Republic of The Gambia

Gambia Demographic and Health Survey

2013

Preliminary Report
Without Results of HIV Prevalence

Gambia Bureau of Statistics

MEASURE DHS
ICF International

The Gambia

Gambia Demographic and Health Survey

2013

Preliminary Report

Gambia Bureau of Statistics

Banjul, The Gambia

MEASURE DHS
ICF International

Calverton, Maryland USA

July 2013

REPUBLIC OF THE GAMBIA

This report summarizes the findings of the 2013 Gambia Demographic and Health Survey (GDHS) carried out by The Gambia Bureau of Statistics (GBOS). The survey was funded by the government of Gambia, the U.S. Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the United Nations Development Program (UNDP), the United Nations Children's Fund (UNICEF), and the Global Fund. ICF International provided technical assistance through its MEASURE DHS program, which is designed to collect data on fertility, family planning, maternal and child health, maternal mortality, and domestic violence.

Additional information about The Gambia DHS survey may be obtained from The Gambia Bureau of Statistics, Kanifing Institutional Layout, PO Box 3504, Serrekunda, The Gambia, Telephone (220) 437 7847; Fax (220) 437 7848.

Additional information about the MEASURE DHS program may be obtained from ICF International: 11785 Beltsville Drive, Suite 300, Calverton, MD 20705; Telephone 301-572-0200; Fax 301-572-0999; e-mail reports@measuredhs.com; Internet: http://www.measuredhs.com.

CONTENTS

LIST OF TABLES AND FIGURES

PREFACE

The 2013 Gambia Demographic and Health Survey (GDHS) is the first Demographic and Health Survey conducted in The Gambia. The 2013 GDHS was carried out by The Gambia Bureau of Statistics (GBOS) and the Ministry of Health and Social Welfare (MoH&SW). The main objective of this survey was to provide comprehensive data on fertility and mortality, family planning, and maternal and child health and nutrition, as well as information on maternal mortality and domestic violence. The survey also provides data on household-based measurements of malaria and HIV prevalence, two of the most life-threatening infections in sub-Saharan Africa.

The sample is nationally representative and has been designed to produce estimates of major survey variables at the national level, in urban and rural areas, and for eight local government areas (Banjul Municipality, Kanifing Municipality, Brikama, Mansakonko, Kerewan, Kuntaur, Janjanbureh, and Basse). A total of 6,217 households, 10,233 women age 15-49 and 3,821 men age 15-59 were interviewed between February and April 2013. The 2013 GDHS was funded by the government of Gambia, the U.S. Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the United Nations Development Program (UNDP), the United Nations Children's Fund (UNICEF), the Joint United Nations Program on HIV/AIDS (UNAIDS), and the Global Fund. ICF International provided technical assistance through the worldwide MEASURE Demographic and Health Surveys (DHS) program. It is hoped that the 2013 GDHS data will meet its objectives of facilitating important government policies and programs, promoting maternal and child health, and preventing the spread of infectious diseases. The survey will also be useful to those interested in the fields of population, family planning, and health.

This report provides some preliminary findings of the 2013 GDHS. The results of the HIV testing will be presented in a separate preliminary report, and detailed findings will be presented in the main survey report, to be released early in 2014. The GBOS would like to express its thanks and appreciation to the individuals and organizations that contributed to the success of the survey. The timeliness and good quality of the data are the result of hard work from all of the survey staff. Thanks go to all of the households interviewed during the survey for their time and willingness to provide the required information. Acknowledgment also goes to the MoH&SW for its technical and logistic assistance. Thanks are also due to USAID, the Global Fund to Fight AIDS, Tuberculosis and Malaria, Action Aid, The Gambia grants, UNFPA, UNAIDS, UNDP, the World Health Organization (WHO), The Gambia, and UNICEF for their financial support and to the Measure DHS team for their technical assistance.

Nyakassi M.B. Sanyang
Statistician General

1 INTRODUCTION

1.1 Background

The 2013 Gambia Demographic and Health Survey (GDHS) is the first survey conducted in Gambia under the auspices of the worldwide Demographic and Health Surveys (DHS) program. This preliminary publication presents the main findings of the 2013 GDHS. These preliminary results were prepared three months after completion of data collection in order to make them available for their use in family planning and other public health interventions. The final report on the GDHS 2013 is expected to be published in early 2014 and will include a more comprehensive description of the survey results. The results presented here are provisional and may be subject to slight modifications. However, the final figures are not expected to differ significantly from the findings presented in this report.

1.2 Objectives of the Survey

The primary objective of the GDHS is to provide reliable estimates of health and demographic indicators in the areas of fertility, mortality, family planning, maternal and child health, nutrition, malaria, and HIV, which can be used by program managers and policy makers to evaluate and improve existing programs or to develop new ones. In addition, the GDHS data will be useful to researchers and scholars interested in analyzing current situations and trends in The Gambian population, as well as those conducting comparative, regional, or cross-national studies.

2 METHODOLOGY

2.1 Survey Instruments

The 2013 GDHS used three questionnaires, namely, the Household Questionnaire, the Woman's Questionnaire, and the Man's Questionnaire. These questionnaires were based on the models developed by the MEASURE DHS program, but additions and modifications were made to the model questionnaires to adapt them to specific situations of The Gambia. The Household Questionnaire was used to list all usual household members as well as the nonmembers who spent the night preceding the interview in the selected households. Information was obtained on relationship to the head of the household; age, sex, and educational attainment of every individual age 3 or older listed in the household. In addition, several questions were included to determine the physical characteristics of the dwelling, such as source of water, presence of sanitation facilities, and availability of durable goods. The Household Questionnaire was also used to identify individuals eligible for the individual interview, that is, women age 15 – 49 and men age 15 - 59. In addition, the Household Questionnaire was used to select individuals for the collection of key biomarkers. That is, in 50 percent of the selected households:

- All eligible women were measured, weighed, and tested for anemia and HIV
- All eligible men were tested for HIV
- All children age 0 to 59 months were measured and weighed
- All children age 6 to 59 months were measured, weighed, and tested for anemia and malaria

As explained above, the Woman's Questionnaire was administered to women age 15 to 49; it collected information on the following topics:

- Respondent's background characteristics
- Birth history
- Knowledge, attitudes, and practice of family planning, exposure to family planning messages

- Maternal health, including antenatal, delivery, and postnatal care
- Immunization and health of children under age 5
- Breastfeeding and infant feeding practices
- Marriage, sexual activity, and husband's background characteristics
- Fertility preferences
- Respondent's employment
- Knowledge of AIDS and sexually transmitted infections (STIs)
- Other women's health issues, including female circumcision
- Maternal mortality
- Domestic violence

Also, a monthly calendar was filled to obtain information on births, pregnancies, contraceptive use and discontinuation during the five years prior to the survey. This approach was used to ensure there were no omissions or inconsistencies in the respondents' recent reproductive history.

The Man's Questionnaire was administered to men age 15 to 59 years; it collected information on the following topics:

- Respondent's background characteristics
- Reproduction
- Knowledge and attitudes related to family planning and exposure to family planning messages
- Marriage and sexual activity
- Fertility preferences
- Respondent's employment and gender roles
- Knowledge of AIDS and sexually transmitted infections (STI)
- Other health issues

2.2 Sample Design and Implementation

Administratively, The Gambia is divided into two urban municipalities (Banjul and Kanifing) and six local government areas (LGAs). In turn, each LGA is sub-divided into districts and each district into settlements. An enumeration area (EA) is a geographic section delineated so that a team of enumerators could easily cover it during a census. In the case of The Gambia, an EA can be a settlement, a cluster of small settlements, or a part of a large settlement.

The 2013 GDHS sample was designed to produce reliable estimates of most important variables for the country as a whole, for urban and rural areas, and for each of the municipalities and local government areas (LGAs). The sampling frame used for GDHS 2013 is the latest population and housing census, conducted in The Gambia in 2003, as provided by The Gambia Bureau of Statistics (GBOS). The frame excluded the population living in collective housing units, such as hotels, hospitals, work camps, prisons, or boarding schools.

The sample for GDHS 2013 was a stratified sample selected in two stages. Stratification was done by dividing each LGA into urban and rural areas, achieving a total of 14 sampling strata, because Banjul and Kanifing have urban areas only. In the first stage, 281 EAs were selected with probability proportional to size and with independent selection in each sampling stratum. These EAs constitute the primary sampling units (PSUs).

In the second stage of selection, 25 households per EA were selected with an equal probability systematic selection. In these selected households, all women 15-49 who were usual household members or who spent the night before the survey in the selected households were eligible for individual interviews. A 50 percent subsample of the households was selected for the male survey and for the collection of blood samples for HIV, anemia, and malaria testing. In this subsample all men age 15-59 who were usual household members or who spent the night before the survey in the selected households were eligible for individual interviews. The results of the sampling are presented in Table 1. A total of 7,009 households were selected for the sample, of which 6,543 households were occupied at the time of fieldwork and 6,217 or 95 percent, were successfully interviewed. In these households, 11,279 women age 15-49 who had spent the preceding night in the household were identified, and 10,233 of them were successfully interviewed, yielding a 91 percent response rate. Of the 4,668 eligible men identified, 82 percent were successfully interviewed.

Table 1 Results of the household and individual interviews

Unweighted number of households, number of interviews, and response rates, according to residence, The Gambia 2013

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households selected	3,661	3,348	7,009
Households occupied	3,322	3,221	6,543
Households interviewed	3,095	3,122	6,217
Household response rate	93.2	96.9	95.0
Interviews with women age 15-49			
Number of eligible women	5,043	6,236	11,279
Number of eligible women interviewed	4,498	5,735	10,233
Eligible women response rate[2]	89.2	92.0	90.7
Interviews with men age 15-59			
Number of eligible men	2,343	2,325	4,668
Number of eligible men interviewed	1,831	1,990	3,821
Eligible men response rate[2]	78.1	85.6	81.9

[1] Households interviewed/households occupied.
[2] Respondents interviewed/eligible respondents.

