867
Manzini	20.6	31.9	8.3	4.3	1.8	18.2	3.4	5.9	3.9	1.8	100.0	33.2	3,419
Shiselweni	17.6	31.4	7.2	2.9	1.0	21.5	4.0	6.1	5.9	2.3	100.0	39.9	2,861
Lubombo	23.8	28.2	9.1	4.6	1.4	17.5	3.1	5.6	3.8	2.9	100.0	32.9	2,342
Total <15	22.5	32.4	7.1	4.1	1.3	18.8	3.2	5.1	3.7	1.8	100.0	32.6	9,736
Total <18	22.0	30.2	7.9	4.1	1.5	18.8	3.4	5.6	4.4	2.1	100.0	34.3	11,488

Note: Table is based only on children who usually live in the household.

¹ Includes children whose mother or father is dead and there is no information on the status of the other parent.

Only around one-fifth of Swazi children under age 18 in the households sampled for the SDHS were living with both parents. Around one-third of the children were not living with either parent. Just under one-quarter of children under age 18 are orphans, that is, one or both parents were dead. Among 13 percent of the children, the father had died but their mother was alive, whilst, among 5 percent of the children their mother was deceased but their father was alive. Four percent of the children had lost both parents.

The percentage of children who were not living with at least one biological parent rises with the child's age, from 22 percent among children under age 5 to 44 percent among those age 15-17. Rural children are considerably less likely to be living with a biological parent than urban children (36 percent and 24 percent, respectively).

Orphans and Vulnerable Children

Children whose parents are ill for an extended period or who live in households where other adults suffer from chronic illness can experience significant hardships as serious illness may limit the resources available to feed, clothe, and educate a family's youngest members. The SDHS included several questions to determine if any adults in the household (including the child's parents) had been chronically ill during the 12-month period before the survey. Members of a household were considered to be chronically ill if they had been very sick, i.e., too sick to work or do normal activities, for a period of at least 3 months during the 12-month period before the survey. Questions also were included for children whose parents were not living in the same household at the time of the survey to determine if the parent(s) had been chronically ill during the 12-months before the survey.

Table 27 presents the proportion of children who are orphans, the proportion of children regarded as vulnerable because of chronic illness of a parent or other adult during the 12-month period prior to the SDHS, and the overall proportion of children identified in the SDHS as orphaned and/or vulnerable. Among children under age 18, 12 percent were considered as vulnerable, about half the proportion who were orphans.⁵ Looking in more detail at the results in Table 27, 4 percent of children were classified as vulnerable because they had a parent who had been chronically ill during the year prior to the survey, 5 percent lived in a household in which at least one adult (a parent or other household member) was chronically ill during the period, and 6 percent lived in a household where at least one adult who had been chronically ill had died during the 12 months preceding the survey.

Table 27 also shows a total of 31 percent of children were either orphans, vulnerable or both. This proportion rises with the child's age and is higher among rural than urban children.

-

⁵ It is possible for a child to be classified as both an orphaned and vulnerable.

Table 27 Orphans and vulnerable children (OVC)

Percentage of de jure children under age 18 years who are orphans or made vulnerable due to illness among adult household members (OVC), according to background characteristics, Swaziland 2006-07