2.3 Training and Pretest

All interviewers were trained for the pretest for five weeks in November, December 2012, in Banjul. After the training, pretest fieldwork was conducted over a one-week period in two urban clusters and two rural clusters. Even though more than 100 men and women participated in the pretest training, only 24 of them were selected for the pretest itself.

As part of the pretest health technicians practiced weighing and measuring men, women, and children as well as collecting and handling blood samples for anemia, malaria, and HIV testing. The training course consisted of instructions regarding interviewing techniques and field procedures, a detailed review of items on the questionnaires, instruction and practice in weighing and measuring children and in the collection of blood samples, mock interviews between participants in the classroom, and practice interviews. A two-week refresher training class was conducted in January 2013.

2.4 Data Collection and Processing

A total of 15 field teams were formed, each consisting of one supervisor, one field editor, one health technician, two female interviewers, and one male interviewer. Each team was provided with a vehicle. Fieldwork was launched in February 2013 and was completed in April 2013. The field editors first checked the questionnaires for completeness and consistency in the field. The questionnaires were then sent to the GBOS central office in Banjul where office editors reviewed them again. The open-ended questions were coded as the questionnaires were reviewed in the GBOS central office. The data were processed using CSPro (Census and Survey Processing computer package). Data entry and editing were initiated almost immediately after the beginning of fieldwork. Data processing, consisting of editing, data entry, 100 percent double entry, final editing, and verification, was completed in June 2013.

3 PRELIMINARY RESULTS

3.1 Respondents' Characteristics

The percent distribution of interviewed men and women by selected background characteristics is presented in Table 2. Reflecting the high fertility and youth of The Gambian people, the population of reproductive age is very young. More than 60 percent of the interviewed men and women are younger than age 30, and only 6 percent of them are in the age 45 – 49 group. The vast majority of respondents were Muslims (96 percent), and the largest ethnic groups were Mandinka/Jahanka, representing one-third of the population, and the Fula/Tukulur/ Lorobo, representing slightly more than 20 percent of the population.

Twenty-nine percent of the women and 61 percent of the men were single and, conversely, 66 percent of women and 38 percent of men were married. Consensual unions are relatively rare, as unions outside marriage are deemed objectionable in the context of the Muslim traditions prevailing in the country.

The formal education in The Gambia is carried out on parallel tracks in conventional schools and madrassa schools. Both types of schools are part of the same public school system and follow the same curriculum, but madrassa schools give instruction in Arabic. Table 2 shows that 47 percent of women and 31 percent of men never attended school; 10 percent of women and 11 percent of men attended conventional primary school, while 4 percent of women and 3 percent of men attended madrass*a* primary school. Only a small percentage of men and women reach a level of higher education.

Table 2 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, The Gambia 2013

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	23.5	2,407	2,463	23.4	836	867
20-24	20.8	2,125	2,101	23.7	849	789
25-29	17.8	1,822	1,755	16.4	586	547
30-34	14.7	1,504	1,480	11.9	425	399
35-39	10.3	1,056	1,098	10.9	391	385
40-44	7.4	761	765	7.6	270	274
45-49	5.5	559	571	6.2	220	261
Religion						
Islam	95.7	9,793	9,916	95.9	3,430	3,425
Christianity	4.2	427	302	4.0	144	93
No religion	0.1	6	3	0.0	2	2
Missing	0.1	6	12	0.0	1	2
Ethnic group						
Mandinka/Jahanka	33.8	3,462	3,366	34.5	1,234	1,153
Wollof	12.2	1,253	1,387	13.6	485	484
Jola/Karoninka	10.9	1,119	851	10.0	359	278
Fula/Tukulur/Lorobo	22.1	2,262	2,470	23.1	826	901
Serere	3.2	323	388	3.3	117	111
Serahuleh	7.0	714	744	5.4	192	208
Creole/Aku Marabout	0.8	79	88	0.6	21	33
Manjago	2.1	218	143	2.1	74	49
Bambara	1.0	107	123	1.1	38	52
Other	0.9	95	105	1.0	35	38
Non-Gambian	5.2	528	479	5.3	191	212
Missing	0.7	72	89	0.1	5	3
Marital status						
Never married	29.0	2,963	2,866	60.9	2,177	2,093
Married	66.1	6,764	6,871	38.0	1,358	1,385
Living together	0.3	27	34	0.1	2	3
Divorced/separated	3.2	326	321	1.1	38	37
Widowed	1.5	153	141	0.1	2	4
Residence						
Urban	56.0	5,730	4,498	62.3	2,228	1,692
Rural	44.0	4,503	5,735	37.7	1,349	1,830
Region						
Banjul	2.2	225	1,073	2.4	85	411
Kanifing	22.9	2,342	1,506	24.0	858	553
Brikama	34.7	3,550	1,833	40.6	1,454	742
Mansakonko	4.8	490	1,041	3.9	141	339
Kerewan	10.8	1,107	1,448	9.0	323	455
Kuntaur	5.1	526	1,039	4.0	141	310
Janjanbureh	7.2	739	1,024	6.7	240	326
Basse	12.3	1,254	1,269	9.4	336	386
Education						
No education/Pre-school	46.5	4,757	5,079	30.5	1,090	1,229
Primary (lower basic)	9.8	1,003	997	10.5	374	372
Primary (madrassa)	3.9	402	441	3.3	119	140
Secondary (upper basic/junior/senior)	32.4	3,316	3,094	42.3	1,514	1,381
Secondary (madrassa)	1.9	196	174	4.2	151	127
Higher	3.4	351	304	7.7	274	226
Vocational	2.0	208	144	1.6	56	47
Total 15-49	100.0	10,233	10,233	100.0	3,577	3,522
Men 50-59	na	na	na	na	244	299
Total 15-59	na	na	na	na	3,821	3,821

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

3.2 Fertility

All women who were interviewed in the 2013 GDHS gave a complete reproductive history, including the total number of children born alive, as well as the sex and date of birth of each child. For children who had died, women were asked to give the child's age at death. In addition to information on all live births, women were asked probing questions to obtain information to complete a calendar covering their reproductive history in the five years preceding the survey, that is, from January 2008 onward. These questions allowed interviewers to identify pregnancies that may not have resulted in live births due to induced abortions, miscarriages, or stillbirths in the five years preceding the survey.

The data collected in the birth history were used to calculate age-specific fertility rates and the total fertility rate (TFR), two of the most commonly used measures of current fertility. The TFR is a summary measurement of fertility and can be interpreted as the average number of children women of reproductive age would bear in their lifetime if the current age-specific fertility rates were to remain unchanged.

Table 3 shows that the TFR for the three-year period before the survey is 5.6 for the country as a whole, 6.8 in rural areas, and 4.7 in urban areas. This means that the TFR in rural areas is two children higher than in urban areas.

Table 3 Current Fertility

Age-specific rates, total fertility rate, general fertility rate, and crude birth rate for the three years preceding the survey, by residence, The Gambia 2013

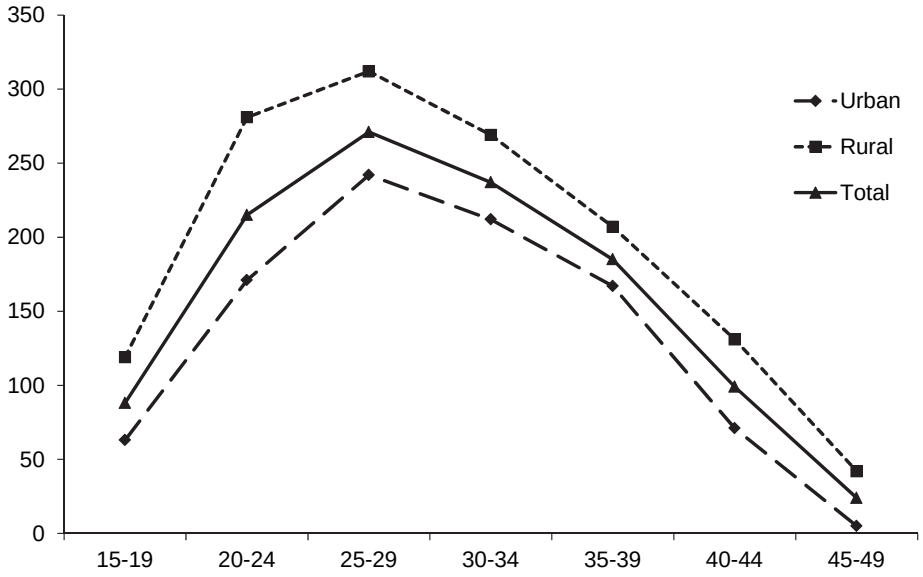
	Residence		
Age group	Urban	Rural	Total
15-19	63	119	88
20-24	171	281	215
25-29	242	312	271
30-34	212	269	237
35-39	167	207	185
40-44	71	131	99
45-49	5	42	24
TFR (15-49)	4.7	6.8	5.6
GFR	155	222	184
CBR	37.7	43.4	40.5

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months prior to interview.
TFR: Total fertility rate expressed per woman.
GFR: General fertility rate expressed per 1,000 women age 15-44.
CBR: Crude birth rate, expressed per 1,000 population.

Table 3 and Figure 1 show that age-specific fertility rates start relatively low among women age 15-19 (88 per 1,000), rise to a peak among women age 25-29 (271 per 1,000), remain high for women age 30-34 (237 per 1,000), and decline rapidly at older ages. Age-specific fertility rates remain consistently higher in rural areas throughout the childbearing years.

The general fertility rate (GFR), and the crude birth rate (CBR) are also presented in Table 3. The GFR is the estimated annual number of births per 1,000 women age 15-44, and the CBR refers to the total number of births occurring in a given year per 1,000 population. The GFR is 112 births per 1,000 women age 15-44 years, and the CBR is 27 births per 1,000 population, .

Figure 1
Age-specific fertility rates by area of residence



3.3 Fertility Preferences

To gain insight into the childbearing aspirations of Gambians, men and women who were not sterilized were asked whether they wanted or did not want to have another child. Those who said that they wanted another child were asked how long they wanted to wait to have that child. Table 4 shows that a very large majority of married women (78 percent) want to have another child, and 30 percent want to have another child soon while 47 percent expressed the desire to have another child later. Among all married women, only 15 percent said they do not want to have any more children.