-		Percer	tage of children wh	0:	Percentage		
				Live in a	of children		
				household	who have a		
				where at	very sick		
				least 1	parent OR		
				adult died	live in a		
				in the past	household		
				12 months	where an		
				and had	adult has		
			Live in a	been very	been very		
	Percentage of		household where	sick for at	sick OR	Percentage	
	children who	Have a very sick	at least 1 adult has	least 3	died in the	of children	
	were orphans,	parent for at	been very sick for	months	past 12	who are	
	i.e., one or	least 3 months	at least 3 months	before	months	orphans	
	both parents	in the past 12	in the past 12	he/she	(vulnerable	and/or	Number of
Background characteristic	were dead	months ¹	months ²	$died^2$	children)	vulnerable	children
Age							
0-4	7.1	3.1	5.4	5.9	12.2	17.9	3,219
<2	3.3	2.6	5.3	6.2	12.0	14.7	1,265
2-4	9.6	3.4	5.5	5.6	12.4	19.9	1,953
5-9	22.0	4.0	5.4	5.6	11.9	29.7	3,149
10-14	32.7	3.6	4.6	5.8	11.4	39.1	3,369
15-17	37.0	3.4	5.1	4.8	10.6	42.6	1,752
Sex							
Male	23.6	3.5	5.0	5.7	11.7	31.3	5,746
Female	22.9	3.6	5.3	5.5	11.6	31.0	5,742
Residence							
Urban	19.1	2.0	3.1	2.1	5.7	22.9	1,787
Rural	24.0	3.8	5.5	6.2	12.8	32.6	9,701
Region							
Hhohho	20.6	2.7	4.1	4.5	9.4	27.2	2,867
Manzini	23.7	2.9	4.2	7.6	12.3	31.8	3,419
Shiselweni	25.0	2.6	5.0	5.9	11.0	32.3	2,861
Lubombo	23.6	6.7	8.0	3.7	14.2	33.6	2,342
Total <15	20.8	3.6	5.1	5.7	11.8	29.1	9,736
Total <18	23.3	3.5	5.1	5.6	11.7	31.1	11,488

Note: Table is based only on children who usually live in the household. Very sick means person was too sick to work or do normal activities.

External Support for Households with OVCs

One of the important challenges in countries like Swaziland which have greatly increased OVC populations, principally due to the AIDS epidemic, is the need to assist families to care for these children. The SDHS collected information on the extent to which free external care and support services are reaching OVC.

Table 28 looks at the types of free external care and support received by households with at least one OVC member during the 12 months prior to the SDHS survey. The table shows that 41 percent of orphans and vulnerable children lived in households which received any type of free external support. Among those households receiving some type of support, the households were most likely to have received schooling support for the children followed by social/material support.

¹ Whether or not lives in same household as child

² Person age 18-59 years

Table 28 External support for orphans and vulnerable children

Percentage of orphans and vulnerable children under age 18 years whose household received certain free basic external support to care for the child in the last 12 months, by background characteristics, Swaziland 2006-07

	Percentage of orphans and vulnerable children whose households received:							
			Social/	School-				
	Medical	Emotional	material	related				
	support in	support in	support in	assistance	At least one	All of the	None of the	
	the last 12	the last 3	the last 3	in the last	type of	types of	types of	OVC
Background characteristics	months ¹	months ²	months ³	12 months ⁴	support	support⁵	support	children
Age								
0-4	5.6	3.8	4.1	na	11.7	0.0	88.3	575
5-9	6.1	4.9	8.9	29.3	38.6	0.2	61.4	936
10-14	4.9	4.4	8.8	47.1	51.5	0.3	48.5	1,318
15-17	4.8	5.5	7.9	42.8	48.9	0.1	51.1	747
Sex								
Male	5.2	4.6	7.7	34.0	41.8	0.2	58.2	1,796
Female	5.4	4.7	8.0	34.0	40.6	0.2	59.4	1,780
Residence								
Urban	3.8	2.5	6.3	20.1	28.6	0.0	71.4	409
Rural	5.5	4.9	8.1	35.8	42.8	0.2	57.2	3,167
Region								
Hhohho	4.6	5.2	4.6	27.2	34.1	0.0	65.9	779
Manzini	5.4	4.5	9.0	30.3	38.1	0.3	61.9	1,088
Shiselweni	5.2	3.4	6.5	41.4	48.1	0.0	51.9	923
Lubombo	6.0	5.7	11.1	37.1	44.5	0.5	55.5	786
Total	5.3	4.6	7.9	34.0	41.2	0.2	58.8	3,575

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

School Attendance

Orphans and vulnerable children may be at greater risk of dropping out of school. This can happen for many reasons, such as the inability to pay school fees, the need to help with household labour or to stay at home to care for sick parents or younger siblings. Table 29 presents data on school attendance rates among all children age 10-14 living in the households interviewed in the SDHS. The first several columns of the table contrast the situation among the two groups of children from these households at the extremes of the orphanhood continuum—children whose parents are both dead and children whose parents are both alive and the child is living with at least one parent. The final columns compare school attendance for the population of OVCs to that of children who are neither orphaned nor vulnerable.