The desire to limit fertility markedly increases with the number of living children. The percentage of women that do not want any more children increases from 1 percent among women that have only one child to 46 percent among women with six or more children. However, the fact that more than 40 percent of married women with six or more children still want another child (9 percent of them soon and 32 percent of them later), underscores the preference for large families among Gambian women.

Table 4 Fertility preferences by number of living children

Percent distribution of currently married women age 15-49 by desire for children, according to number of living children, The Gambia 2013

	Number of living children[1]							
Desire for children	0	1	2	3	4	5	6+	Total
Have another soon[2]	89.0	36.2	30.8	29.8	24.2	18.1	9.4	30.4
Have another later[3]	6.9	57.7	60.6	57.3	55.6	49.7	31.9	47.3
Have another, undecided when	1.2	3.7	2.5	1.3	2.0	1.3	1.1	1.9
Undecided	0.5	0.6	1.2	1.8	2.5	3.1	7.2	2.7
Want no more	0.4	0.9	3.7	6.9	13.6	24.3	46.1	15.2
Sterilized	0.0	0.1	0.6	0.9	0.6	0.1	1.4	0.6
Declare infecund	1.7	0.1	0.3	1.3	0.7	2.7	2.0	1.2
Missing	0.4	0.9	0.3	0.7	0.8	0.7	1.0	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	615	1,101	1,131	1,011	859	748	1,325	6,791

[1] The number of living children includes current pregnancy.
[2] Wants next birth within two years.
[3] Wants to delay next birth for two or more years.
[4] Includes both female and male sterilization.

3.4 Current Use of Family Planning

Contraceptive prevalence in The Gambia is very low. Table 5 shows that only 9 percent of currently married women use a contraceptive method of any kind, and 8 percent use a modern method. The prevalence of modern contraceptive method use in urban areas is three times higher than in rural areas (12 percent versus 4 percent, respectively). Women with secondary or higher education are more likely to use a modern contraceptive method: 15 percent of them use a modern method compared with 6 percent of women with less education. The most commonly used methods are Depo-Provera injections, favored by 4 percent of married women, and contraceptive pills, used by 2 percent of married women. Less than 1 percent use long-term methods, such as an IUD or implant. One percent uses a traditional method, including withdrawal, periodic abstinence, or some folkloric traditional method.

Table 5 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, The Gambia 2013

Background characteristic	Any method	Any modern method	Modern method						Traditional method				Not currently using	Total	Number of women
			Female sterili-zation	IUD	Pill	Inject-ables	Implants	Male condom	Any tradi-tional method	Rhythm	With-drawal	Other			
Age															
15-19	3.3	2.2	0.0	0.2	0.1	1.1	0.0	0.8	1.1	0.0	0.0	1.1	96.7	100.0	573
20-24	6.4	5.7	0.0	0.0	1.0	3.8	0.1	0.8	0.7	0.0	0.4	0.2	93.6	100.0	1,237
25-29	8.4	8.0	0.1	0.4	2.5	3.6	0.4	0.9	0.4	0.1	0.2	0.1	91.6	100.0	1,528
30-34	11.6	10.2	0.4	0.4	2.4	5.1	1.6	0.4	1.3	0.3	0.6	0.4	88.4	100.0	1,319
35-39	12.1	11.5	0.3	0.4	3.3	6.7	0.5	0.3	0.6	0.1	0.1	0.4	87.9	100.0	966
40-44	11.1	9.6	1.7	0.8	3.2	3.0	0.9	0.0	1.5	0.6	0.2	0.7	88.9	100.0	673
45-49	7.7	6.6	3.8	0.2	1.2	1.1	0.0	0.3	1.2	0.0	0.0	1.2	92.3	100.0	496
Residence															
Urban	13.0	11.8	0.8	0.5	3.5	5.0	1.2	0.9	1.2	0.3	0.4	0.4	87.0	100.0	3,356
Rural	5.0	4.4	0.4	0.2	0.7	2.8	0.0	0.2	0.6	0.0	0.1	0.4	95.0	100.0	3,435
Region															
Banjul	21.1	20.7	0.8	0.9	8.1	9.9	0.2	0.6	0.4	0.4	0.0	0.0	78.9	100.0	114
Kanifing	14.6	13.4	0.6	0.5	4.2	5.4	1.6	1.1	1.3	0.4	0.7	0.1	85.4	100.0	1,258
Brikama	11.1	9.9	1.0	0.4	2.5	4.6	0.7	0.6	1.2	0.2	0.3	0.7	88.9	100.0	2,282
Mansakonko	8.0	7.0	0.7	0.3	0.6	4.1	0.0	1.3	0.9	0.4	0.0	0.5	92.0	100.0	344
Kerewan	7.1	6.4	0.6	0.3	0.8	4.2	0.1	0.3	0.7	0.0	0.1	0.5	92.9	100.0	801
Kuntaur	4.2	4.0	0.1	0.0	1.3	2.4	0.0	0.2	0.2	0.0	0.1	0.1	95.8	100.0	427
Janjanbureh	5.8	5.1	0.3	0.3	1.5	2.7	0.3	0.1	0.7	0.0	0.0	0.7	94.2	100.0	550
Basse	1.3	1.0	0.0	0.0	0.1	0.8	0.0	0.1	0.3	0.0	0.1	0.1	98.7	100.0	1,015
Education															
No education	6.0	5.5	0.5	0.1	1.4	3.1	0.2	0.2	0.5	0.0	0.1	0.4	94.0	100.0	4,125
Primary	7.7	6.4	0.6	0.2	1.4	3.7	0.2	0.4	1.2	0.2	0.5	0.5	92.3	100.0	912
Secondary or higher	16.7	15.0	0.8	1.0	4.1	6.0	1.6	1.6	1.7	0.5	0.6	0.6	83.3	100.0	1,754
Number of living Children															
0	1.1	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.1	0.0	0.1	0.0	98.9	100.0	771
1-2	8.6	7.6	0.3	0.4	1.5	4.0	0.5	0.8	1.0	0.0	0.5	0.4	91.4	100.0	2,212
3-4	10.3	9.3	0.8	0.2	2.6	4.4	0.8	0.5	1.0	0.5	0.2	0.3	89.7	100.0	1,818
5+	11.3	10.3	1.0	0.5	3.1	4.9	0.6	0.2	0.9	0.0	0.1	0.8	88.7	100.0	1,990
Total	9.0	8.1	0.6	0.3	2.1	3.9	0.6	0.6	0.9	0.2	0.3	0.4	91.0	100.0	6,791

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

3.5 Early Childhood Mortality

Estimates of childhood mortality are based on information from the birth history of the questionnaire administered to individual women. Those questions capture the aggregate childbearing experience of respondents, namely the number of children born alive, sex and date of birth of each child, and age at death of the children that died. This information is used to calculate the number of children/years of exposure during a given period and the number of children that died during the same period. Knowing these values it is possible to directly estimate the following five mortality rates:

- Neonatal mortality (NN): the probability of dying within the first month of life
- Postneonatal mortality (PNN): the difference between infant and neonatal mortality
- Infant mortality ($_1q_0$): the probability of dying before the first birthday
- Child mortality ($_4q_1$): the probability of dying between the first and fifth birthday;
- Under-5 mortality ($_5q_0$): the probability of dying between birth and the fifth birthday

Table 6 presents early childhood mortality rates for five-year periods during the 15 years preceding the survey. These periods correspond roughly to 1999 to 2013. These rates are expressed per 1,000 live births, except for child mortality ($_4q_1$), which is expressed per 1,000 children surviving their first year of life.

Compared with other countries in the sub-Saharan region, childhood mortality is relatively low in The Gambia. Under-5 mortality for the period 0-4 years before the survey, which corresponds approximately to the calendar years 2009-2013, is 54 deaths per 1,000 births. Following the usual pattern, most of the early childhood mortality occurs in the first year of life; the infant mortality is 34 deaths per 1,000 births, while mortality between the first and the fifth birthday is 20 deaths per 1,000. As expected, neonatal mortality (mortality during the first month) is higher than postneonatal mortality (22 deaths per 1,000 compared with 12 deaths per 1,000), representing 65 percent of the overall infant mortality.

Mortality shows a downward trend. Infant mortality decreased from 50 deaths per 1,000 births in the 10 – 14 years before the survey (1999 – 2003) to 46 in the 5 – 9 years before the survey (2004 – 2008) and 34 in the 0 – 4 years before the survey (2009 -2013).

Table 6 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-5 mortality rates for five-year periods preceding the survey, The Gambia 2013

Years preceding the survey	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality (1q0)	Child mortality (4q1)	Under-5 mortality (5q0)
0-4	22	12	34	20	54
5-9	32	14	46	27	72
10-14	31	19	50	41	89

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

However, it should be noted that the rates presented in Table 6 are derived from retrospective information given by respondents, which is subject to errors of omission and misreporting of date of birth and age at death.

3.6 Maternal Care

The 2013 GDHS contained a number of questions to capture information on maternal health care for women who had given birth to at least one child in the five years before the survey. For the most recent birth in that period, women were asked from whom they had obtained antenatal care during pregnancy and whether they had received a tetanus toxoid injection. For all births in the five years before the survey, mothers were asked who assisted at the delivery and where they gave birth to the child. Finally, questions were asked about postnatal care for the most recent birth. Results are shown in Table 7.

Table 7 shows that in The Gambia the large majority of women receive antenatal care from a skilled provider, and 86 percent of women received antenatal care from a skilled health professional, that is, a doctor, nurse, or midwife, during the pregnancy for their most recent birth in the five years preceding the survey. Antenatal coverage varies little by mother's characteristics, and even among women with no education 84 percent received antenatal care. Among rural women the proportion is 85 percent.