The results in the table indicate that, in general, orphaned and vulnerable children are not disadvantaged with respect to school attendance in comparison to other children; 92 percent of both groups of children were currently attending school. Double orphans (i.e., children whose father and mother are dead) are also only slightly less likely than children whose parents are both alive and who live with at least one parent to be currently in school (90 percent and 93 percent, respectively). The gap in schooling between orphans and non-orphans is greatest for girls, urban children and children living in Manzini region. There is no appreciable difference between the schooling of OVC and of non-OVC.

na = Not applicable

¹ Medical care, supplies or medicine

² Companionship, counselling from a trained counsellor, or spiritual support for which there was no payment.

³ Help with household work, training for a caregiver, legal services, clothing, food, or financial support for which there was no payment

⁴ Allowance, free admission, books, or supplies for which there was no payment. Percentage calculated for ages 5-17 years.

⁵ Four types of support for children age 5-17 and three types of support (i.e., excluding school support) for children age 0-4

Table 29 School attendance by survivorship of parents and by OVC status

For de jure children 10-14 years of age, the percentage attending school by parental survival and by OVC status and the ratios of the percentages attending for parental survival and OVC status according to background characteristics, Swaziland 2006-07

	Percenta	Percentage attending school by survivorship of parents					OVC		Not OVC	
Background characteristic	Both parents deceased	Number	Both parents alive and living with at least one parent	Number	Ratio ¹	Percentage attending school	Number	Percentage attending school	Number	Ratio ²
Sex						·				
Male	94.7	122	91.6	788	1.03	92.6	615	90.5	1,027	1.02
Female	85.6	131	93.7	812	0.91	91.8	703	92.8	1,024	0.99
Residence										
Urban	(87.8)	32	95.8	257	0.92	91.5	156	93.0	318	0.98
Rural	90.3	221	92.1	1,343	0.98	92.2	1,162	91.3	1,733	1.01
Region										
Hhohho	90.5	64	93.6	413	0.97	93.6	290	93.3	532	1.00
Manzini	87.3	60	96.8	481	0.90	93.9	395	93.7	610	1.00
Shiselweni	87.8	96	85.2	374	1.03	89.6	354	85.0	507	1.05
Lubombo	(100.0)	33	93.9	332	1.07	91.4	279	94.4	402	0.97
Total	90.0	253	92.7	1,600	0.97	92.2	1,318	91.6	2,051	1.01

Note: Table is based only on children who usually live in the household.

¹ Ratio of the percentage with both parents deceased to the percentage with both parents alive and living with a parent ² Ratio of the percentage for OVC to the percentage for non OVC

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Jordan 2002	November	2002	English
Dominican Republic 2002	January	2003	Spanish
Uzbekistan 2002	May	2003	English
Indonesia 2003	August	2003	English
Nigeria 2003	October	2003	English
Kenya 2003	December	2003	English
Indonesia (young adult) 2002	December	2003	English
Jayapura City, Indonesia	Весенност	2003	English
	December	2003	English
(young adult) 2002			English
Philippines 2003	January	2004	English
Bolivia 2003	March	2004	Spanish
Mozambique 2003	April	2004	English
Burkina Faso 2002-03	May	2004	French
Ghana 2003	June	2004	English
Morocco 2003-04	June	2004	French
Bangladesh 2004	September	2004	English
Cameroon 2004	October	2004	French
Madagascar 2003-04	October	2004	French
		2004	French
Chad 2004	February		
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
Congo (Brazzaville) 2005	March	2006	French
Côte d'Ivoire (AIS) 2005	June	2006	French
Cambodia 2005	July	2006	English
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Zimbabwe 2005-06	August	2006	English
Niger 2006	August	2006	French
	October August		
Niger (Intervention zones) 2006		2006	French
Nepal 2006	October	2006	English
Uganda 2006	November	2006	English
Tanzania (SPA) 2006	January	2007	English
Benin 2006	March	2007	French
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