Tetanus toxoid injections are given to women during pregnancy to protect infants from neonatal tetanus, a cause of infant death that is due primarily to unsanitary conditions at childbirth. Full protection is considered to be provided to an infant if the mother received

- two injections during the pregnancy of her last birth;
- two or more injections, the last within three years of the last live birth
- three or more injections, the last of within five years of the last birth
- four or more injections, the last within ten years of the last live birth
- five or more injections at any time prior to the last birth

Table 7 Maternal care indicators

Among women age 15-49 who had a live birth in the five years preceding the survey, percentage who received antenatal care from a skilled provider for the last live birth and percentage 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 skilled provider and percentage delivered in a health facility, by background characteristics, The Gambia 2013

Background characteristic	Percentage with antenatal care from a skilled provider[1]	Percentage whose last live birth was protected against neonatal tetanus[2]	Number of women	Percentage delivered by a skilled provider[1]	Percentage delivered in a health facility	Number of births
Mother's age at birth						
<20	84.3	65.0	697	61.5	67.9	1,063
20-34	86.5	72.7	3,704	56.2	61.7	5,703
35+	86.4	67.6	905	58.0	62.1	1,140
Residence						
Urban	87.5	67.3	2,643	75.3	83.1	3,771
Rural	84.9	74.3	2,663	40.6	44.0	4,135
Region						
Banjul	91.5	65.8	93	88.7	93.4	126
Kanifing	95.6	67.8	982	84.8	87.7	1,376
Brikama	87.8	69.6	1,820	68.3	75.2	2,697
Mansakonko	85.6	87.4	265	54.8	53.6	397
Kerewan	85.5	72.3	589	44.3	52.6	906
Kuntaur	89.9	67.9	336	33.3	38.1	534
Janjanbureh	63.4	69.2	451	34.6	49.8	663
Basse	82.4	73.5	769	30.9	31.2	1,208
Mother's education						
No education	83.8	71.6	3,082	48.5	54.2	4,708
Primary	90.6	75.1	747	61.9	63.0	1,131
Secondary	89.0	67.0	1,476	74.4	81.5	2,067
Total	86.2	70.8	5,305	57.2	62.6	7,906

[1] Skilled provider includes doctor, nurse, or midwife.

[2] Includes mothers with two injections during the pregnancy of her last live birth, or two or more injections (the last within three 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 at any time prior to the last live birth.

Seventy-one percent of women received the number of tetanus toxoid injections required to provide full protection at their most recent birth in the five years preceding the survey. Women in rural areas are more likely to receive full protection against tetanus than those in urban areas (74 percent and 67 percent, respectively). Similarly, women are more likely to have received the required number of tetanus injections in more rural settings, such as Mansakonko (87 percent) and Basse (74 percent), local government areas than in the urban settings of Banjul (66%) and Kanifing (68%).

3.7 Immunization and Child Health

3.7.1 Immunization of children

The Gambia has adopted the World Health Organization guidelines for childhood immunizations that call for all children to receive the following: a BCG vaccination against tuberculosis; three doses of DPT to prevent diphtheria, pertussis, and tetanus; three doses of polio vaccine; and a measles vaccine during the first year of life. In addition to these standard vaccinations, the Ministry of Health has recommended that children receive three doses of the hepatitis B vaccine, with the first dose given at birth or at first clinical contact. The pentavalent vaccine, recently introduced, has replaced the DPT and hepatitis B vaccines, except for the first dose of the hepatitis B vaccine given at birth. The pentavalent vaccine contains, in addition to DPT, the hepatitis B vaccine and a vaccine against *Haemophilus influenzae* type b, or Hib, and is supposed to be given according to the same schedule as DPT.

In the 2013 GDHS, information on vaccinations was collected for all children born in the five years before the survey. For each of these children, mothers were asked whether they had a health card for the child, and if so, whether the interviewer could see it. When interviewers could see the health card, the dates of vaccinations received were copied from the card to the questionnaire. If a child never received a health card or if the mother did not show the card to the interviewer, the mother was asked specific questions about whether the child had received each vaccine. The information presented below on vaccination coverage is based on both the information copied from the health cards and the information obtained from the mothers' reports.

Table 8 presents vaccination information for children age 12-23 months, the age by which it is expected they should have received all vaccinations. Mothers were able to show the interviewer a health card for 90 percent of children. According to the health cards and mothers' reports, 76 percent of children age 12-23 months have received all of the recommended vaccinations in The Gambia. Practically all children received BCG (99 percent), and 88 percent received the measles vaccine. Also, 88 percent received the three doses of DPT or pentavalent vaccine, and 90 percent received the three doses of the polio vaccine.

The percentage of children who were fully immunized was higher in rural areas than in urban areas (84 percent compared with 67 percent). It was also higher among children whose mothers have no education or who only reached the primary level than among children whose mothers reached the secondary level or higher.

Table 8 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey by source of information (vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, The Gambia 2013

Background characteristic	BCG	DPT-HIB1/PENTA 1	DPT-HIB2/PENTA 2	DPT-HIB3/PENTA 3	Polio 0	Polio 1	Polio 2	Polio 3	Measles	All basic vaccina-tions	No vaccinations	Percentage with a vaccination card	Number of children
Sex													
Male	99.4	98.2	95.5	89.1	98.0	98.7	96.3	91.8	87.6	78.0	0.5	92.5	853
Female	98.3	97.9	95.0	86.2	96.4	96.7	94.8	88.1	88.1	73.9	1.5	87.7	807
Residence													
Urban	98.1	97.5	93.4	84.0	96.4	96.2	94.2	87.1	82.0	67.1	1.7	87.5	776
Rural	99.5	98.5	96.9	90.9	98.0	99.1	96.8	92.5	92.9	83.9	0.4	92.5	884
Region													
Banjul	93.7	92.7	91.1	76.1	91.7	91.3	87.6	76.2	81.8	58.8	5.5	75.9	21
Kanifing	95.1	94.7	89.3	82.7	91.9	91.9	88.9	83.4	84.3	70.9	4.9	83.0	240
Brikama	99.5	98.8	95.8	85.7	98.3	98.6	96.6	90.5	82.9	69.5	0.2	89.5	599
Mansakonko	99.2	98.0	97.4	94.5	98.8	98.0	96.8	92.2	92.4	85.5	0.8	92.0	80
Kerewan	99.4	98.5	96.0	88.3	97.5	98.0	95.6	89.2	93.3	78.9	0.6	92.6	214
Kuntaur	99.0	98.7	96.2	89.3	96.6	99.3	98.0	90.2	94.5	81.0	0.3	88.9	105
Janjanbureh	100.0	97.5	93.0	84.1	99.0	99.7	95.3	87.3	86.8	71.8	0.0	92.5	144
Basse	100.0	99.6	99.6	96.5	98.8	99.6	99.1	97.4	95.1	92.2	0.0	96.1	257
Education													
No education	99.0	98.5	95.7	89.6	98.1	97.8	95.9	90.5	89.1	78.3	0.7	91.5	943
Primary	99.0	96.2	91.7	85.6	96.0	97.0	92.3	89.5	92.5	81.8	0.9	90.2	247
Secondary or higher	98.4	98.1	96.3	84.9	96.3	98.0	96.7	89.1	82.9	68.2	1.6	87.5	470
Total	98.9	98.1	95.3	87.7	97.3	97.8	95.6	90.0	87.8	76.0	1.0	90.2	1,660

[1] Polio 0 is the polio vaccination given at birth.

[2] BCG, measles, and three doses each of DPT and polio vaccine, excluding polio vaccine given at birth.

3.7.2 Childhood diseases and treatment

Acute respiratory infection, fever, and dehydration from severe diarrhea are major causes of childhood morbidity and mortality in developing countries. Prompt treatment for children experiencing the symptoms of these illnesses is crucial in minimizing the impact of these illnesses and in reducing child deaths. To obtain information on how childhood illnesses are treated, mothers were asked for each child under age 5 whether in the two weeks before the survey the child had experienced cough with short, rapid breathing (symptoms of an acute respiratory infection), fever (symptom of malaria), or diarrhea. Among all children under age 5, 5 percent had a cough with short, rapid breathing, 12 percent were reported to have fever, and 17 percent had diarrhea within the two-week period preceding the survey (data not shown). It should be noted that the morbidity data collected may be inaccurate because they are based on the mother's perception of illness with no validation from medical personnel. Also, the prevalence of these illnesses may fluctuate due to seasonality, so these results do not necessarily represent accurate measurements of the prevalence of these diseases.

Table 9 shows the proportions of children with symptoms of an acute respiratory infection (ARI), fever, and diarrhea for whom treatment or advice was sought from a health care provider.

Table 9 Treatment for acute respiratory infection, fever, and diarrhea

Among children under five years who had symptoms of acute respiratory infection (ARI) or were sick 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 diarrhea during the two weeks preceding the survey, percentage for whom treatment was sought from a health facility or provider, percentage given a solution made from oral rehydration salt (ORS) packets or given prepackaged ORS liquids, and percentage given any oral rehydration therapy (ORT) by background characteristics, The Gambia 2013

	Children with symptoms of ARI		Children with fever		Children with diarrhea			
Background characteristic	Percentage for whom treatment was sought from a health facility/ provider	Number with ARI	Percentage for whom treatment was sought from a health facility/ provider	Number with fever	Percentage for whom treatment was sought from a health facility/ provider	Percentage given solution from ORS packet	Percentage given any ORT	Number with diarrhea
Age in months								
<6	(46.7)	28	52.3	104	48.0	32.0	35.0	118
6-11	63.6	46	52.1	137	73.9	60.3	64.1	224
12-23	71.0	80	59.7	250	72.2	60.9	67.5	445
24-35	64.4	91	67.5	180	63.9	64.0	70.6	317
36-47	75.4	50	74.2	132	63.7	60.2	66.7	118
48-59	(78.0)	54	58.4	96	70.9	64.7	71.0	94
Sex								
Male	72.0	204	59.9	473	68.9	59.2	66.1	718
Female	62.5	145	62.7	425	65.7	59.1	63.6	599
Residence								
Urban	68.1	173	62.9	380	65.9	61.5	65.7	665
Rural	68.0	175	60.0	518	69.0	56.8	64.2	653
Region								
Banjul	(54.6)	9	58.1	23	63.5	60.5	63.5	31
Kanifing	(68.6)	86	57.2	192	64.8	57.2	63.8	293
Brikama	69.8	118	68.6	309	68.8	62.3	66.7	488
Mansakonko	*	12	54.8	35	68.4	57.9	66.4	55
Kerewan	71.2	51	67.6	112	73.6	63.9	72.7	115
Kuntaur	54.6)	19	57.1	84	64.7	55.0	59.4	104
Janjanbureh	66.6	41	49.0	44	68.3	59.0	67.6	93
Basse	*	14	50.5	97	65.2	52.0	57.1	138
Mother's education								
No education	71.4	171	59.6	484	69.0	60.6	65.8	724
Primary	55.2	59	60.8	142	65.3	63.5	69.0	225
Secondary or higher	69.6	118	64.4	272	65.6	53.7	60.9	368
Total	68.0	349	61.2	898	67.5	59.2	65.0	1,318

[1] Symptoms of ARI (cough accompanied by short, rapid breathing, which was chest-related, and/or by difficult breathing, which was chest-related, is considered a proxy for pneumonia.
[2] Excludes pharmacy, shop, and traditional practitioner.
[3] Includes ORS from packets and prepackaged ORS liquids.
[4] Includes ORS from packets, prepackaged ORS liquids, and recommended home fluid.

Treatment from a health facility was sought for 68 percent of children with acute respiratory infection, 61 percent of the children with fever, and 68 percent of children with diarrhea. Fifty nine percent of the children who had diarrhea were given fluids prepared from an ORS packet. Overall, around seven in ten children with diarrhea (65%) were treated with oral rehydration therapy (ORT), whether it involved a solution prepared from ORS packets or a home-prepared solution. The proportions of children for whom treatment was sought more or less the same of all children, regardless of the place of residence or the mothers' educational achievement.

3.7.3 Infant feeding practices

Breast milk is the primary source of nutrients for young infants. Following WHO guidelines, the Ministry of Health recommends exclusive breastfeeding during the first six months of life. Supplementing breast milk with liquids or other foods before this time is discouraged because it increases the likelihood of contamination and hence, the risk of diarrhea. On the other hand, it is important to introduce complementary foods by age 6 months since, at that age, the mother's breast milk no longer provides adequate nutrition for the child. The GDHS 2013 collected data on infant feeding for all children born in the five years preceding the survey. As shown in Table 10, practically all children (99 percent) were breastfed, but only 47 percent of them were breastfed exclusively during the first five months of life. Among infants 0-5 months old, 1 percent were not breastfed, 35 percent were given water along with breast milk, 4 percent were breastfed and consumed a nonmilk liquid or juice, and 11 percent were breastfed and received complementary foods. At the age of 6-9 months, 23 percent were given water along with breast milk, 6 percent were breastfed and consumed a nonmilk liquid or juice, and 58 percent were breastfed and received complementary foods, as recommended. Almost 80 percent of children were still breastfed at age 12-23 months.

Table 10 Breastfeeding status by age

Percent distribution of youngest children under age 2 who are living with their mother, by breastfeeding status, and the percentage currently breastfeeding; and the percentage of all children under age 2 using a bottle with a nipple, according to age in months, The Gambia 2013

	Percent distribution of youngest children under age 2 living with their mother, by breastfeeding status										
Age in months	Not breast-feeding	Exclusively breastfed	Breast-feeding and consuming plain water only	Breast-feeding and consuming nonmilk liquids/juice	Breast-feeding and consuming other milk	Breast-feeding and comple-mentary foods	Total	Percentage currently breast-feeding	Number of youngest children under age 2	Percentage using a bottle with a nipple	Number of all children under age 2
0-1	0.8	70.2	25.2	2.5	0.1	1.2	100.0	99.2	238	4.4	244
2-3	0.6	53.9	33.8	5.5	2.6	3.6	100.0	99.4	356	8.7	361
4-5	0.9	21.3	42.7	3.7	5.1	26.3	100.0	99.1	319	11.1	325
6-8	1.5	6.1	26.5	4.4	7.4	54.2	100.0	98.5	428	14.1	432
9-11	2.4	1.9	9.2	5.5	2.5	78.4	100.0	97.6	367	6.2	373
12-17	5.3	0.1	1.9	1.6	1.7	89.4	100.0	94.7	941	4.7	973
18-23	45.8	0.3	0.9	0.6	0.1	52.3	100.0	54.2	627	4.9	686
0-3	0.7	60.4	30.3	4.3	1.6	2.6	100.0	99.3	594	7.0	606
0-5	0.8	46.8	34.6	4.1	2.8	10.9	100.0	99.2	913	8.4	931
6-9	1.6	4.9	23.3	5.7	6.7	57.9	100.0	98.4	549	13.4	558
12-15	2.2	0.1	1.8	2.0	1.1	92.8	100.0	97.8	682	5.0	702
12-23	21.5	0.2	1.5	1.2	1.0	74.6	100.0	78.5	1,568	4.8	1,660
20-23	57.8	0.5	0.4	0.6	0.0	40.7	100.0	42.2	403	5.2	458

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

The use of bottles with nipples is generally discouraged because it is a potential source of contamination and exposes the young children to disease. Table 10 shows that 8 percent of children 0-5 months and 13 percent of children 6-9 months were fed with a bottle with a nipple. This proportion is 5 percent for children 12 to 23 months old.

3.7.4 Nutritional status of children

Anthropometric measurements (heights and weights) provide one of the most important indicators of children's nutritional status. Inadequate nutrition is a direct result of insufficient food intake, repeated exposure to infectious diseases, or a combination of both. It can result in increased risk of illness and death. In the GDHS, children under age 5 who were listed in the household questionnaire were eligible for height and weight measurements. Height was measured using a special board manufactured by Shorr Boards in the United States. Children under age 2 were measured lying down, and those age 2 and older were measured standing up. Electronic Seca scales were used to measure the weight of children. Based on these measurements, three internationally accepted indicators were constructed to reflect the nutritional status of children: 1) height-for-age (stunting), 2) weight-for-height (wasting), and 3) weight-for-age (underweight).

The nutritional status of children is presented as a comparison of the anthropometric results with recently developed WHO child growth standards (WHO, 2006). The use of the WHO child growth standards is based on the finding that well-nourished children for all population groups follow very similar growth patterns before puberty. The internationally-based standard population serves as a point of comparison, facilitating the examination of differences in the anthropometric status of subgroups in a population. In any large population, there are natural variations in height and weight. The variations approximate a normal distribution. Children who fall below minus two standard deviations (-2 SD) from the reference population median are considered malnourished, and children who fall below minus three standard deviations (-3 SD) from the reference median are considered severely malnourished. Each of the three indices measures different aspects of children's nutritional status.

Height-for-age reflects long-term, cumulative effects of inadequate nutrition, poor health, or both. Children who are below -2 SD from the median of the reference population are considered short for their age, or stunted. Children who are below -3 SD from the reference population median are severely stunted. Stunting of a child's growth may be the result of failure to receive adequate nutrition over a long period, or sustained improper feeding practices, or the effects of repeated episodes of illness. Height-for-age therefore represents a measure of the outcome of undernutrition in a population over a long period of time and does not vary appreciably with the season of data collection.

Weight-for-height measures body mass in relation to body length. It describes a recent and severe process that has produced a substantial weight loss, usually as a consequence of acute shortage of food, severe disease, or both. Children whose weight-for-height is below -2 SD from the median of the reference population are too thin for their height, or wasted, while those who measure below -3 SD from the reference population median are severely wasted. Wasting represents the failure to receive adequate nutrition during the period immediately before the survey and usually shows marked seasonal patterns associated with changes in food availability or disease prevalence. It may be the result of recent episodes of illness, particularly diarrhea, improper feeding practices, or acute food shortage.

Weight-for-age is a composite index of height-for-age and weight-for-height. It represents body mass relative to age. Children whose weight-for-age is below -2 SD from the median of the reference population are underweight for their age, while those whose measurements are below -3 SD from the reference population median are severely underweight. Being underweight for one's age therefore could mean that a child is stunted or wasted or both stunted and wasted.

Table 11 shows that 25 percent of children were chronically malnourished or stunted (height-for-age below –2 SD), and 8 percent were severely stunted. Twelve percent of the children were found to be wasted or acutely malnourished (weight-for-height below –2 SD), with 4 percent severely wasted. Sixteen percent were found to be underweight (weight-for-age below –2 SD), with 4 percent severely underweight.

Table 11 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, The Gambia 2013

	Height-for-age[1]			Weight-for-height				Weight-for-age				
Background characteristic	Percent-age below -3 SD	Percent-age below -2 SD[2]	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below -2 SD[2]	Percent-age above +2 SD	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below -2 SD[2]	Percent-age above +2 SD	Mean Z-Score (SD)	Number of children
Age in months												
<6	7.7	13.9	0.0	9.7	18.8	9.5	-0.5	3.4	8.5	1.1	-0.4	365
6-8	2.5	9.0	-0.2	8.3	16.5	2.9	-0.8	5.3	11.9	1.2	-0.7	202
9-11	7.3	17.4	-0.5	6.1	14.2	3.6	-0.7	3.6	17.8	1.0	-0.9	174
12-17	9.7	23.5	-1.0	5.7	18.0	1.7	-0.8	5.8	17.8	0.4	-1.0	413
18-23	11.1	32.3	-1.5	2.4	10.4	1.4	-0.6	3.7	19.7	0.4	-1.1	310
24-35	12.4	34.2	-1.4	2.5	7.7	1.2	-0.4	4.8	18.4	0.9	-1.1	630
36-47	7.0	25.5	-1.2	2.3	8.3	2.5	-0.6	3.1	16.3	0.6	-1.1	662
48-59	5.6	23.5	-1.2	2.8	8.1	1.6	-0.7	2.7	16.6	0.0	-1.2	616
Sex												
Male	9.5	26.2	-1.1	4.7	12.7	2.6	-0.6	4.1	17.5	0.5	-1.0	1,731
Female	6.9	22.7	-1.0	3.7	10.2	2.9	-0.6	3.8	14.9	0.7	-0.9	1,641
Residence												
Urban	5.6	19.2	-0.7	4.0	10.3	3.2	-0.5	2.5	10.6	0.9	-0.8	1,470
Rural	10.3	28.5	-1.2	4.3	12.4	2.4	-0.7	5.0	20.6	0.4	-1.2	1,902
Region												
Banjul	3.4	12.2	-0.6	3.1	9.2	1.7	-0.6	2.6	12.2	1.4	-0.7	47
Kanifing	6.7	23.3	-0.8	3.1	11.3	3.5	-0.5	3.5	11.7	2.0	-0.8	499
Brikama	5.6	17.8	-0.7	3.8	9.0	2.9	-0.5	1.6	10.2	0.4	-0.8	1,140
Mansakonko	7.4	27.3	-1.2	4.1	10.5	3.3	-0.7	3.8	18.5	0.5	-1.1	211
Kerewan	8.8	24.9	-1.2	2.5	9.5	2.9	-0.5	3.4	15.9	0.2	-1.0	420
Kuntaur	9.9	29.3	-1.2	6.0	16.1	1.6	-0.9	6.4	25.6	0.6	-1.3	233
Janjanbureh	14.7	34.5	-1.4	3.2	11.4	2.6	-0.7	6.2	26.9	0.2	-1.3	275
Basse	11.6	32.1	-1.3	7.1	16.9	2.0	-0.8	7.4	23.2	0.4	-1.3	546
Mother's education[3]												
No education	9.5	27.0	-1.2	4.6	11.8	2.1	-0.7	4.9	18.9	0.6	-1.1	1,932
Primary	8.2	30.3	-1.1	6.9	14.9	3.5	-0.7	5.9	19.6	0.4	-1.1	444
Secondary or higher	5.4	15.3	-0.5	2.7	10.5	3.8	-0.5	0.8	8.4	1.0	-0.6	802
Mother's interview status												
Mother interviewed	8.2	24.3	-1.0	4.7	12.2	2.7	-0.6	4.0	16.3	0.5	-1.0	2,955
Mother not interviewed, but in household	10.1	27.7	-1.1	0.5	7.7	2.7	-0.6	4.3	16.7	2.1	-1.1	223
Mother not interviewed, not in household[4]	7.8	24.4	-1.2	0.3	4.0	2.9	-0.3	2.1	14.8	0.3	-0.9	193
Missing	0.0	0.0	1.0	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.4	1
Total	8.3	24.5	1.0	4.2	11.5	2.7	0.6	3.9	16.2	0.6	1.0	3,372

Note: Table is based on children who spent the night before the interview in the household. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used 1977 NCHS/CDC/WHO Reference. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

[1] Recumbent length is measured for children under age 2 and less than 85 cm; standing height is measured for all other children.

[2] Includes children who are below -3 standard deviations (SD) from the WHO Growth Standards population median

[3] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

[4] Includes children whose mothers are deceased

Children in rural areas and children of mothers with little or no education are more likely to be malnourished. Thus, 29 percent of children in rural areas are short for their age compared with 19 percent of children in urban areas. Similarly, 15 percent of children whose mothers reach secondary or higher education are short for their age, compared with 30 percent of children whose mothers attended primary school and 27 percent of children whose mothers never attended school. The body mass relative to age indicator shows a similar pattern: 2 percent% of children in rural areas are underweight, compared with 11 percent of those in urban areas; 8 percent of children whose mothers reached secondary or higher education are short for their age, compared with 20 percent of children whose mothers reached primary school and 19 percent of children whose mothers never attended school.

3.7.5 Anemia

Anemia is a condition characterized by a low level of hemoglobin in the blood. Hemoglobin is necessary for transporting oxygen to tissues and organs in the body. Nutritional anemia includes anemia due to deficiency in iron plus deficiencies in folate, vitamins B, and B12, and certain trace elements involved with red blood cell production. About half of the global burden of anemia is due to iron deficiency. Iron deficiency, in turn, is largely due to an inadequate dietary intake of bioavailable iron, especially during periods of increased iron requirements, such as pregnancy and infancy, and increased blood loss due to hookworm infestation and infections such as malaria. Anemia in children is associated with impaired mental and physical development and with increased morbidity and mortality. Anemia can be a particularly serious problem for pregnant women, leading to premature delivery and low birth weight.

Hemoglobin testing is the primary method for anemia diagnosis. The 2013 GDHS included direct measurements of hemoglobin levels for children age 6-59 months and all women age 15-49. Hemoglobin measurements were taken in the field using the HemoCue system. This involved taking a drop of capillary blood from the finger, which was drawn directly into a reagent-coated microcuvette (a blood collection device). The filled microcuvette was inserted into a portable, battery-operated *Hemocue*® photometer. In less than a minute, hemoglobin concentration was indicated on a digital read-out in grams per deciliter.

Table 12 presents the anemia levels for children age 6-59 and for women age 15-49. Levels of anemia were classified as severe, moderate, or mild according to criteria developed by the World Health Organization. Children with < 7.0 grams per deciliter (g/dl) of hemoglobin are classified as having severe anemia; those with hemoglobin between 7.0 and 9.9 g/dl are classified as having moderate anemia, and children with hemoglobin between 10.0 and 10.9 g/dl are classified as having mild anemia. Women with < 7.0 g/dl are classified as having severe anemia; women with 7.0 – 9.9 g/dl have moderate anemia, and non-pregnant women with 10.0 – 11.9 g/dl have mild anemia. Pregnant women with 10.0 – 10.9 g/dl are also categorized as having mild anemia.

Anemia is very common among children and women in The Gambia. Almost three-quarters of children age 6 – 59 months were found to be anemic; 26 percent had mild anemia, 43 percent had moderate anemia, and 4 percent had severe anemia. Among women, the prevalence of anemia is also high. Sixty percent of women suffer some form of anemia, 41 percent suffer from mild anemia, 17 percent have moderate anemia, and 2 percent have severe anemia. Anemia in all its forms is significantly more common in rural areas than in urban areas, and consequently, prevalence is lower in Banjul and Kanifing, the main urban areas of the country.

Table 12 Anemia among children and women

Percentage of children age 6-59 months and women age 15-49 years classified as having anemia, by background characteristics, The Gambia 2013

Background characteristic	Any anemia	Percentage with anemia: Mild anemia	Moderate anemia	Severe anemia	Number
		CHILDREN			
Residence					
Urban	66.7	27.5	36.6	2.6	1,433
Rural	77.6	23.8	48.7	5.1	1,806
Region					
Banjul	61.3	27.7	31.3	2.2	41
Kanifing	63.1	24.6	34.6	3.9	482
Brikama	67.7	29.6	36.0	2.1	1,127
Mansakonko	79.2	27.1	49.0	3.0	186
Kerewan	73.3	25.6	44.2	3.6	432
Kuntaur	84.5	18.8	57.6	8.1	225
Janjanbureh	81.4	24.3	51.1	6.0	255
Basse	82.3	19.5	56.3	6.5	492
Total	72.8	25.5	43.3	4.0	3,239
		WOMEN			
Residence					
Urban	53.3	38.9	13.4	1.1	2,362
Rural	68.4	44.3	21.4	2.7	2,030
Region					
Banjul	52.7	39.6	11.8	1.3	96
Kanifing	50.5	38.5	9.9	2.0	976
Brikama	56.3	40.0	15.5	0.8	1,451
Mansakonko	67.1	40.2	26.2	0.8	221
Kerewan	59.6	41.3	16.8	1.5	517
Kuntaur	73.5	41.1	28.5	3.9	238
Janjanbureh	74.3	42.7	27.4	4.2	331
Basse	72.7	50.1	20.0	2.6	561
Total	60.3	41.4	17.1	1.8	4,393

Note: Table is based on children and women who stayed in the household the night before the interview. Prevalence of anemia, based on hemoglobin levels, 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 hemoglobin have severe anemia, women and children with 7.0-9.9 g/dl have moderate anemia, and nonpregnant women with 10.0-11.9 g/dl and children and pregnant women with 10.0-10.9 g/dl have mild anemia.

3.8 Malaria

The 2013 GDHS captured information on various methods to prevent and treat malaria, such as utilization of insecticide-treated mosquito nets (ITNs), indoor residual spraying (IRS), use of intermittent preventive treatment (IPT) during pregnancies, and treatment of children under age 5 with malaria symptoms. Additionally, health technicians collected capillary blood samples from children age 6 to 59 months to measure malaria prevalence using a rapid diagnostic test (RDT) and thick blood smear samples for microscopy. The results are presented in Table 13 and Table 14.

3.8.1 Ownership and use of mosquito nets

Insecticide-treated mosquito nets can be common mosquito nets that were soaked and impregnated with insecticide after purchase, pretreated nets impregnated after manufacturing (ITNs), or long-lasting insecticide treated nets (LLINs), whose threads were treated prior to the manufacturing of the net so that they do not require additional treatment. Insecticide-treated nets are considered effective if they were obtained in the last 12 months or had been re-impregnated in the 12 months preceding the survey. Likewise, common

mosquito nets soaked in insecticide after purchase are considered ITNs only if they were impregnated in the 12 months preceding the survey. The household questionnaire used in the GDHS included a number of questions to ascertain the nets' type and brand. Interviewers were instructed to observe the nets, if the respondent allowed. The observation and information offered by the respondent were used to classify the mosquito nets as treated or untreated. Table 13 shows that 61 percent of households in urban areas and 80 percent of households in rural areas had at least one ITN.

Small children are especially vulnerable to malaria. Pregnant women are prone to experiencing severe malaria symptoms. To assess the use of ITNs, the 2013 GDHS asked which household members slept under mosquito nets the night preceding the interview. Table 13 shows that around half the children under age 5 and 46 percent of the pregnant women slept under an ITN. There was little difference between urban areas and rural areas.

3.8.2 Indoor residual spraying

Indoor residual spraying (IRS) consists of spraying the walls inside the dwellings to kill the female adult mosquitoes to interrupt the transmission cycle. The information on use of IRS was captured by asking respondents if their houses had been sprayed by specialized technicians during the 12 months preceding the survey. Table 13 shows that 12 percent of dwellings in urban areas and 57 percent in rural areas underwent indoor residual spraying (IRS). As a result of the combined effect of IRS and ITN use, 56 percent of children in urban areas and 78 percent of children in rural areas were to a large extent protected from malaria because they used ITNs or lived in houses sprayed to protect against mosquitoes. Among pregnant women, the proportion protected was 50 percent in urban areas and 79 percent in rural areas.

3.8.3 Preventive malaria treatment during pregnancy

Prophylactic treatment with sulfadoxine/pyrimethamine (SP) can significantly diminish the symptoms and the consequences of malaria among pregnant women who become infected. Information on the use of intermittent preventive treatment (IPT) was obtained by asking women who had given birth in the two years preceding the survey if they had taken preventive antimalarial medication during the last pregnancy. Women reported taking SP/Fansidar twice, and those taking it at least once during an antenatal visit were considered to have received IPT. Table 13 shows that 59 percent of women in urban areas and 65 percent of women in rural areas received IPT. More than 90 percent of women that gave birth in the past two years took preventive malarial medication, whether it was SP/Fansidar or other types of antimalarials.

3.8.4 Malaria treatment for children with fever

Fever is the main symptom of malaria among children under age 5, even though its occurrence may be related to other illnesses. Delays in treating children could have serious consequences, especially in cases of severe infection, so it is recommended that children be treated with antimalarials within the first 24 hours of the onset of fever. Therapies that combine artemisinin with some other antimalarial drug – known as artemisinin combination therapy (ACT) – are the preferred treatment for malaria because they are both effective and well tolerated in patients. Very few children who had fever in the two weeks preceding the survey received antimalarials. Fewer than one in ten children with fever received any type of antimalarial. Regarding the recommended ACT treatment, only 1 percent of children in urban areas and 4 percent of children in rural areas received this treatment, and even fewer received this treatment the same day or the next day after the onset of fever, as recommended.

Table 13 Malaria indicators

Possession and use of mosquito nets, preventive malaria treatment during pregnancy, and treatment of children with fever using antimalarial drugs, by urban-rural residence, The Gambia 2013

	Residence					
	Urban		Rural		Total	
Malaria indicators	Percentage	Number	Percentage	Number	Percentage	Number
Mosquito nets						
Percentage of households with at least one mosquito net (treated or untreated)	65.1	3,671	82.4	2,546	72.2	6,217
Percentage of households with at least one insecticide-treated net (ITN)	61.1	3,671	80.2	2,546	68.9	6,217
Percentage of children under 5 who slept under a mosquito net the night before the survey	53.7	4,011	46.0	4,680	49.5	8,691
Percentage of children under 5 who slept under an insecticide-treated net (ITN) the night before the interview	50.2	4,011	44.5	4,680	47.2	8,691
Percentage of children under 5 who slept under an insecticide-treated net (ITN) the night before the interview in an HH with ITNs	67.5	2,983	52.5	3,966	59.0	6,949
Percentage of pregnant women age 15-49 who slept under a mosquito net the night before the interview	47.7	376	47.0	465	47.3	842
Percentage of pregnant women age 15-49 who slept under an insecticide-treated net (ITN) the night before the interview	45.9	376	45.6	465	45.8	842
Percentage of pregnant women age 15-49 who slept under an insecticide-treated net (ITN) the night before the interview in an HH with ITNs	67.2	257	56.7	375	60.9	632
Indoor residual spraying (IRS)						
Proportion of surveyed households sprayed with a residual insecticide in the last 12 months	11.8	3,671	57.2	2,546	30.4	6,217
Proportion of children under 5 who slept under an ITN or in household sprayed with IRS last 12 months	55.6	4,011	77.5	4,680	67.4	8,691
Proportion of pregnant women who slept under an ITN the previous night or in household sprayed with IRS in the last 12 months	50.4	376	79.0	465	66.2	842
Preventive malaria treatment during pregnancy						
Percentage of last births in the two years preceding the survey for which the mother took antimalarial drugs for prevention during the pregnancy	92.2	1,583	96.6	1,810	94.6	3,392
Percentage of last births in the two years preceding the survey for which the mother got intermittent preventive treatment (IPT) during an antenatal visit	59.4	1,583	64.8	1,810	62.3	3,392
Treatment of fever						
Proportion of children under 5 with fever in the two weeks preceding the survey	10.6	3,636	13.0	3,950	11.8	7,586
Among children under age 5 with fever in the two weeks preceding the survey, percentage who took antimalarial drugs						
Any antimalarial drug	7.5	384	6.0	514	6.7	898
SP/Fansidar	0.9	384	1.6	514	1.3	898
Chloroquine	2.8	384	0.8	514	1.6	898
Amodiaquine	0.0	384	0.0	514	0.0	898
Quinine	1.7	384	0.0	514	0.7	898
Combination with artemisinin	0.9	384	3.8	514	2.5	898
Other antimalarial	1.7	384	0.0	514	0.7	898
Among children under age 5 with fever in the two weeks preceding the survey, percentage who took antimalarial drugs the same day or the next day after developing fever						
Any antimalarial drug	6.4	384	4.5	514	5.3	898
SP/Fansidar	0.5	384	1.6	514	1.1	898
Chloroquine	2.2	384	0.6	514	1.3	898
Amodiaquine	0.0	384	0.0	514	0.0	898
Quinine	1.5	384	0.0	514	0.6	898
Combination with artemisinin	0.5	384	2.5	514	1.6	898
Other antimalarial	1.7	384	0.0	514	0.7	898

[1] An insecticide-treated net (ITN) can be 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.
[2] Intermittent preventive treatment is preventive treatment with at least two doses of PS/Fansidar given during an antenatal visit.

3.8.5 Malaria prevalence

The prevalence results presented in Table 14 are based on use of a rapid diagnostic test (RDT) and on the reading of thick-smear slides carried out at the National Public Health Laboratories. The RDT used SD Bioline Malaria Ag P.f/Pan, a high-sensitivity and high-specificity test that detects malaria antigens from capillary blood samples.[1] The results are presented in Table 14. In general, malaria prevalence was found to be very low in The Gambia. Only 1 percent of the children tested by microscopy were found to be positive for malaria. The prevalence according to the rapid diagnostic test is higher (2 percent), because the parasite's antigens may still be present in the child even after the parasites have disappeared. One reason for the observed low prevalence is that the 2013 GDHS survey was conducted between February and April, during the dry season. Malaria in The Gambia is known to be highly seasonal, with transmission occurring as Anopheles gambiae s.l. populations expand during and immediately after a single annual rainy season that usually lasts from June to October (Jawara et al., 2008).

Table 14 Prevalence of malaria in children

Percentage of children age 6-59 months classified as having malaria, according to background characteristics, The Gambia 2013

	RDT		Microscopy	
Background characteristic	Positive	Number of children	Positive	Number of children
Residence				
Urban	2.4	1,421	1.1	1,432
Rural	2.2	1,779	0.5	1,784
Region				
Banjul	0.0	40	0.0	40
Kanifing	3.2	482	1.2	483
Brikama	2.6	1,110	1.1	1,117
Mansakonko	0.5	179	0.0	189
Kerewan	0.2	423	0.1	428
Kuntaur	0.7	224	0.2	225
Janjanbureh	1.7	255	0.3	257
Basse	4.5	487	1.0	478
Total	2.3	3,199	0.8	3,216

3.9 HIV/AIDS

3.9.1 Knowledge of HIV/AIDS

The 2013 GDHS included a series of questions that inquired about men's and women's knowledge of AIDS and their awareness of modes of transmission of the human immunodeficiency virus (HIV) that causes AIDS. The results, presented in Table 15, show that almost all Gambians know about HIV. Even among people with no education and among those living in rural areas, more than 95 percent of respondents, men and women alike, have heard of this disease.

[1] Sensitivity is estimated at 99.7 percent for *Plasmodium falciparum* (*P.f*) and at 95.5 percent for non-P.f.; specificity is estimated at 99.5 percent (http://www.pantech.co.za/products/details/sd_bioline_malaria_ antigen_pf_pan_test).

Table 15 Knowledge of AIDS

Percentage of women and men who have heard of AIDS, by background characteristics, The Gambia 2013

Background characteristic	Women		Men	
	Have heard of AIDS	Number of women	Have heard of AIDS	Number of men
Age				
15-24	97.8	4,532	96.9	1,685
15-19	97.0	2,407	95.6	836
20-24	98.7	2,125	98.1	849
25-29	98.8	1,822	98.8	586
30-39	98.8	2,559	99.1	816
40-49	98.9	1,320	98.9	490
Marital status				
Never married	98.2	2,963	97.4	2,177
Ever had sex	98.7	359	99.4	969
Never had sex	98.1	2,604	95.9	1,208
Married or living together	98.3	6,791	98.8	1,360
Divorced/separated/widowed	99.7	478	100.0	40
Residence				
Urban	99.3	5,730	99.2	2,228
Rural	97.1	4,503	96.0	1,349
Region				
Banjul	98.8	225	99.1	85
Kanifing	99.0	2,342	99.5	858
Brikama	99.5	3,550	98.3	1,454
Mansakonko	98.8	490	99.1	141
Kerewan	98.3	1,107	99.2	323
Kuntaur	93.6	526	97.7	141
Janjanbureh	95.1	739	91.5	240
Basse	97.8	1,254	95.5	336
Education				
No education	97.4	4,757	96.0	1,090
Primary	97.8	1,405	96.5	493
Secondary or higher	99.7	4,071	99.4	1,994
Total 15-49	98.4	10,233	98.0	3,577
Men 50-59	na	na	99.5	244
Total 15-59	na	na	98.1	3,821

na = Not applicable

3.9.2 Awareness of ways to prevent HIV/AIDS

Table 16 shows the percentages of women and men who demonstrated knowledge of several specific ways to avoid AIDS in response to prompted questions. Overall, the use of condoms as a way of avoiding HIV infection is more widely recognized by men than by women (78 percent compared with 71 percent), while limiting sexual intercourse to one uninfected sexual partner is equally recognized by about 86 percent of men and women alike. More than two-thirds are aware that using condoms *and* limiting sex to one uninfected partner reduces the risk of contracting AIDS.

As one would expect, respondents residing in urban areas and those with higher educational achievement have more knowledge of ways to prevent getting HIV. Sixty-two percent of women and 68 percent of men with no education say that the risk of getting the HIV virus can be reduced by using condoms *and* limiting sex to one uninfected partner; this compares with 75 percent of women and 76 percent of men with secondary or higher education.

Table 16 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse and by having one partner who is not infected and has no other partners, by background characteristics, The Gambia 2013

	Percentage of women who say HIV can be prevented by:				Percentage of men who say HIV can be prevented by:			
Background characteristic	Using condoms	Limiting sexual intercourse to one uninfected partner	Using condoms and limiting sexual intercourse to one uninfected partner	Number of women	Using condoms	Limiting sexual intercourse to one uninfected partner	Using condoms and limiting sexual intercourse to one uninfected partner	Number of men
Age								
15-24	69.1	84.1	65.6	4,532	74.9	83.5	68.7	1,685
15-19	65.6	80.6	61.5	2,407	71.2	78.7	63.6	836
20-24	73.0	88.1	70.2	2,125	78.6	88.2	73.7	849
25-29	73.6	87.8	70.0	1,822	82.1	88.7	77.2	586
30-39	73.1	87.9	69.8	2,559	80.6	90.0	76.2	816
40-49	69.4	89.1	67.2	1,320	76.5	89.9	72.9	490
Marital status								
Never married	71.9	85.6	68.4	2,963	76.4	84.7	70.6	2,177
Ever had sex	79.6	88.3	76.8	359	81.7	89.6	76.6	969
Never had sex	70.8	85.3	67.2	2,604	72.1	80.7	65.7	1,208
Married or living together	70.1	86.4	67.0	6,791	79.7	90.2	75.6	1,360
Divorced/separated/widowed	77.1	91.0	72.9	478	73.1	77.4	59.7	40
Residence								
Urban	76.0	90.2	73.3	5,730	80.4	88.2	75.4	2,228
Rural	64.4	81.5	60.4	4,503	72.9	84.3	67.4	1,349
Region								
Banjul	79.4	91.6	74.9	225	80.9	87.2	75.7	85
Kanifing	75.0	92.0	72.3	2,342	81.6	86.9	76.4	858
Brikama	74.3	88.5	71.5	3,550	77.1	86.6	70.8	1,454
Mansakonko	80.8	94.5	79.5	490	81.1	89.5	76.5	141
Kerewan	75.1	90.9	73.2	1,107	73.7	89.7	69.8	323
Kuntaur	42.5	57.0	30.8	526	90.6	88.6	82.9	141
Janjanbureh	43.7	59.2	37.5	739	68.3	79.0	62.2	240
Basse	72.4	90.0	70.3	1,254	72.4	87.5	71.4	336
Education								
No education	65.4	83.3	62.0	4,757	72.4	85.3	68.2	1,090
Primary	68.6	85.9	65.7	1,405	73.6	81.8	67.0	493
Secondary or higher	78.1	90.1	74.9	4,071	81.4	88.7	76.0	1,994
Total 15-49	70.9	86.4	67.6	10,233	77.6	86.7	72.4	3,577
Men 50-59	na	na	na	na	70.3	80.9	65.9	244
Total 15-59	na	na	na	na	77.1	86.3	72.0	3,821

na = Not applicable

[1] Using condoms every time they have sexual intercourse.

[2] Partner who has no other partners.

3.9.3 Multiple sexual partnerships and condom use

As in the rest of sub-Saharan countries, most HIV infections in The Gambia are contracted through heterosexual contact; therefore, information on sexual behavior is important in designing and monitoring intervention programs to control the spread of the infection. In the context of HIV/AIDS prevention, limiting the number of sexual partners and having protected sex are crucial to combating the epidemic.

The 2013 GDHS included questions on respondents' sexual partners during the 12 months preceding the survey. Information on the use of condoms at the last sexual encounter was also collected. Finally, women and men who had initiated sexual activity were asked the total number of sexual partners they had in their lifetime. These questions are of course sensitive, and in interpreting the results in this section, it is important to

remember that respondents' answers are likely subject to some under-reporting bias. Only 0.2 percent of women reported having had more than one sexual partner in the 12 months preceding the survey.

Table 17.1 Multiple sexual partners in the past 12 months: Women

Among all women age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during her lifetime for women who ever had sexual intercourse, by background characteristics, The Gambia 2013

	All women		Among women who ever had sexual intercourse:	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of women	Mean number of sexual partners in lifetime	Number of women
Age				
15-24	0.1	4,532	1.1	2,026
15-19	0.1	2,407	1.1	594
20-24	0.1	2,125	1.1	1,432
25-29	0.3	1,822	1.2	1,643
30-39	0.3	2,559	1.3	2,496
40-49	0.6	1,320	1.4	1,309
Marital status				
Never married	0.2	2,963	1.6	355
Married/living together	0.2	6,791	1.2	6,652
Divorced/separated/widowed	1.4	478	1.6	467
Residence				
Urban	0.4	5,730	1.3	3,888
Rural	0.1	4,503	1.2	3,587
Region				
Banjul	0.4	225	1.4	147
Kanifing	0.6	2,342	1.3	1,525
Brikama	0.2	3,550	1.3	2,550
Mansakonko	0.2	490	1.2	372
Kerewan	0.0	1,107	1.2	840
Kuntaur	0.0	526	1.1	434
Janjanbureh	0.0	739	1.2	575
Basse	0.1	1,254	1.1	1,032
Education				
No education	0.2	4,757	1.2	4,338
Primary	0.3	1,405	1.3	1,002
Secondary or higher	0.3	4,071	1.3	2,135
Total	0.2	10,233	1.2	7,475

Note: The column on condom use is omitted in this table because the total unweighted number of women reporting more than one sexual partner in the last 12 months is only 22, which is insufficient to obtain meaningful percentages.

[1] Means are calculated excluding respondents who gave non-numeric responses.

Reporting multiple sexual partners is more common among men: 8 percent of men age 15-49 and 25 percent of men age 50-59 reported having had more than one sexual partner in the last 12 months. The higher reporting can be explained because polygamous unions are common in The Gambia and having more than one sexual partner is more socially acceptable for men.

The percentage of men reporting more than one sexual partner increases with age, from less than 4 percent among men less than 25 years old, to 5 percent among men age 25-29, to 11 percent among men age 30-39, and to 28 percent among men age 40-49. This trend can be explained by the fact that as men get older they tend to acquire more wives and also increase their frequency of extramarital sex. The percentage of men reporting more than one sexual partner is higher in rural areas and among men with no education because polygamy is practiced more often in these groups.

To ascertain the occurrence of condom use, respondents that reported having had more than one sexual partner in the past 12 months were asked if they had used condoms during their last sexual intercourse. Overall, only 19 percent of men age 15-49 who reported multiple partners also reported using condoms. Condom use is much more frequent in urban areas than in rural areas (29 percent compared with 8 percent) and increases with education, from 5 percent among men with no education to 36 percent among men with secondary or higher education.

The relatively low prevalence of condom use can be attributed to the fact that many of the multiple sexual partnerships among men occur within the context of multiple legitimate wives, and as a result there is no perception of risk of infection.

Table 17.2 Multiple sexual partners in the past 12 months: Men

Among all men age 15-49, the percentage who had sexual intercourse with more than one sexual partner; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during his lifetime for men who ever had sexual intercourse, by background characteristics, The Gambia 2013

	All men		Among men who had 2+ partners in the past 12 months:		Among men who ever had sexual intercourse:	
Background characteristic	Percent- age who had 2+ partners in the past 12 months	Number of men	Percentage who reported using a condom during last sexual inter-course	Number of men	Mean number of sexual partners in lifetime	Number of men
Age						
15-24	2.4	1,685	(51.1)	40	2.8	640
15-19	1.4	836	*	12	2.2	190
20-24	3.3	849	(56.8)	28	3.1	450
25-29	4.7	586	(40.3)	27	2.7	442
30-39	11.3	816	23.9	92	2.9	759
40-49	27.5	490	1.4	135	3.1	468
Marital status						
Never married	3.1	2,177	59.2	68	3.1	957
Married/living together	16.1	1,360	5.4	219	2.7	1,314
Divorced/separated/widowed	18.8	40	*	8	3.8	38
Residence						
Urban	6.6	2,228	29.2	147	3.2	1,437
Rural	10.9	1,349	8.4	147	2.4	873
Region						
Banjul	9.1	85	(48.2)	8	3.7	59
Kanifing	7.9	858	(35.9)	68	3.5	566
Brikama	5.7	1,454	(17.0)	82	2.9	920
Mansakonko	10.1	141	(14.5)	14	2.5	92
Kerewan	10.6	323	(10.8)	34	2.6	206
Kuntaur	13.1	141	(3.9)	19	1.7	85
Janjanbureh	9.5	240	(21.2)	23	3.0	171
Basse	13.8	336	(4.0)	46	1.9	210
Education						
No education	13.7	1,090	4.8	149	2.3	817
Primary	5.8	493	(21.0)	28	3.1	267
Secondary or higher	5.9	1,994	36.0	117	3.2	1,225
Total 15-49	8.2	3,577	18.8	294	2.9	2,310
Men 50-59	25.3	244	2.0	62	2.7	230
Total 15-59	9.3	3,821	15.9	356	2.9	2,540

Note: Results based in 25 -49 unweighted cases are presented in parenthesis; results based on fewer than 25 unweighted cases are not presented (*).
[1] Means are calculated excluding respondents who gave non-numeric responses.

REFERENCES

Centers for Disease Control and Prevention. 1998. Recommendations to Prevent and Control Iron Deficiency in the United States. Atlanta, GA: CDC.

Jawara M., M. Pinder, C. Drakeley, D. Nwakanma**,** E. Jallow, C. Bogh, S. Lindsay, and David J. Conway. 2008. Dry Season Ecology of *Anopheles Gambiae* Complex Mosquitoes in The Gambia. *Malaria Journal* **7**:156. Available online at http://www.malariajournal.com/content/7/1/156, last accessed June 30, 2013.

World Health Organization (WHO) Multicentre Growth Reference Study Group. 2006. *WHO Child Growth Standards: Length/Height-for-Age, Weight-for-Length, Weight-for-Height, and Body Mass Index-for-Age: Methods and Development.* Geneva, Switzerland: WHO.